IDYLLWILD WATER DISTRICT

STRAWBERRY CREEK WATER DIVERSION RECONSTRUCTION PROJECT

DELINEATION OF JURISDICTIONAL WATERS

Community of Idyllwild
Riverside County, California

Submitted to:
Terra Nova Planning and Research, Inc.®
42635 Melanie Place, Suite 101
Riverside, CA. 92506
Project No. # 20-554-00800

Prepared By:
Dale Hameister, Senior Biologist
WSP USA Inc.
11870 Pierce St #160
Riverside, CA 92505
Phone: (951) 299-4160

25 October 2024

TABLE OF CONTENTS

PAGE

ACRONYMS AND ABBREVIATIONS III
1.0 INTRODUCTION 1-1
1.1 Purpose 1-1
1.2 Project Description 1-1
1.3 Project Location 1-1
2.0 REGULATORY FRAMEWORK 2-1
2.1 U.S. Army Corps of Engineers 2-1
2.2 Regional Water Quality Control Board 2-6
3.0 METHODS 3-1
4.0 ENVIRONMENTAL SETTING 4-1
4.1 Existing Conditions 4-1
4.2 Hydrology 4-1
4.3 Vegetation 4-1
4.4 National Wetlands Inventory 4-2
4.5 Soils 4-2
5.0 RESULTS 5-2
6.0 IMPACTS TO JURISDICTIONAL AREAS 6-1
6.1.1 U.S. Army Corps of Engineers 6-1
6.1.2 Regional Water Quality Control Board 6-1
6.1.3 California Department of Fish and Wildlife 6-1
7.0 REFERENCES 1

LIST OF TABLES

Table 1. Survey Site Information 5-3
Table 2. Summary of Jurisdictional Areas 5-4

LIST OF APPENDICES

APPENDIX A JURISDICTIONAL DELINEATION MAPS
APPENDIX B SITE PHOTOGRAPHS
APPENDIX C JURISDICTIONAL DELINEATION FORMS

ACRONYMS AND ABBREVIATIONS

AMSL	above mean sea level
BSA	Biological Survey Area
CEQA	California Environmental Quality Act
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
EPA	Environmental Protection Agency
FAC	facultative
FACU	facultative upland
FACW	facultative wetland
ft.	Feet
GIS	Geographic Information System
HUC	Hydrologic Cataloging Unit
I-10	Interstate 10
IP	Individual Permit
M	Meters
NL	not listed
NOAA	National Oceanic and Atmospheric Administration
NWI	National Wetlands Inventory
NWP	Nationwide Permit
OBL	obligate
OHWM	ordinary high-water mark
Rapanos	Rapanos v. U.S. and Carabell v. U.S.
RPW	relatively permanent waterway
RWQCB	Regional Water Quality Control Board
SWANCC	Solid Waste Agency of Northern Cook County v. USACE
TNW	traditionally navigable waterway
UPL	upland
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture, Natural Resources Conservation Service
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
WSC	Waters of the State of California
WUS	Waters of the United States

1.0 INTRODUCTION

At the request of Terra Nova Planning and Research, Inc. (Terra Nova), WSP USA (WSP) conducted a jurisdictional delineation and report for the Strawberry Creek Water Diversion Reconstruction/Rehabilitation Project located in the unincorporated community of Idyllwild, Riverside County. This report presents regulatory framework, methods, and results of a delineation of jurisdictional waters, wetlands, and associated riparian habitat potentially impacted by the proposed project. The project diversion structure is located on Assessor's Parcel Number (APN) 563-152-009.

1.1 Purpose

The purpose of the delineation is to determine the extent of state and federal jurisdiction within the project area potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, and California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code, and riverine/riparian under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

1.2 Project Description

The project will consist of the reconstruction/rehabilitation of an existing water diversion structure and the relocation of an above-grade waterline. The current diversion structure will be rebuilt in situ with construction staging within the existing Tahquitz Road. The associated water line will be relocated, and the current waterline will be dismantled and removed. The new waterline will be buried within a 20-foot easement along the west side of Tahquitz Road. The work area will also have a 35-foot-wide temporary construction easement.

1.3 Project Location

The 2-acre project site is generally located north of Fern Valley Road, east of Pine Crest Avenue, and west of Tahquitz Road in the unincorporated community of Idyllwild, Riverside County. (Appendix A: Figure 1).

The project is mapped on the U.S. Geological Survey (USGS) San Jacinto Peak, California 7.5-minute topographic quadrangle (USGS 1996) within Section 7, Range 3 East, Township 5 South (Appendix A: Figure 2). The site slopes to the west at an elevation of approximately 5,730-5,716 feet above sea level.

2.0 REGULATORY FRAMEWORK

2.1 U.S. Army Corps of Engineers

The USACE regulates the discharge of dredged or fill material in waters of the United States (WUS) pursuant to Section 404 of the CWA.

