



**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): 1/22/2021

ORM Number: SPA2016-139

Associated JDs: N/A

Review Area Location¹: State/Territory: New Mexico City: Zia Pueblo County/Parish/Borough: Sandoval

Center Coordinates of Review Area: Latitude 35.535000 Longitude -106.807000

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.



**U.S. ARMY CORPS OF ENGINEERS
REGULATORY PROGRAM
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)
NAVIGABLE WATERS PROTECTION RULE**

D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)): ⁴				
Exclusion Name	Exclusion Size		Exclusion ⁵	Rationale for Exclusion Determination
1	553	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.
2a	1495	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.
2b	1150	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.
2a + 2b	332	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.
3	1465	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: [Natural Resources Evaluation for the White Mesa Gypsum Mine Expansion Phase III Project; Febuary 2017](#)

This information is and is not sufficient for purposes of this AJD.

Rationale: [This document includes relevant information about the environmental setting and vegetation present to inform the decision on jurisdiction, but is not sufficient to base our decision on without additional data and analysis.](#)

Data sheets prepared by the Corps: [Title\(s\) and/or date\(s\).](#)

Photographs: [Aerial and Other: Title\(s\) and/or date\(s\).](#)

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.](#)

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.



**U.S. ARMY CORPS OF ENGINEERS
REGULATORY PROGRAM
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)
NAVIGABLE WATERS PROTECTION RULE**

- USDA NRCS Soil Survey: [October 20,2020](#)
- USFWS NWI maps: [Title\(s\) and/or date\(s\)](#).
- USGS topographic maps: [San Ysidro, 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: R042XA063NM - Gyp Upland
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.

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. As part of our assessment of whether conditions within the review area were normal or wetter/drier than normal, the APT was run for several dates between 2005 and 2019—in conjunction with reviewing aerial imagery. The results of this analysis are provided in Section III.C below.

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 the Phase III of White Mesa Gypsum Mine (see attachments).

The waterways identified within the review area originate on the south side of White Mesa and include the headwaters of the Arroyo Piedra Parada. The Arroyo Piedra Parada is a tributary to the Jemez River; and its connection with the Jemez River is approximately 2 miles east of the review area. During major storm events, these stream channels would convey flows to the south through the review area. During a project site visit in the summer of 2016, these waterways were noted as exhibiting a wide variety of channel dimensions due to the erodible nature of the gypseous soils and presence of bedrock—with some reaches being relatively shallow and wide and other sections narrow and deep. No evidence of recent flows were observed during this initial field assessment, nor were any riparian corridors identified. In addition, no springs were found within or adjacent to the review area that could contribute flows to these channels.

One small probable wetland was identified just beyond the review area. It occurs beneath the plane of the ordinary highwater mark within an arroyo and contains hydrophytic vegetation and evidence of hydrology. However, a formal wetland delineation has not been conducted. This location is more than 2 miles from the Jemez River and, therefore, would not meet the criteria of adjacency under the current definition of



**U.S. ARMY CORPS OF ENGINEERS
REGULATORY PROGRAM
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)
NAVIGABLE WATERS PROTECTION RULE**

waters of the United States. Regardless, and as previously stated, it is located beyond the review area and will not be impacted as a result of the proposed project.

According to information provided by the Natural Resources Conservation Service, 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.

