DOCKETED	
Docket Number:	24-OPT-03
Project Title:	Soda Mountain Solar
TN #:	257904
Document Title:	Appendix E2 Aquatic Resources Impact Assessment
Description:	The purpose of the Preliminary Aquatic Resources Impact Assessment (30% Design) is to overlay the proposed Soda Mountain Solar project's 30% design limits of disturbance (LOD) onto the aquatic resources delineation to assess the amount and location of impacts to non-wetland waters of the State under CDFW and RWQCB jurisdiction.
Filer:	Hannah Gbeh
Organization:	Resolution Environmental
Submitter Role:	Applicant Consultant
Submission Date:	7/22/2024 5:19:38 PM
Docketed Date:	7/23/2024

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TECHNICAL MEMORANDUM

To: Soda Mountain Solar LLC
604 Sutter Street, Suite 250
Folsom, California 95630

From: Bonnie Rogers, MS, PWS, Principal Wetland Scientist

Date: November 31, 2023

Re: **Soda Mountain Solar Preliminary Aquatic Resources Impact Assessment (30% Design)**
SWCA Project No. 68347

INTRODUCTION

In November 2023, SWCA Environmental Consultants (SWCA) prepared an Aquatic Resources Delineation Report (ARDR) for Soda Mountain Solar LLC (SWCA, 2023), in response to a request from the California Department of Fish and Wildlife (CDFW) to update the delineation, in association with the CDFW Environmental Impact Report pursuant to the California Environmental Quality Act. The ARDR identified 21 non-wetland aquatic feature areas totaling approximately 611. 6 acres within the 3,227.9-acre review area. The non-wetland aquatic resources were assessed as CDFW "streambed" waters of the State jurisdiction, pursuant to California Fish and Game Code Section 1600, and Regional Water Quality Control Board (RWQCB) "waters of the State" jurisdiction, pursuant to the Porter-Cologne Water Quality Control Act, California Water Code, division 7 (Water Quality). Aquatic resources in this desert region have historically been and were previously determined by the U.S. Army Corps of Engineers (USACE) to be, non-jurisdictional under the Clean Water Act Section 404 program, resulting in no federal waters of the United States (WOTUS).

The purpose of this Soda Mountain Solar Preliminary Aquatic Resources Impact Assessment (30% Design) is to overlay the proposed Soda Mountain Solar project's 30% design limits of disturbance (LOD) onto the aquatic resources delineation to assess the amount and location of impacts to non-wetland waters of the State under CDFW and RWQCB jurisdiction. This preliminary assessment may be updated in the future following design plan revisions.

LOCATION

The project site is in San Bernardino County (**Figure 1**) near the city of Baker, within portions of Sections 1 and 11–14, Township 12 North, Range 7 East; Sections 25 and 36, Township 13 North, Range 7 East; and Sections 6, 7, 8, and 18, Township 13 North, Range 8 East, San Bernardino Meridian, California, as shown on the U.S. Geological Survey (USGS) San Bernardino 7.5-minute quadrangle. The project site is centered at approximately 35.1564˚ N, 116.184˚ W in the alluvial valley dividing the northern and southern portions of the Soda Mountains in the Mojave Desert and extends approximately 8.5 miles along the southeast side of Interstate 15 (Mojave Freeway) (see **Figure 1**).

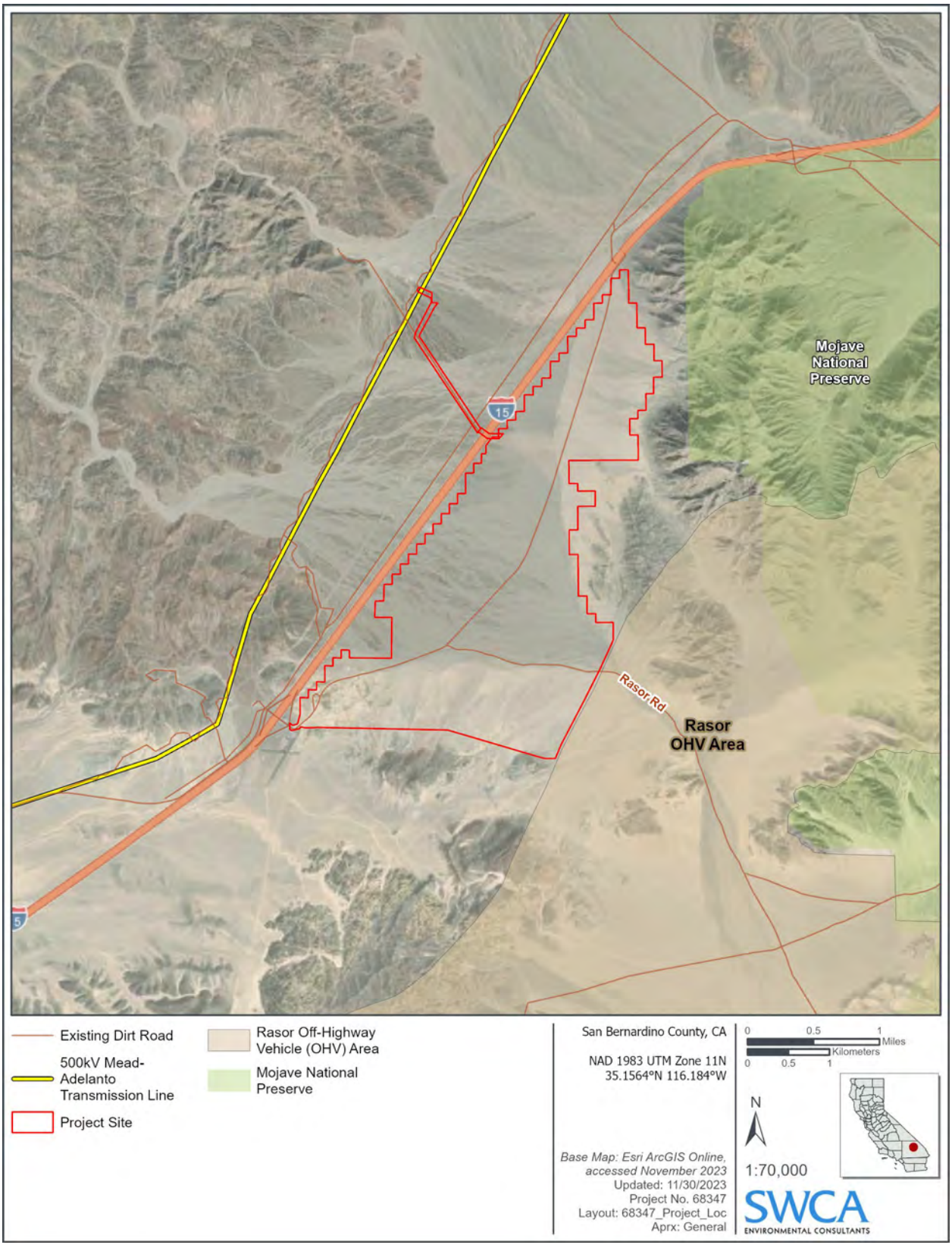


Figure 1. Project site overview.

San Bernardino County Assessor's Parcel Numbers for the project site include 0543241170000, 0543241190000, 0543251010000, 0543201100000, 0543201070000, 0543201090000, 0543251120000, and 0543211180000.

The site may be reached by traveling east on Interstate 10 from Los Angeles, then taking Interstate 15 northeast approximately 166 miles and passing Barstow, exiting Rasor Road at the Rasor Road Services Shell Oil gas station (66150 Rasor Road, Baker, California 92309), and then following the unpaved portion of Rasor Road to the project site.

PROJECT DESCRIPTION

The project includes installation of a new photovoltaic solar power generation facility with four array areas and a new 500-kilovolt generation tie line connected to the existing grid, to provide 300 megawatts of energy capacity.

The project includes four arrays where solar panels would be installed: East Array (341 acres), South Array 1 (205 acres), South Array 2 (632 acres), and South Array 3 (326 acres) (**Figure 2**). A substation pad would be constructed between East Array and South Array 1 adjacent to a laydown yard and equipment storage area. A switchyard would be installed near the end of the generation tie line. Inverters would be installed within the footprint of the arrays. Grading using heavy equipment would occur within portions of the arrays to prepare for construction, resulting in an estimated 71,000 cubic yards of cut and 91,000 cubic yards of fill, or 20,000 cubic yards of net fill. Two temporary laydown yards would be used to store equipment and project-related materials. Fences and gates would be installed to keep wildlife out of construction and work areas, and for permanent security.

A portion of the existing dirt access road (Rasor Road) would be graded to approximately 20 feet wide, compacted, and filled with cemented soil and gravel. New 16-foot-wide access roads would be established by grading within the arrays with turnaround end points. Concrete box culverts at road crossings would be 3 feet tall with four openings each 12 feet wide. Constructed low-water crossings would be installed roughly at-grade of geotextile fabric and riprap.

Three constructed drainage channels with outlets would be installed between East Array and South Array 1, between South Array 1 and South Array 2, and between South Array 2 and South Array 3 to collect and manage water used for solar panel cleaning. Drainage Channel 1 would be 60 feet wide and 2,700 feet long, Channel 2 would be 80 feet wide and 4,984 feet long, and Channel 3 would be 60 feet wide and 8,056 feet long, and each would be 3 feet deep.

All water for construction dust control and solar panel cleaning would be imported from off-site. Eight temporary sediment detention basins of varied dimensions would be installed adjacent to the arrays. Temporary water diversion ditches installed across the site would control water and sediment during construction. Temporary (earthen) and permanent (earthen with fabric and riprap) water diversion berms (3 feet high × 20 feet wide) would be constructed. Permanent berms would be located between Interstate 15 and the arrays to divert flows entering the site from under-highway culverts and road runoff. Standard best management practices would be employed before and during construction, including drainage features described above and erosion control.

This impact assessment is based on the preliminary "30% Civil Design Plans for Soda Mountain Solar Project" prepared by Kleinfelder, dated August 2023 (**Appendix A**) which includes sheets C-000 (vicinity), C-001 and C-002 (general notes), C-100–C-109 (overall conditions, and detail), C-200–C-209 (overall site plan, and detail), C-300–C-309 (overall grading, drainage, erosion control plan, and detail), C-400 (overall earthwork plan), and C-501–C-503 (site and feature details).

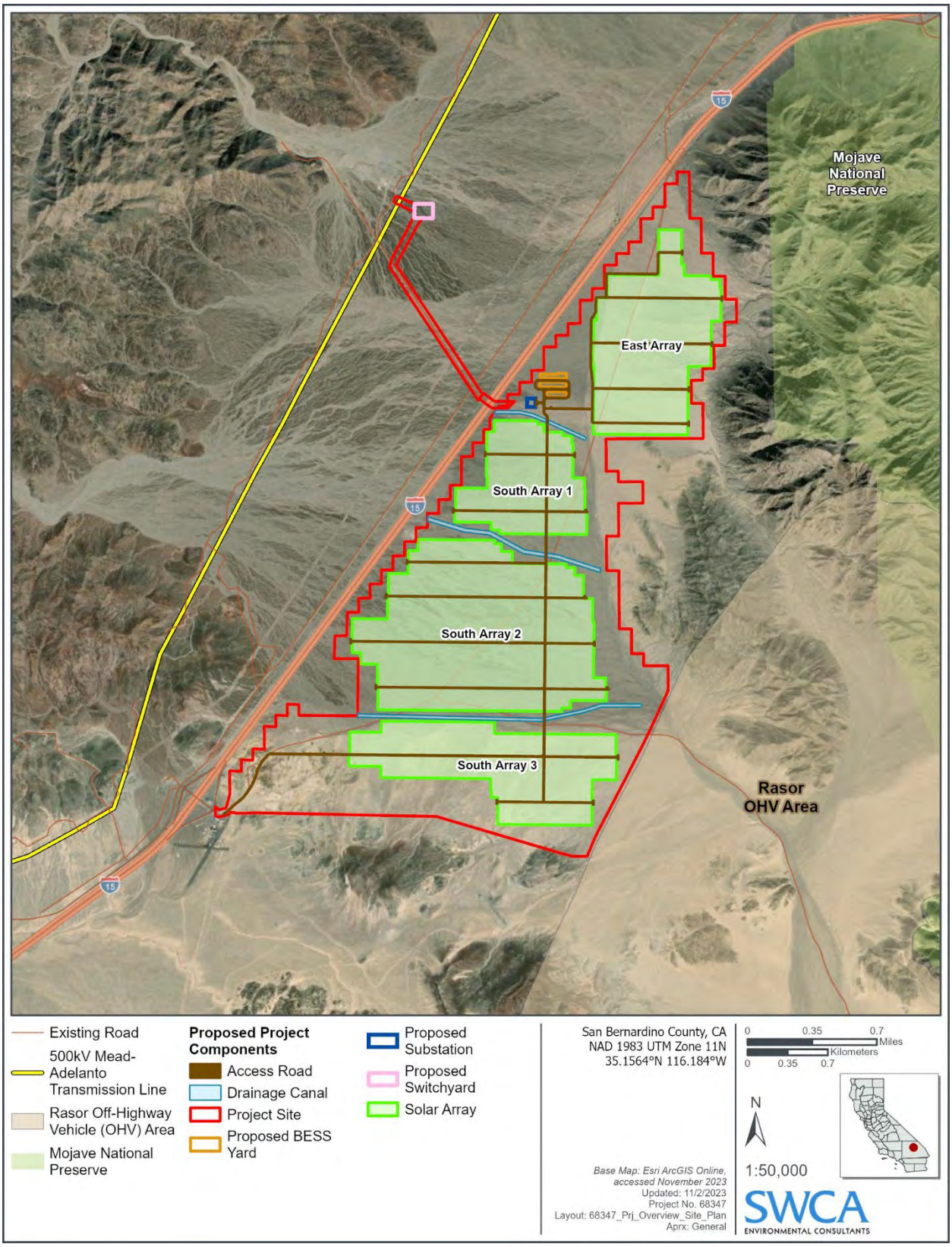


Figure 2. Project design showing arrays and components within the project site.

IMPACT ASSESSMENT

The aquatic resources delineation mapped a total of 611.6 acres of non-wetland waters of the State within the 3,227.9-acre review area (**Figure 3**). The review area is approximately 100 feet wider than the project site to capture hydrological connectivity and extends approximately 100 feet beyond the northern side of Interstate 15 (Mojave Freeway) (see **Figure 3**).

The proposed project components were encapsulated within an area defined as the LOD, which totals 2,075.46 acres. The LOD includes the arrays and other associated components located south of the Mojave Freeway and the generation tie line and substation north of the Mojave Freeway.

Acres of non-wetland waters of the State were calculated within each of the arrays, the generation tie line and switchyard area, and all remaining areas beyond the project components but within the LOD (**Table 1**). The acres of non-wetland waters of the State within the LOD total 373.5 acres, which is approximately 61% of all delineated waters (611.6 acres) within the review area (**Figure 4; Appendix B**). Impacts within the LOD are also calculated by subarea (**Table 2; Figure 5**). Remaining non-wetland waters of the State outside the LOD total 147.12 acres, or approximately 39% of the delineated waters.

Table 1. Preliminary Impacts to Delineated Aquatic Resources within the Limits of Disturbance

Delineated Aquatic Resources	**Project Component within LOD**						**Total**
Feature type	**East Array (341 acres) (acres)**	**South Array 1 (205 acres) (acres)**	**South Array 2 (632 acres) (acres)**	**South Array 3 (326 acres) (acres)**	**Generation Tie Line and Switchyard (70 acres) (acres)**	**Additional Areas within LOD* (291 acres) (acres)**	**Total Impacts to Waters (acres) (acres)**
Prominent non-wetland channels	13.92	8.52	10.08	6.6	2.18	76.66	117.96
Non-prominent non-wetland channels	26.58	30.57	111.51	12.53	3.89	70.46	255.54
Total	**40.5**	**39.1**	**121.6**	**19.1**	**6.1**	**147.12**	**373.5**
Relative percentage of channels in component area	11%	19%	19%	6%	9%	50%	61%

* Remaining areas within the LOD but beyond the arrays and generation tie line and switchyard areas.

The currently proposed 30% design and LOD assumes all work within the LOD would result in permanent impacts to delineated non-wetland waters of the State.

Table 2. Preliminary Impacts to Delineated Aquatic Resources within the Limits of Disturbance, by Subarea

Delineated Aquatic Resources	**SubArea A (acres)**	**SubArea B (acres)**	**SubArea C (acres)**	**SubArea D (acres)**	**SubArea E (acres)**	**SubArea F (acres)**	**Total Impacts to Waters (acres)**
Non-wetland channels	52.3	31.4	183.8	17.9	82.7	5.4	**373.5**

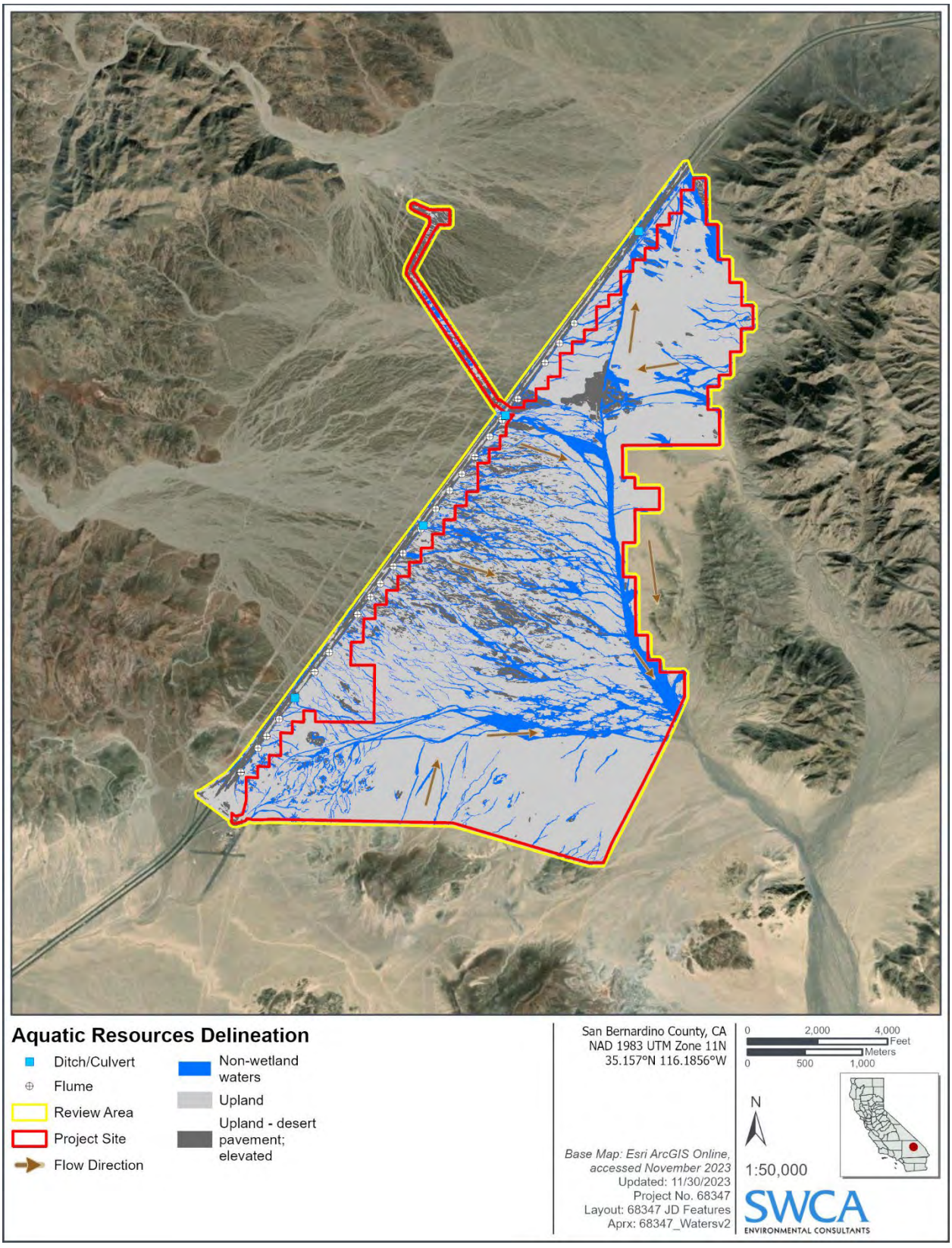


Figure 3. Aquatic resources inventory overview within the review area.

