



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: 24-MAR-2021

ORM Number: SPL-2008-00816-MB (East Area)

Associated JDs: SPL-2008-00816-MB (West Area)

Review Area Location¹:

State/Territory: AZ City: Unincorporated County/Parish/Borough: Pima County

Center Coordinates of Review Area: Latitude 31.8367 Longitude -110.7358

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

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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 independent 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.

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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D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12))⁴:

Exclusion Name	Exclusion Size	Exclusion ⁵	Rationale for Exclusion Determination
A-NWPR	30.869 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A1-NWPR	0.378 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A10-NWPR	0.441 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A10a-NWPR	0.073 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A10b-NWPR	0.095 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A10b1-NWPR	0.025 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A10b2-NWPR	0.014 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A10c-NWPR	0.057 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A10d-NWPR	0.082 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A10d1-a-NWPR	0.011 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A10d1-NWPR	0.059 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A11-NWPR	0.921 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A11a-NWPR	0.041 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A11b-NWPR	0.34 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A11b1-NWPR	0.036 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.

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A11b2-NWPR	0.044 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A12-NWPR	0.355 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A12a-NWPR	0.136 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A12a1-NWPR	0.056 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A12a2-NWPR	0.024 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13-NWPR	4.586 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13a-NWPR	0.033 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13b-NWPR	0.072 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13c-NWPR	0.057 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13d-NWPR	0.457 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13d1-NWPR	0.163 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13e-NWPR	0.979 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13e1-NWPR	0.491 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13e2-NWPR	0.111 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13f-NWPR	0.034 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13g-NWPR	0.79 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13g1-NWPR	0.09 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.

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A13g2-a-NWPR	0.018 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13g2-NWPR	0.07 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13g3-a-NWPR	0.091 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13g3-b-NWPR	0.031 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13g3-NWPR	0.198 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13g4-NWPR	0.057 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13g5-NWPR	0.024 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13h-NWPR	0.291 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13h1-NWPR	0.191 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13h2-NWPR	0.052 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13ha-NWPR	0.025 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13i-NWPR	0.087 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A13j-NWPR	0.123 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A14-NWPR	0.04 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A15-NWPR	0.076 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A16-NWPR	0.206 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A16a-NWPR	0.02 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.

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A17 - Lower-NWPR	0.241 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A17 - Middle (Rosemont Spring)-NWPR	0.028 acres	(b)(1) Surface water channel that does not contribute surface water flow directly or indirectly to an (a)(1) water in a typical year	See explanation below.
A17 - Upper-NWPR	0.836 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A17a-NWPR	0.559 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A17a1-NWPR	0.077 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A17a2-a-NWPR	0.032 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A17a2-NWPR	0.162 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A17a3-NWPR	0.03 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A17b-NWPR	0.233 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A18-NWPR	0.056 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A19-NWPR	0.967 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A19a-NWPR	0.048 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A1a-NWPR	0.127 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2-NWPR	7.008 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A20-NWPR	0.029 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A21-NWPR	0.344 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A21a-NWPR	0.658 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.

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A23-NWPR	0.096 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A24-NWPR	0.298 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A24a-NWPR	0.039 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A24a1-NWPR	0.032 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A25-NWPR	0.258 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A25a-NWPR	0.175 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A26-NWPR	0.104 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A27-NWPR	0.021 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A28-NWPR	0.212 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A29-NWPR	0.191 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2a-NWPR	0.509 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2a1-NWPR	0.072 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2b-NWPR	0.213 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2b1-a-NWPR	0.007 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2b1-NWPR	0.042 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2b2-NWPR	0.044 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.

