REVISED 138 KILOVOLT TRANSMISSION LINE VEGETATION AND DRAINAGE IMPACTS

East County Substation Project

Prepared for:

SDGE

A Sempra Energy utility℠

Prepared by:

INSIGNIA ENVIRONMENTAL

May 14, 2010

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LIST OF ATTACHMENTS

1.0 INTRODUCTION

On August 11, 2009, San Diego Gas & Electric Company (SDG&E) filed a Proponent's Environmental Assessment (PEA) to obtain a Permit to Construct from the California Public Utilities Commission (CPUC) for the East County (ECO) Substation Project (Proposed Project). The Proposed Project includes the following components:

1. 500/230/138 kilovolt (kV) ECO Substation
2. Southwest Powerlink (SWPL) loop-in, a short loop-in of the existing SWPL transmission line to the proposed ECO Substation
3. 138 kV transmission line, approximately 13.3 miles in length, running between the proposed ECO Substation and the rebuilt Boulevard Substation
4. Boulevard Substation rebuild

As described in the document entitled Revised East County Substation Footprint Project Description that was submitted to the CPUC on April 30, 2010, SDG&E is proposing to shift the footprint of the ECO Substation to avoid adverse effects to potentially sensitive cultural resources, which would consequently alter the location and design of the SWPL loop-in and 138 kV transmission line. Due to the substation shift, three 138 kV transmission line steel poles (SP)—SP 106, SP 107, and SP 108—would be shifted approximately 100 feet east of the locations described in the PEA. The shift of the substation footprint would also result in the need for one additional steel pole (SP 108a), which would be located approximately 150 feet west of the western side of the retention pond at the shifted ECO Substation site. In addition, as described in the document entitled Revised East County Substation Footprint Project Description, SDG&E is planning to shift SP 77, SP 104, and SP 105 approximately 75 feet west, 40 feet west, and 90 feet east, respectively, in order to avoid sensitive cultural resources within the 138 kV transmission line right-of-way.

As described in the document entitled Revised East County Substation Footprint Project Description, the 138 kV transmission line will now require permanent maintenance pads and grading to facilitate its installation and maintenance. These pads and graded areas will result in changes to permanent and temporary impact acreages for vegetation and major drainage features, which are discussed further in this document. These pads and graded areas are depicted in Attachment A: Detailed Route Maps. Also depicted on these maps is the getaway for Transmission Line (TL) 6931, which connects TL 6931 to the relocated Boulevard Substation.

1.1 VEGETATION

1.1.0 Temporary Impacts

Table 4.4-2: Vegetation Community Temporary Impacts from Section 4.4 Biological Resources of the PEA has been provided, along with the revised impact acreages for each vegetation community. The delta for each is also included in the table.

Proposed Project Component	Mixed Desert Scrub	Juniper Woodland	Chamise-Redshank Chaparral	Riparian Scrub	Coastal Oak Woodland	Shadscale	Fresh Emergent Wetland
138 kV Transmission Line (From PEA)	14.20	1.45	10.19	0	0	2.7	0
138 kV Transmission Line (Revised)	1.37	1.18	0.12	0.10	0	1.82	0
Difference	**-12.83**	**-0.27**	**-10.07**	**+0.10**	**0**	**-0.88**	**0**

As depicted in the table, approximately 12.83 fewer acres of mixed desert scrub, 0.27 fewer acres of juniper woodland habitat, 10.07 fewer acres of chamise-redshank chaparral, 0.10 additional acres of riparian scrub, and 0.88 additional acres of shadscale habitat would be temporarily impacted. No other vegetation communities would be temporarily impacted by the 138 kV transmission line.

1.1.1 Permanent Impacts

Table 4.4-3: Vegetation Community Permanent Impacts from Section 4.4 Biological Resources of the PEA has been provided, along with the revised impact acreages for each vegetation community. The delta for each is also included in the table.