Waters of the U.S.

Categories of Jurisdictional Waters

Under the final rule, the following waters are jurisdictional:

(1) Waters which are: (i) traditional navigable waters (TNWs), *i.e.*, all waters currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (ii) territorial seas; or (iii) interstate waters, including interstate wetlands.

(2) Impoundments of waters otherwise defined as WOTUS under this definition, other than impoundments of waters identified under paragraph (5).

(3) Tributaries of waters identified in (1) or (2) of this section that:

i. Are relatively permanent, standing or continuously flowing; or

ii. Either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (1).

- *Tributary is not defined in the regulatory text, but the preamble clarifies that this category includes rivers, streams, lakes, ponds, and impoundments, regardless of their flow regime, that flow directly or indirectly through another water or waters to a TNW, territorial sea, or interstate water.*
- *Tributaries can be natural, modified, or constructed waters and thus, can include ditches and canals.*

(4) Wetlands adjacent to:

i. Waters identified in (1); or Relatively permanent, standing, or continuously flowing bodies of water identified in (2) or (3)(i) and with a continuous surface connection to those waters;

ii. Waters identified in (2) or (3) when the wetlands either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (1).

- *Adjacent is defined as "bordering, contiguous, or neighboring." Wetlands separated from other WOTUS by man-made dikes or barriers, natural river berms, beach dunes, and the like are adjacent wetlands. Shallow subsurface hydrologic connections can establish adjacency.*
- *The preamble says that in a substantial number of cases, adjacent wetlands abut other WOTUS and that, on the whole, nationwide, adjacent wetlands are within a few hundred feet from other WOTUS. In arid areas, adjacent wetlands are likely to be much closer than a few hundred feet, but in larger floodplains and riparian areas where rainfall is higher, wetlands can be a few hundred feet away and still be "adjacent."*

(5) Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (1) through (4) that:

i. Are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (1) or (3)(i) of this section; or

ii. That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (1).

- *This is the former (a)(3) "other waters" category. As in the proposed rule, the preamble to the final rule again acknowledges that the agencies have not asserted jurisdiction over (a)(3) waters since 2003. And because this category was not discussed in the 2008* Rapanos *Guidance, the application of the relatively permanent and significant nexus tests to this category represents a clear expansion of the pre-2015 regulatory regime.*
- *The preamble commits both* the Environmental Protection Agency (*EPA) and Corps headquarters to review all draft Approved Jurisdictional Delineations (AJDs) for waters assessed under (a)(5) based on the significant nexus standard.*

Relatively permanent standard

- The final rule does not define or quantify what constitutes "relatively permanent" flow. The preamble merely says relatively permanent includes features that have flowing or standing water year-round or continuously during certain times of the year.

- The Agencies are no longer using the term "seasonal" and appear to be backing away from the "typically three months" language in the 2008 *Rapanos* Guidance. Moreover, the preamble could be interpreted to say that "relatively permanent" means flow for more than a short duration in direct response to precipitation, *i.e.*, anything more than ephemeral flow.

And the preamble suggests that multiple storm events in succession could be enough to create relatively permanent flow.

The Agencies interpret "continuous surface connection" to be a physical connection requirement, which does not require a continuous surface water connection. Even linear features (*e.g.*, pipes, swales, ditches) can satisfy the physical connection requirement regardless of how often they carry flow. The preamble does not make it clear whether jurisdiction is dependent on the length/distance of a linear physical connection between an adjacent wetland and a relatively permanent WOTUS.

Significantly affect (significant nexus) standard

• The final rule defines "significantly affect" to mean "a material influence on the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section. To determine whether waters, either alone or in combination with similarly situated waters in the region, have a material influence on the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section," the Agencies will assess the following functions and factors:

o Functions

- Contribution of flow
- Trapping, transformation, filtering, and transport of materials (including nutrients, sediment, and other pollutants
- Retention and attenuation of floodwaters and runoff
- Modulation of temperature in waters identified in paragraph (a)(1) of this section
- Provision of habitat and food resources for aquatic species located in waters identified in paragraph (a)(1) of this section

o Factors

- The distance from a water identified in paragraph (a)(1) of this section
- Hydrologic factors, such as the frequency, duration, magnitude, timing, and rate of hydrologic connections, including shallow subsurface flow
- The size, density, or number of waters that have been determined to be similarly situated

- Landscape position and geomorphology
- Climatological variables such as temperature, rainfall, and snowpack

Exclusions

The final rule codifies many more exclusions than the proposed rule (and the 1986 regulations). Most of the exclusions resemble those in the 2015 Rule:

- Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act.