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A2c-NWPR	1.678 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2c1-NWPR	0.083 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2c2-NWPR	0.494 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2c3-a-NWPR	0.085 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2c3-NWPR	0.223 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2c4-NWPR	0.129 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2c5-NWPR	0.186 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2c6-NWPR	0.083 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2c7-NWPR	0.065 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2d-NWPR	0.085 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2e-NWPR	0.034 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
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A2I-NWPR	0.292 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A2m-NWPR	0.03 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A3-NWPR	0.962 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A30-NWPR	0.162 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A31-NWPR	0.161 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A32-NWPR	0.084 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A33-NWPR	0.336 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A34-NWPR	0.254 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A3a-NWPR	0.065 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A3b-NWPR	0.054 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A4-NWPR	0.241 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A4a-NWPR	0.016 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A4b-NWPR	0.066 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A4c-NWPR	0.02 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A4d-NWPR	0.043 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A5-NWPR	0.515 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6-NWPR	8.198 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.

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A6a-NWPR	0.204 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6b-NWPR	0.138 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6b1-NWPR	0.028 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6c-NWPR	0.05 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6d-NWPR	0.4 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6d1-NWPR	0.07 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6e-NWPR	0.133 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6f-NWPR	0.382 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6g-NWPR	0.338 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6h-NWPR	0.562 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6h1-NWPR	0.504 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6h1a-NWPR	0.144 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6i-NWPR	0.145 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6i1-NWPR	0.104 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6j-NWPR	0.128 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6k-NWPR	0.237 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A6l-NWPR	0.413 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.

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A7-NWPR	0.211 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8 - Lower-NWPR	2.671 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8 - Middle (MC-2)-NWPR	0.01 acres	(b)(1) Surface water channel that does not contribute surface water flow directly or indirectly to an (a)(1) water in a typical year	See explanation below.
A8 - Upper-NWPR	2.314 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8a-NWPR	0.22 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8a1-NWPR	0.028 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8a2-NWPR	0.025 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8b-NWPR	0.078 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8c-NWPR	0.346 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8d-NWPR	0.088 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8e-NWPR	0.185 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8f-NWPR	0.487 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8f1-NWPR	0.041 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8f2-NWPR	0.082 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8g-NWPR	0.33 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8g1-NWPR	0.028 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8g2-NWPR	0.021 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.

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A8h-NWPR	0.061 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8i-NWPR	0.115 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8j-NWPR	0.152 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A8k-NWPR	0.08 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A9-NWPR	0.11 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
A9a-NWPR	0.019 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
Barrel Tank-NWPR	0.148 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
East Dam - NWPR	0.82 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
East Dam-NWPR	0.059 acres	(b)(1) Surface water channel that does not contribute surface water flow directly or indirectly to an (a)(1) water in a typical year	See explanation below.
Gunsight Tank-NWPR	0.044 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
Leaky Wellhead-NWPR	0.004 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
Lower Stock Tank-NWPR	0.177 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
McCleary Canyon Spring 1-NWPR	0.008 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
McCleary Dam-NWPR	0.008 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
McCleary Stock Tank-NWPR	0.206 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
North Basin Tank-NWPR	0.016 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
Possible 2nd Tank near North	0.046 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.

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Basin Tank-NWPR			
Rosemont Crest Tank-NWPR	0.041 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
Scholefield Spring-NWPR	0.086 acres	(b)(1) Non-adjacent wetland	See explanation below.
South Lower Stock Tank-NWPR	0.008 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
South Upper Stock Tank-NWPR	0.048 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
Southeast Tank (No Clear OHWM)-NWPR	0.034 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
Unnamed Stock Tank-NWPR	0.268 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.
Upper Stock Tank-NWPR	0.115 acres	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool	See explanation below.

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 requester: *Jurisdictional Waters Determination for the Rosemont Copper Project Site, Pima County, Arizona (September 20, 2019); Rosemont Approved Jurisdictional Determinations: Response to ACOE Request For Information Regarding Lower Barrel Canyon (December 29, 2020); Rosemont Approved Jurisdictional Determinations: Response To ACOE Request For Information [Non-Ephemeral Features] (December 7, 2020); TetraTech TNW Assessment dated December 1, 2016*
Data sheets prepared by the Corps: *Title(s) and/or date(s)*.