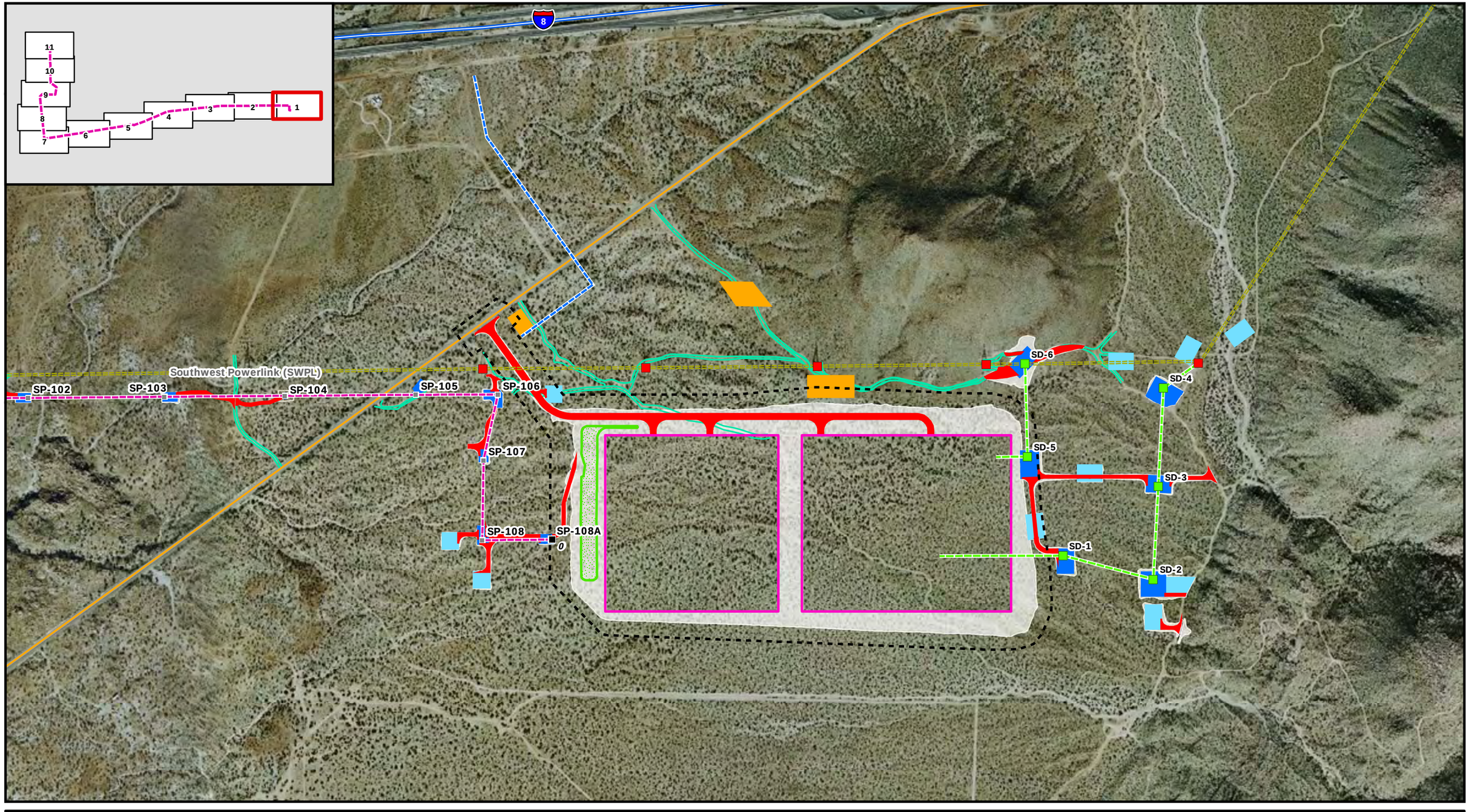
Proposed Project Component	Mixed Desert Scrub	Juniper Woodland	Chamise-Redshank Chaparral	Riparian Scrub	Coastal Oak Woodland	Shadscale	Fresh Emergent Wetland
138 kV Transmission Line (From PEA)	2.04	0.67	1.96	0	0	0.07	0
138 kV Transmission Line (Revised)	20.93	2.40	14.66	0.15	0.82	0.95	0
Difference	**+18.89**	**+1.73**	**+12.70**	**+0.15**	**+0.82**	**+0.88**	**0**

As depicted in the table, approximately 18.89 additional acres of mixed desert scrub, 1.73 additional acres of juniper woodland, 12.70 additional acres of chamise redshank chaparral, 0.15 additional acres of riparian scrub, 0.82 additional acres of coastal oak woodland, and 0.88 additional acres of shadscale habitat would be permanently impacted. No other vegetation communities would be permanently impacted by the 138 kV transmission line.

1.2 MAJOR DRAINAGES

Several major drainage features cross the 13.3-mile-long route where the 138 kV transmission line would be constructed. As discussed in the PEA, all impacts to jurisdictional waters were expected to be avoided by constructing access roads and poles within upland locations. However, due to the design changes, approximately 0.04 acre of potentially jurisdictional major drainage features will be temporarily impacted during construction of the 138 kV transmission line and approximately 0.10 acre would be permanently impacted by the 138 kV transmission line. The temporary impact calculation includes the disturbance that will occur to a potentially jurisdictional drainage during the underground installation of the 138 kV transmission line from SP 1 to the rebuilt Boulevard Substation. Additional impacts to potentially jurisdictional drainages may occur if applicant-proposed measure (APM) APM-AES-03 is implemented. This APM would relocate the steel cable riser pole—SP 1—approximately 600 feet south from its current position to replace SP 2. This relocation would require the underground portion of the 138 kV transmission line to increase in length. All of the drainage impact calculations are based on preliminary mapping that was conducted for preparation of the PEA. Additional fieldwork that will involve refined mapping of the drainage features based on additional criteria provided by the United States Army Corps of Engineers will be initiated in the near future to support permitting of the Proposed Project's impacts on jurisdictional waters.

