

I. ADMINISTRATIVE INFORMATION

Completion Date of Approved Jurisdictional Determination (AJD): 3/29/2021

ORM Number: SPA-2021-00059-LCO

Associated JDs: N/A

Review Area Location¹: State/Territory: New Mexico City: Carlsbad County/Parish/Borough: Eddy

Center Coordinates of Review Area: Latitude 32.578563 Longitude -103.728283

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
- ☐ 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) Siz	е	(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) 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) Crit			(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) 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)(1)	2)):4		
Exclusion Name	Exclusion		Exclusion ⁵	Rationale for Exclusion Determination
See 2021- 00059_waterways attached	14648	Linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	The waterways in question fall within the Chihuahua desert, which has a dry climate with only one rainy season in late summer. Additionally, ground water is greater than 10ft at each location and all associated soils are considered well drained with low water holding capacity (Web Soil Survey 2020). Furthermore, there are no connecting springs that contribute flow to the waterways; and the watersheds receive no snowpack during the year. Given this data, the only flows that the waterway experiences are from precipitation events. Also, there is no riparian corridor within the waterways. All vegetation are upland species (a comprehensive list can be found in section C). As such, the waterway crossings evaluated as part of this review are determined to be ephemeral stream channels.
See 2021- 00059_playas attached	6.6	acre(s)	(b)(1) Lake/pond or impoundment that does not contribute surface water flow directly or indirectly to an (a)(1) water and is not inundated by flooding from an (a)(1)-(a)(3) water in a typical year.	The waterways in question fall within the Chihuahua desert, which has a dry climate with only one rainy season in late summer. Additionally, ground water is greater than 10ft at each location and all associated soils are considered well drained with low water holding capacity (Web Soil Survey 2020). Furthermore, there are no connecting springs that contribute flow to the waterways; and the watersheds receive no snowpack during the year. Given this data, the only flows that the waterway experiences are from precipitation events. Also, there is no riparian corridor within the waterways. All vegetation are upland species (a comprehensive list can be found in section C). As such, the waterway crossings evaluated as part of this review are determined to be ephemeral stream channels.

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.

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.



Information submitted by, or on behalf of, the applicant/consultant: Water Body Delineation ReportHoltec International

This	inforn	nation	is sufficient	for	purposes	of this AJD.	

Rationale: N/A

- □ Data sheets prepared by the Corps: 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.
- ☐ USFWS NWI maps: Title(s) and/or date(s).
- ☐ USGS topographic maps: Title(s) and/or date(s).

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	United States Geological Survey. 2018. National Hydrography Dataset. Available online at: https://www.usgs.gov/core-science-systems/ngp/nationalhydrography/national-hydrography-dataset. Accessed September 2018.
USDA Sources	United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296.
NOAA Sources	N/A.
USACE Sources	United States Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0. ERDC/EL TR-08-28. Environmental Laboratory. United States Army Engineer Research and Development Center, Vicksburg, Mississippi. Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. United States Department of the Army, United States Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.
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): The antecedent precipitation tool was run across two dates 7/12/2018 (date of the aerial imagery) and 3/29/2021 (the date of evaluation by the USACE). The tool indicated that in 2018 the site was experiencing normal conditions, with precipitation falling between the 30th and 70th percentile of the 30-year rolling period. However, the tool indicated that during 2021 the site was experiencing a drier than normal year, with two out of the three data points falling below the 30th percentile. Subsequently, the drought index for 2020 indicated extreme drought conditions for the site. Based on this information, the evaluation of the review area was conducted during a drier than normal year within a 30-year rolling period.



A 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 and Texas, the last twenty years ranks as the second-driest period in the past 1,200 years (A. Park. Williams, 2018).

C. Additional comments to support AJD: The review area falls within the Chihuahua Desert, which has a dry climate with only one rainy season in the summer and smaller amounts of precipitation in early winter. Most of the summer rains fall between late June and early October, during the North American Monsoon when moist air from the Gulf of Mexico penetrates into the region. Furthermore, it is considered a rain shadow desert because the two main mountain ranges covering the desert, the Sierra Madre Occidental to the west and the Sierra Madre Oriental to the east, block most moisture from the Pacific Ocean and the Gulf of Mexico respectively.