Photographs: USA National Agriculture Imagery Program Imagery 2017, Google Earth (historical aerial photos from December 1985 through May 2019, street view photo at Barrel Canyon/State Route 83 bridge dated August 2016), and ground photos (from several field visits by requester's consultant between 2010 and 2020).

Corps site visit(s) conducted on: June 4, 2019. No further physical site visits were conducted specifically for this request because of Covid-19 pandemic restrictions.

Previous Preliminary Jurisdictional Determinations: SPL-2008-00816 dated 4-1-2010, 6-5-2012, and 9-12-2017

Antecedent Precipitation Tool: provide detailed discussion in Section III.B.

USDA NRCS Soil Survey: *Title(s) and/or date(s)*.

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- USFWS National Wetland Inventory maps: Online mapping tool; accessed 11-13-2020 available at: <https://www.fws.gov/wetlands/data/mapper.html>.
- USGS topographic maps:

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	Barrel Canyon stream gage (#09484580) data ranging from January 23, 2009 through October 29, 2020
NOAA Sources	National Centers for Environmental Informational's Climate Data Online, accessed November 17, 2020; precipitation data for 2009-2019 for Corona de Tucson, Vail, Empire, and Sahuarita stations; available: https://www.ncdc.noaa.gov/cdo-web/
EPA, Region 9	During informal consultation, EPA provided SPL with the following information for consideration: <ul style="list-style-type: none"> o McCleary Canyon Spring Report dated August 8, 2015 o Pig Spring Site Report dated August 8, 2015 o Email from Rob Leidy (EPA) to Michael Langley (SPL) dated 11-20-2020 regarding Pima County GIS data o Barrel Canyon Spring Claimant form dated January 17, 1989 o Email from Emmit McGuire (USGS) to Julia Fonseca (Pima County) regarding observations at Barrel Canyon stream gage. o Letter from C.H. Huckelberry (Pima County) to Kerwin Dewberry (Coronado National Forest) and William James (South Pacific Division [SPD] project delivery team [PDT]) regarding stream flows in East area review area dated July 28, 2017 o Letter from C.H. Huckelberry (Pima County) to William James (SPD PDT) on Barrel Canyon flows dated November 6, 2017 o Letter from C.H. Huckelberry (Pima County) to Elizabeth Goldmann (EPA) and William James (SPD PDT) on intermittent and surface water impacts dated October 18, 2018 o USGS Stream gage data analysis by Rob Leidy (EPA) for Barrel Canyon dated November 11, 2020 o Pima County report to the Board of Supervisors on GIS coverages for perennial streams, intermittent streams, and areas of shallow groundwater dated November 26, 2000
Arizona DWR	Online groundwater data, available: https://gisweb3.azwater.gov/gwsi/ ; accessed November 10, 2020
Arizona DEQ	Flow Regime KMZ map data, July 31, 2020
Pima County	Pima County Sonoran Desert Conservation Plan geographic information system data (accessed November 2020) available: https://webcms.pima.gov/cms/One.aspx?portalId=169&pageId=159303
The Nature Conservancy	Freshwater Assessment for Arizona (KMZ dataset December 2010) (available: http://azconservation.org/downloads/arizona_statewide_freshwater_assessment_gis_data_package)

B. Typical year assessment(s): Following completion of the flow regime analysis for aquatic resources (ARs) on this site, three ARs in the review area require additional analysis to determine whether flows from these features would reach a traditional navigable water (TNW) or territorial sea during a typical year as defined in the Navigable Waters Protection Rule (NWPR).

Rosemont Spring, MC-2, and East Dam complex were evaluated for typical year flows under the NWPR. Information provided by Rosemont indicates that these three ARs support a sufficient amount and frequency of regular surface flow to support intermittent reaches downstream from the water source. In the case of Rosemont Spring and MC-2, there is sufficient flow from a seep/spring feature to support the non-ephemeral reach. In the case of the East Dam complex, the detention dam

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captures sufficient surface flow that subsequent metered drain-off of this flow is adequate to support an intermittent reach.