- *The preamble clarifies that Wastewater Treatment Systems (WTS) constructed prior to the enactment of the CWA can still be excluded and that WTS are not limited to manmade bodies of water consistent with longstanding practice.*

  Prior converted cropland designated by U.S. Department of Agriculture (USDA). The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. For CWA purposes, the final authority regarding CWA jurisdiction remains with EPA.

  o *The preamble implies, but does not clearly state, that lands remain excluded as PCC even if they change to a non-agricultural use so long as wetland characteristics do not return.*

- Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water.

  o *Excluded ditches would not become jurisdictional solely by virtue of connecting to a downstream WOTUS or because wetland characteristics develop within the confines of the ditch.*

- Artificially irrigated areas that would revert to dry land if the irrigation ceased.

- Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.

  o *The preamble says this exclusion applies only to lakes/ponds that satisfy the terms of the exclusion, so apparently other types of ponds (e.g., log cleaning ponds) would not qualify.*

- Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons.

- Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States.

  iii. Swales and erosional features (*e.g.*, gullies, small washes) characterized by low volume, infrequent, or short duration flow

Supreme Court Decisions

Solid Waste Agency of Northern Cook County

On January 9, 2001, the Supreme Court of the United States issued a decision on Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, *et al*. with respect to whether the USACE could assert jurisdiction over isolated waters. The Solid Waste Agency of North Cook County (SWANCC) ruling stated that the USACE does not have jurisdiction over "non-navigable, isolated, intrastate" waters.

Rapanos/Carabell

In the Supreme Court cases of Rapanos v. United States and Carabell v. United States (herein referred to as Rapanos), the court attempted to clarify the extent of USACE jurisdiction under the CWA. The nine Supreme Court justices issued five separate opinions (one plurality opinion, two concurring opinions, and two dissenting opinions) with no single opinion commanding a majority of the Court. In light of the Rapanos decision, the USACE will assert jurisdiction over a traditional navigable waterway (TNW), wetlands adjacent to TNWs, non-navigable tributaries of TNWs that are a relatively permanent waterway (RPW) where the tributaries typically flow year-round or have continuous flow at least seasonally (*e.g.*, typically three months) and wetlands that directly abut such tributaries. The USACE will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW: non-navigable tributaries that are not relatively permanent, wetlands adjacent to non-navigable tributaries that are not RPWs, and wetlands adjacent to but that do not directly abut a non-navigable RPW.

Flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary indicate whether they significantly affect the chemical, physical and biological integrity of downstream TNWs. Analysis of potentially jurisdictional streams includes consideration of hydrologic and ecologic factors. The consideration of hydrological factors includes volume, duration, and frequency of flow, proximity to traditional navigable waters, size of watershed, average annual rainfall, and average annual winter snowpack. The consideration of ecological factors also includes the ability for tributaries to carry pollutants and flood

waters to a TNW, the ability of a tributary to provide aquatic habitat that supports a TNW, the ability of wetlands to trap and filter pollutants or store flood waters, and maintenance of water quality.

Sackett v. EPA Supreme Court

Sackett began backfilling an Idaho lot with dirt to build a home. The Environmental Protection Agency informed Sackett that the property contained wetlands and that the backfilling violated the Clean Water Act, which prohibits discharging pollutants into "the waters of the United States," 33 U.S.C. 1362(7). The EPA ordered Sackett to restore the site, threatening penalties of over $40,000 per day. The EPA classified the Sackett wetlands as "waters of the United States" because they were near a ditch that fed into a creek, which fed into Priest Lake, a navigable, intrastate lake. The Ninth Circuit affirmed summary judgment in favor of the EPA.

The Supreme Court reversed. CWA jurisdiction over an adjacent wetland requires that the adjacent body of water constitutes waters of the United States (a relatively permanent body of water connected to traditional interstate navigable waters) and a continuous surface connection between the wetland and that water, making it difficult to determine where the 'water' ends and the 'wetland' begins."

The Court reviewed the history of judicial interpretation of "the waters of the United States" and enforcement by federal agencies, which argued that the significant-nexus test was sufficient to establish jurisdiction over "adjacent" wetlands. Under that test, nearly all waters and wetlands are potentially susceptible to regulation, "putting a staggering array of landowners at risk of criminal prosecution for such mundane activities as moving dirt." The CWA's use of "waters" encompasses only relatively permanent, standing, or continuously flowing bodies, ordinarily called streams, oceans, rivers, and lakes. Wetlands qualify as "waters of the United States" only if "indistinguishable from waters of the United States," having a continuous surface connection to bodies that are waters of the United States in their own right, with no clear demarcation between waters and wetlands.

On August 29, 2023, the EPA and USACE announced a final rule amending the 2023 definition of "waters of the United States" to conform with the recent Supreme Court decision in Sackett v. EPA. The ruling removes the significant nexus test and confirms that only drainages with relatively permanent flows will fall under USACE jurisdiction.

2.2 Regional Water Quality Control Board

The RWQCB regulates activities pursuant to Section 401(a)(1) of the CWA. Section 401 of the CWA specifies that certification from the State is required for any applicant

requesting a federal license or permit including a Section 404 permit. Through the Porter Cologne Water Quality Control Act, the RWQCB asserts jurisdiction over Waters of the State of California (WSC) which is generally the same as WUS but may also include waters not in federal jurisdiction.