ATTACHMENT A: DETAILED ROUTE MAPS



Attachment A: Detailed Route Map 1 of 11

East County Substation Project

- Proposed SWPL Loop-In
- Proposed 138 kV Line
- Proposed 12 kV Temporary Distribution Tap
- 445 Circuit Collocated with 138 kV Line
- TL 6931 Getaway
- Existing Transmission Line
- ECO Substation
- Boulevard Substation Rebuild
- Retention Pond
- Temporary Construction Buffer
- Permanent Work Area
- New Access Road
- Fly Yard
- Pull Site
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- Major Road
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- Railroad

Note: The Proposed Project facilities and work areas depicted are based on preliminary engineering data and are subject to change or refinement.

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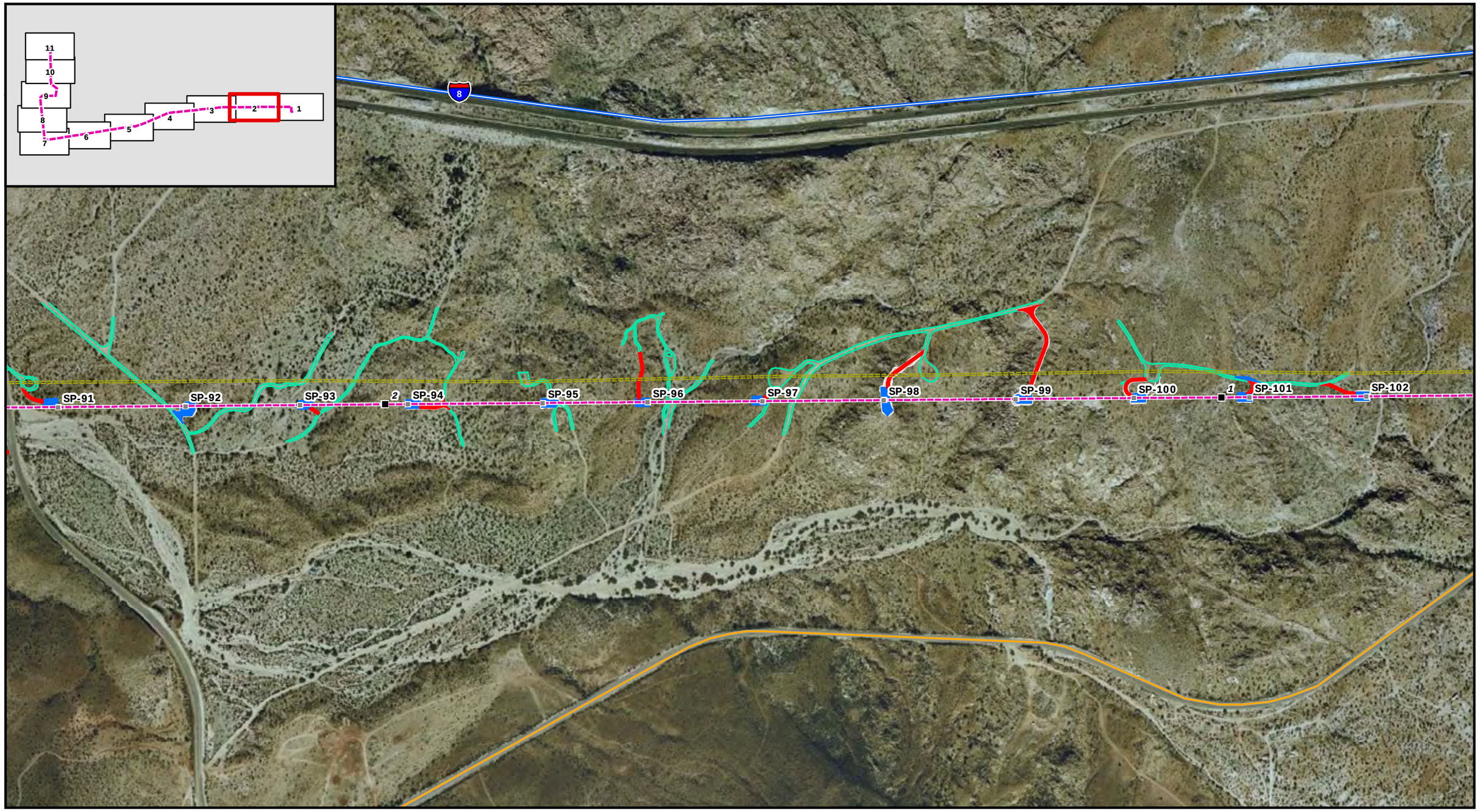