The Antecedent Precipitation Tool (APT) was used to assess precipitation conditions at these locations to determine the nature of precipitation in the review area and correlate it to the conditions observed at the three locations in question. This tool was developed by the Corps to analyze typical year conditions defined in the NWPR. A representative central point between the features was used as the location in the assessment. The tool was run for December 2, 2020. This date was used because two of three locations (Rosemont Spring and MC-2) were observed to have surface water present on that specific date. The third site, East Dam complex, was dry on that date. Based on the available information in Part III.A., there was not date available when all three sites were observed to have surface water. The results of the assessment indicated the most recent rain event in the area occurred about three weeks prior to the field visit. The Palmer Drought Severity Index for December 2, 2020 was "extreme drought", and precipitation conditions prior to the observation date were considered drier than normal. The information from the APT indicates that conditions were considered to be generally drier than in a typical year. Thus, even though relatively dry conditions were occurring leading up to the field observation date, wet conditions were still observed at two of three locations (Rosemont Spring and MC-2). The third location (East Dam complex) was dry, but documentation has been provided indicating the feature contains evidence of flowing water during wetter times of the year. This further supports a finding that these ARs have an intermittent flow regime.

The final question to be answered regarding jurisdiction under the NWPR is whether flow from these ARs during a typical year would reach an a(1) water (territorial sea or TNW), an a(2) water (tributary to an a[1] water), or an a(3) water (lake, pond, impoundment of jurisdictional waters). The closest applicable water downstream from the review area is the Santa Cruz River (Reach B) TNW, which is 56.1 river miles downstream from the review area. Based on review of previous PJDs and information provided by the requester for these three ARs, it is very unlikely that flows from these ARs would reach any of these waters during a typical year. Field observations conducted during the seasonal monsoon period (wettest time period of the year) indicate the wetted channels persist for an average distance between 17 and 116 meters downstream from the source before infiltrating into the sandy substrate. This indicates the downstream flows are only locally relevant within a very small portion of the watershed and have no meaningful connection to the distant TNW. These limited intermittent features connect with an ephemeral wash network with a high infiltration rate from substrate in these washes, resulting in a rapid loss of flow, and provide a minimal contribution to downstream flows.

Additional comments to support Approved Jurisdictional Determination (AJD): To assess geographic jurisdiction in the review area, a number of sources of information were reviewed as noted above. The discussion below provides a description of the physical characteristics of the ARs in the review area.

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The NWPR provides the following definitions for flow regimes:

- Perennial: "...surface water flowing continuously year-round." 33 CFR 328.3(c)(8).
- Intermittent: "...surface water flowing continuously during certain times of the year and more than in direct response to precipitation (e.g., seasonally when the groundwater table is elevated or when snowpack melts)." 33 CFR 328.3(c)(5).
- Ephemeral: "...surface water flowing or pooling only in direct response to precipitation, such as rain or snow fall." 33 CFR 328.3(c)(3).

Under the NWPR, ephemeral features are considered non-jurisdictional, 33 CFR 328.3(b)(3), while intermittent and perennial features may be jurisdictional based on other factors. Intermittent and perennial features may be considered jurisdictional if they contribute flow during a "typical year" to a TNW or territorial sea. Typical year means "when precipitation and other climatic variables are within the normal periodic range of the applicable aquatic resource based on a rolling thirty-year period." 33 CFR 328.3(c)(13). Wetlands jurisdiction depends on the location of the wetlands relative to other ARs (such as adjacency to other ARs).