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State was adopted in April 2020 and put into effect statewide on May 28, 2020 (State Water Resources Control Board, 2020).

The Water Boards define an area as wetland as follows:

An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The Water Code defines WSC broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." WSC include all WUS but also includes waters not in federal jurisdiction.

The following wetlands are waters of the state:

1. Natural wetlands,
2. Wetlands created by modification of a surface water of the state, and
3. Artificial wetlands that meet any of the following criteria:

    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;

    b. Specifically identified in a water quality control plan as a wetland or other water of the state;

    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or

    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (*i.e.*, the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

i. Industrial or municipal wastewater treatment or disposal,

ii. Settling of sediment,

iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,

iv. Treatment of surface waters,

v. Agricultural crop irrigation or stock watering,

vi. Fire suppression,

vii. Industrial processing or cooling,

viii. Active surface mining – even if the site is managed for interim wetlands functions and values,

ix. Log storage,

x. Treatment, storage, or distribution of recycled water, or

xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or

xii. Fields flooded for rice growing.

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not WSC.

The CDFW regulates water resources under Section 1600-1616 of the California Fish and Game Code. Section 1602 states:

"An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake (CDFW, 2015)."

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and A Review of Stream Processes and Forms in Dryland Watersheds. In general, under 1602 of the Fish and Game Code, CDFW jurisdiction extends to the maximum extent or expression of a stream on the landscape (CDFW, 2010). It has been the practice of CDFW to define a stream as "a body of water that flows perennially or episodically and that is defined by the area in a channel which water currently flows or has flowed over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators" (Brady and Vyverberg, 2013). Thus, a channel is not defined by a specific flow event,

nor by the path of surface water as this path might vary seasonally. Rather, it is CDFW's practice to define the channel based on the topography or elevations of land that confine the water to a definite course when the waters of a creek rise to their highest point.

3.0 METHODS

Prior to conducting delineation fieldwork, the following literature and materials were reviewed:

- Aerial photographs of the survey area at a scale of 1:1800 to determine the potential locations of jurisdictional waters or wetlands;
- USGS topographic map (Appendix A - Figure 2) to determine the presence of any "blue line" drainages or other mapped water features.
- USDA soil mapping data (Appendix A - Figure 5); and
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory map to identify areas mapped as wetland features (Appendix A - Figure 4).

A field survey of the project site was conducted by WSP senior biologist Dale Hameister on 7 September 2024. The survey consisted of walking the entire survey area and identifying potentially jurisdictional water features. All accessible portions of the survey areas were walked to determine if any topographic low-spots meet the minimum criteria to be considered under the jurisdiction of USACE, RWQCB, CDFW and MSHCP riverine/riparian. Visual observations of vegetation types and changes in hydrology and soil texture, and culvert locations were used to locate areas for evaluation. Weather conditions during delineation fieldwork was conducive for surveying with clear skies.

USACE regulated WUS, including wetlands, and RWQCB WSC were delineated according to the methods outlined in *A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE, 2008a). The extent of possible WUS was determined based on indicators of an OHWM. The OHWM width was measured at points wherever clear changes in width occurred.

Potential federally regulated wetlands were identified based on the *Wetlands Delineation Manual* (USACE, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE, 2008b). Additional data was recorded to determine if an area fulfilled the wetland criteria parameters. Three criteria must be fulfilled in order to classify an area as a wetland under the jurisdiction of the USACE: 1) a predominance of hydrophytic vegetation, 2) the presence of hydric soils, and 3) the presence of wetland hydrology.

CDFW jurisdiction is delineated by measuring the elevations of land that confine a stream to a definite course when its waters rise to their highest level and to the extent of associated riparian vegetation. WSC/CDFW jurisdictional areas were determined

by the bankfull channel edge and RWQCB jurisdictional areas were determined by the edge of the OHWM.

To determine jurisdictional boundaries, the surveyor walked the length of the drainage within the project area and recorded the centerline with a Trimble GeoXH global positioning system. The width of the drainage was determined by the OHWM and bankfull width measurements at locations where transitions were apparent. Other data recorded included bank height and morphology, substrate type, and all vegetation within the streambed and riparian vegetation adjacent to the streambed. Areas that lacked evidence of hydrophytic vegetation, lacked evidence of wetland hydrology, and had no recent disturbance, did not require a soil pit since the other wetland indicators were not present. Upon completion of fieldwork, all data collected in the field were incorporated into a Geographic Information System (GIS) along with basemap data. The GIS was then used to quantify the extent of jurisdictional waters and prepare graphical representations of that data.