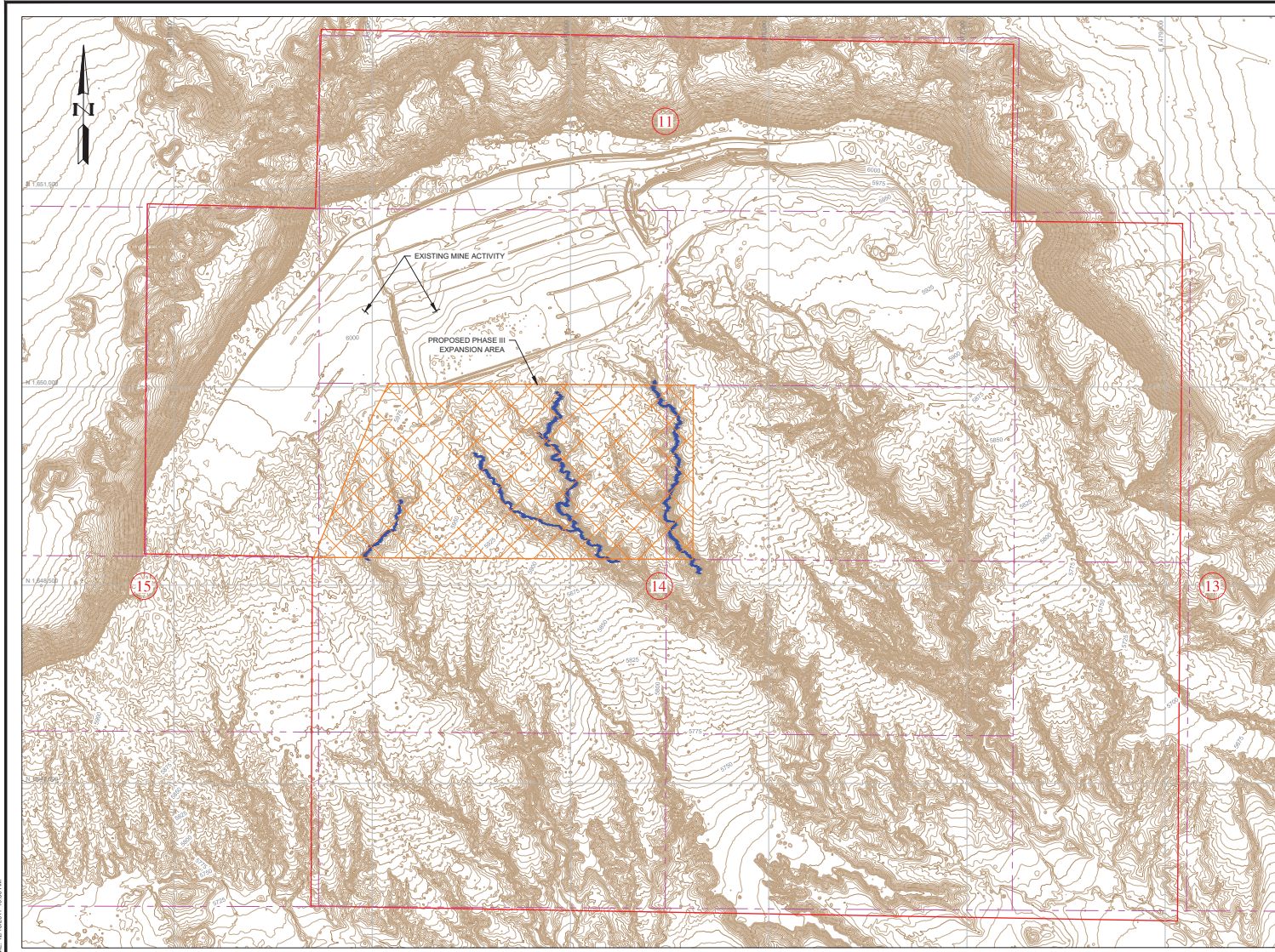
The results of a natural resources survey of the review area conducted in the summer of 2016 was prepared by Marron and submitted with the AJD request. The report states that: "The entire study area occurs on gypseous soils and, in some cases, gypsum bedrock. Overall, vegetation cover was very low, in some areas less than 1 percent. In total, 61 vascular plant species were identified in the area." The report lists 27 plant species identified at the site. A search of the National Wetland Plant List (NWPL) at http://wetland-plants.usace.army.mil/nwpl_static/v34/species/species.html?DET=001100. The result for 22 of the species listed was that "Species Not Found on NWPL Any Species not on the NWPL is Considered to be Upland (UPL) in all Wetland Regions it occurs." The five species that there were results for were further researched through the United States Department of Agriculture (USDA) Wetland Indicator Status Search <https://plants.usda.gov/core/wetlandSearch>. One plant was listed as upland, two plants were listed as Facultative which means they can occur in wetlands and non-wetlands, two plants were listed as Facultative Wetland meaning they usually occur in wetlands, but may occur in non-wetlands, and one plant was Facultative Upland meaning usually occur in non-wetlands, but may occur in wetlands. The predominate soil type in the review area is Rock outcrop-Saido complex, which is described as well drained with a depth to restrictive feature of more than 80 inches. It is also characterized as having a high available water capacity and does not flood or pond. A typical profile for this soil consists of 0 to 5 inches of silt loam in the A Horizon, 5 to 25 inches of silt loam in the B Horizon, and 25-60 inches of loam in the C Horizon.







