

Date: December 10, 2013

To: Whom it may concern

From: Conrad Roxas, P.E.

Subject: Valley-Ivyglen Phase 1 - San Jacinto River Hydrology

Introduction

The Valley-Ivyglen 115kV project, herein referred to as the Project, consists of the construction and operation of a new 25mile, 115 kV sub-transmission line to connect the existing Valley and Ivyglen electrical substations. The Project is divided into two Phases. Phase 1 consists of the first 13 miles of the project route that include starting at Valley Substation in the City of Menifee, heading west within the existing transmission corridor for approximately 7.5 miles to Highway 74, then south west along Highway 74 for approximately 4.3 miles to Conard Avenue in the City of Lake Elsinore, southeast along Conard approximately 0.3 miles to 3rd Street, southwest along 3rd Street and crossing over Interstate 15 for approximately 0.8 miles to the intersection of Collier Avenue and 3rd Street within the City of Lake Elsinore. The objective of this letter is to explain the impact to local hydrology by Phase 1 of the Project, specifically at the San Jacinto River crossing.

The Project route primarily follows existing transmission corridors and public Rights-of-Way. The geology of the project area falls under the classifications of Qal (alluvium), gr^t (tonalite and diorite) and Ju (Upper Jurassic Marine) (USGS Geological Survey map 1973).

Discussion

Three vernal pools occur in the San Jacinto River floodplain within the Project area (Exhibit 1). The main source of hydrology to these vernal pools is seasonal overflow of the river banks where water is captured in depressions and held for extended periods (weeks to months) during the rainy season. This seasonal flooding and the appropriate soil conditions, including various types of loam, very fine sand to rocky as shown on the attached USDA National Resources Conservation Service Web Soil Survey map (Exhibit 2), give rise to the creation of the vernal pools within the Project area. There are no other sources of flow to the vernal pools with the exception of seasonal rainfall. Tubular steel poles (TSPs) 120E and 121E, shown on Exhibit 1, are located near vernal pools associated with the San Jacinto River. The terrain varies between mild rolling hills to relatively flat areas. Adjacent to the TSPs, the natural grade varies from elevation 1403 near 120E to elevation 1402 near 121E. TSP 120E is 25-30 feet from the closet vernal pool and TSP 121E is 40-50 feet from the closet vernal pool. The TSP diameter would be considered negligible to the storm water movements of local hydrology.

Temporary access roads and work areas, including crane pads, will be constructed to minimize impacts to the seasonal flow regime. Temporary access roads will be branching perpendicular to the contours from the existing access roads minimizing impacts to the direction of flow, and there will be no berms on either side of the dirt roads or work areas. Construction will also be limited to periods outside of rain events or when potential for river flooding may occur. Upon completion of TSP installation, temporary roads and work areas will be restored to pre-construction conditions, including de-compaction of soil and restoring contours where needed, and hydroseeding. These restored areas will be included in the project's restoration plan and will be monitored long-term to ensure success criteria requirements have been achieved.

Conclusion:

Construction within the San Jacinto River floodplain at TSPs 120E and 121E will utilize existing dirt access roads where possible. However, for flood plain areas where new temporary access will be required, the proposed flat cross-section of roads and work areas will not change the flow regime in the area and will not have an impact on local hydrology. There will be no change in topography or elevation from the existing conditions, and no berms along the sides of the dirt roads or work areas associated with TSPs 120E and 121E. Construction will also be limited to periods outside of rain events or when potential for river flooding may occur. As such, construction activities, including constructing temporary dirt access roads and work areas, will not impede the storm water movement and will not disrupt the local hydrology. No source of flow to the vernal pools will be modified by the Project; therefore, there would be no impact to the vernal pools or their hydrology. No further studies or hydrologic modeling are necessary.