4.0 ENVIRONMENTAL SETTING

4.1 Existing Conditions

The site generally slopes from east to west and is located in an urbanized forest setting. Surrounding areas are largely developed with vacation cabins, single family homes, various out-buildings, and paved roadways with an overstory of pines, cedar, and alder trees dominating the surrounding landscape.

4.2 Hydrology

The project is located within the Santa Ana Basin Watershed. The on-site portion of the Strawberry Creek flows into the San Jacinto River. The San Jacinto River is usually dry and only connects downstream to Canyon Lake, and eventually into Lake Elsinore during heavy storms or times of flooding. If flooded, Lake Elsinore would connect to the Santa Ana and eventually to the Pacific Ocean. The average precipitation for the area is 14.1 inches per year (NOAA Regional Climate Center) which included occasional snowstorms in the winter.

4.3 Vegetation

The project area contains Ponderosa pine - Incense Cedar - Douglas fir forest and woodland (*Pinus ponderosa - Calocedrus decurrens - Pseudotsuga menziesii* Forest & Woodland Alliance) (Saywer, Keeler, Wolf 2009), developed areas including existing vacation cabins, single family homes, various out-buildings, and disturbed area with mostly bare soil. The project site does not contain Douglas fir (*Pseudotsuga menziesii*), but it does meet the requirement for this vegetation community. Tree canopy species within the survey area include incense cedar (*Calocedrus decurrens*), sugar pine (*Pinus lambertiana*), yellow pine (Pinus ponderosa), white alder *(Alnus rhombifolia*)(FACW), and California black oak (*Quercus kelloggii*). Shrubs observed within the understory of the forest canopy include Eastwood's manzanita (*Arctostaphylos glandulosa*), sweet-shrub (*Calycanthus occidentalis*), mountain pink currant (*Ribes nevadense*), and mountain whitethorn (*Ceanothus cordulatus*). Understory grasses and herbaceous species include California mugwort (*Artemisia douglasiana*), feverfew (*Tanacetum parthenium*), imbricate phacelia (*Phacelia imbricata*), silver bird's-foot trefoil (*Acmispon argophyllus*), broad leaved lotus (*Hosackia crassifolia*), broad-leaved lupine (*Lupinus latifolius*), San Jacinto buckwheat (*Eriogonum apiculatum*), Grinnell's beard tongue (*Penstemon grinnellii*), plain mariposa lily (*Calochortus invenustus*), and squirrel tail grass (*Elymus elymoides*). Vegetation within the creek area was observed on the banks and among boulders and at the edges of the grouted creek bottom (existing diversion structure). Species observed within Strawberry Creek include cobwebby hedge nettle (*Stachys albens*) (OLB), cardinal monkey flower (*Erythranthe cardinalis*) (FACW), yellow

monkeyflower (*Erythranthe guttata*)(OBL), and sturdy sedge (*Carex alma*)(OBL). One single narrowleaf willow (*Salix exigua*) (FACW) shrub was observed near the bridge but is outside of the work area. There is no vegetation within the proposed work area where the existing diversion infrastructure will be dismantled and replaced.

4.4 National Wetlands Inventory

The United States Fish and Wildlife Service (USFWS) is the principal Federal agency that provides information to the public on the extent and status of the Nation's wetlands. The USFWS has developed a series of maps, known as the National Wetlands Inventory (NWI) to show wetlands and deep-water habitat. This geospatial information is used by Federal, State, and local agencies, academic institutions, and private industry for management, research, policy development, education, and planning activities. The NWI program was neither designed nor intended to produce legal or regulatory products; therefore, wetlands identified by the NWI program are not the same as wetlands defined by the USACE.

The NWI Mapper (USFWS, 2024) was accessed on-line to review mapped wetlands within the project study areas. The NWI mapper (Figure 4, Appendix A) shows one drainage flowing through the survey area classified as Riverine, Intermittent, Streambed, Seasonally Flooded (R4SBC) (Cowardin, et. al., 1979).

4.5 Soils

Soil mapping (Appendix A - Figure 5) indicates that one soil type, • Wind River-Oak Glen families association, 2 to 15 percent slopes, is present in the project area. The Oak Glen series consists of deep, well drained soils that formed in alluvium derived mainly granitic rocks. Due the grouted bottom of the drainage and rocky nature of the streambed, no soil pits were dug.

5.0 RESULTS

One drainage was identified within the project survey area that contained both bed and bank and OHWM. The drainage is a portion of Strawberry Creek. The Jurisdictional Delineation Maps (Appendix A – Figure 6) identify all observed on-site jurisdictional drainages. Tables 1-2 include a list of waterways identified in the project area, their jurisdictional status and area of jurisdiction, and Cowardin classification.

The drainage has been modified for many years and has a grouted bottom with boulders along the banks. The drainage flows primarily into a square rock catchment basin and the water is captured in an existing pipeline. The project will consist of

replacing the catchment basin and existing pipeline. Therefore, there will be no permanent impacts to jurisdictional waters. The work is planned to be done by hand with no use of heavy equipment within the drainage.