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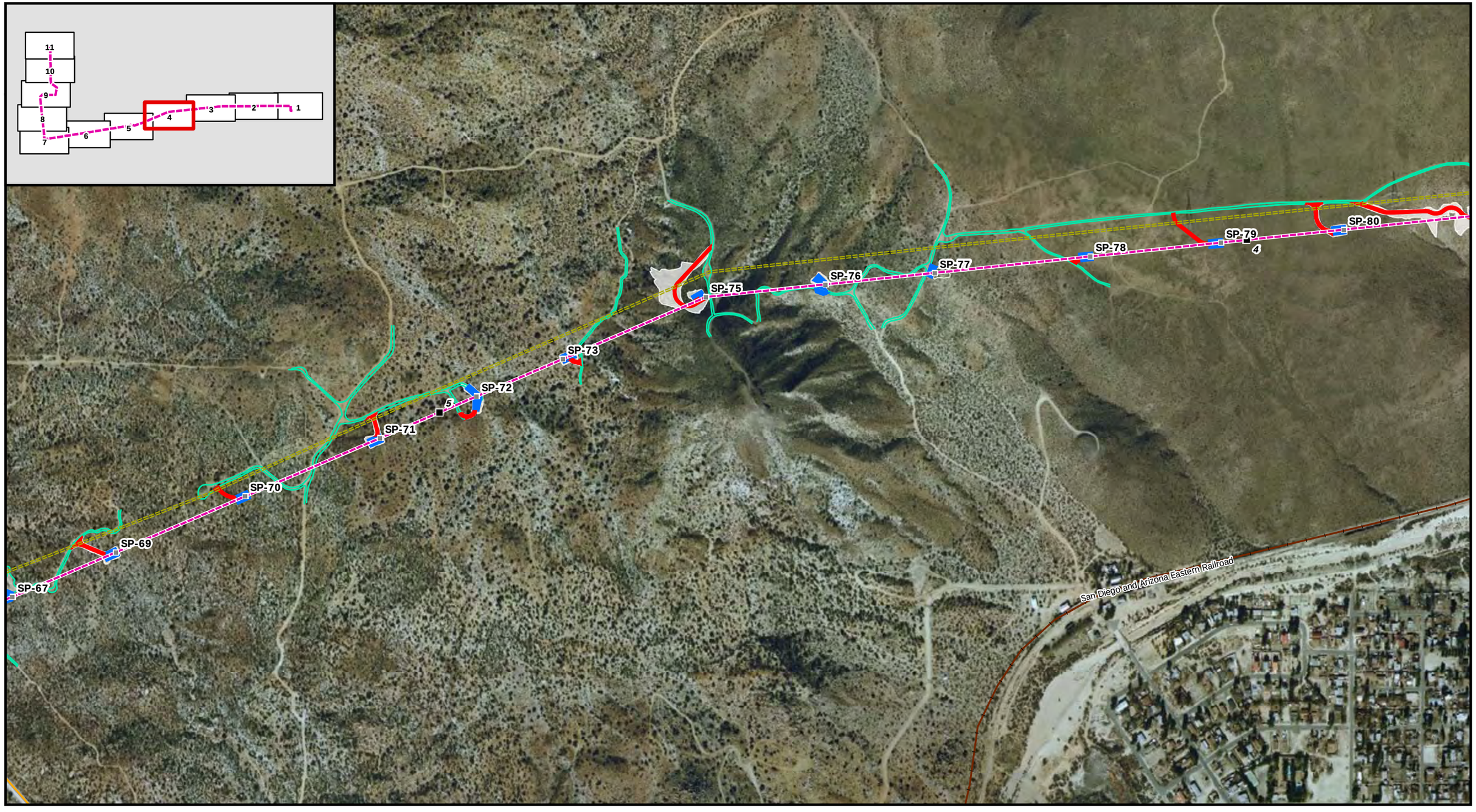