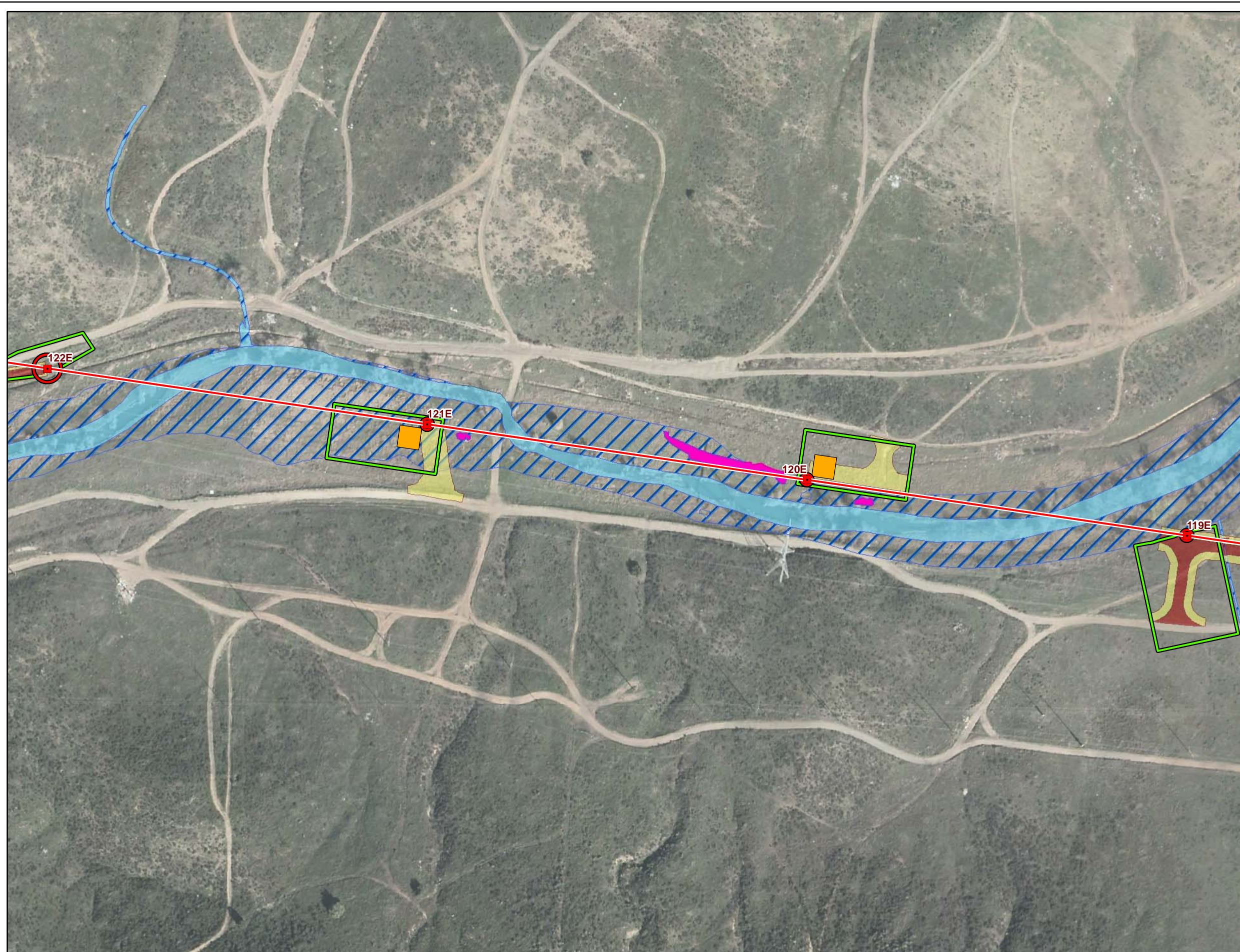
Prepared by:



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Attachments:

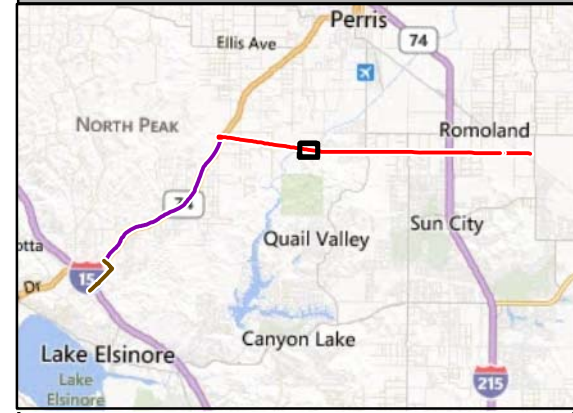
Exhibit 1 – San Jacinto River Crossing Jurisdictional Waters and Vernal Pools
Exhibit 2 – Soil Map San Jacinto River Area



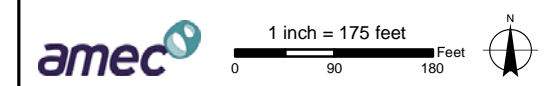
Legend

- VIG Phase 1 Project Element**
- Pole Number
 - Centerline
 - Pole Work Area Impacts**
 - Permanent
 - Temporary
 - Civil Engineering Impacts (90%)**
 - Permanent
 - Temporary
 - Temporary Crane Pad
 - Existing Culvert
 - Potential Jurisdictional Waters (AMEC)**
 - ▨ Waters of the U.S. and Waters of the State of California
 - Riverine
 - Vernal Pool
 - Access Roads