The drainage does not contain permanent flows and has been observed dry in the late summer and fall months. The drainage flows when there are storms or melting snowpack from the upper watershed. Due to the drainages not having permanent flows, the drainages would not be considered USACE jurisdictional under the updated WUS and Sackett vs EPA ruling. The section of Strawberry Creek within the project would be considered RWQCB and CDFW jurisdictional based on the presence of bed and bank and OHWM.

The USACE, in combination with the EPA, when necessary, reserves the ultimate authority in making the final jurisdictional determination of WUS and the RWQCB reserves the ultimate authority in making the final jurisdictional determination of WSC. Additionally, CDFW has ultimate discretion in the determination of their jurisdiction. Based on our delineation, the drainage meets the requirements for CDFW and RWQCB jurisdiction. Under the Sackett vs EPA decision, the significant nexus standard was removed from the tributaries provision and therefore, all drainages without a direct connection to flowing water are considered ephemeral and no longer under USACE jurisdiction.

Table 1. Survey Site Information

Drainage	Latitude	Longitude	Quad	Township	Range	Section
Strawberry Creek	33.756615	-116.702839	San Jacinto Peak	5S	3E	7

Table 2 Summary of Jurisdictional Areas

Drainage ID /Survey Area	Watershed	Waters of the US Length (feet)	Waters of the US (acre)	RWQCB Length (Feet)	RWQCB (acre)	CDFW Length (Feet)	CDFW (acre)	Latitude	Longitude	Cowardin Class	Class of Aquatic Resource
Strawberry Creek	Strawberry Creek	0	0	364	0.05	364	0.2	33.756615	-116.702839	R4SBC	non-section10-non wetland

R4SBC – Riverine, Intermittent, Streambed, Seasonally Flooded based on Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et. al., 1979).

6.0 IMPACTS TO JURISDICTIONAL AREAS

Development plans include the removal and replacement of existing infrastructure within the drainage. The plans in Appendix A show the detailed drawings. The temporary impacts will be limited to reconstruction of the diversion basin, installation of the new waterline out of the basin, installation of an inclined trash rack upstream, and repair of existing channel mortar. No new disturbances to the drainage are planned.

The proposed project includes temporary impacts to replace and repair existing infrastructure within a jurisdictional area. The agencies will make the final determination if permits are required. If permits are required from the RWQCB and CDFW the details are described below.

6.1.1 U.S. Army Corps of Engineers

The drainage on-site does not contain permanent flows and in accordance with the Sackett vs EPA ruling are not considered to be USACE jurisdictional. In addition, the receiving waters of Strawberry Creek downstream is the San Jacinto River which is intermittent.

6.1.2 Regional Water Quality Control Board

The project areas occur in the Santa Ana RWQCB (Region 8). If permitting is required, under Section 401 of the CWA, the RWQCB must certify that the discharge of dredged or fill material into WUS does not violate state water quality standards.

The RWQCB also regulates impacts to WSC under the Porter Cologne Water Quality Control Act through issuance of a Construction General Permit, State General Waste Discharge Order, or Waste Discharge Requirements, depending upon the level of impact and the properties of the waterway.

Where the project has the potential to impact WUS or WSC, the project proponent would need to obtain a Water Quality Certification. In addition to the formal application materials and fee (based on area of impact), a copy of the appropriate California Environmental Quality Act (CEQA) documentation would be included with such an application if required.

Mitigation measures should not be necessary as the impacts will be temporary.

6.1.3 California Department of Fish and Wildlife

If determined to be required, a 1602 Streambed Alteration Agreement is required for all activities that alter streams and lakes and their associated riparian habitat,

regardless of the extent of impacts. In addition to the formal application materials and fee (based on cost of the project), a copy of the appropriate California Environmental Quality Act (CEQA) documentation would be included with such an application if required.

7.0 REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson manual: vascular plants of California, second edition. University of California Press, Berkeley.

Brady, Roland H. III, Kris Vyverberg. 2013. Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants. California Energy Commission. Publication Number: CEC-500-2014-013.

California Department of Fish and Wildlife (CDFW). 2010. A Review of Stream Processes and Forms in Dryland Watersheds. Prepared by Kris Vyverberg, Conservation Engineering. 32 p.

CDFW. 2015. Fish and Game Code of California. http://www.leginfo.ca.gov/calaw.html.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior.

Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations (22250)

Gretag/Macbeth. 2000. Munsell color. New Windsor, NY.

Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. 2014. *The National Wetland Plant List*: 2014 Update of Wetland Ratings. Phytoneuron 2014-41: 1-42.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed March 2020.

U.S. Army Corps of Engineers (USACE). 1987. Wetlands Delineation Manual, Technical Report Y-8. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. + append.

USACE. 2008a. A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States. A Delineation Manual. Lichvar and McColley. August.