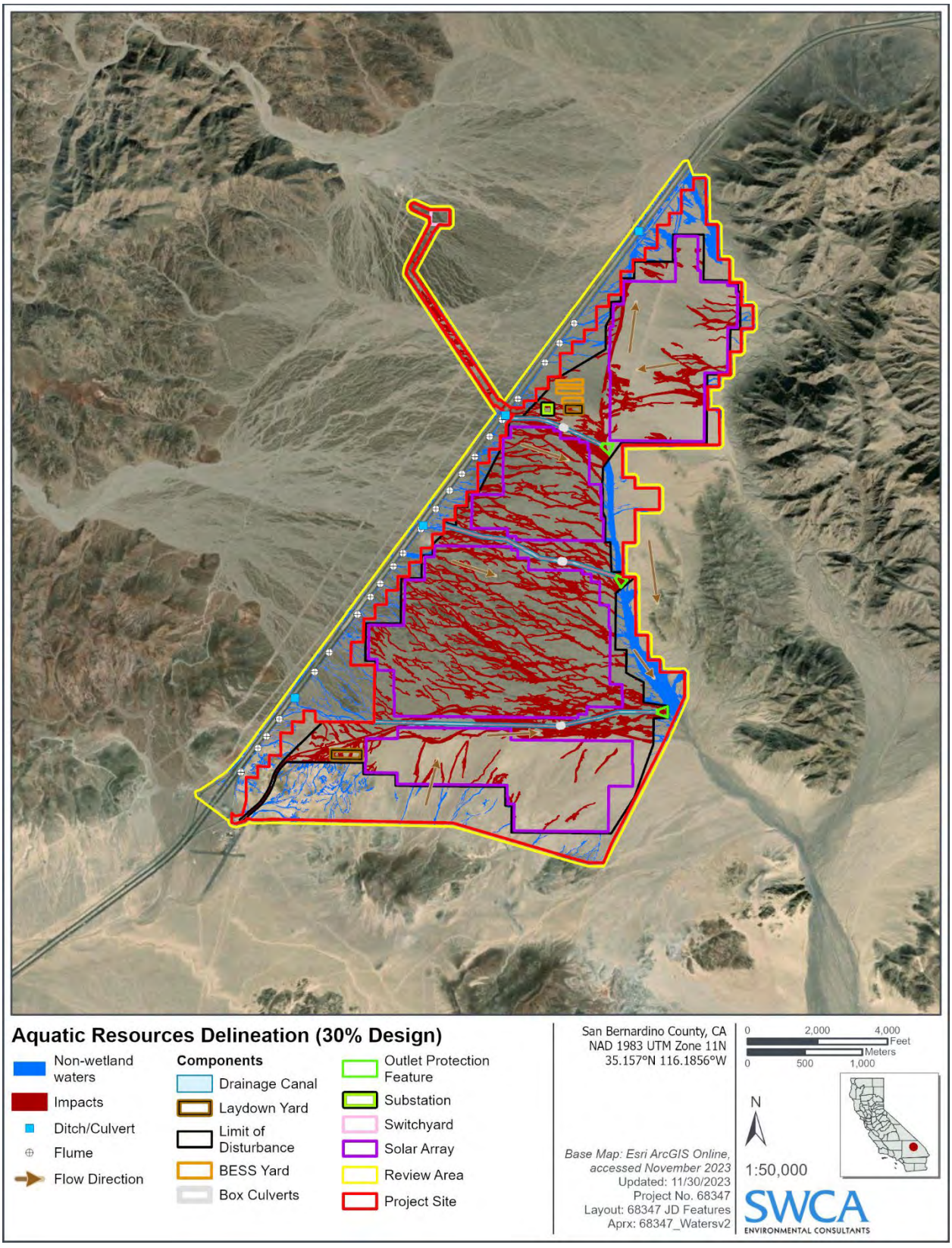


Figure 4. Aquatic resource impacts within the limits of disturbance.

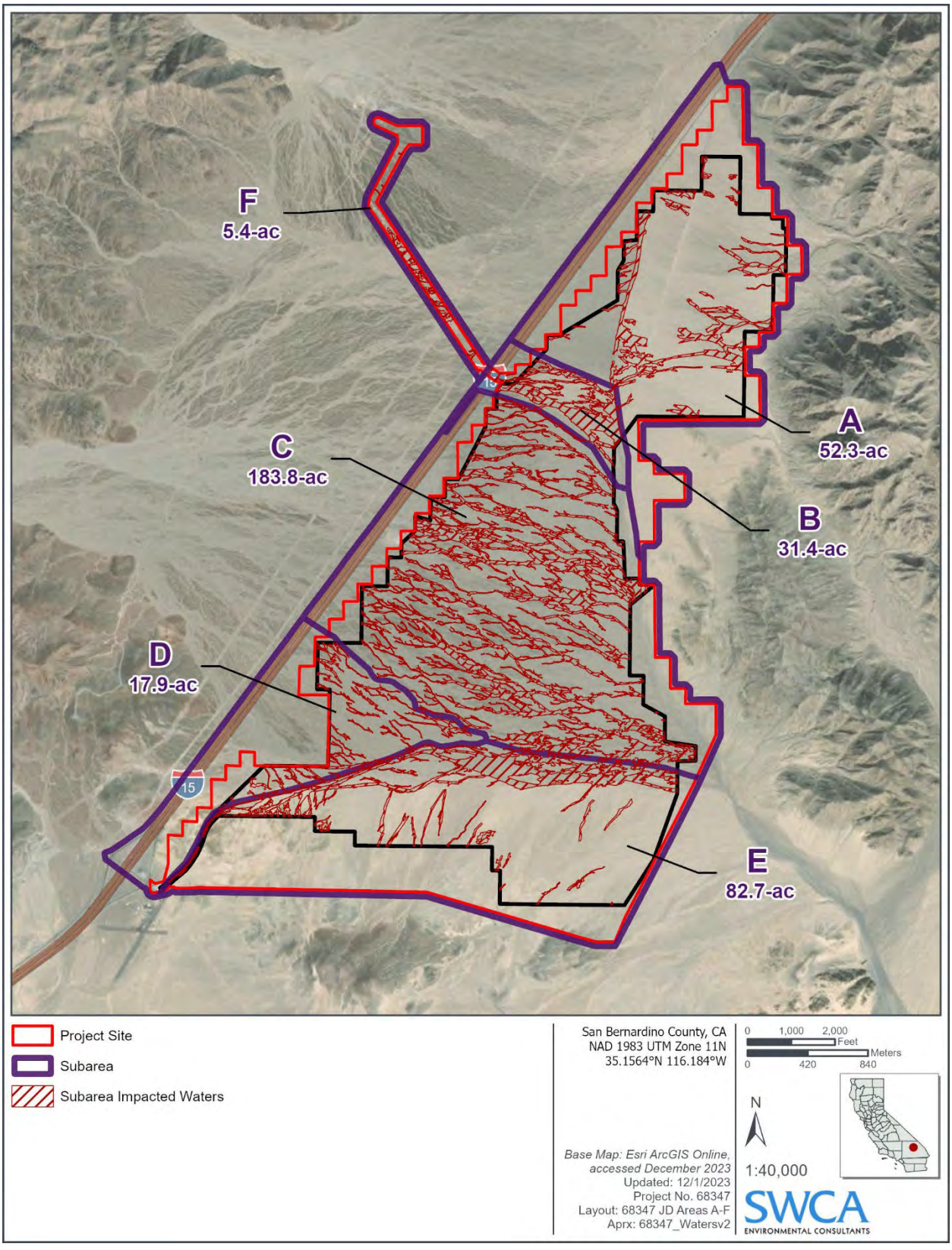


Figure 5. Aquatic resource impacts within the limits of disturbance by SubArea.

SUMMARY AND RECOMMENDATIONS

The 30% civil design plans would result in approximately 373.5 acres of permanent impacts to non-wetland waters of the State (surface waters only) which are regulated by CDFW and the RWQCB.

If design revisions and project installation methods can further minimize impact duration to waters of the State by conducting temporary impacts in certain areas instead of permanent impacts, the total permanent impacts could be reduced.

Following completion of 60% or 90% design plans, this impact assessment would be revised as needed prior to final permits. Assuming project activities would be limited to the LOD, and no additional indirect impacts to waters would foreseeably occur, permit applications would be prepared describing impacts to 373.5 acres non-wetland waters of the State.

First, as a result of planned impacts to 373.5 acres non-wetland waters of the State, a standard Lake and Streambed Alteration (LSA) notification should be submitted to CDFW Region 6, and an LSA Agreement obtained. Based on the previously expired LSA Agreement for a prior variation of the Soda Mountain Solar project, multiple conditions related to surveys, reporting, and a compensatory mitigation plan are expected to be required.

Second, a Notice of Intent application for a Waste Discharge Requirements (WDR) permit under the Porter-Cologne Water Quality Control Act should be submitted to the Region 6 Lahontan Regional Water Quality Control Board. As part of the application the following supplemental information could be required: Temporary Impact Restoration Plan; on-site and off-site Tier 3 Alternatives Analysis for temporary and permanent impacts following requirements of Water Board State Supplemental Dredge and Fill Guidelines section 230.10(a)). Like the LSA Agreement, the WDR permit would be expected to contain multiple conditions along with reporting requirements and need for a compensatory mitigation plan.

Third, SWCA recommends an Approved Jurisdictional Determination (AJD) be submitted to the Los Angeles District USACE to receive verification that non-wetland aquatic resources on-site are not federally jurisdictional under the Clean Water Act and the Revised Definition of Waters of the United States, as amended ("2023 WOTUS amended rule") at 33 Code of Federal Regulations (CFR) 328, which took effect September 8, 2023 (*Federal Register* 8(173):61964). Based on the U.S. Supreme Court's decision on the Solid Waste Agency of Northern Cook County court case in 2001, and its subsequent implementation by USACE in their Regulatory Program, Soda Dry Lake and Cronise Dry Lake are not traditional navigable waters (TNWs) and have no nexus to a downstream TNW, and thus they are considered isolated and not federally jurisdictional. Because all aquatic resources in the project site drain to the downstream hydrologic terminus of Soda Dry Lake or Cronise Dry Lake, the resources are isolated and non-jurisdictional under the Clean Water Act. The 2023 WOTUS amended rule did not change the analysis of waters at the project site as compared to the prior pre-2015 Rapanos regulatory regime. However, the prior AJD expired in August 2018, so an updated AJD is recommended.

Compensatory mitigation and associated mitigation ratios are assessed by the agencies considering policies related to resource types, geography, acres of impacts, duration of impacts (temporary verses permanent), linear feet, and other factors. For reference, the prior CDFW LSA Agreement required a 3:1 ratio for permanent impacts to desert wash.

In general, compensatory mitigation may include 1) purchase of credits from a mitigation bank or in lieu fee program if the project is within the specified service area or otherwise qualifies, 2) completion of a project-specific permittee-responsible compensatory mitigation project, 3) or utilize a combination of purchasing credits and conducting a project-specific permittee-responsible compensatory mitigation

project. The agencies must review and approve the proposed compensatory mitigation method, type, and amounts. Fulfillment of compensatory mitigation obligations by securing mitigation credits must provide the items described in 40 CFR 230.94(c)(5) and (6). A project-specific compensatory mitigation would include preparing a mitigation plan including all plan elements outlined in 40 CFR 230.94(c). Once permits including all required compensatory mitigation obligations are issued, the mitigation is typically required to be completed either in advance of authorized impacts or within 90 days of authorized impacts.

LITERATURE CITED

SWCA Environmental Consultants (SWCA). 2023. *Draft Aquatic Resources Delineation Report for the Soda Mountain Solar Project, San Bernardino County, California*. Prepared for Soda Mountain Solar LLC, Folsom, California. Pasadena, California: SWCA Environmental Consultants.

APPENDIX A

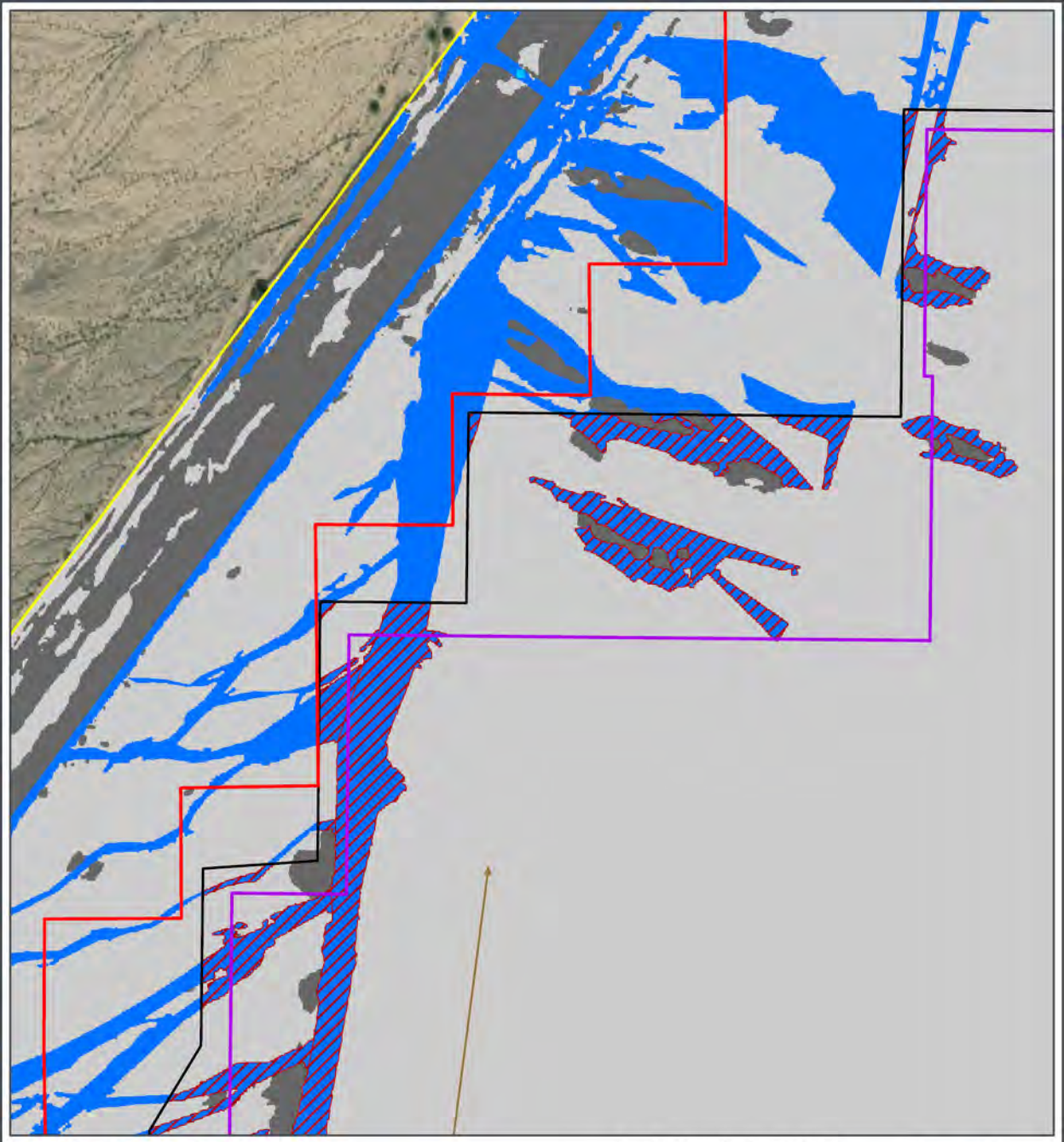
Plans

30% Civil Design Plans for Soda Mountain Solar Project

APPENDIX B

Aquatic Resource Impact Maps

Zoomed in sheets



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Ditch/Culvert
- Flow Direction
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1755°N 116.1697°W

0 200 400 Feet
0 50 100 Meters

N

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Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
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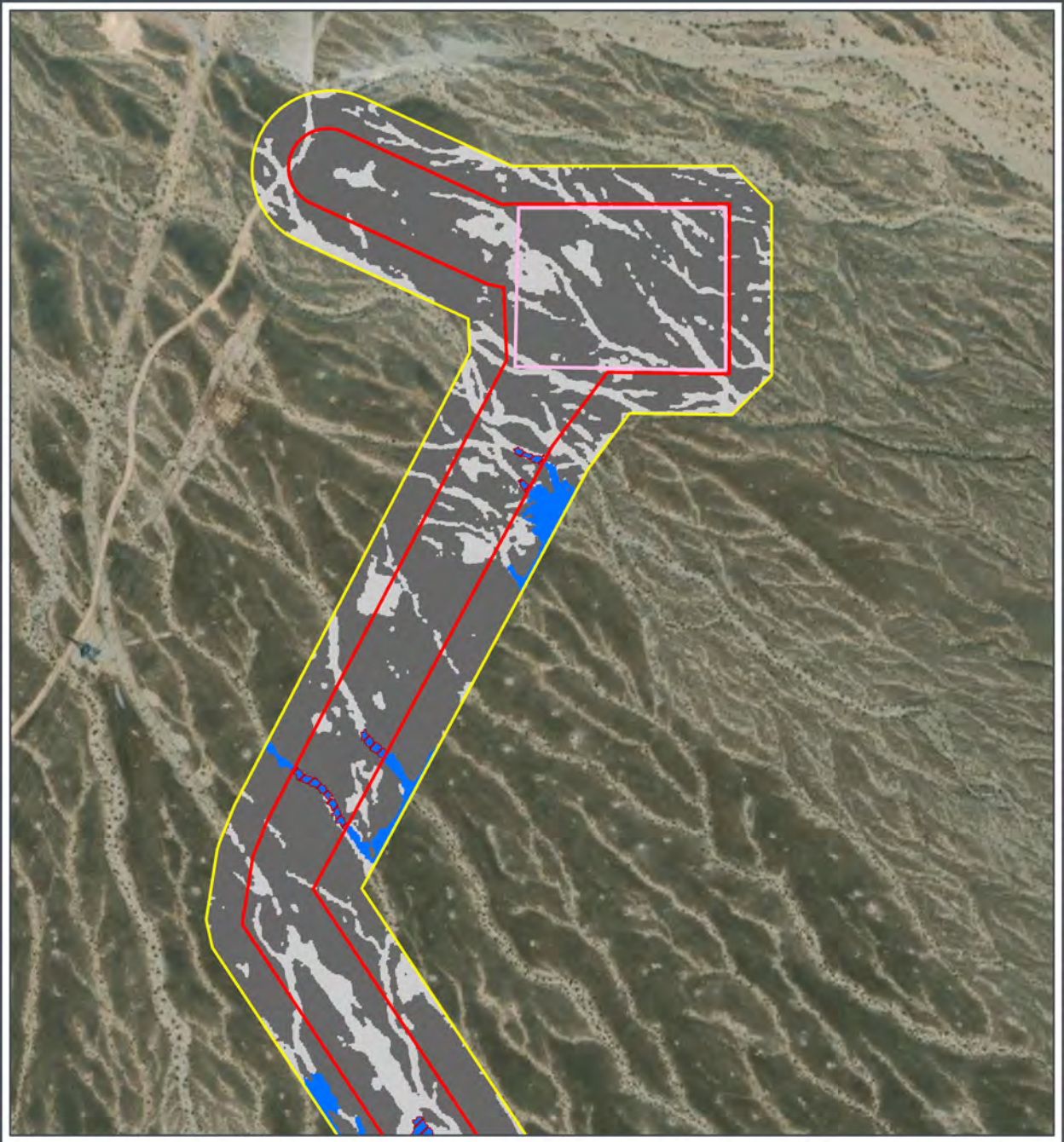

Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Project Site
- Review Area
- Switchyard

San Bernardino County, CA
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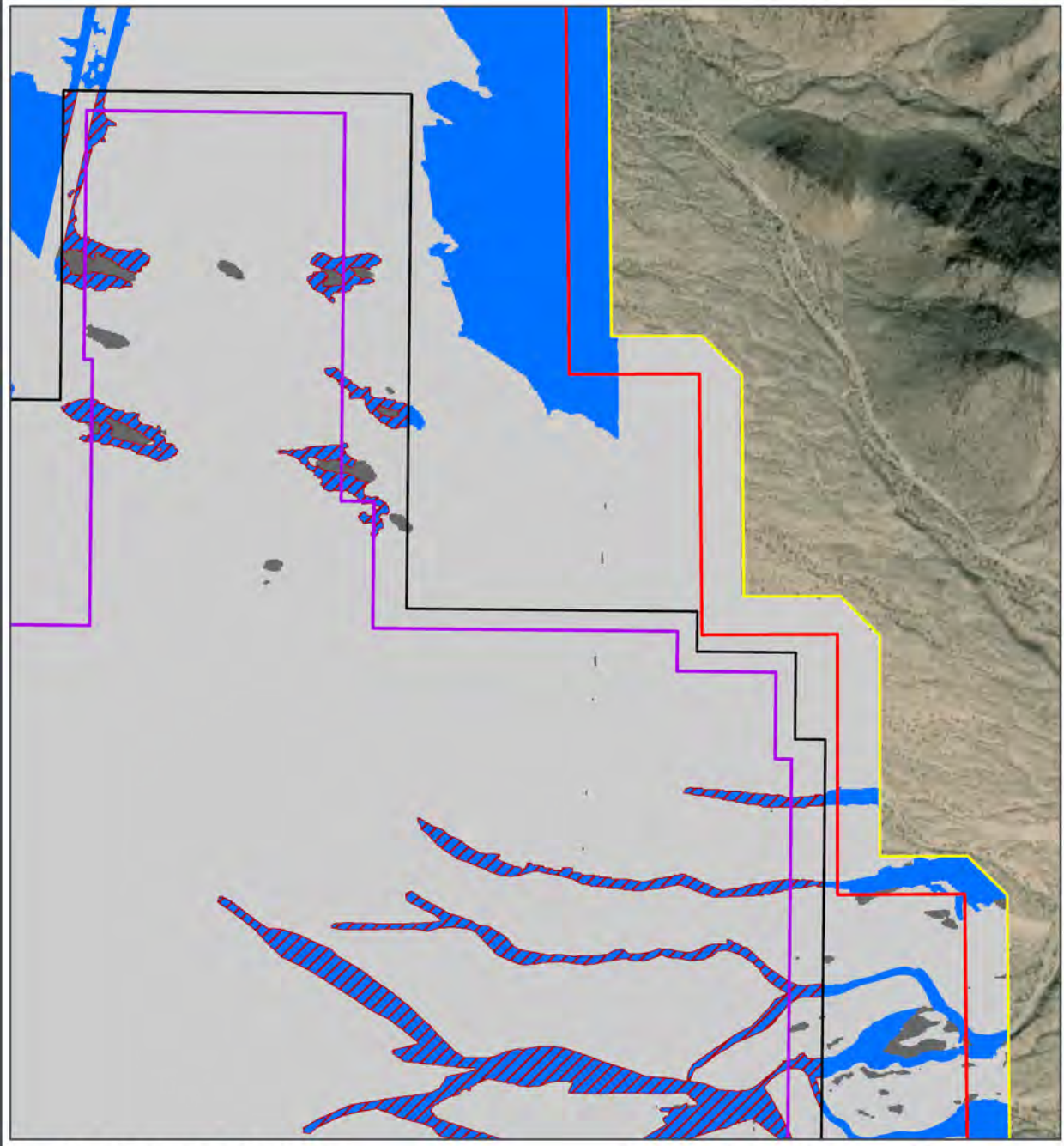

Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1754°N 116.1625°W

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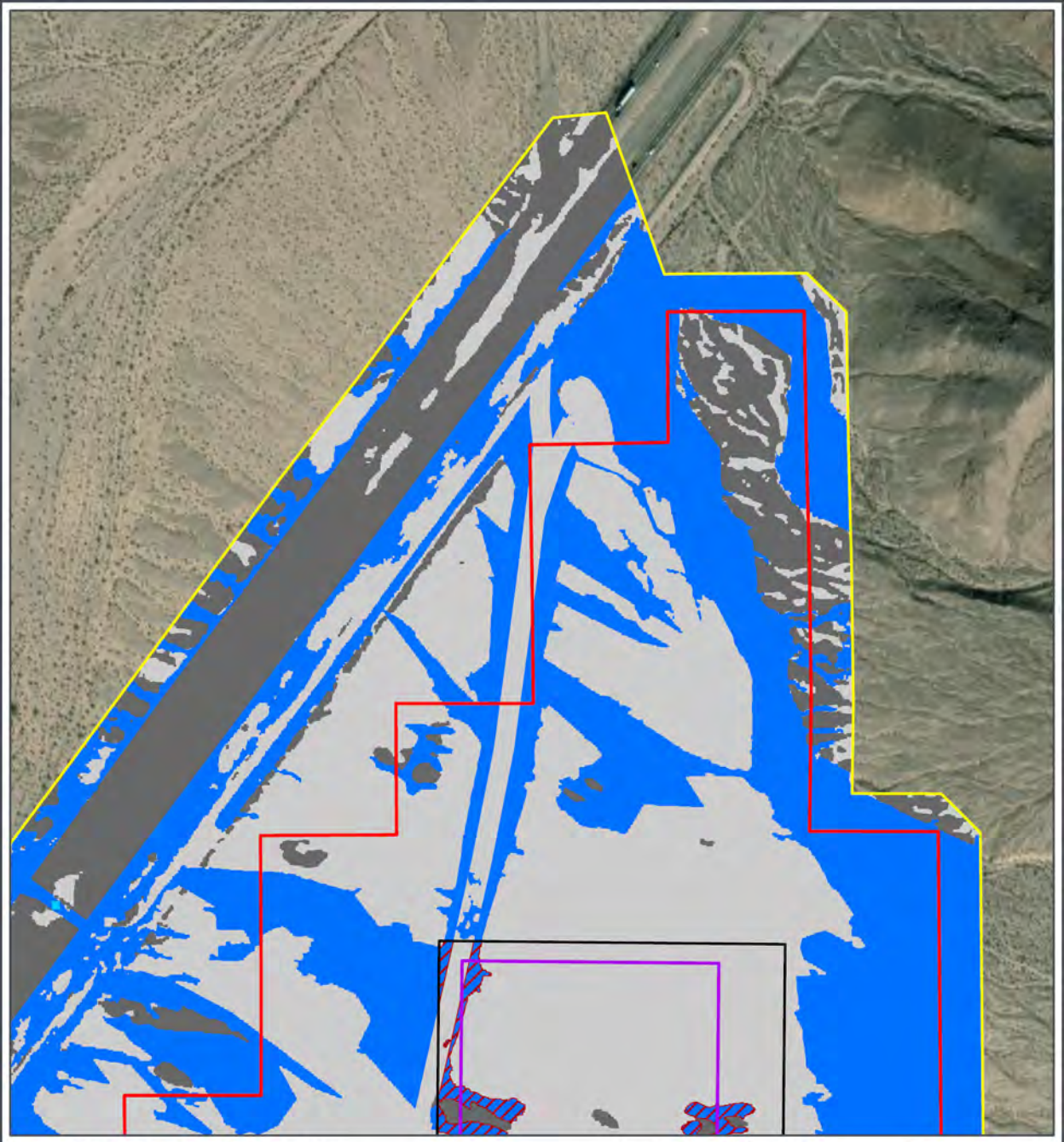

Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Ditch/Culvert
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1813°N 116.1657°W

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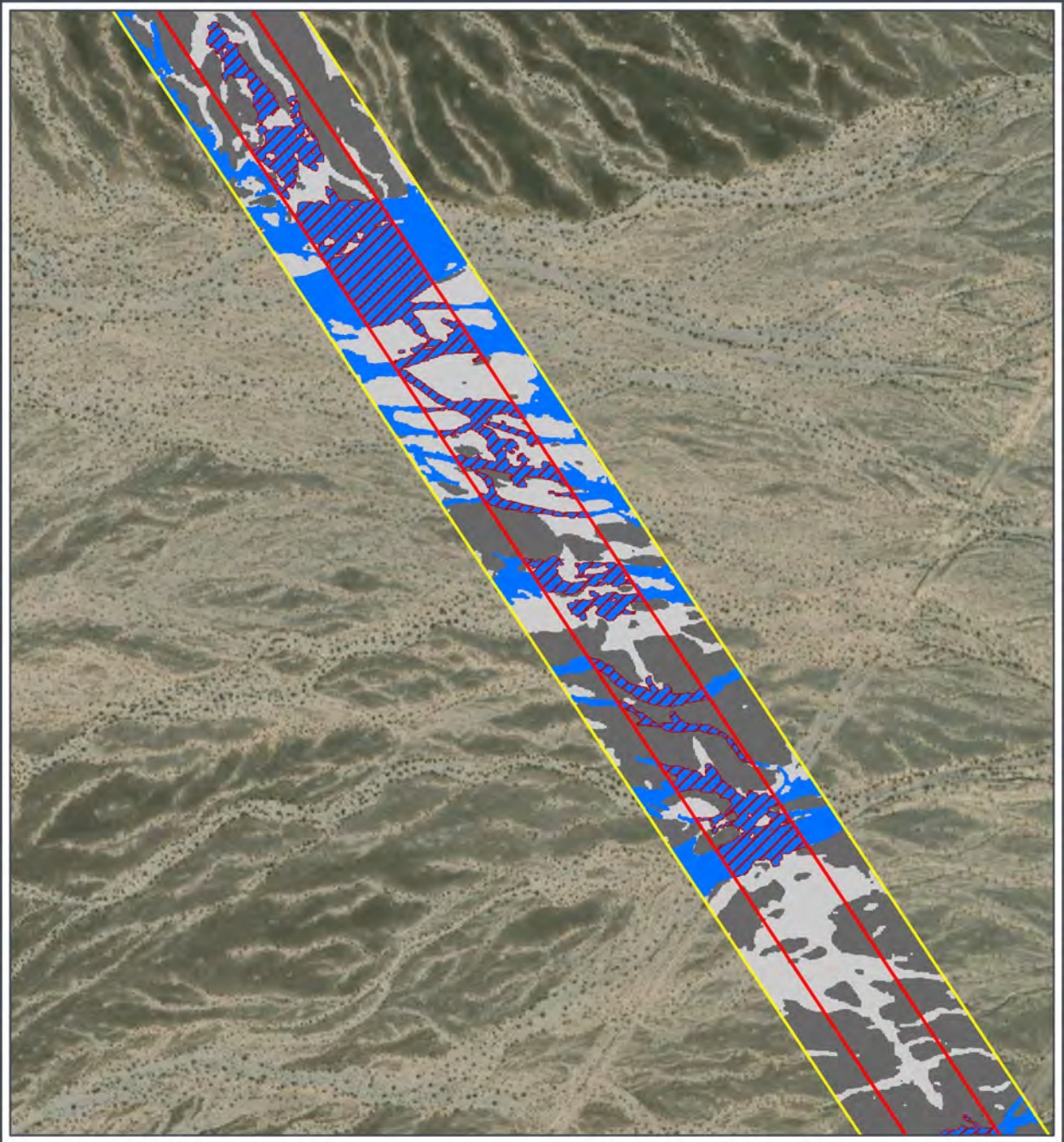

Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Project Site
- Review Area

San Bernardino County, CA
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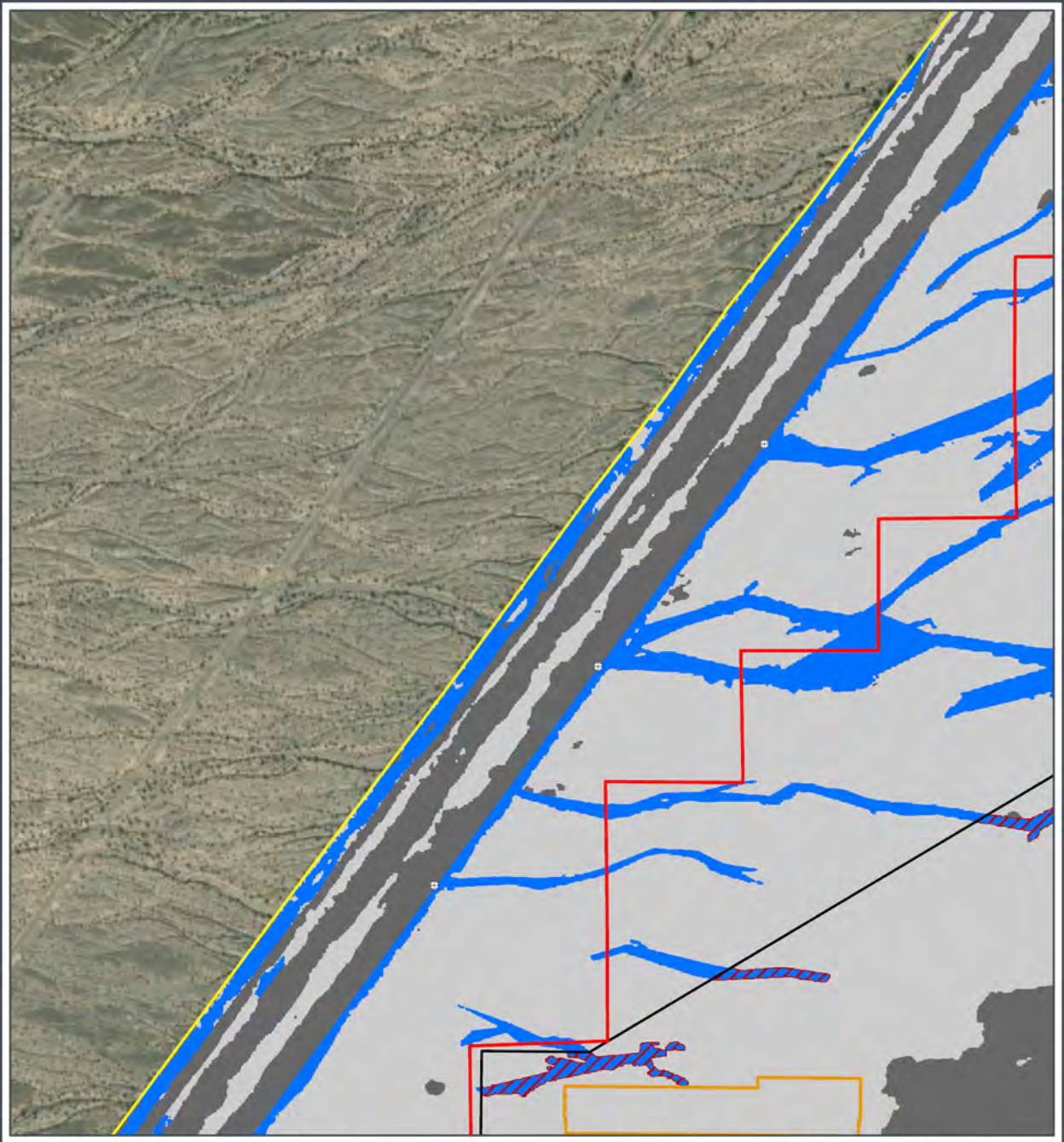

Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flume
- Project Site
- Review Area
- Limit of Disturbance
- BESS Yard

San Bernardino County, CA
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35.171°N 116.178°W

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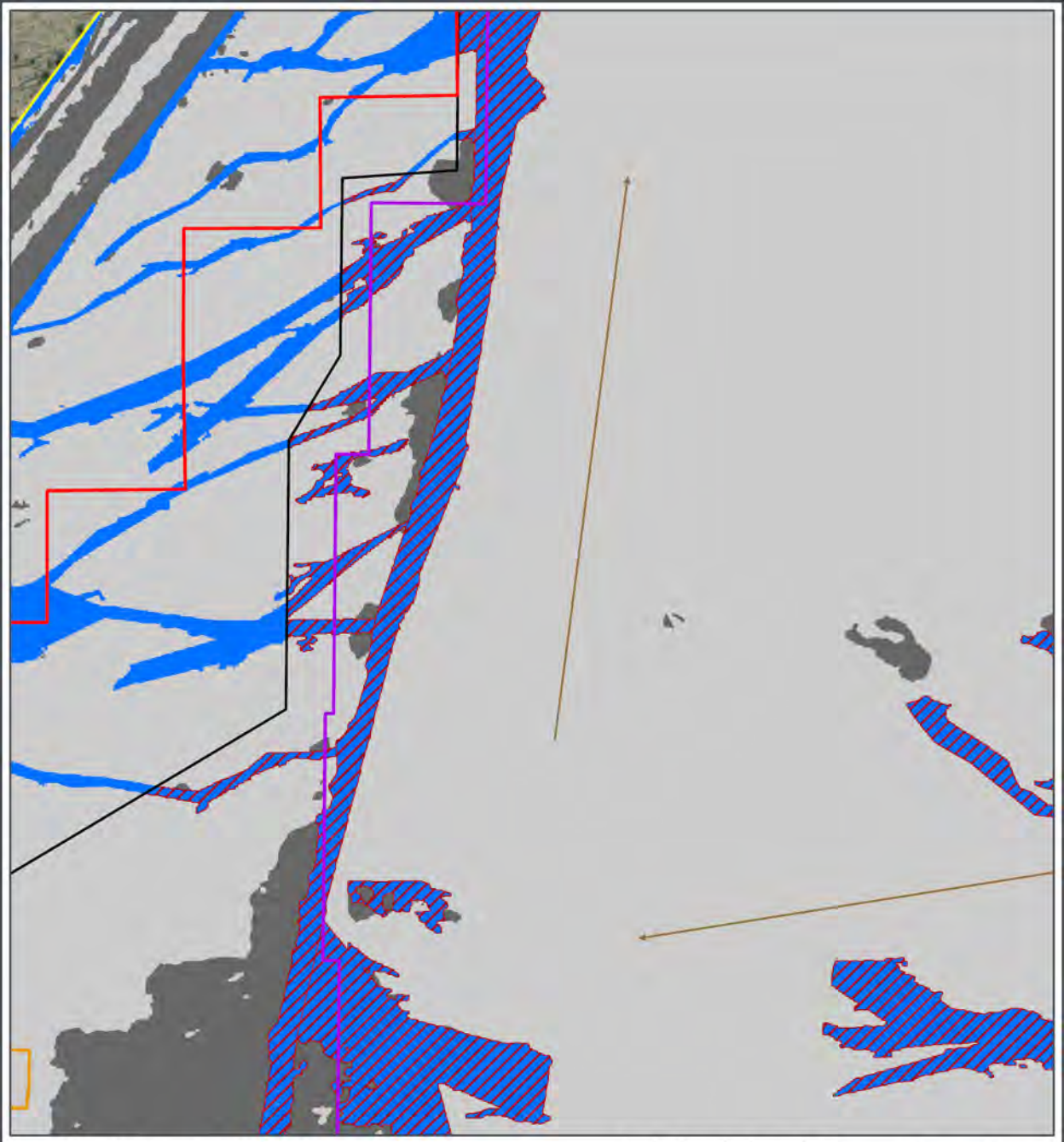

Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Limit of Disturbance
- BESS Yard
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
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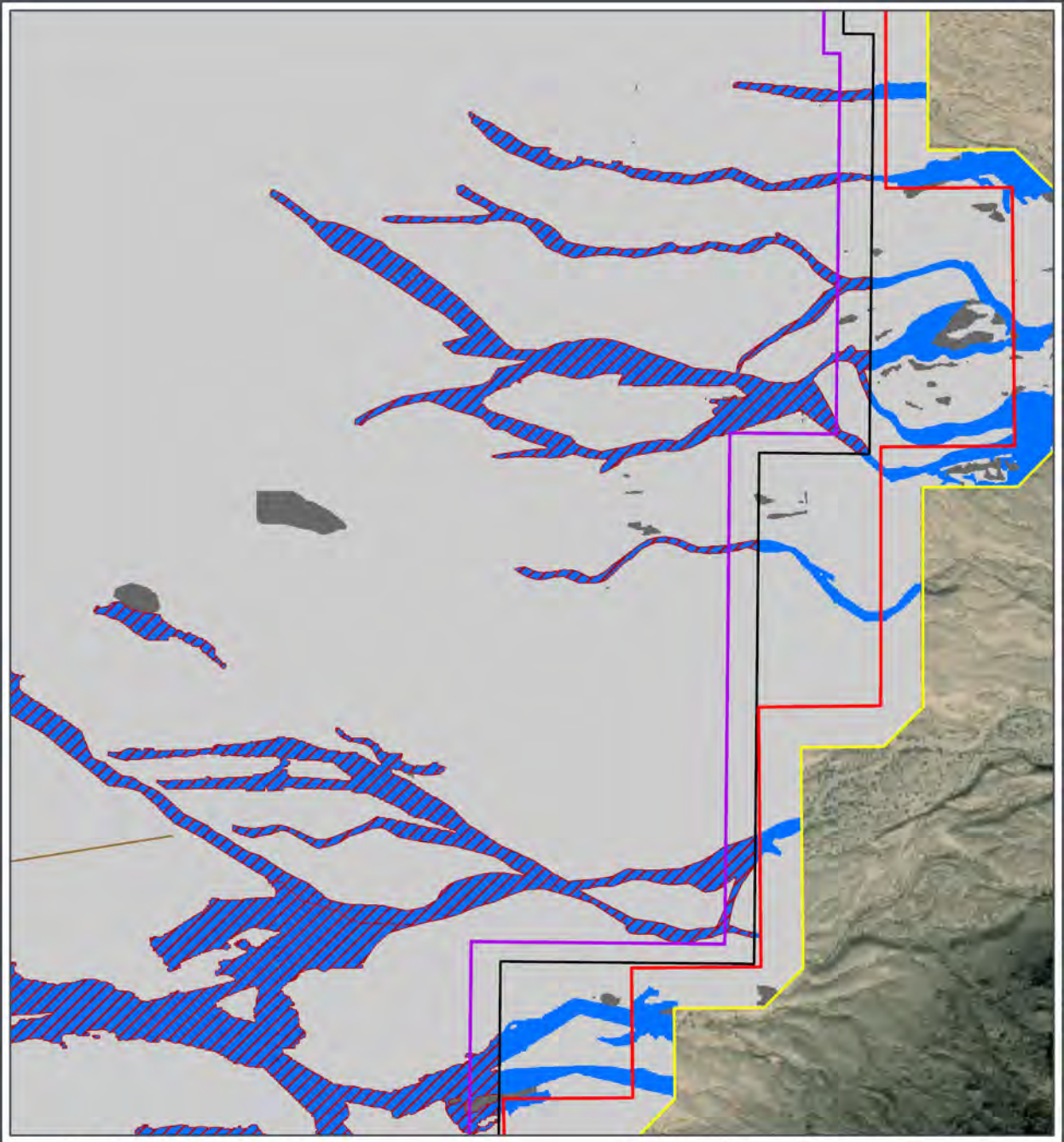

Aquatic Resources Delineation

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- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1705°N 116.163°W

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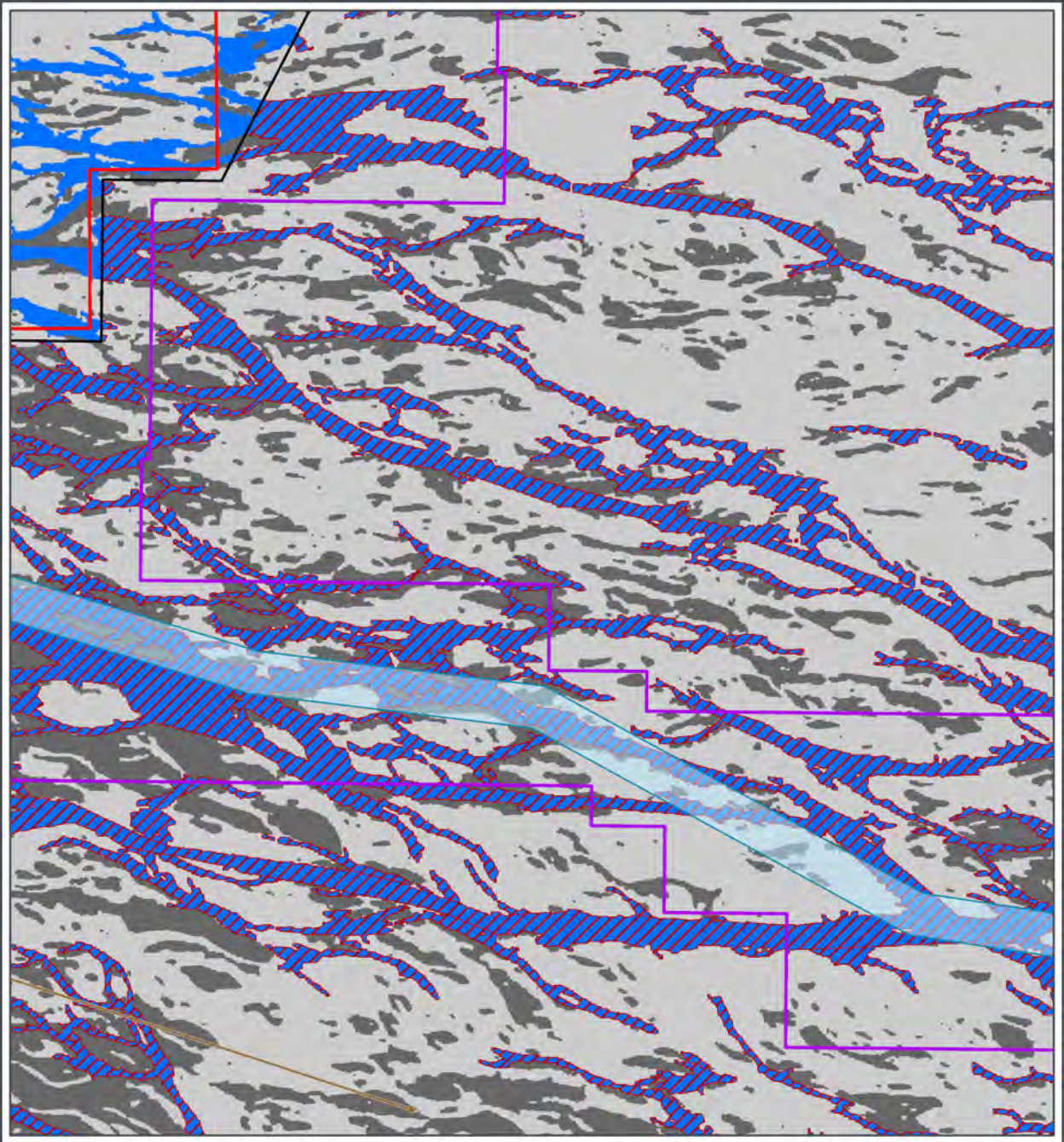

Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Drainage Canal
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
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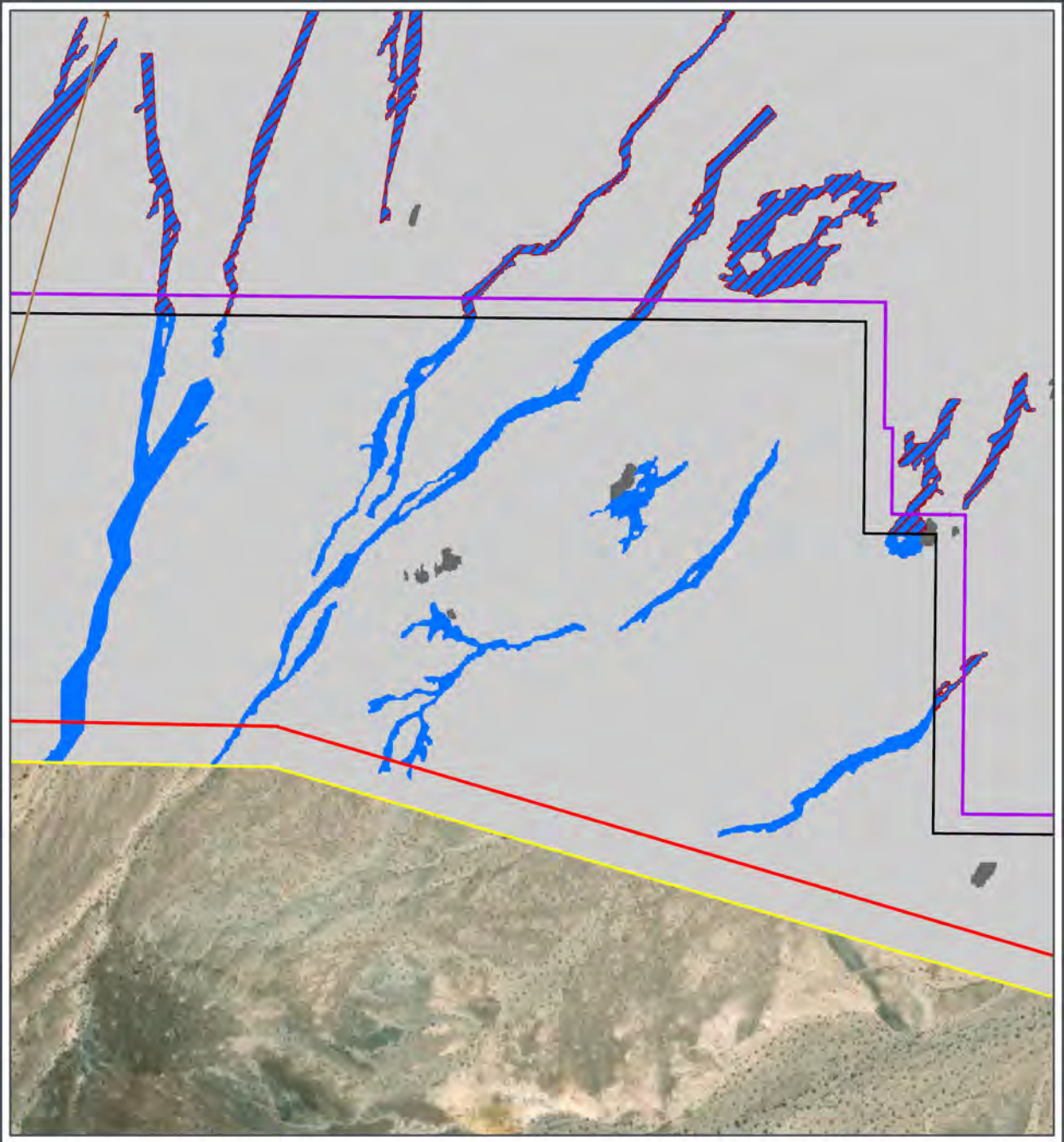

Aquatic Resources Delineation

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- Flow Direction
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

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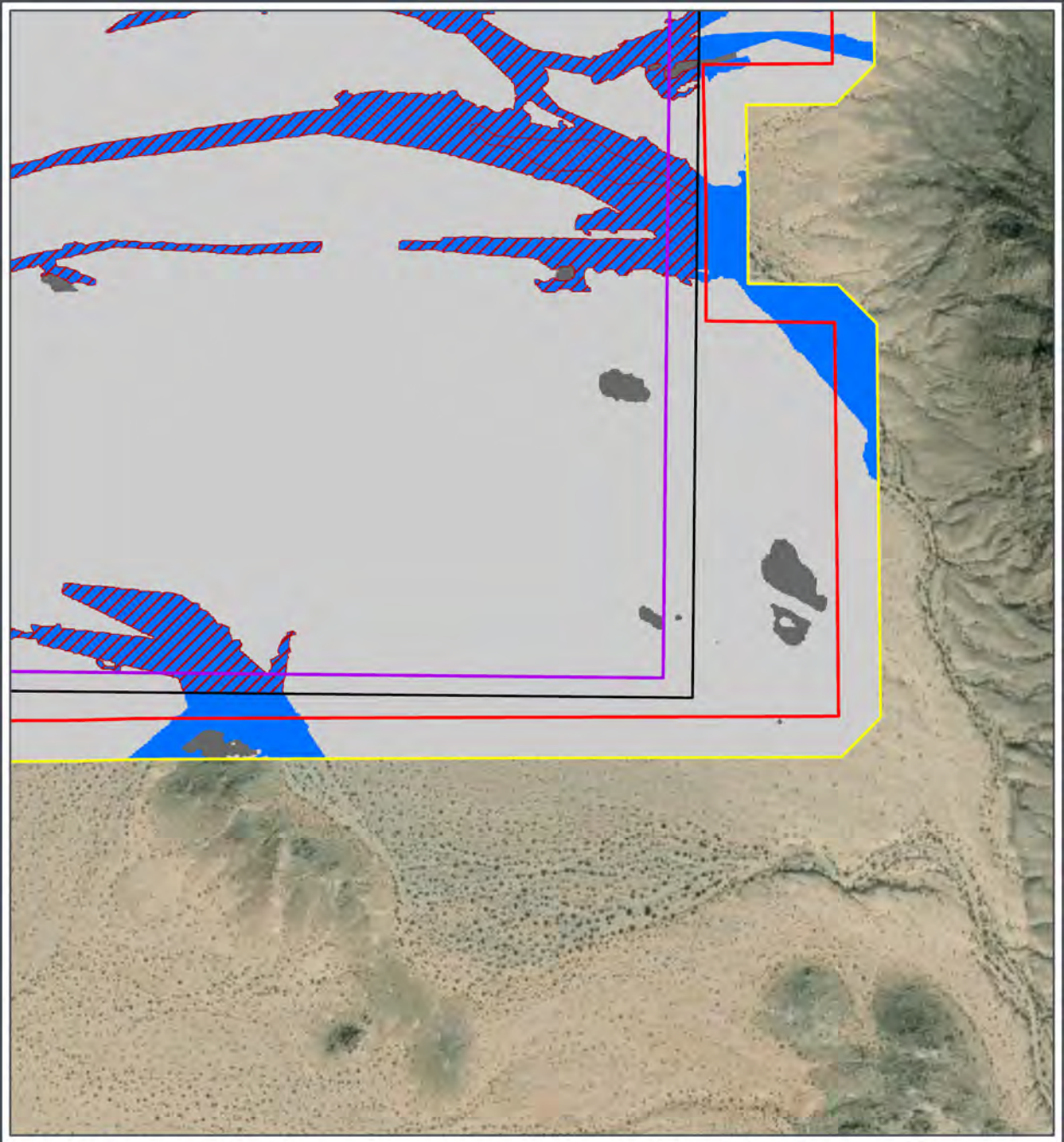

Aquatic Resources Delineation

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- Permanent Impacts
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1632°N 116.1648°W

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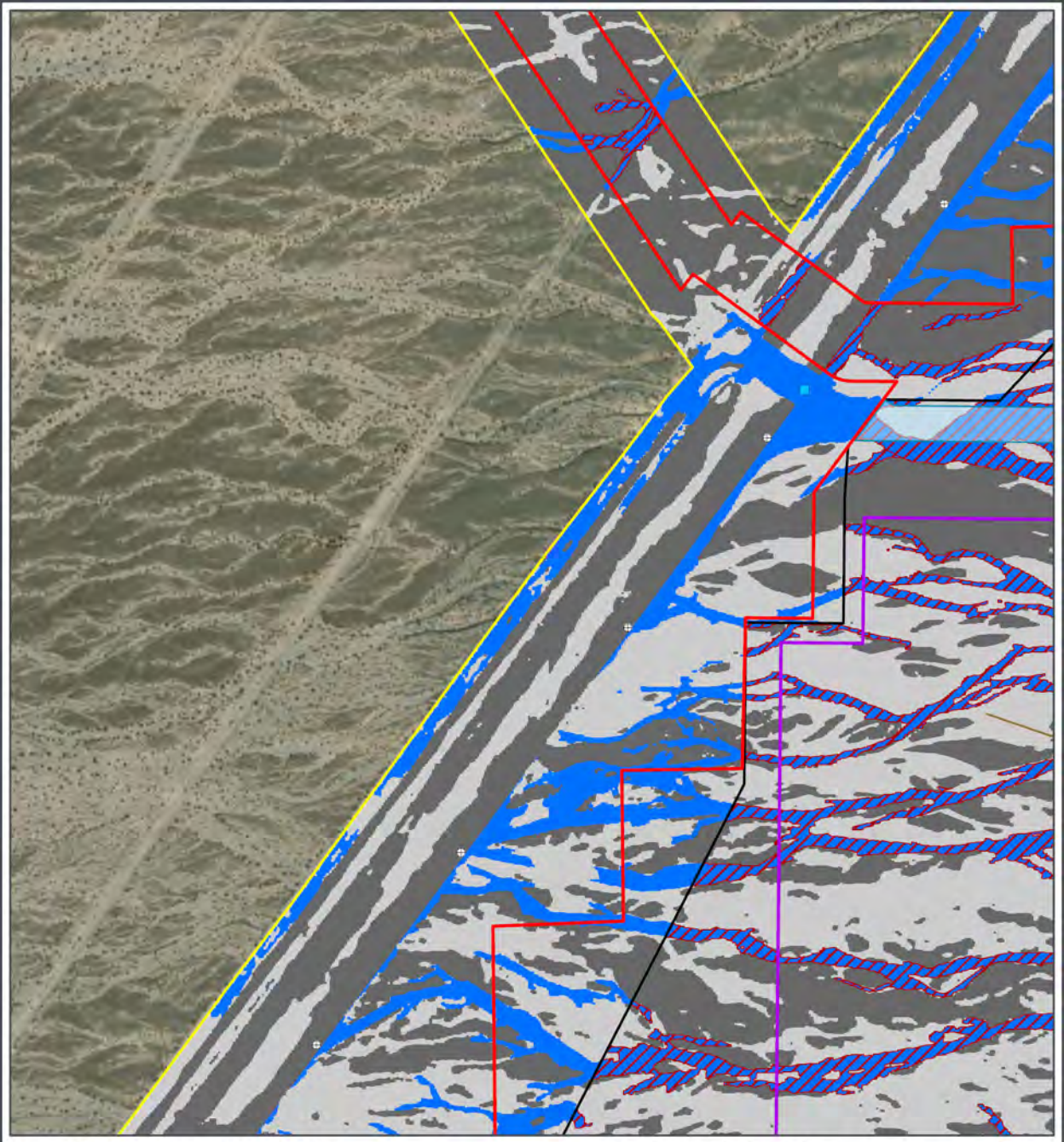