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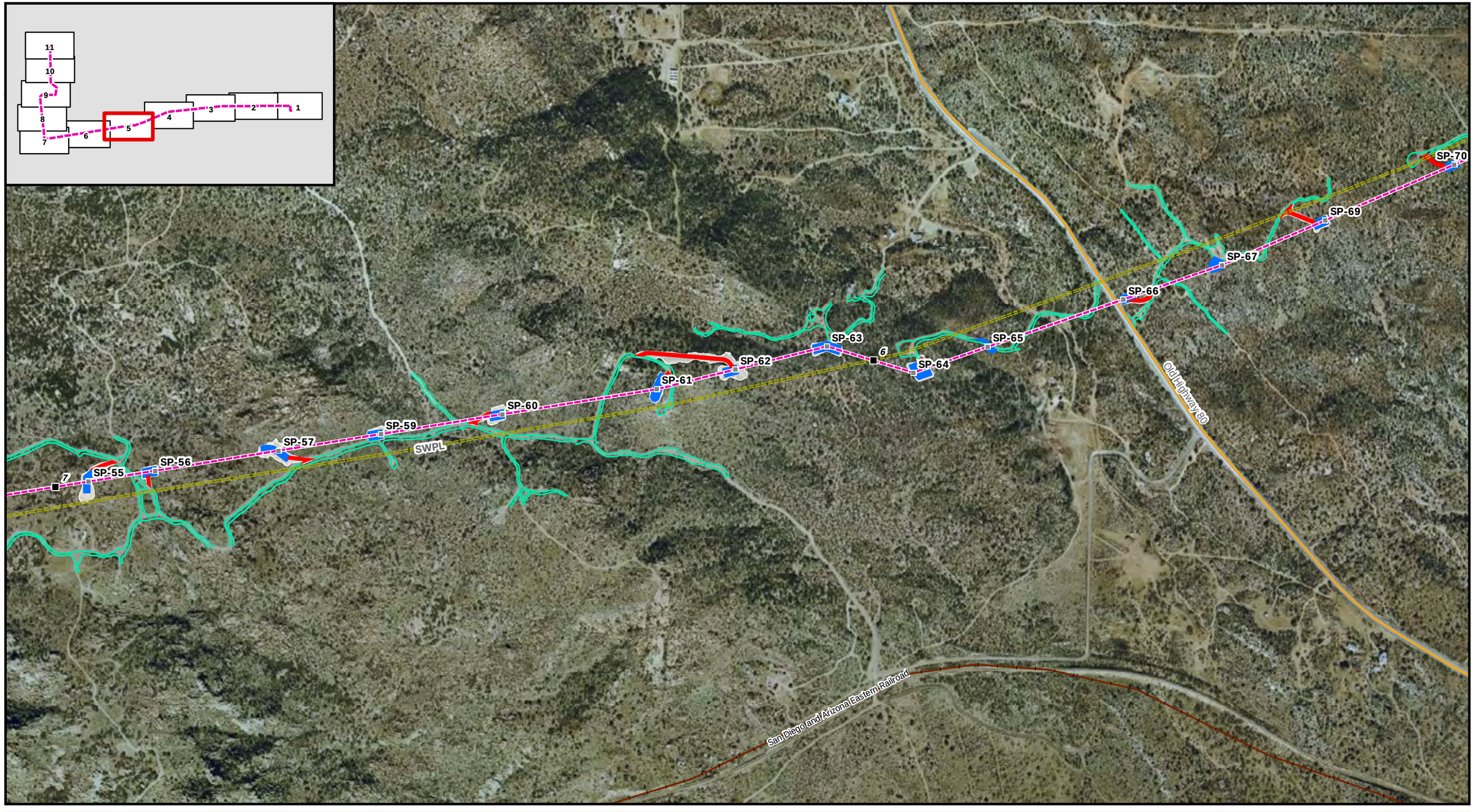

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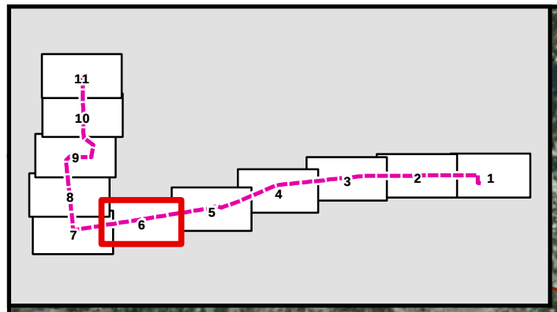