USACE. 2008b. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. September.

United States Department of Agriculture, Natural Resources Conservation Service (USDA). 2019a. The PLANTS Database. (http://plants.usda.gov, 15 June 2019). National Plant Data Team, Greensboro, NC 27401-4901 USA.

USDA. 2024. List of Hydric Soils. Available online at: http://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=stelprdb1248596&ext=xlsx

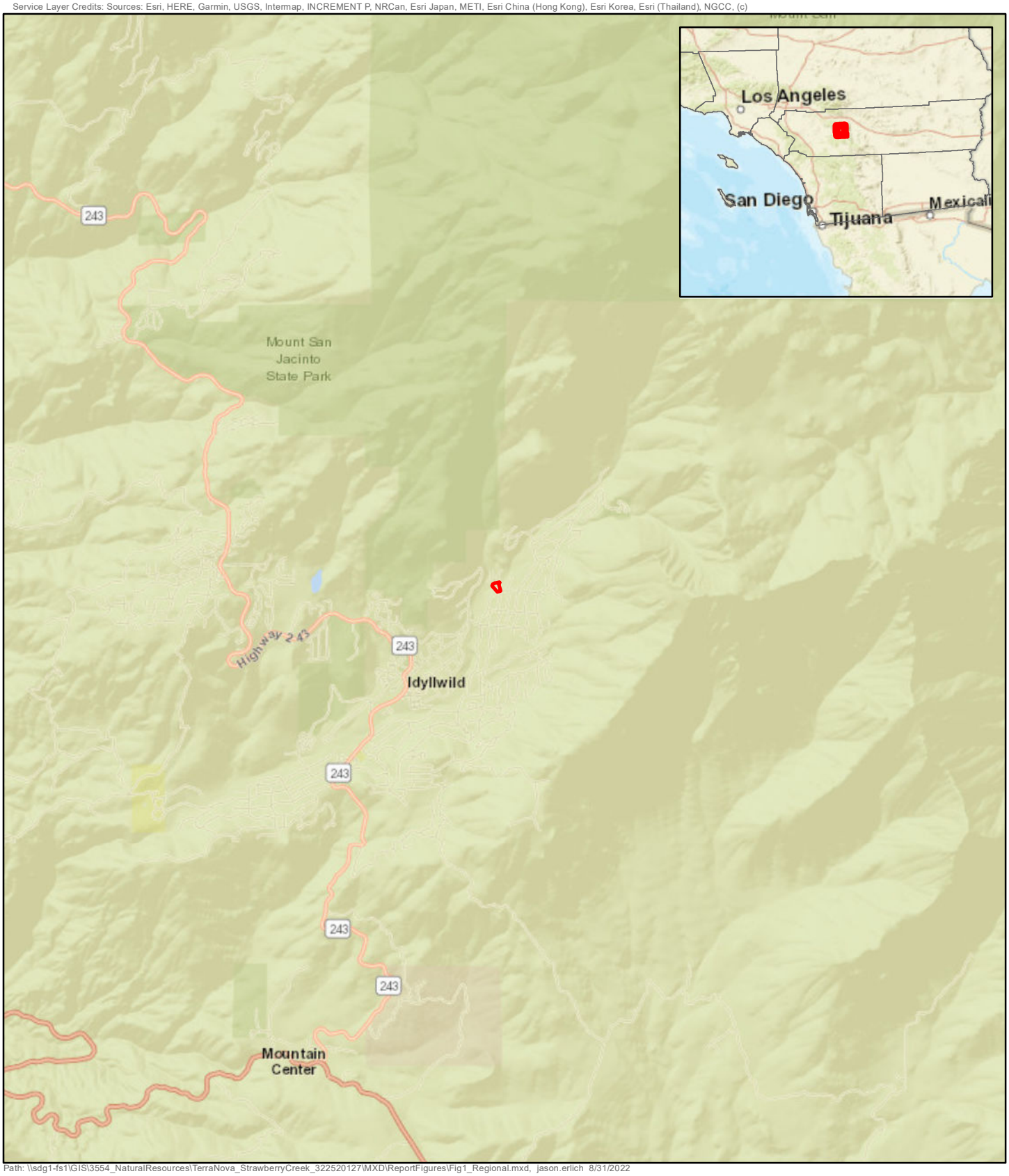
U.S. Fish and Wildlife Service. 2024. National Wetlands Inventory Mapper. Available online at: http://www.fws.gov/wetlands/Data/Mapper.html. Accessed March 2020.

United States Geological Survey (USGS). 1996. 7.5-Minute Series, *San Jacinto Peak*, California, Topographic Quadrangle. Reston, VA.