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- Flume
- Flow Direction
- Project Site
- Review Area
- Drainage Canal
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
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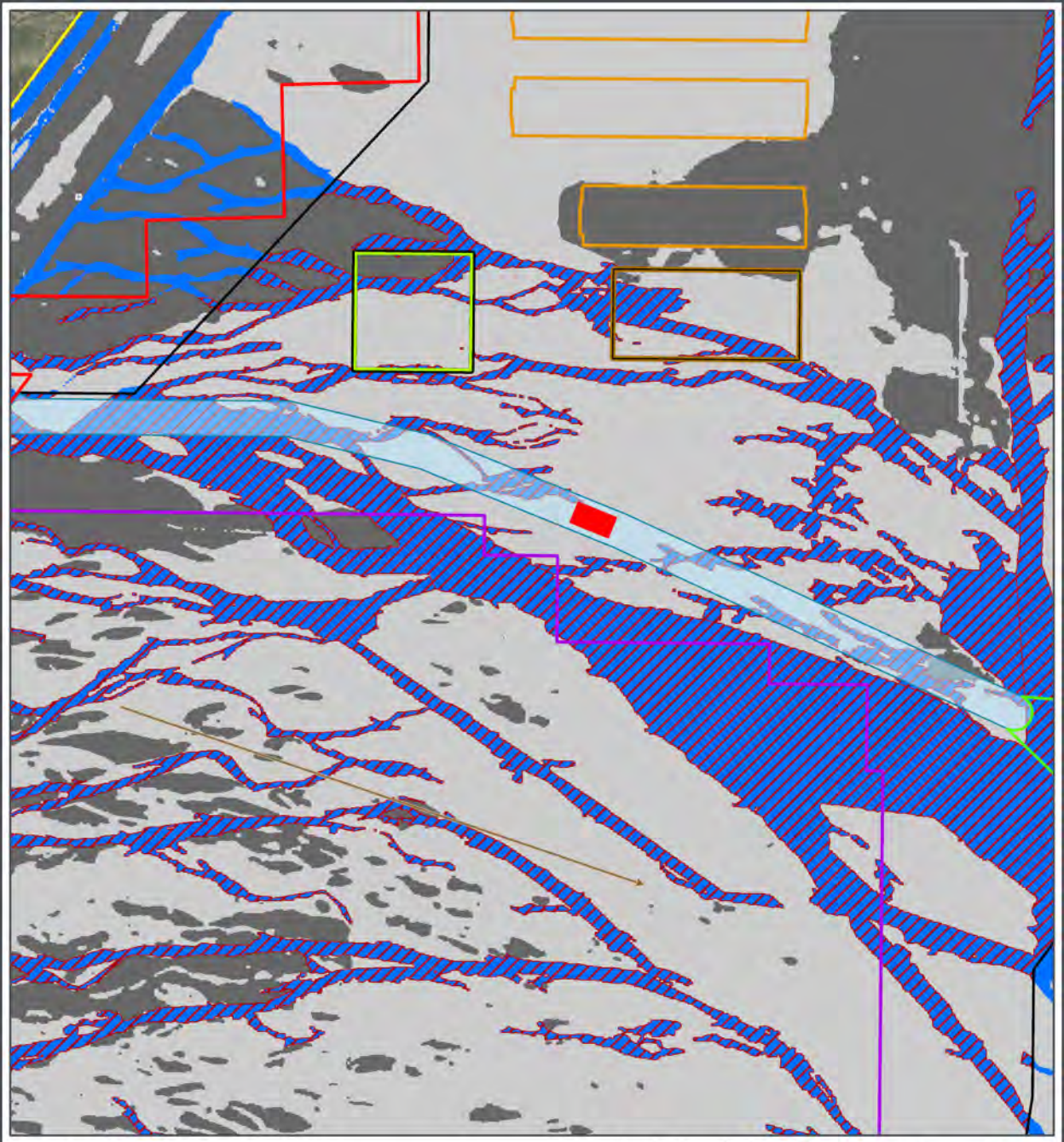
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flume
- Flow Direction
- Project Site
- Review Area
- Drainage Canal
- Laydown Yard
- Limit of Disturbance
- BESS Yard
- Box Culverts
- Outlet Protection Feature
- Substation
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1633°N 116.1776°W

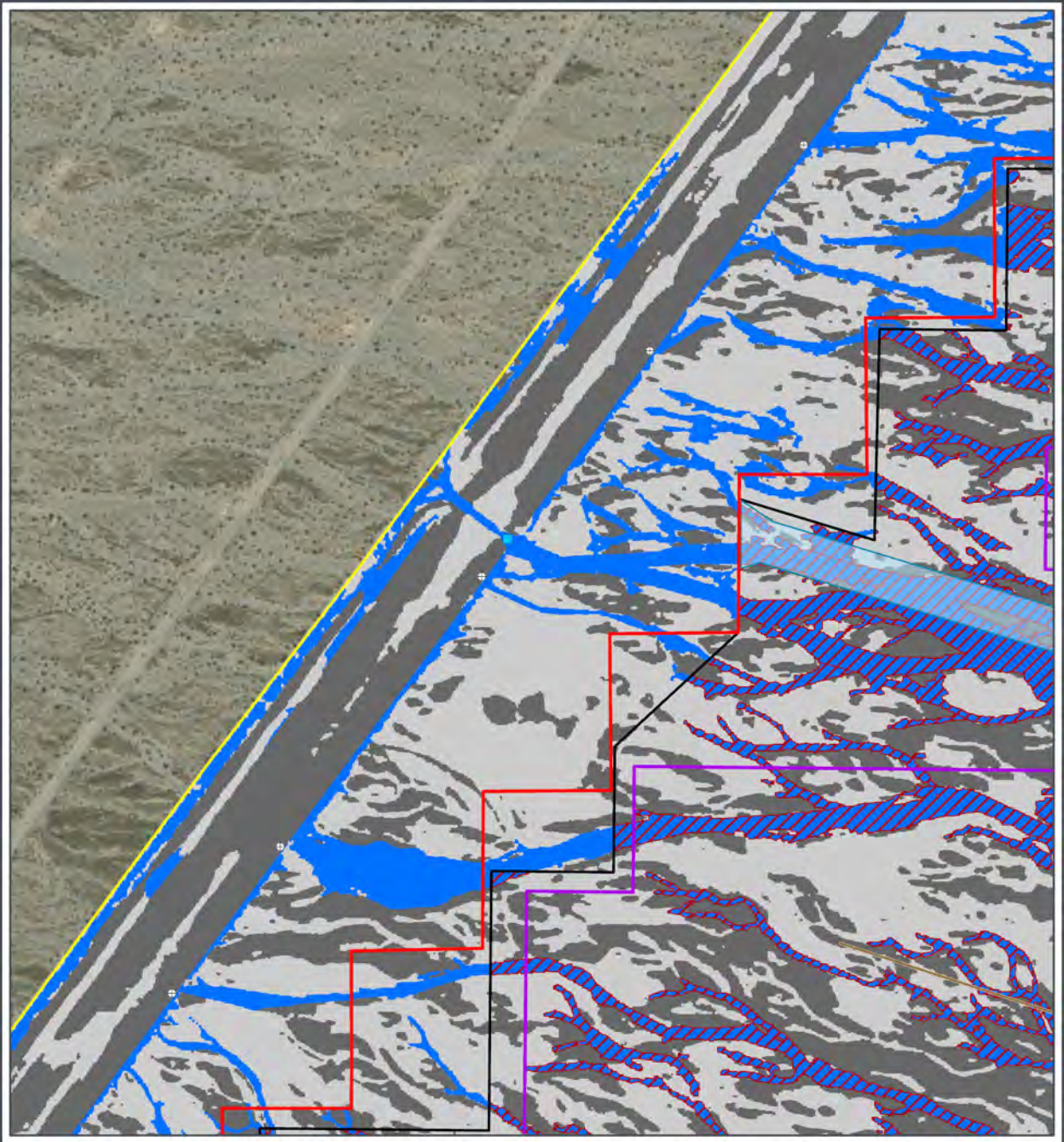
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Ditch/Culvert
- Flume
- Flow Direction
- Project Site
- Review Area
- Drainage Canal
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1558°N 116.1904°W

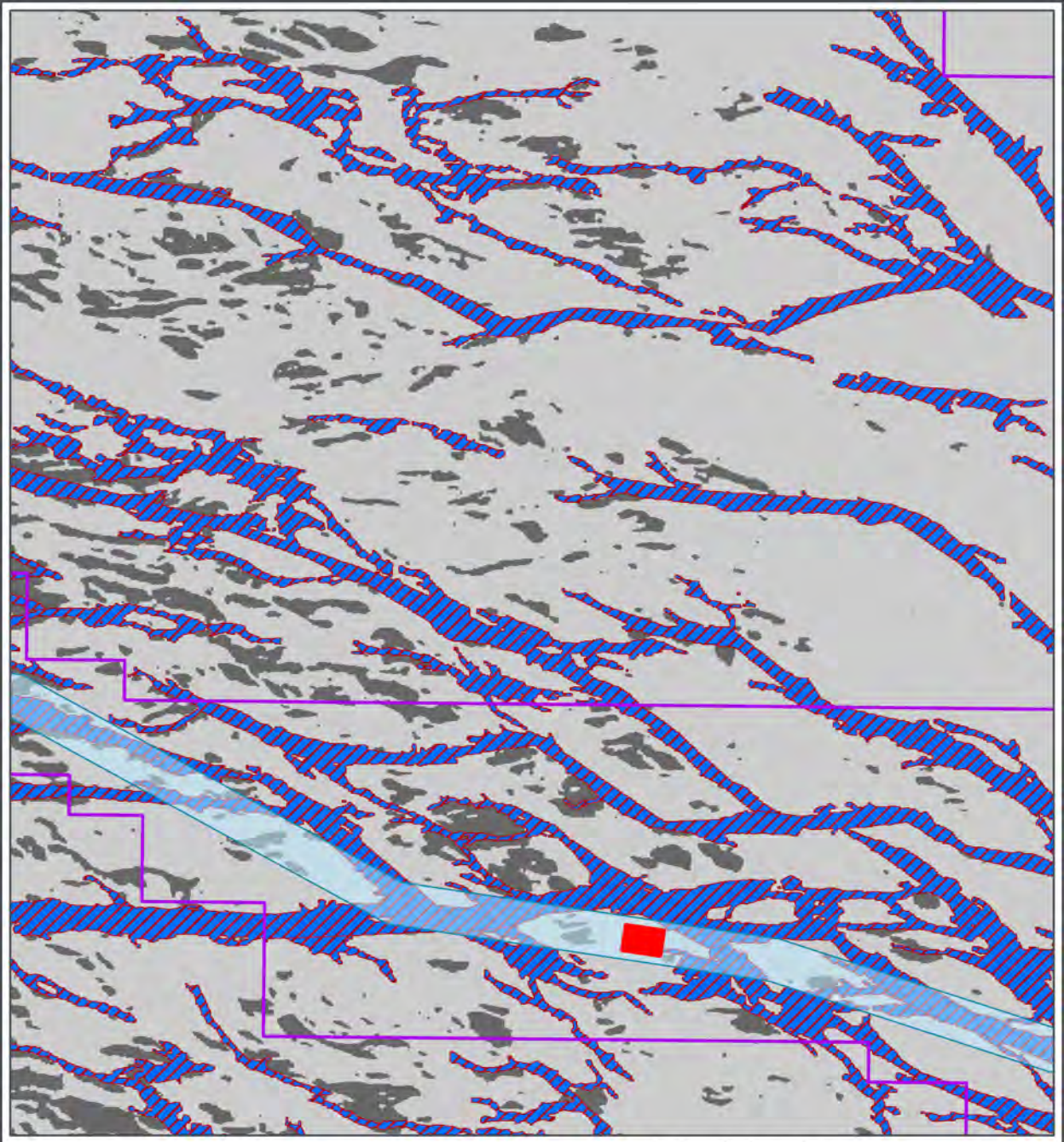
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Project Site
- Review Area
- Drainage Canal
- Limit of Disturbance
- Box Culverts
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1557°N 116.1783°W

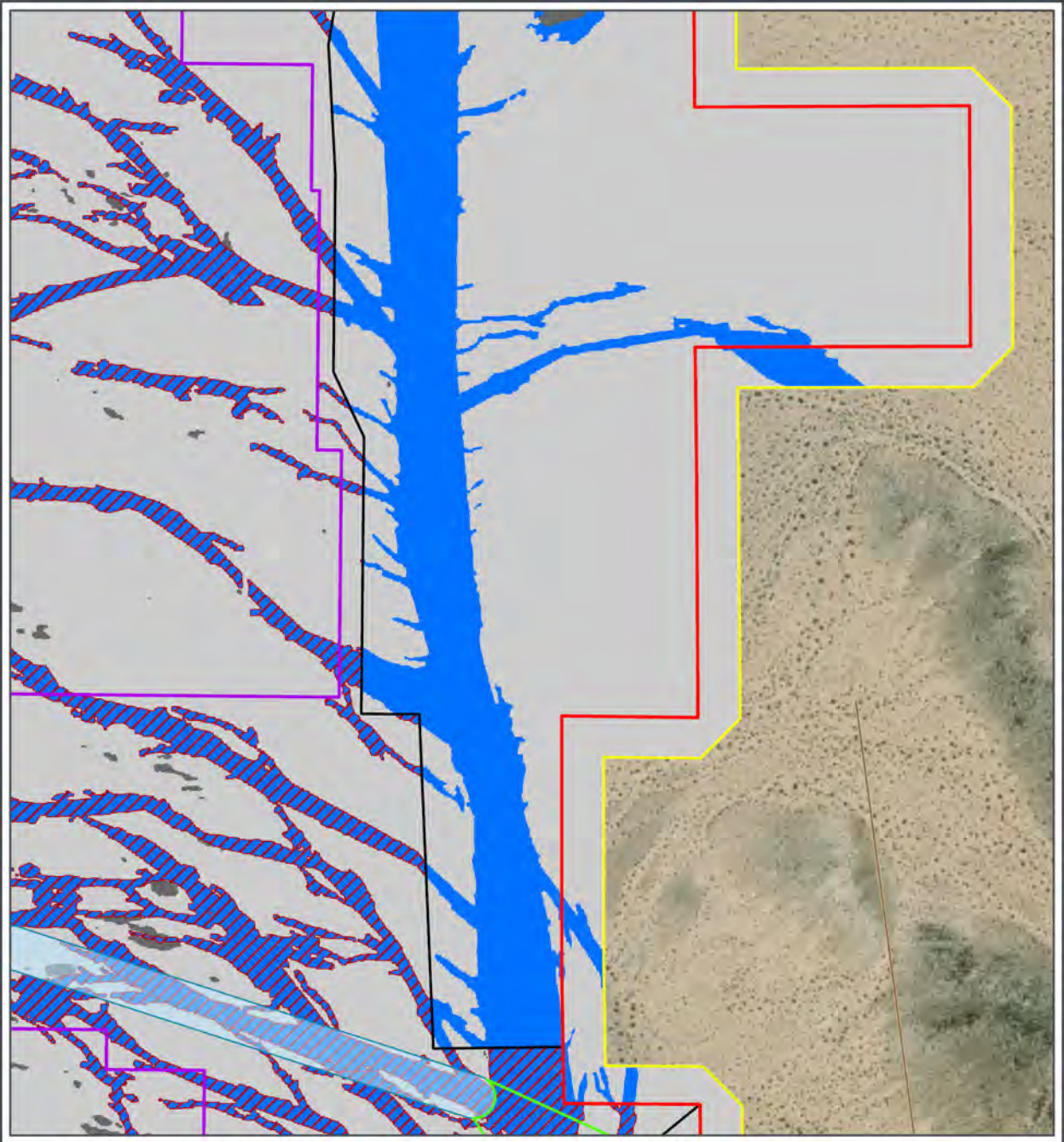
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Drainage Canal
- Limit of Disturbance
- Outlet Protection Feature
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1556°N 116.1718°W

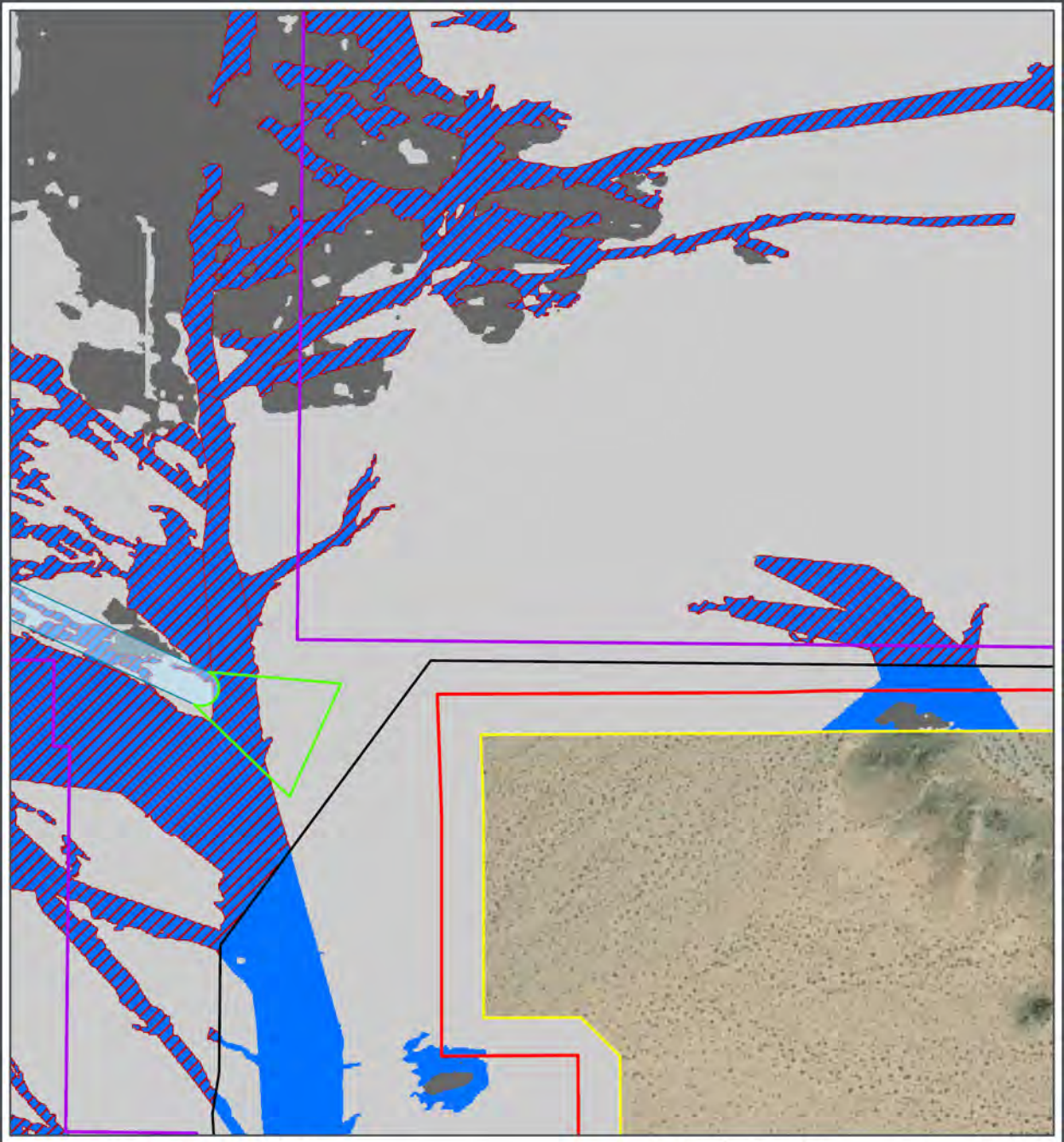
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features
Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Project Site
- Review Area
- Drainage Canal
- Limit of Disturbance
- Outlet Protection Feature
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1631°N 116.1707°W