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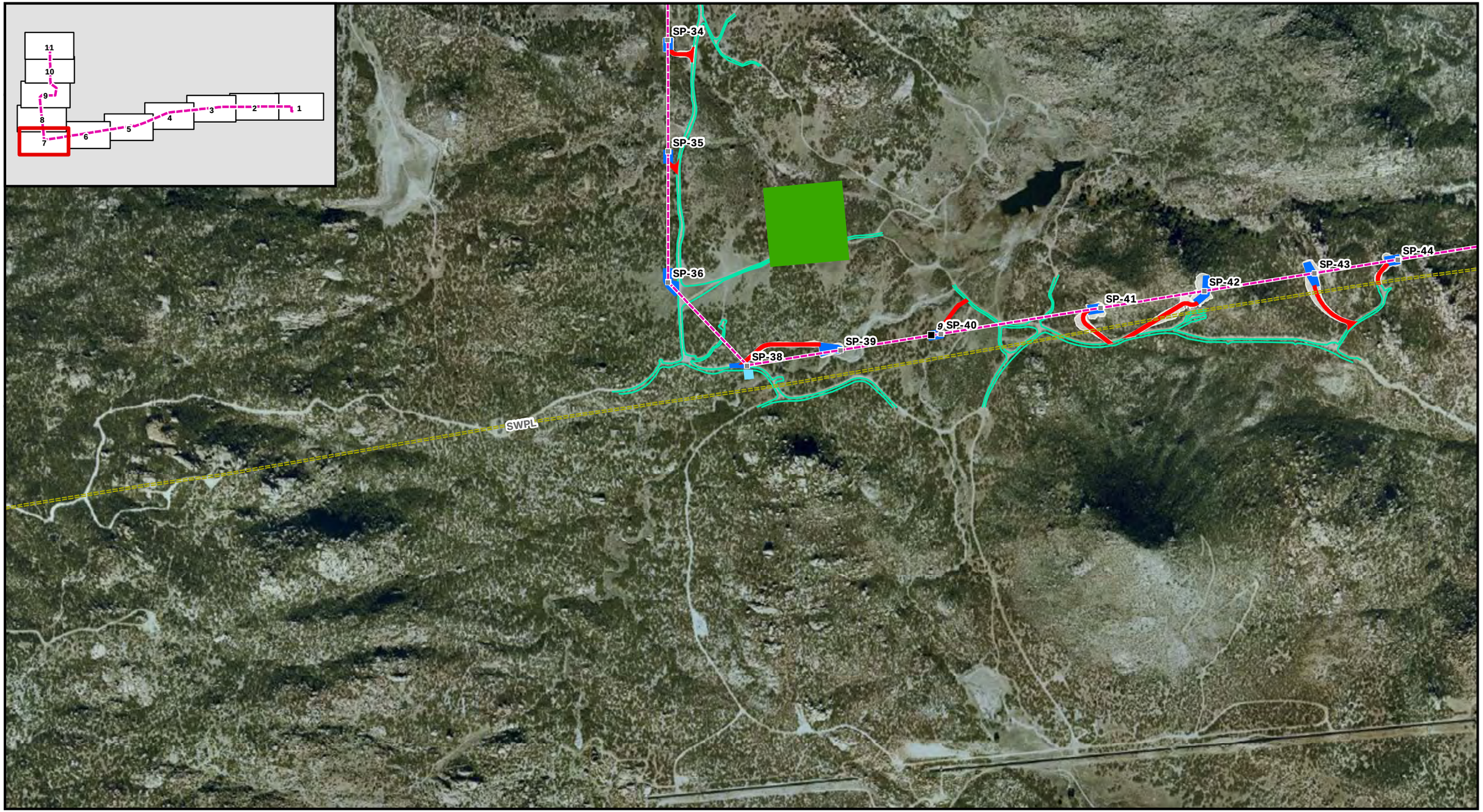

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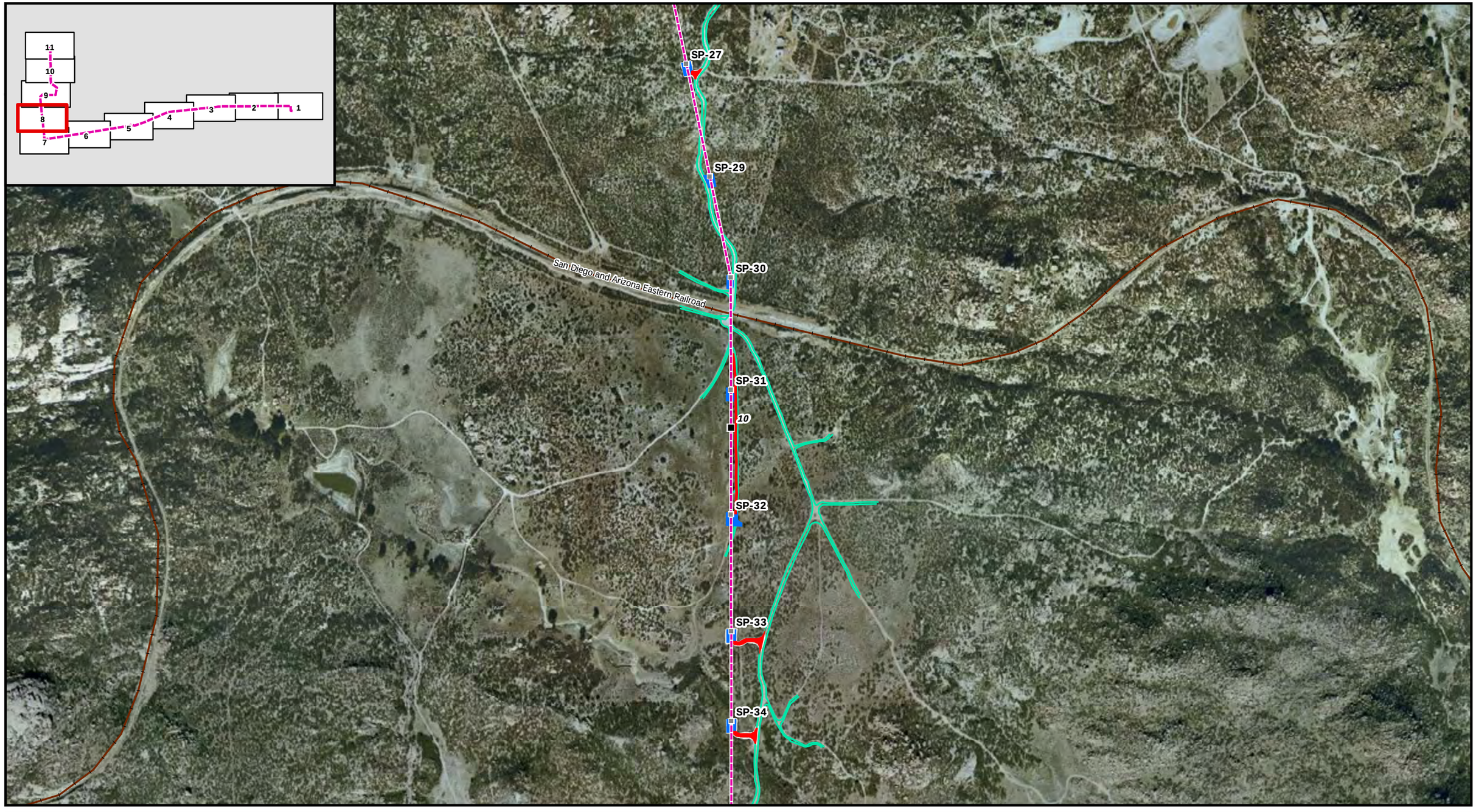