Temperatures in this area range from 35 to 40° Celcius (C) (95 to 104°Farenheit [F]); and the average annual temperature is 24° C (75° F). The mean annual precipitation is 235 millimeters (mm) (9.3 inches [in]) with a range of approximately 150 to 400 mm (6 to 16 in), and snowfall is minimal to non-existent. Soils are well drained and the water table exceeds 80 inches in depth.

Based on a review of aerial imagery and photographs of the proposed project site, the stream channels and under review do not currently exhibit any flow or ponding. Furthermore, there are no connecting springs that contribute flow to the waterways; and the watershed receives no snowpack during the year. Based on soils data the water table is greater than 50 feet below the surface and does not rise up during the wet season and come in contact with the stream. Additionally, the stream channels lack a riparian corridor and vegetation is dominated by upland species Gutierrezia sarothrae (Broom Snakeweed), Prosopis glandulosa (Honey Mesquite) and Larrea tridentata (Creosote Bush). Given this data, the only flows that the waterways experience are from precipitation events. As such, the waterways evaluated as part of this review is determined to be an ephemeral stream channels.

Based on a review of aerial imagery and photographs of the proposed project site, the playas under review also do not exhibit any ponding conditions. These playa are not connected to any downstream waterways and do not contribute surface water flow directly or indirectly to an a(1) water and do not inudate by flooding from an a(1)-a(3) water.

SPA-2021-00059 Waterways

Waypoint	Observation	Water Status	Latitude	Longitude
1388	Western Watershed Lowland	Ephemeral	32.578563	-103.728283
1391	Western Watershed Lowland	Ephemeral	32.578908	-103.725032
1394	Western Watershed Lowland	Ephemeral	32.578225	-103.721972
1396	Western Watershed Lowland	Ephemeral	32.576914	-103.721554
1399	Western Waterdshed Lowland	Ephemeral	32.574208	-103.722001
1401	Beginning of Western Watershed	Ephemeral	32.572562	-103.721967
1403	Western Watershed Lowland	Ephemeral	32.577400	-103.720014
1405	Western Watershed Lowland	Ephemeral	32.576386	-103.718192
1407	Major Drainage into Western Watershed	Ephemeral	32.578834	-103.719906
1411	Moderate Drainage into Western Watershed	Ephemeral	32.580209	-103.72751
1414	Major Drainage into Western Watershed	Ephemeral	32.580186	-103.724774
1415	Beginning of Western Watershed	Ephemeral	32.575218	-103.723089
1419	Beginning of Western Watershed	Ephemeral	32.574682	-103.717865
1421	Western Watershed Lowland	Ephemeral	32.575687	-103.718912

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1423	Beginning of Western Watershed	Ephemeral	32.576956	-103.716865
1424	Beginning of Western Watershed	Ephemeral	32.576384	-103.716042

Waypoint	Observation	Water Status	Latitude	Longitude
1427	Beginning of Eastern Watershed	Ephemeral	32.574215	-103.712651
1431	Beginning of Eastern Watershed	Ephemeral	32.575911	-103.712361
1433	Eastern Watershed Lowland	Ephemeral	32.575366	-103.710975
1437	Lowland Water Body	Intermittent	32.575477	-103.706772
1438	Beginning of Eastern Watershed	Ephemeral	32.572806	-103.709168
1440	Eastern Watershed Lowland	Ephemeral	32.574711	-103.709319
1446	Beginning of Man- Made Drainage	Ephemeral	32.578985	-103.705125
1447	Beginning of Man- Made Drainage	Ephemeral	32.578007	-103.703512

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Waypoint	Observation	Water Status	Latitude	Longitude
1442	Moderate Drainage into Laguna Gatuna	Ephemeral	32.576864	-103.703088
1444	Beginning of Drainage into Laguna Gatuna	Ephemeral	32.578927	-103.706472
1448	Moderate Drainage into Laguna Gatuna	Ephemeral	32.572983	-103.703727
1450	Beginning of Drainage into Laguna Gatuna	Ephemeral	32.572305	-103.703429