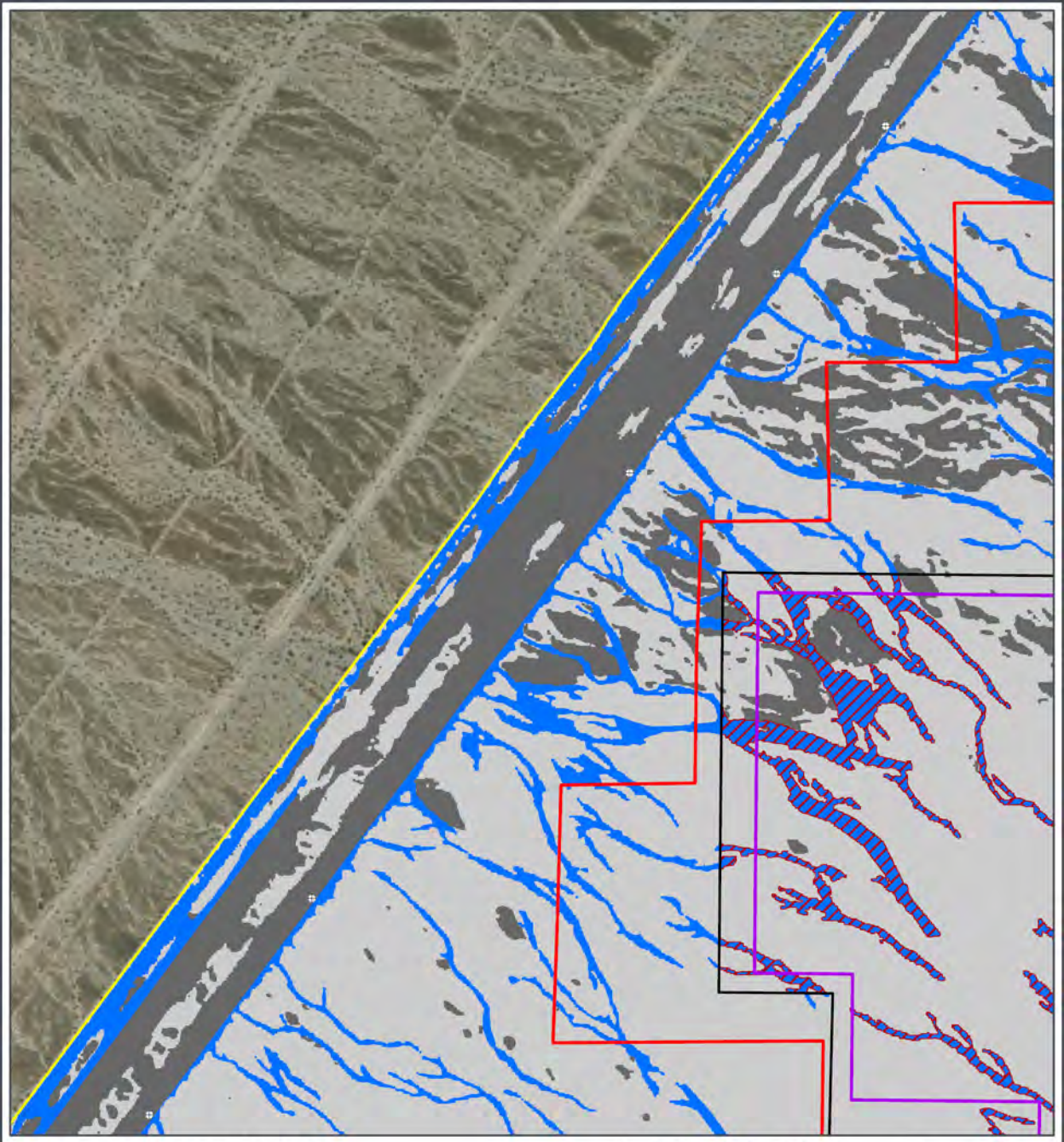
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flume
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1484°N 116.1978°W

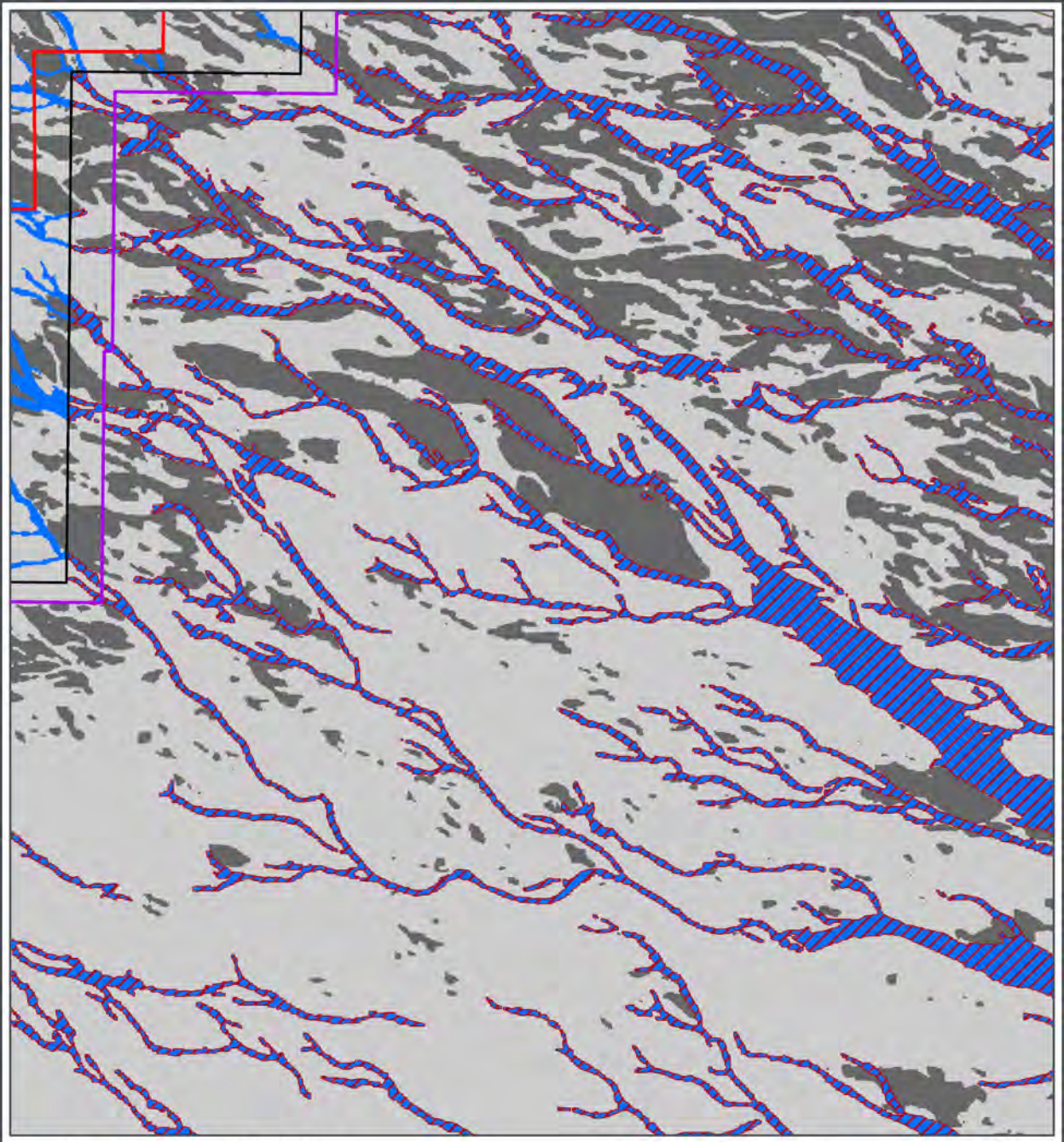
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1484°N 116.1889°W

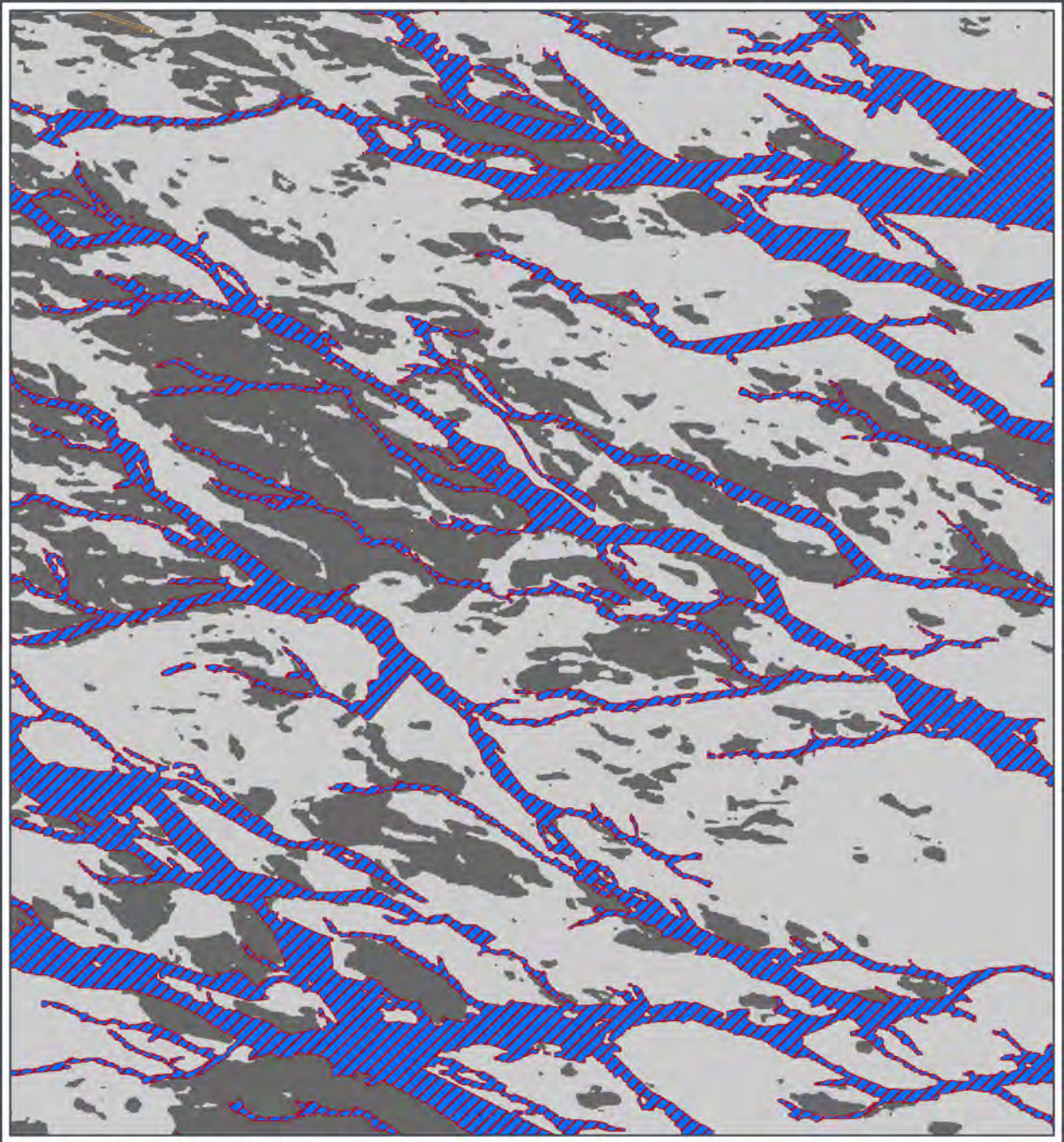
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features
Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1483°N 116.1805°W

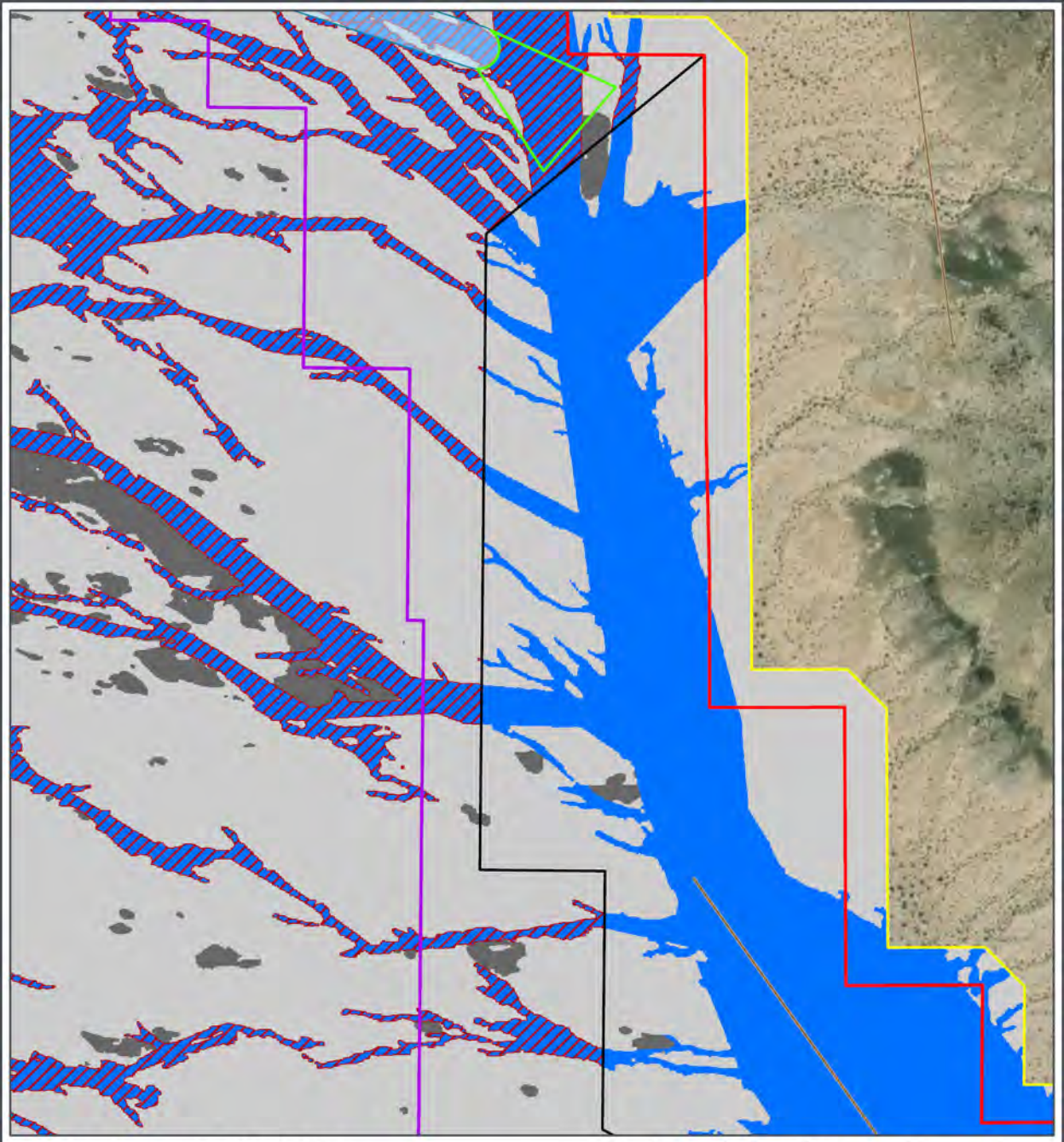
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Drainage Canal
- Limit of Disturbance
- Outlet Protection Feature
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1483°N 116.1719°W

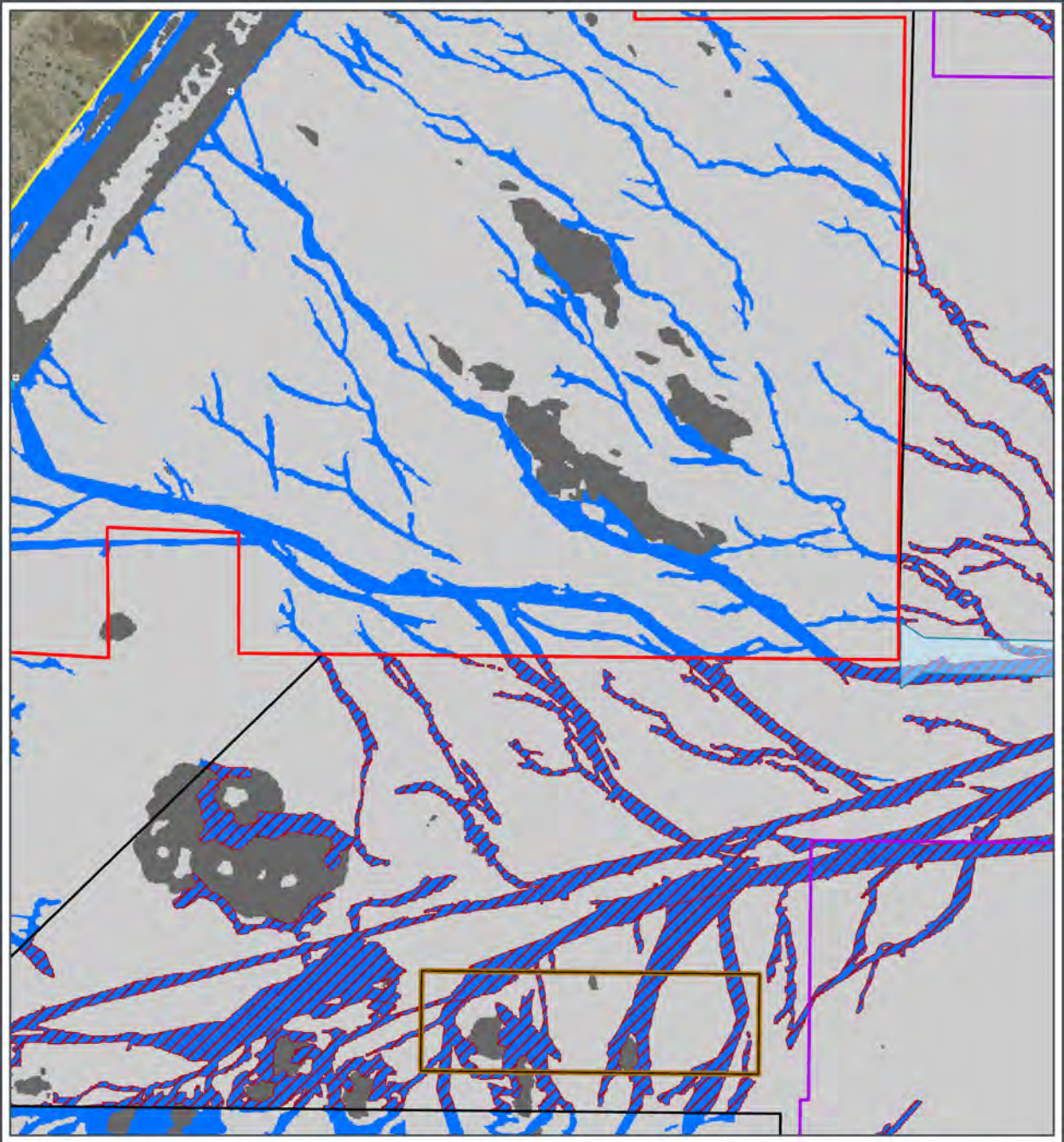
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flume
- Project Site
- Review Area
- Drainage Canal
- Laydown Yard
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1413°N 116.1986°W