Locator Map

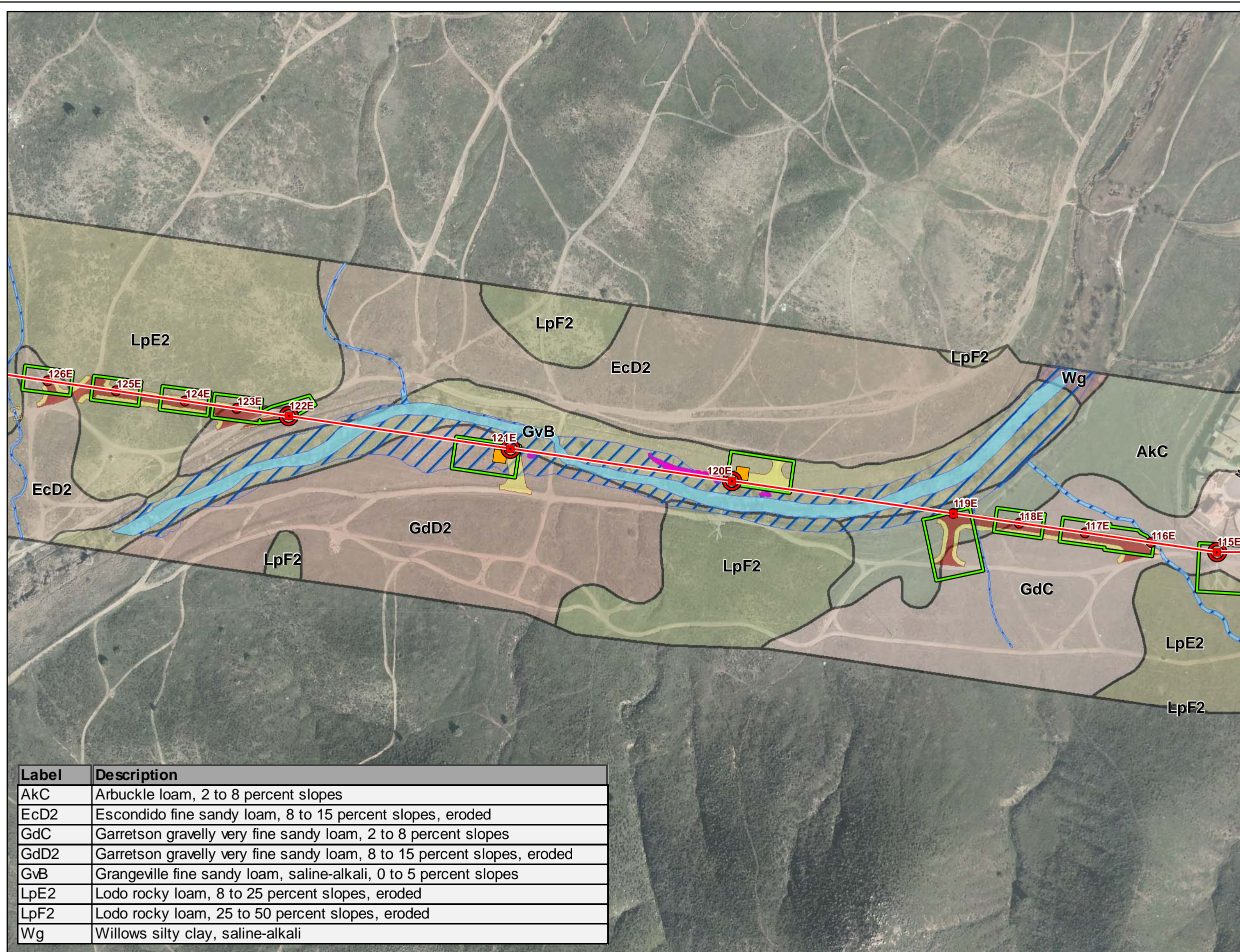


* Map Notes:
 - Project Features subject to change based on geotechnical investigations, final engineering, ongoing coordination with the resource agencies, and field assessments conducted prior to construction
 - Map Current as of 12/10/2013



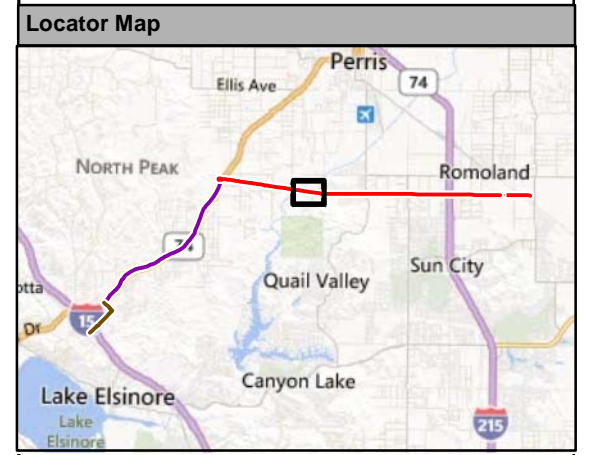
**San Jacinto River Crossing
 Jurisdictional Waters and Vernal Pools
 Valley-Ivyglen
 Subtransmission Line Project, Phase 1
 Riverside County, California**

Exhibit 1



Legend

- VIG Phase 1 Project Element**
- Pole Number
 - Centerline
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 - ▨ Waters of the U.S. and Waters of the State of California
 - ▨ Riverine
 - Vernal Pool



Label	Description
AkC	Arbuckle loam, 2 to 8 percent slopes
EcD2	Escondido fine sandy loam, 8 to 15 percent slopes, eroded
GdC	Garretson gravelly very fine sandy loam, 2 to 8 percent slopes
GdD2	Garretson gravelly very fine sandy loam, 8 to 15 percent slopes, eroded
GvB	Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes
LpE2	Lodo rocky loam, 8 to 25 percent slopes, eroded
LpF2	Lodo rocky loam, 25 to 50 percent slopes, eroded
Wg	Willows silty clay, saline-alkali

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amec 1 inch = 300 feet
 0 150 300 Feet

**San Jacinto River Crossing
 Soil Map
 Valley-Ivyglen
 Subtransmission Line Project, Phase 1
 Riverside County, California**

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