The review area had been studied in 2010, 2012, and 2017 for the potential presence of waters of the U.S. in the form of preliminary jurisdictional determinations (PJDs). Under the previous PJDs, ordinary high water mark (OHWM) indicators were mapped for the review area and potential wetlands assessed. Under the current AJD request, in 2019, the requester submitted revised OHWM mapping to update the previous mapping work. This remapping work was conducted to account for normal shifts in stream locations from the date of each PJD to 2019. In addition, the requester reassessed seeps and springs located in the review area to determine whether any of the features meet the three-parameter test (hydrology, hydric soils, hydrophytic vegetation) defined in 33 CFR 328.3(c)(16) for being classified as wetlands.

The review area is located on the east side of the watershed break for the Santa Rita Mountains at this location and drains via a series of streams to Barrel Canyon Wash. All site drainage within the review area exits the site via Barrel Canyon Wash at the northeast corner of the site. The ARs in the review area drain a hilly area, with physical characteristics that primarily consist of unvegetated sandy to rocky beds with xeroriparian vegetation along almost all the stream banks. These ARs contain vegetation such as desert broom, mesquite, burrobush, prickly pear cactus, acacia, juniper, netleaf hackberry, and agave, which are either upland obligate or facultative upland species. These ARs have similar features consistent with the ephemeral desert washes found in this region. Within the review area, these ARs differ only in their dimensions as they coalesce from headwater areas in the drainage shed to Barrel Canyon, the largest feature that ultimately drains the entire review area. Except as discussed further below, based on these physical indicators these ARs have ephemeral

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flow regimes.

The lowest reach of Barrel Canyon Wash was mapped by the Corps' Los Angeles District (SPL) as an ephemeral feature under PJDs previously completed for the review area but it has also been mapped by Pima County as having an intermittent flow regime along an approximately 1,200-foot reach upstream from the State Route 83 (SR83) bridge at the site boundary. It appears this designation is based on anecdotal accounts of pooled water found in the vicinity of a USGS stream gage located near the highway bridge and the presence of algae.

At SPL's request, the requester submitted a technical memorandum describing conditions within this reach and addressing any other available documentation on field conditions in the lowest reach of Barrel Canyon Wash. The technical memorandum addressed conditions under the SR83 bridge, stream gage condition, identifiable plants within the OHWMs, as defined at 33 CFR 328.3(c)(7), for Barrel Canyon Wash, and any observations within the wash with respect to standing/flowing water and evidence of algal growth within the wash channel. The presence of algae or algal mats is a field indicator of wetter flow regimes. The technical memorandum confirms that the bridge structure and associated concrete aprons beneath the bridge tend to slow down flow within the wash and that erosion along the edges of the concrete structures serve to potentially allow retention/ponding of water during and after flow events in the immediate vicinity of the bridge and the stream gage, which is located near the bridge. Dried algal mats were observed in small patches in this area; however, the total coverage of algal mats within the channel is estimated at a fraction of 1%. No evidence of facultative-wetland or wetland obligate plants was noted.

Review of this technical memorandum and other sources of information noted above in Part III.A. regarding the lowest reach of Barrel Canyon Wash demonstrates that this reach has an ephemeral flow regime. Anecdotal information about algae growth and pools of water observed by others is limited to a small area just upstream of the bridge structure, which appears to serve as just enough of a barrier to surface flow that water is retained upstream for periods of time, creating saturated conditions and associated algae growth during periods of time following precipitation events. These conditions appear to be due to the influence of the bridge structure within the channel rather than a groundwater influence/contribution to the stream. This is further supported by ground photos of the upstream and downstream reaches of this wash, taken on the same day, which show a saturated substrate on the upstream side of the bridge and dry conditions downstream from the bridge.

The review area also contains several stock tanks that were constructed along some of the drainages that retain water for periods of time following rain events. Except for the East Dam complex (discussed below), the stock tanks are located on ephemeral drainages and only retain water for limited periods of time following rainfall events. The vegetation present along the stock tanks is consistent with vegetation found along ephemeral drainages on this site.

