



**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): 12/8/2020

ORM Number: SPA2020-211

Associated JDs: N/A

Review Area Location¹: State/Territory: New Mexico City: Rio Rancho County/Parish/Borough: Sandoval

Center Coordinates of Review Area: Latitude 35.227469 Longitude -106.697474

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.

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.

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.

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.

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.

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.



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D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)): ⁴			
Exclusion Name	Exclusion Size	Exclusion ⁵	Rationale for Exclusion Determination
Black Arroyo Location 3	1500 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: [2020-211 Gauge Data Flow_summary.pdf submitted 7/14/2020](#)

This information is sufficient for purposes of this AJD.

Rationale: This information directly shows the amount of flow in the watershed and how flow is only for a few days total each year in response to precipitation events.

- Data sheets prepared by the Corps: [Title\(s\) and/or date\(s\)](#).
- Photographs: [Aerial and Other](#):
- Corps site visit(s) conducted on: [7/24/2020, 8/21/2020](#)
- 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: [August 10, 2020](#)
- USFWS NWI maps: [Title\(s\) and/or date\(s\)](#).
- USGS topographic maps: [Los Griegos, 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)	NRCS Ecological site R042XA054NM - Deep Sand NRCS Ecological site R042XA052NM - Loamy
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 Wmerging North American Megadrought. Science. Vol. 368 Issue 6488. Pp. 314-318.

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

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.



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area; and the monsoon season occurs between mid-June and the end of September. However, regarding the date of the site visit on July 24, 2020, the APT results noted that it was conducted during the dry season, and the Drought Index (PDSI) is listed as “Normal” (2020-06). For the 30 days Antecedent Condition Calculation for the 30-day rolling total ending on July 24, 2020, the 30th percentile representing the lower limit of the 30-year normal range of precipitation is 0.33 inches and the observed measurement was 0.53 inches. This information indicates that the field assessment was conducted during a typical year.

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 by the Southern Sandoval County Arroyo and Flood Control Authority.

According to information provided by the Natural Resources Conservation Service (NRCS), the review area has an arid climate with distinct seasonal temperature variations and large annual and diurnal temperature changes characteristic of a continental climate. Precipitation averages 8 to 10 inches annually; however, deviations of 4 inches or more from the average are common. Approximately 50 percent of the precipitation occurs between July and November, which is the dominant growing season of native plants. Summer precipitation is characterized by high-intensity, short-duration rainstorms. Winter precipitation averages less than one-half inch per month, usually in the form of rain.

There are two predominate soil types present in the review area: Grieta (55 percent) and Sheppard (40 percent). The Grieta soil 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 moderate water capacity and does not flood or pond. A typical profile for this soil consists of 0 to 7 inches of loamy fine sand in the A Horizon, 7 to 14 inches of sandy clay loam in the Bt1 Horizon, 14 to 21 inches of sandy clay loam in the Bt2 Horizon and 21 to 60 inches of coarse sandy loam in the Bk Horizon. The other soil identified in the NRCS soils report is Sheppard loamy fine sand. This soil is described as somewhat excessively drained, with a depth to restrictive feature of more than 80 inches and a depth to water table of more than 80. The soil is also characterized as having a low available water capacity and does not flood or pond. A typical profile for this soil consists of 0 to 5 inches of loamy fine sand in the A horizon and 5 to 60 inches of loamy fine sand in the C horizon.