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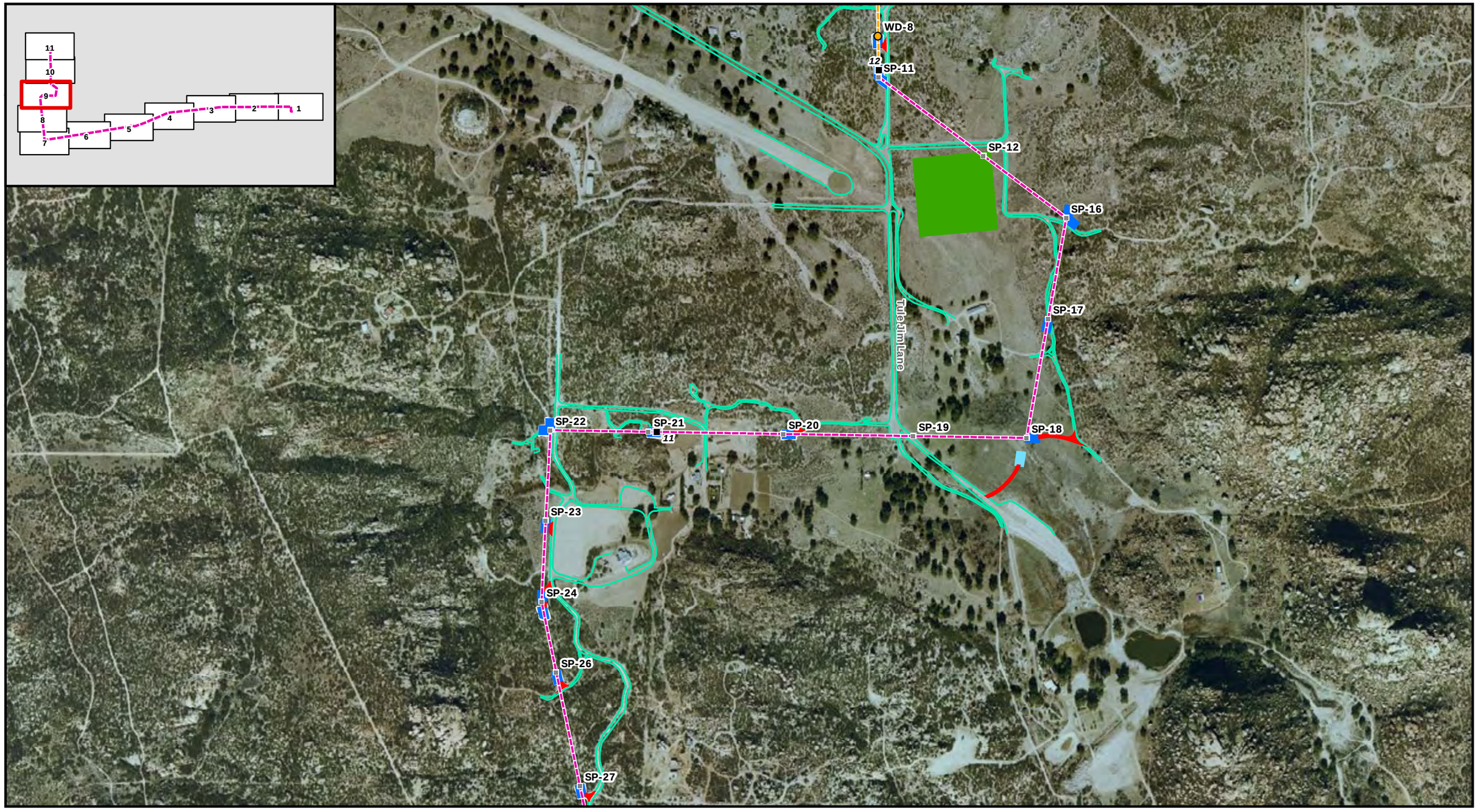