SPA-2021-00059 Playas

Waypoint	Observation	Water Status	Latitude	Longitude
1386	Playa	Ephemeral	32.572469	-103.72701
1387	Playa	Ephemeral	32.574356	-103.725676
1416	Playa	Ephemeral	32.572875	-103.716283
1417	Playa	Ephemeral	-103.717783	-103.717783
1425	Playa	Ephemeral	32.574402	-103.716075
1428	Playa	Ephemeral	32.576954	-103.714705
1429	Man-Made Water Point	Perennial	32.577138	-103.712915
1430	Playa	Ephemeral	32.578227	-103.713286

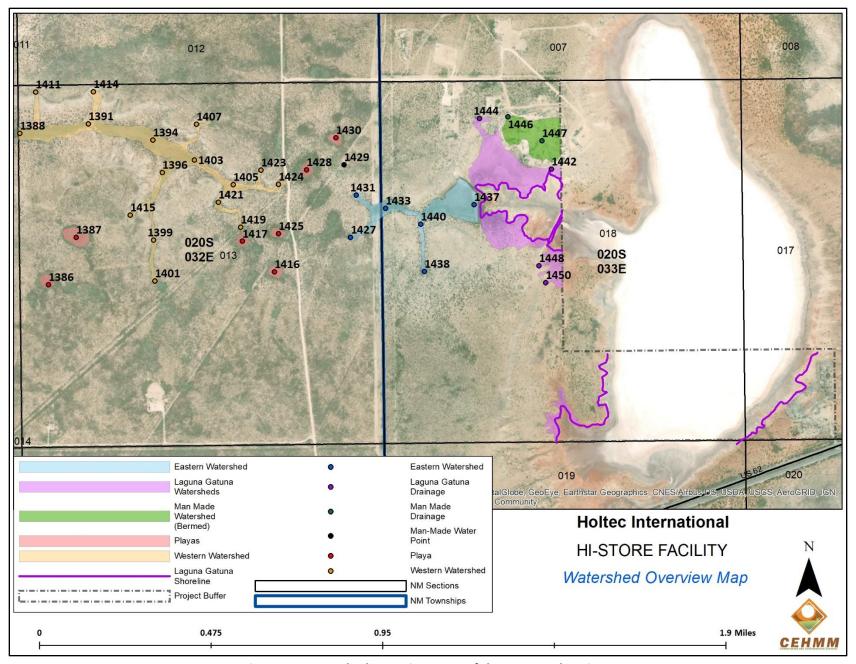


Figure 2: Watershed Overview Map of the Proposed Project.

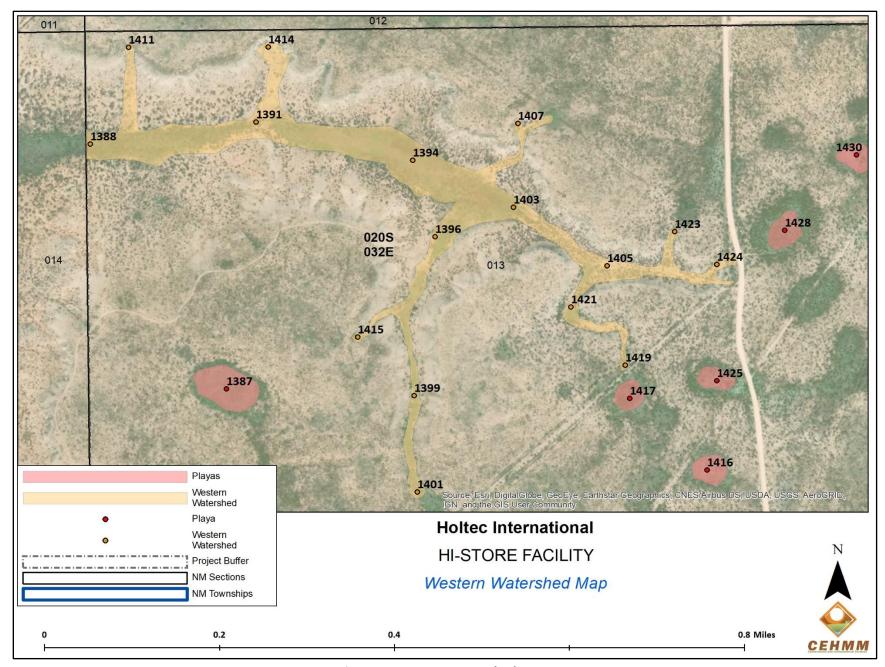


Figure 3: Western Watershed Map.