The applicant provided gauge data from several points within 8-digit Hydrologic Unit Code (HUC) where the Black Arroyo is located (13020203). The data for the Black Arroyo covered 9 years and showed flows occurred in the channel for a maximum of 81.4 hours per year. The year with the



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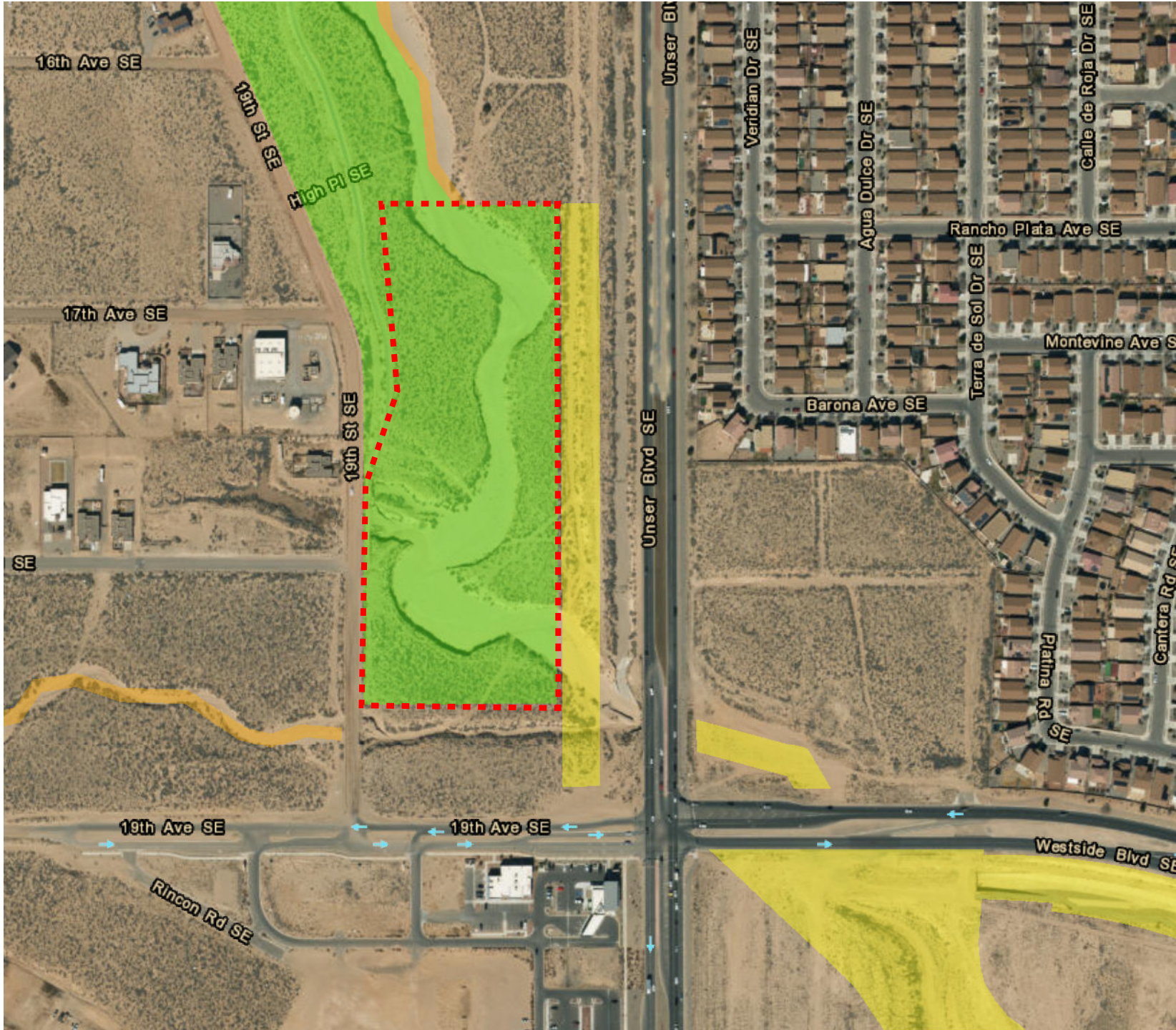
second highest amount of flow was for only 46 hours, and in 7 of the years the stream channel experienced less than 10.4 hours of flow. Other similar aquatic features in the area recorded flow from 0 to 9 days total per year over an 11 year period.