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As part of the September 2019 AJD request, the requestor provided documentation on 19 potential wetland sites, consisting of seeps and springs, in the East area review area. Only Scholefield Spring meets wetlands parameters. This determination was based on SPL's independent review of the information submitted by the requester. This spring is located several hundred feet from the nearest drainage. This is an isolated feature and not adjacent [defined at 33 CFR 328.3(c)(1)] to other jurisdictional waters; it does not abut an a(1), (2) or (3) water, is not inundated by flooding from an a(1), (2), or (3) water in a typical year, is not physically separated from an a(1), (2), or (3) water by a natural berm, bank, dune, or similar natural feature, is not physically separated from an a(1), (2), or (3) water by an artificial dike, barrier, or similar artificial structure.

At the request of SPL, the requester provided data on four locations in the review area where previous PJDs indicated that non-ephemeral ARs may exist. The requester provided a technical memorandum that reviewed available data for the East Dam complex, Rosemont Spring, an unnamed spring in Wasp Canyon, and MC-2. Data was available in these areas because the requester's consultants had been conducting multi-year Chiricahua leopard frog surveys and recording observations in these areas. The East Dam complex, Rosemont Spring, and MC-2 have sufficient measurable and regular flow to create non-ephemeral reaches within ARs that convey drainage from these features. These reaches are relatively small in length and area but clearly defined by measurable flow that suggests a groundwater connection exists to the surface drainage. The Wasp Canyon feature was found to have a very minor, poorly defined connection to groundwater based on field observations and the feature does not support a non-ephemeral AR. A typical year analysis (see above) was required for the three non-ephemeral features.

SPL noted the following:

1. Streams with wetter flow regimes (intermittent and perennial) have very different field indicators compared to ephemeral streams. The physical characteristics of most of the ARs in the review area lack any physical indicators, such as the presence of wetland obligate or facultative-wet plants, pooled waters, or algae growth, that would suggest the ARs are anything other than ephemeral. For the reasons stated above, further investigation of field indicators for Barrel Canyon indicate that signs of wetter conditions near the SR83 bridge are not due to groundwater/surface water connection; rather, they are due to the influence of the in-channel highway bridge structures. The three locations within the review area described above (Rosemont Spring, MC-2, and East Dam complex) have field indicators of wetter intermittent flows that required a typical year assessment.
2. Data reviewed for this request does not support a determination that the ARs are non-ephemeral, with the three exceptions noted. The washes do not appear as non-ephemeral on

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any dataset listed above that maps stream by flow regime, except for GIS data maintained by Pima County showing an intermittent reach. However, further investigation for this request does not support this mapping. Groundwater data for this review area does not indicate any areas of near-surface groundwater elevations that could support a wetter flow regime. Stream gage data for Barrel Canyon also does not support a determination that this wash is non-ephemeral.

3. The typical year assessment performed for the three intermittent ARs in the review area concluded that flows from these features would not reach a TNW during a typical year.
4. Scholefield Spring, although meeting Corps wetland parameters, is not adjacent to an a(1) water (territorial sea or TNW), an a(2) water (tributary to an a(1) water), or an a(3) water (lake, pond, impoundment of jurisdictional waters).

Conclusion: Almost all the ARs located in the review area have ephemeral flow regimes, including the lower reach of Barrel Canyon Wash, and are therefore, non-jurisdictional. Stream reaches immediately downstream from Rosemont Spring, MC-2, and the East Dam complex, have non-ephemeral (intermittent or perennial) flow regimes. The typical year flow analysis for these three locations evidenced a lack of connection to a downstream TNW during a typical year, and are therefore, non-jurisdictional. Scholefield Spring, although meeting Corps wetland parameters, is not considered jurisdictional because it is not adjacent to an a(1) water (territorial sea or TNW), an a(2) water (tributary to an a(1) water), or an a(3) water (lake, pond, impoundment of jurisdictional waters).

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