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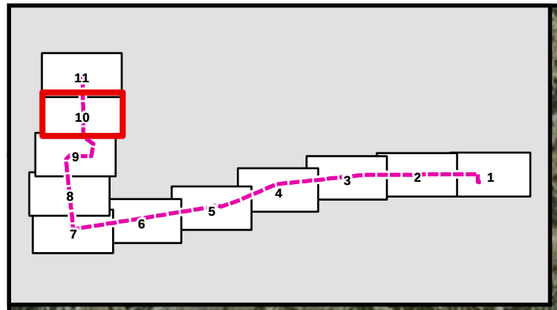

SP-4
SP-5
SP-6
Tule Jim Lane
SP-7
WD-2
WD-3
SP-8
WD-4
WD-5
SP-9
WD-6
WD-7
SP-10
WD-8
12
SP-11

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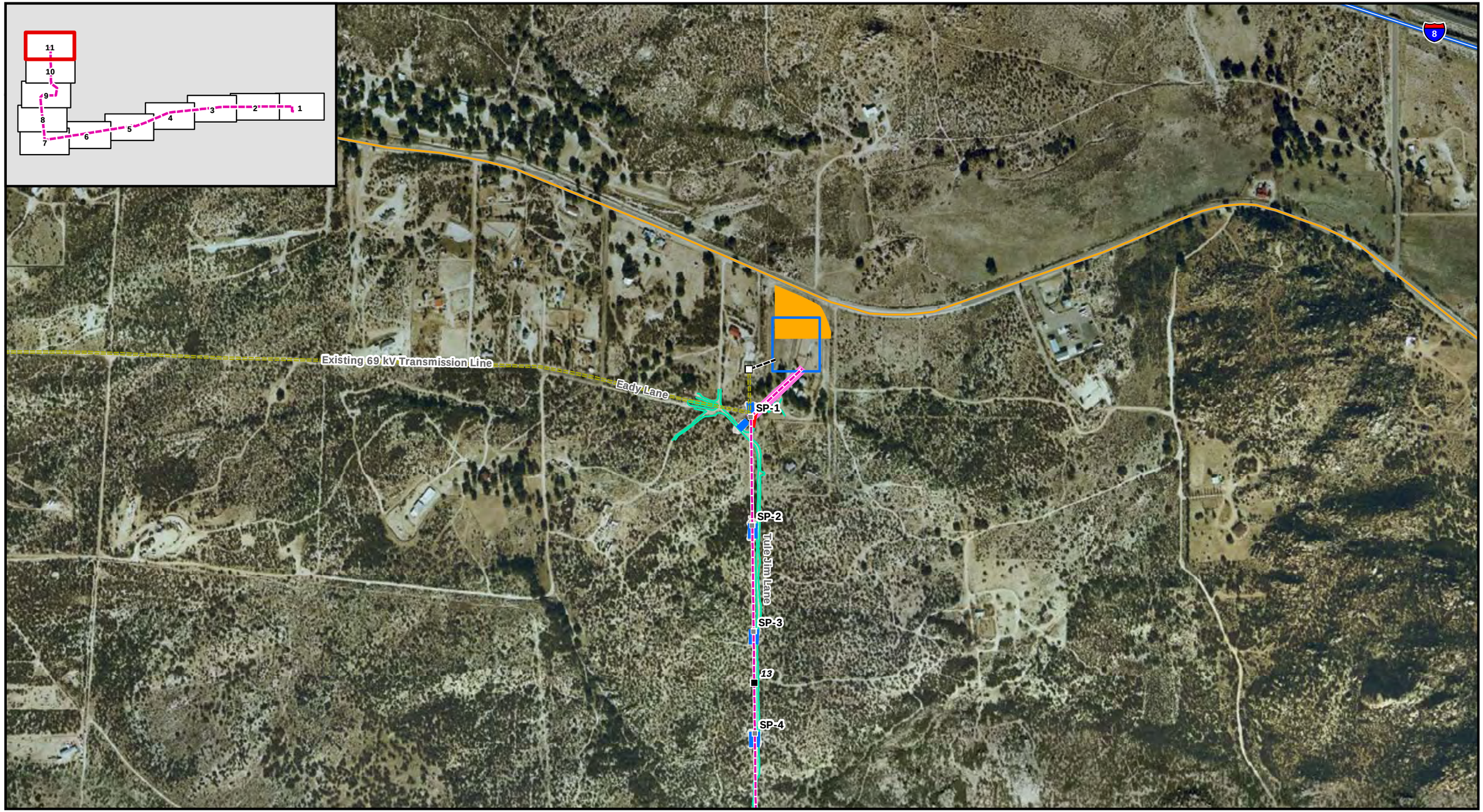

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