In addition to the field assessment, the APT was run for the following additional dates in conjunction with reviewing satellite imagery of the review area: February 19, 2014, March 8, 2014, and November 1, 2015 (see document 2020-211 APT 2014-02-19.pdf, 2020-211 ATP 2014-03-08.pdf, 2020-211 ATP 2015-11-01.pdf, 2020-211 Satellite Image 2014-02-19.png, 2020-211 Satellite image 2014-03-08.png, and 2020-211 Satellite image 2015-11-01.png). The date of November 1, 2015 was chosen because it is the closest date to the wet season with satellite imagery available and the Drought Index was listed as "Normal". This is also the year with the most days of flow from the gauge data provided. Furthermore, this date fell between precipitation events in the area that resulted in over 0.5 inches of rainfall. The date of February 19, 2014 was chosen as it fell within the wet season during the second wettest year as determined by the gauge data provided. The date of March 8, 2014 was chosen as the date with available satellite imagery in the second wettest year as determined by the gauge data provided. Upon review of satellite imagery for these dates, no surface water or indication of recent flows was observed in the stream channel for any of these dates.

A field assessment of the review area was conducted on July 24, 2020, which was the day after a 0.25 inch rainfall in the area. However, no surface water was observed in the stream channel. Additionally, the banks and bed of the stream channel are mostly devoid of any vegetation, nor is there a riparian corridor present. The vegetation observed is typical high desert plant community. A second site visit was conducted on August 21, 2020 and no flow or indications of recent hydrology was observed (see attached photos).

Based on the information provided herein, it has been determined that the stream channel comprising the review area only experiences flows in response to rain events and, therefore, is ephemeral.

Black Location 3



Southern
Sandoval
County
Arroyo
Flood
Control
Authority



- Acquired, Fee Simple
- Acquired, Easement
- Other, <Null>
- Planned Acquisition, <Null>
- SSCAFCA boundary

1 inch = 400 feet



Date: 7/14/2020



Black Arroyo Location 3 Site Visit 8/21/2020

Southern area of review site near Vargas Road SE looking upstream.



Black Arroyo Location 3 Site Visit 8/21/2020

Middle area of review site near 19th St SE looking upstream.



Black Arroyo Location 3 Site Visit 8/21/2020

Middle area of review site near 19th St SE looking upstream.



Black Arroyo Location 3 Site Visit 8/21/2020

Norther area of review site near 19th St SE looking upstream.



Black Arroyo Location 3 Site Visit 8/21/2020

Southern area of review site near Vargas Road SE looking at the City of Rio Rancho well discharge. When starting up the well, the City of Rio Rancho pumps some of the initial groundwater withdrawn out and discharges it to the surface of the Black Arroyo. This water travel approximately 1.1 miles before no traces of the discharge water can be identified. If the water were to travel further, there would have to be enough water collected to fill up the basin and gain enough elevation to go through the culverts at the Black Dam impoundment to the east of the discharge site. The Black Dam is approximately 4.25 miles from the Rio Grande. This would not be a jurisdictional water because it has no surface water connections to the Rio Grande or another A1-A3 water. This water also only flows related to groundwater pumping procedure performed by the City of Rio Rancho.



Black Arroyo Location 3 Site Visit 8/21/2020

Near Black arroyo Dam, you can see the furthest extent of the water, approximately 1.2 miles from the pipe discharging the water



Black Arroyo Location 3 Site Visit 8/21/2020

Near Black arroyo Dam, you can see the furthest extent of the water, approximately 1.2 miles from the pipe discharging the water



Black Arroyo Location 3 Site Visit 8/21/2020

Near Black arroyo Dam, looking downstream you can see no water has gone beyond this point approximately 1.2 miles from the pipe discharging the water



Path of water from
City well

Black Arroyo Location 3 Site Visit 8/21/2020

Looking at Black Arroyo Dam, the foreground of the photo is the water storage area. There is no water present. The water discharged from the city well would enter from the top right of the photo.