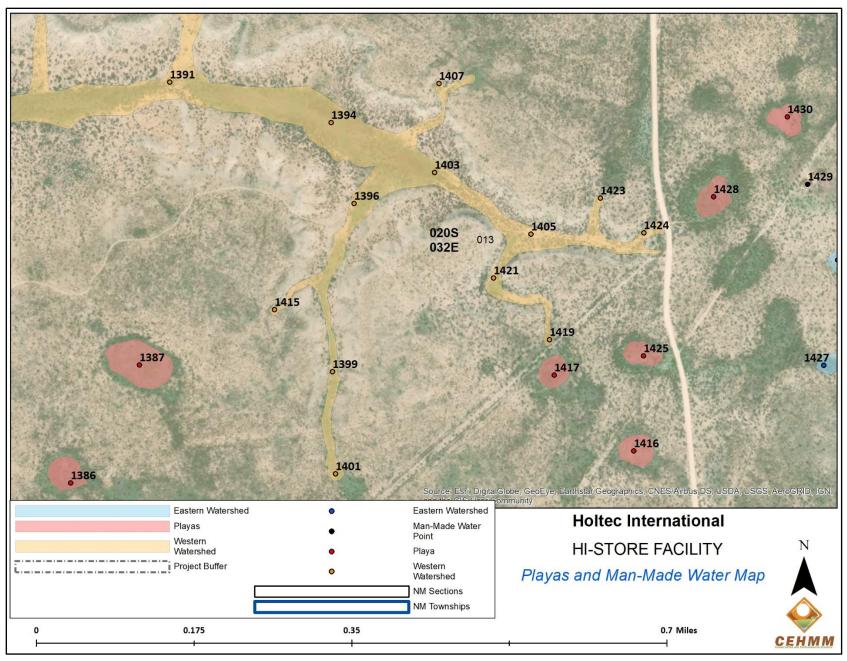


Figure 20: Playas and Man-Made Water Point Map.

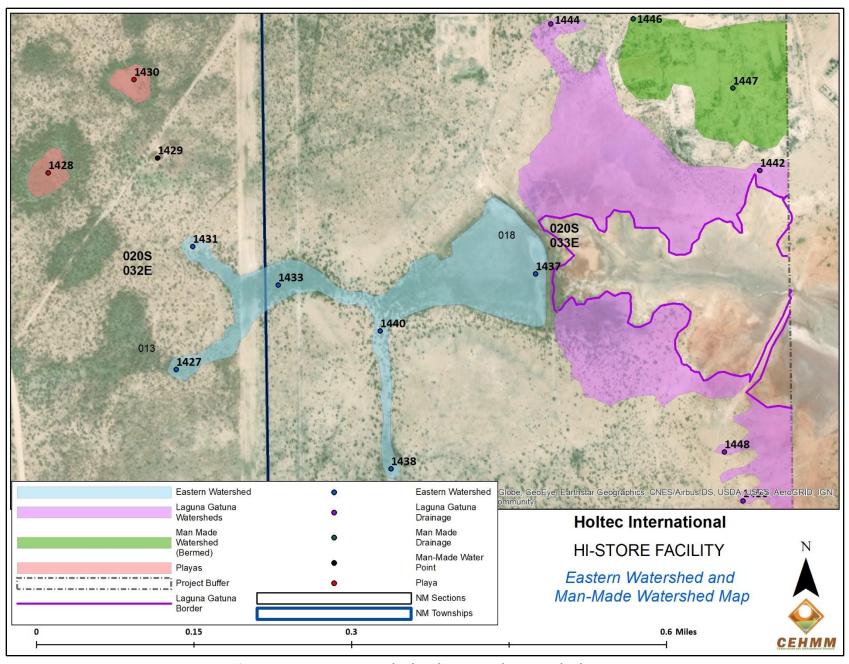


Figure 29: Eastern Watershed and Man-Made Watershed Map.