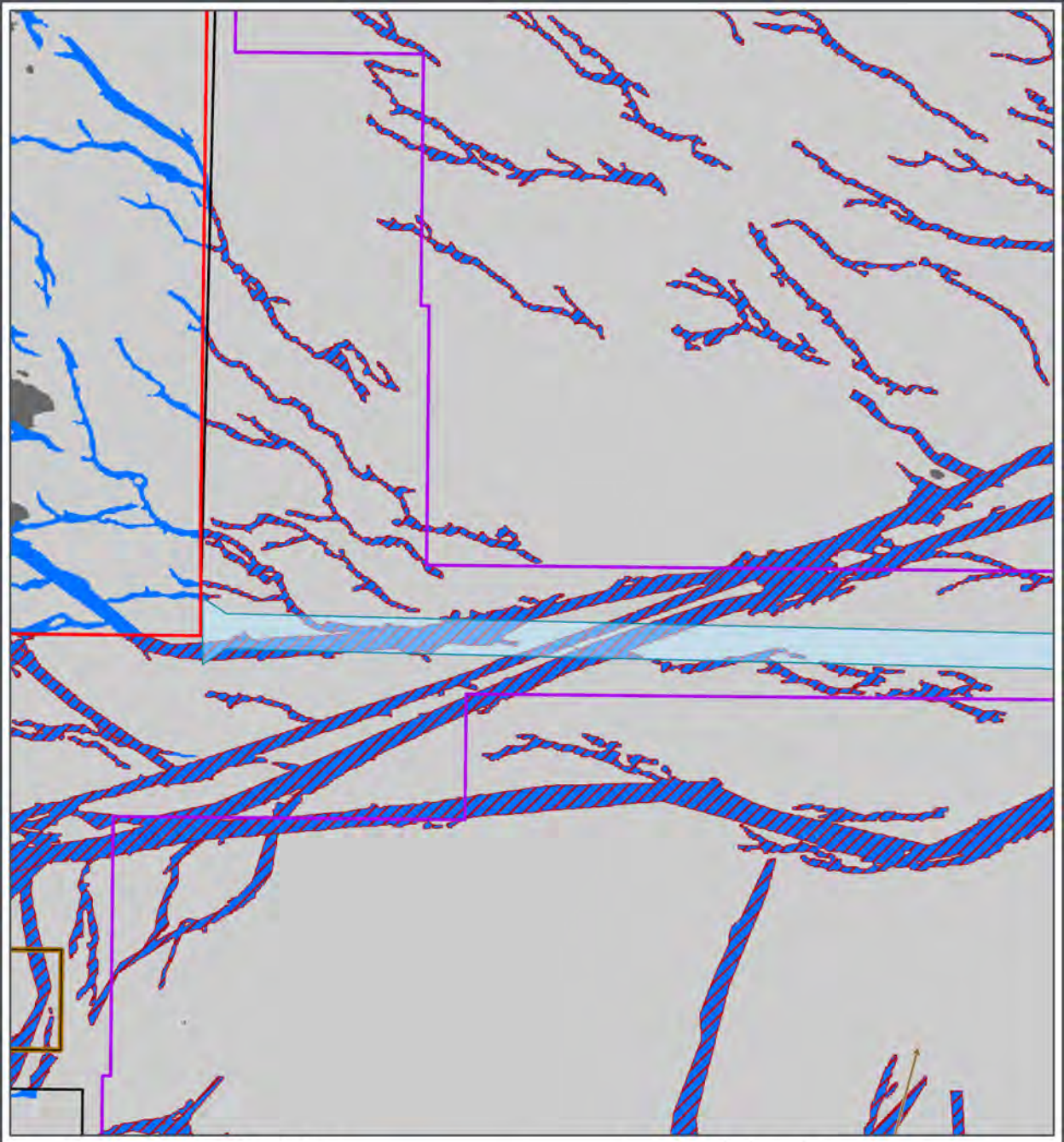
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Drainage Canal
- Laydown Yard
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1411°N 116.1927°W

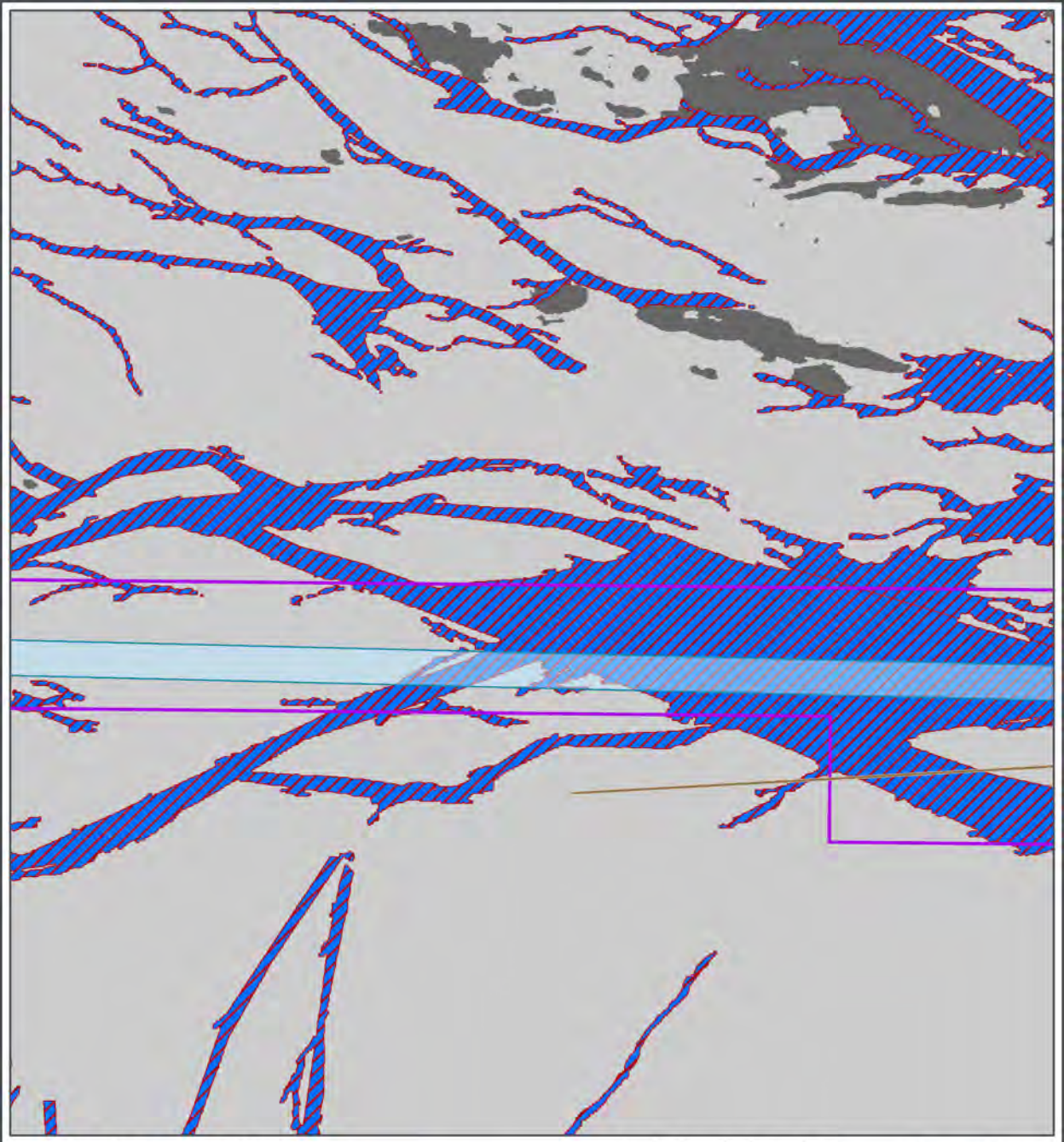
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Drainage Canal
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1411°N 116.1849°W

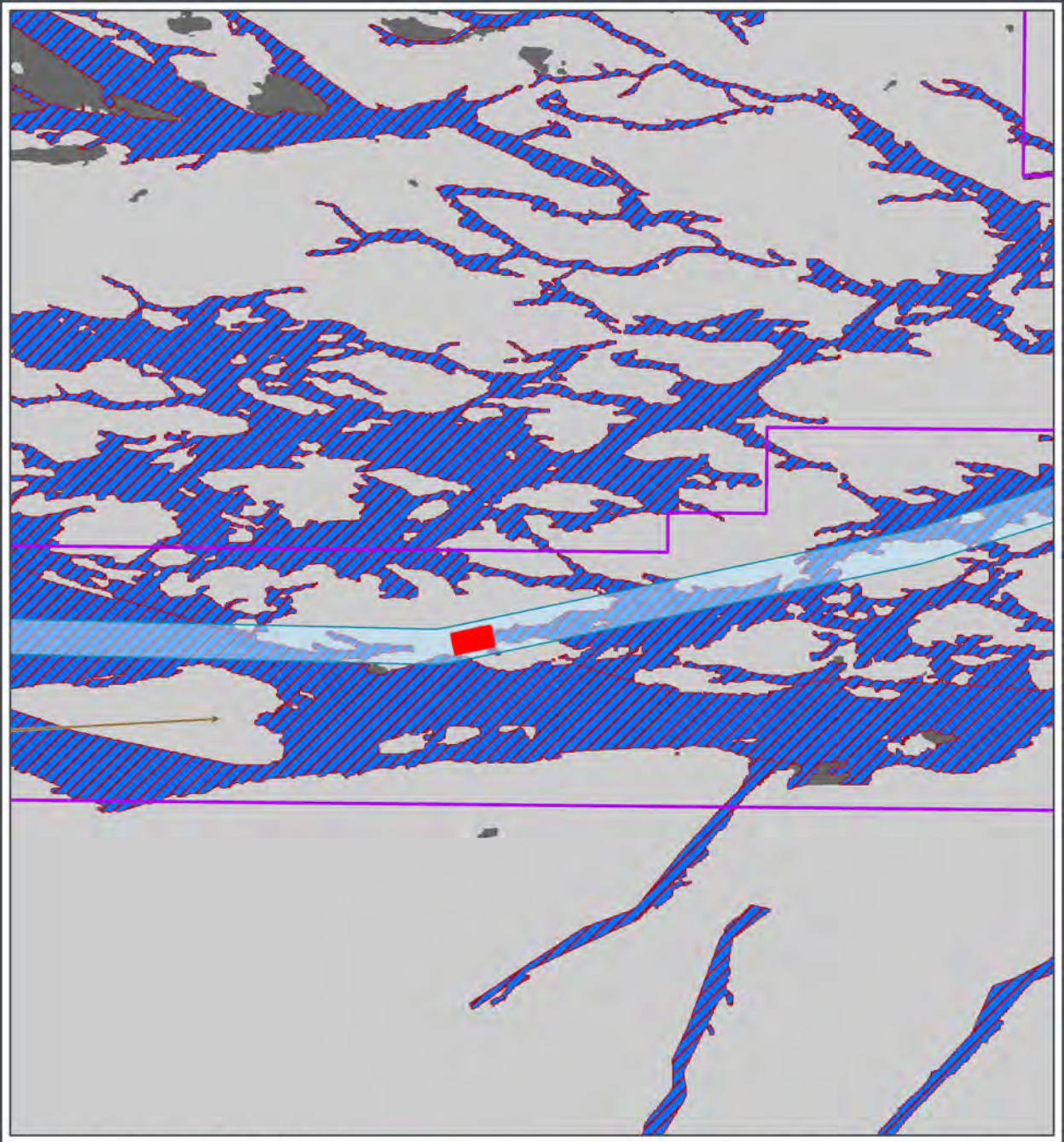
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features
Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Drainage Canal
- Limit of Disturbance
- Box Culverts
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1407°N 116.1771°W

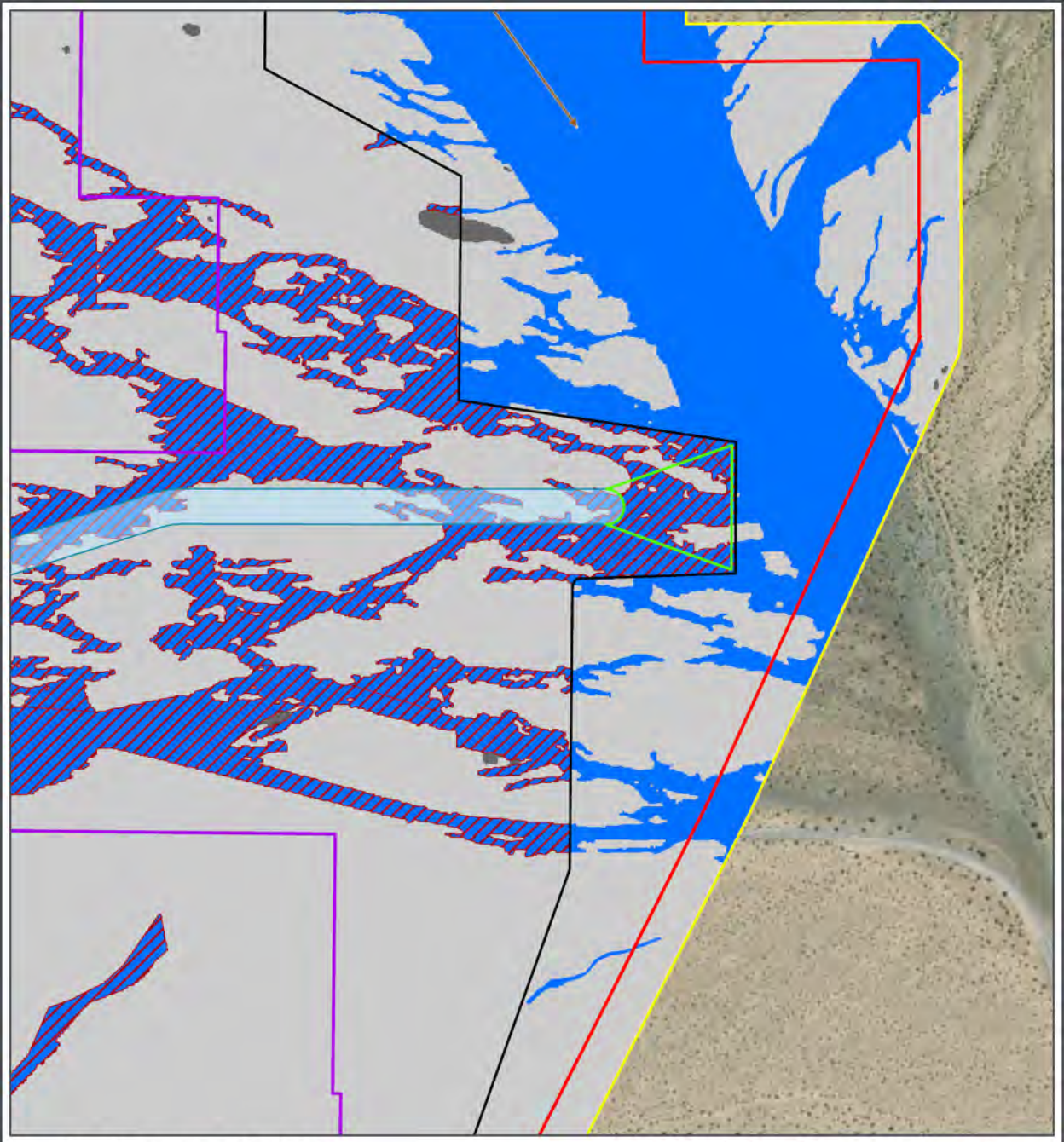
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Drainage Canal
- Limit of Disturbance
- Outlet Protection Feature
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1408°N 116.1691°W

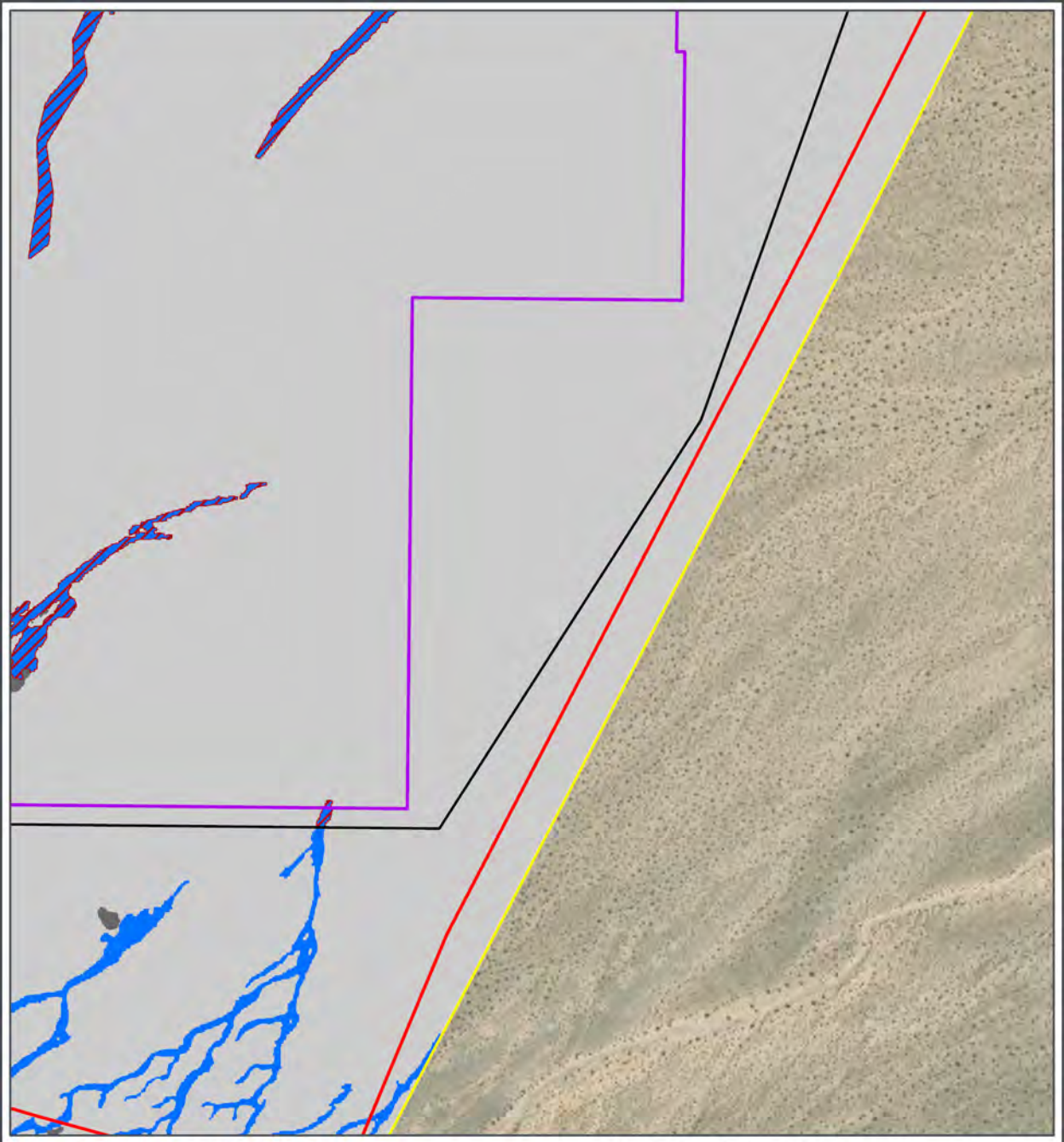
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1336°N 116.1721°W