In addition to the field assessment conducted by Marron, the APT was run for the following additional dates in conjunction with reviewing satellite imagery of the review area: December 19, 2019, September 17, 2017, May 17, 2009, December 31, 2005 and June 30, 2005 (see document 2016-139 APT results 2019-12-09.pdf, 2016-139 Satellite image 2019-12-09.PNG, 2016-139 APT results 2017-09-17.pdf, 2016-139 Satellite image 2017-09-17.PNG, 2016-139 APT results 2009-05-17.pdf, 2016-139 Satellite image 2009-05-17.PNG, 2016-139 APT results 2005-12-31.pdf, 2016-139 Satellite image 2005-12-31.PNG, 2016-139 APT results 2005-06-30.pdf and 2016-139 Satellite image 2005-06-30.PNG). The date of December 19, 2019 was selected because it is in the wet season with satellite imagery available and the Palmer Drought Severity Index (PDSI) Class was listed as "Normal". The date of September 17, 2017 was selected as it has satellite imagery available and the PDSI Class was listed as "Moderate wetness". The date of May 17, 2009 was selected as it has satellite imagery available and the PDSI Class was listed as "Normal". The date of December 31, 2005 was selected because it is in the wet season with satellite imagery available. The date of June 30, 2005 was selected as it has satellite imagery available and the PDSI Class was listed as "Severe wetness". Upon review of satellite imagery for the dates listed above, no surface water or indication of recent flows were observed in the stream channels for any of the dates noted above.



**U.S. ARMY CORPS OF ENGINEERS
REGULATORY PROGRAM
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)
NAVIGABLE WATERS PROTECTION RULE**

Based on the information provided above, it has been determined that the stream channels within the review area only experience flows in response to storm events and, therefore, are ephemeral. As such, and in accordance with 33 CFR 328.3 and the June 22, 2020 implementation of the Navigable Waters Protection Rule, these waterways do not meet the definition of “Waters of the United States” and, therefore, are not currently subject to regulation under Section 404 of the Clean Water Act.



- LEGEND:**
-  EXISTING GROUND CONTOUR AND EL. FEET
 -  LEASE BOUNDARY
 -  ORDINARY HIGH WATER MARK
 -  PROPOSED EXPANSION AREA
 -  SECTION LINE
 -  SECTION NUMBER

- NOTES:**
- SCALE BAR MEASURES 3" ON A FULL SIZE PLOT (ANSI-D) AND 1.5" ON A HALF SIZE PLOT (ANSI-B).

REFERENCE:
 EXISTING TOPOGRAPHY WAS RECEIVED FROM AMERICAN GYPSUM ON MARCH 24, 2017.
 ORDINARY HIGH WATER MARK WAS RECEIVED FROM AMERICAN GYPSUM ON FEBRUARY 20, 2017.
 LEASE BOUNDARY WAS RECEIVED FROM AMERICAN GYPSUM ON MARCH 17, 2017.



L&E PLANS BY: GCS/AMERICAN GYPSUM
 DRAWING DATA: G:\10200\AMG\AC0404\DWG\Gen\Application\02-General\mngment.dwg
 PRINTED BY: CATHERINE SCHUMACHER PRINT TIME: 12/18/2017 10:58 AM

PROJECT		WHITE MESA ACOE 404 PERMIT PHASE III EXPANSION			
TITLE		GENERAL ARRANGEMENT OF EXISTING AND PROPOSED MINE AREAS			
CLIENT		AMERICAN GYPSUM COMPANY			
		<i>Knight Piésold</i> CONSULTING			
DESIGNED BY:	CB	LOCATION:	PROJECT NUMBER:	FIGURE NUMBER:	REVISION:
DRAWN BY:	CB	DV102	00495.01	2	0
ACTIVITY CODE:	N/A	XREF NUMBER:	N/A		