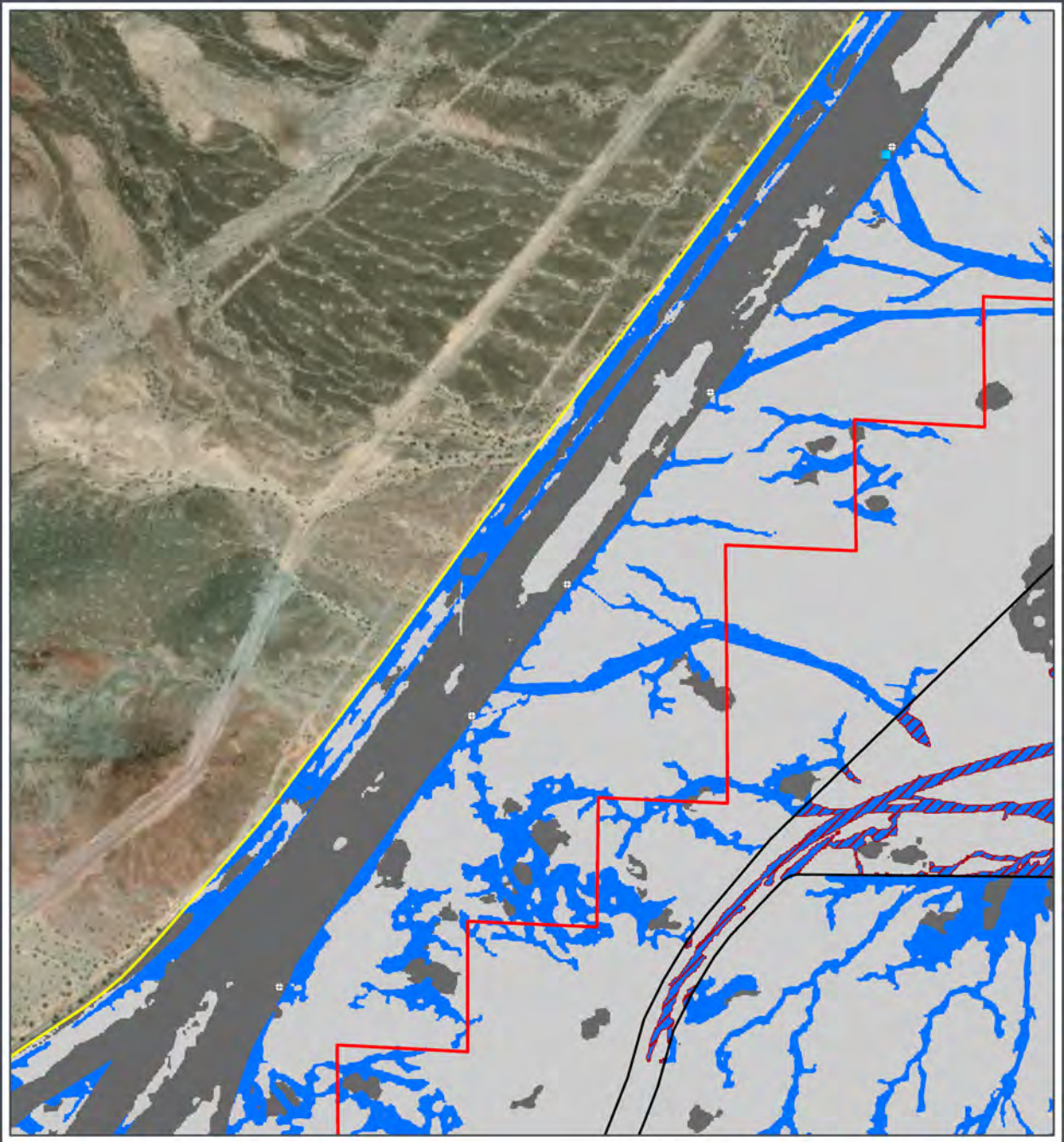
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Ditch/Culvert
- Flume
- Project Site
- Review Area
- Limit of Disturbance

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1397°N 116.2061°W

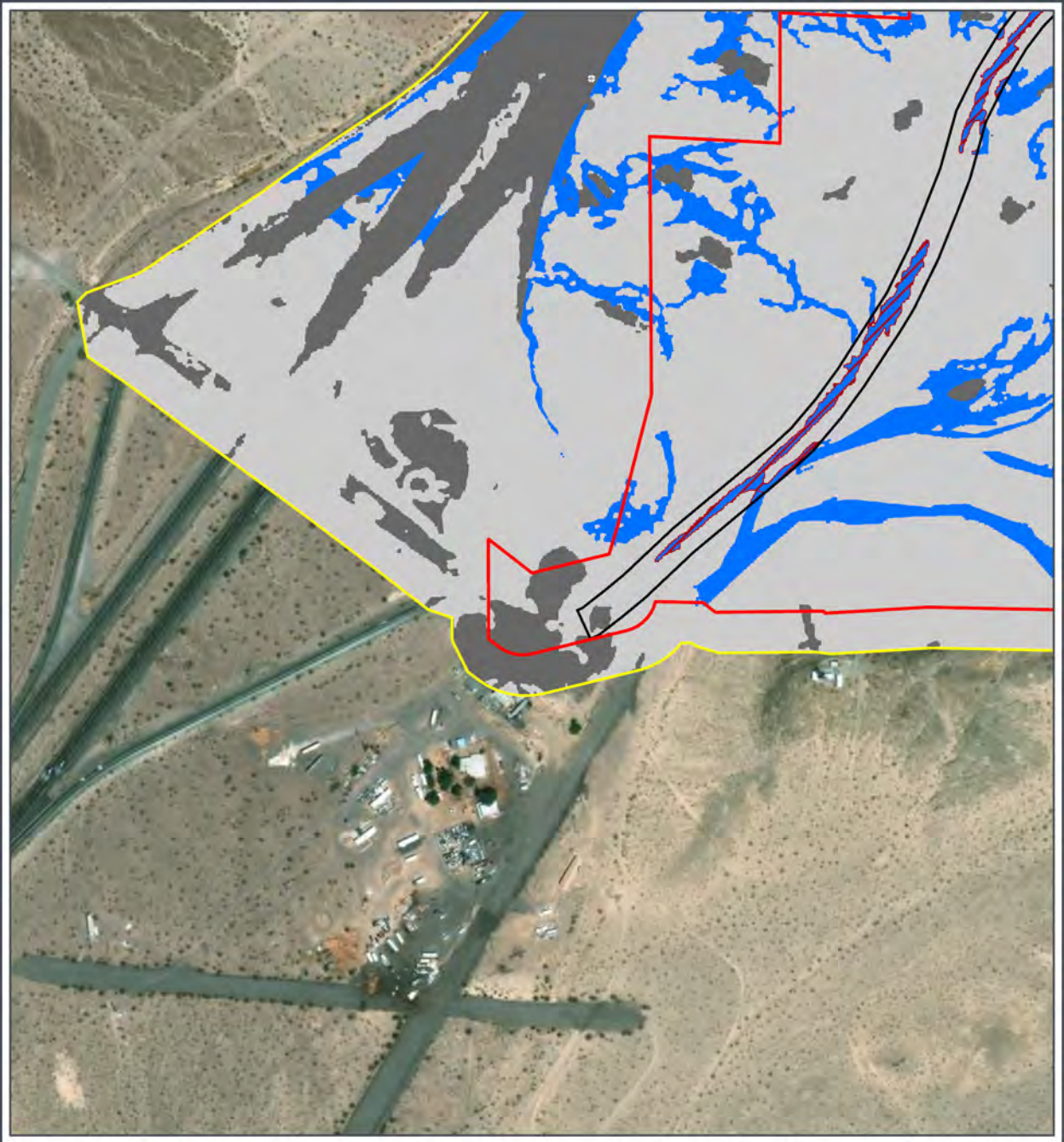
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flume
- Project Site
- Review Area
- Limit of Disturbance

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1334°N 116.2088°W

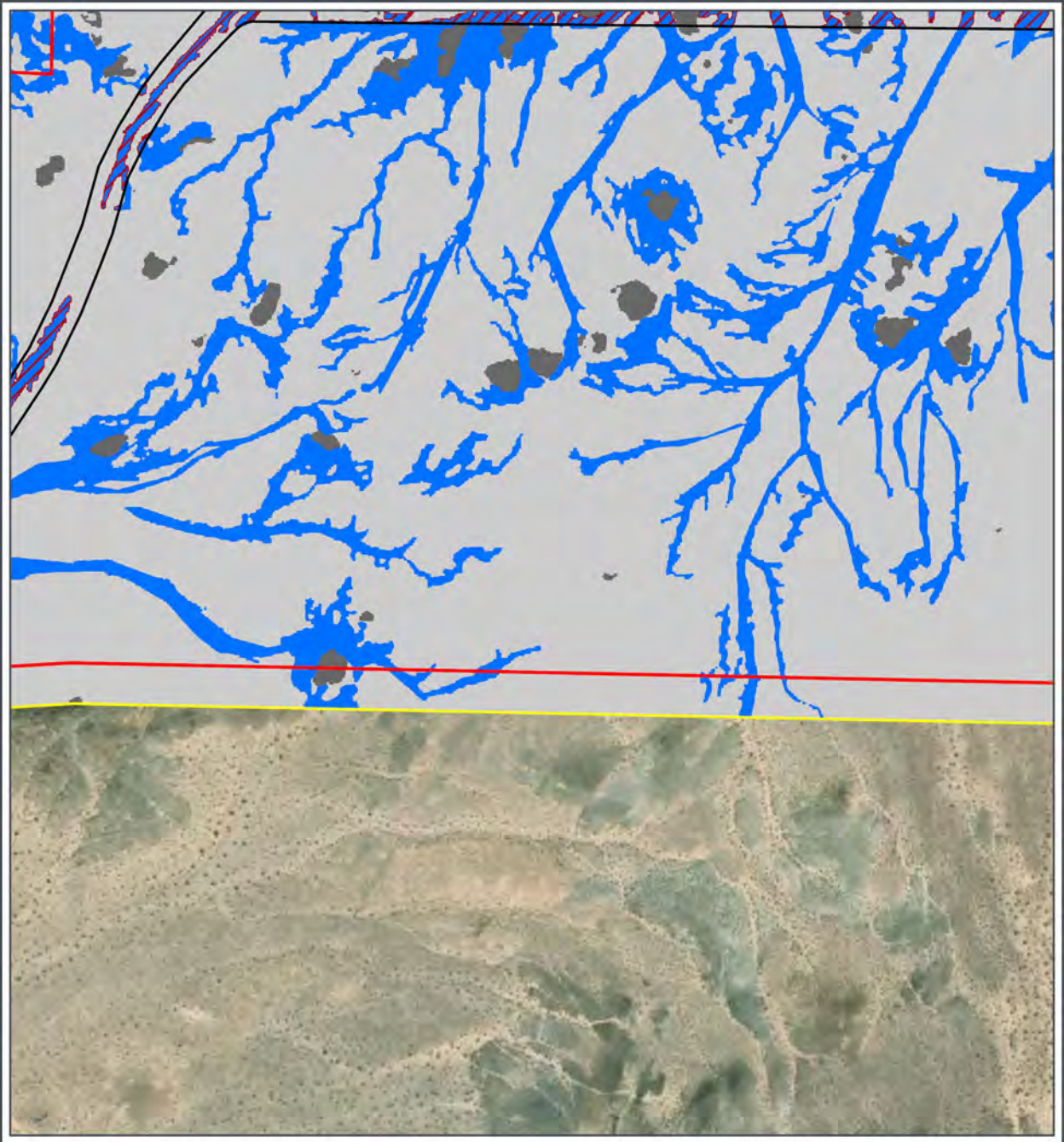
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features
Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Project Site
- Review Area
- Limit of Disturbance

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1337°N 116.2015°W

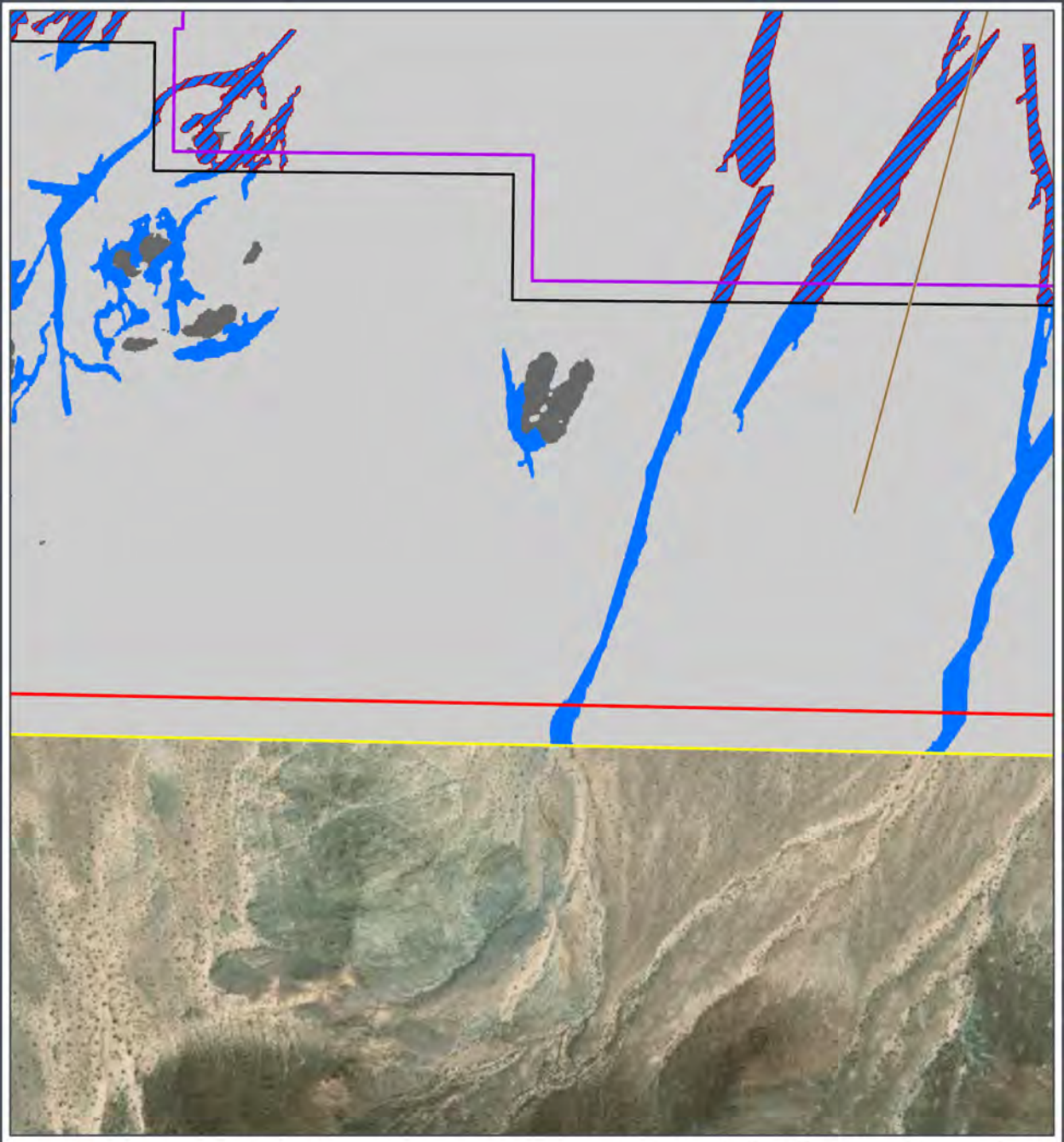
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features
Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Flow Direction
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1337°N 116.1933°W

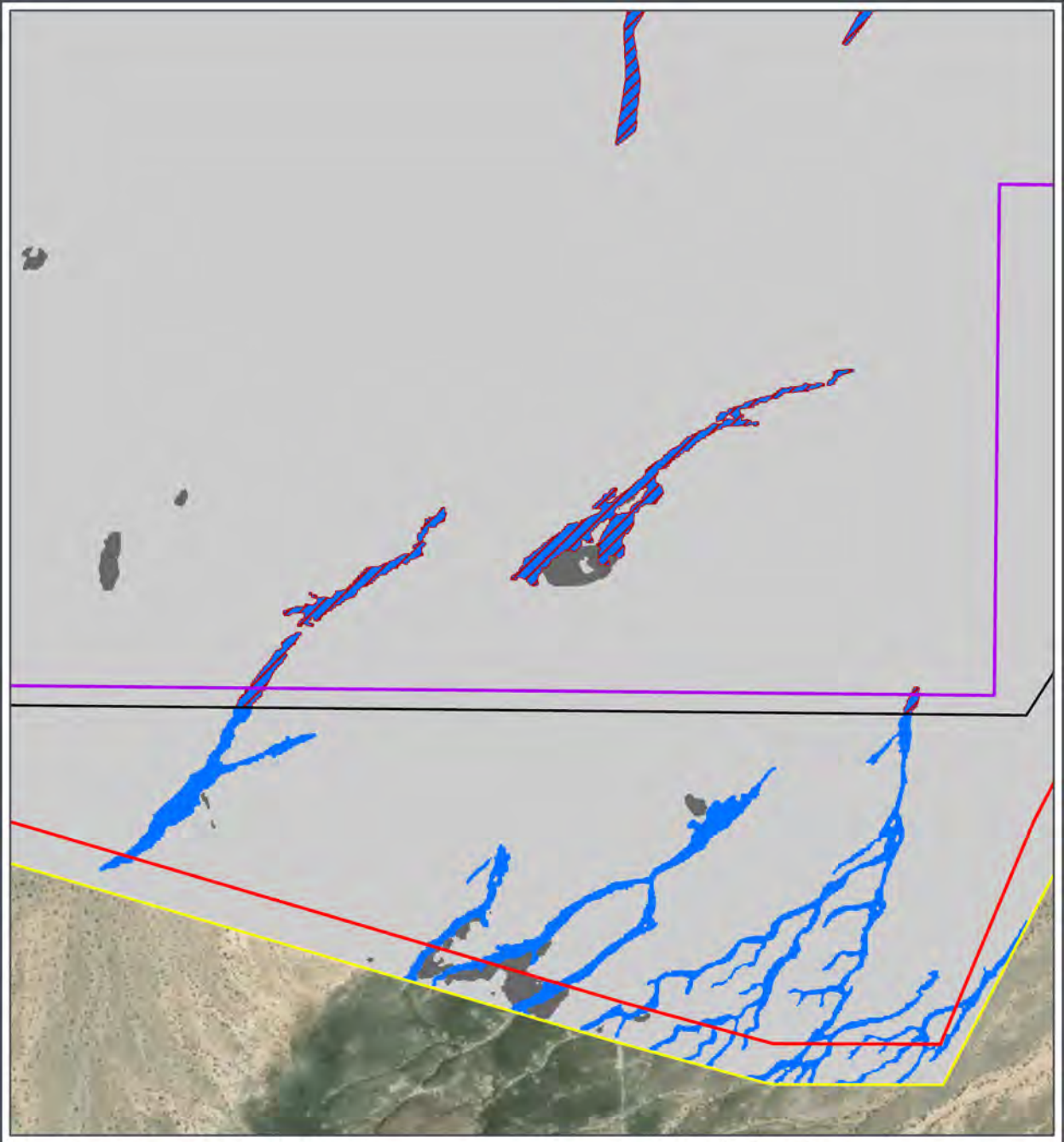
0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS



Aquatic Resources Delineation

- Non-wetland waters
- Upland
- Upland - desert pavement; elevated
- Permanent Impacts
- Project Site
- Review Area
- Limit of Disturbance
- Solar Array

San Bernardino County, CA
NAD 1983 UTM Zone 11N
35.1328°N 116.1771°W

0 200 400 Feet
0 50 100 Meters

N

1:5,000

Base Map: Esri ArcGIS Online, accessed November 2023
Updated: 11/27/2023
Project No. 68347
Layout: 68347 JD Features Aprx: 68347_Watersv2

SWCA ENVIRONMENTAL CONSULTANTS