APPENDIX A

JURISDICTIONAL MAPS

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c)



Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_StrawberryCreek_322520127\MXD\ReportFigures\Fig1_Regional.mxd, jason.erlich 8/31/2022

1 inch = 1 miles

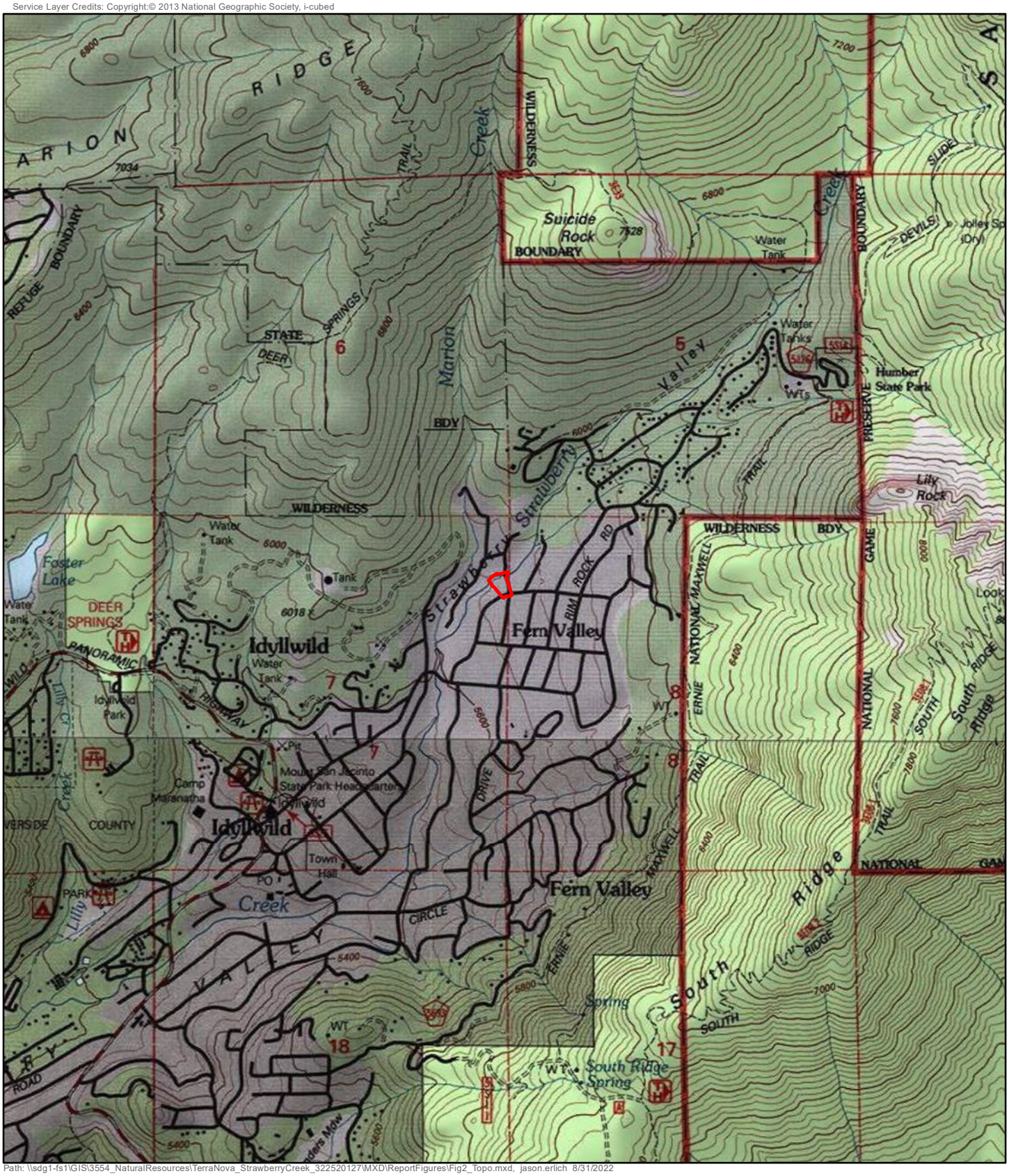
0 0.5 1 Miles

Project Boundary

FIGURE 1

Vicinity & Location
Strawberry Creek
Terra Nova
Idyllwild, Riverside County, CA

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed



Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_StrawberryCreek_322520127\MXD\ReportFigures\Fig2_Topo.mxd, jason.erlich 8/31/2022

1 inch = 2,000 feet

0 1,000 2,000 Feet

Project Boundary

FIGURE 2

USGS 7.5' Quad: San Jacinto Peak
Strawberry Creek
Terra Nova
Idyllwild, Riverside County, CA

Service Layer Credits: World Topographic Map: County of Riverside, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

Path: \\corp.pbwan.net\glb-e&i\US\USSAN600-SDG2\GIS\3554_NaturalResources\TerraNova_StrawberryCreek_322520127\ArcPro\TerraNova_StrawberryCreek\TerraNova_StrawberryCreek.aprx, USAJ716460 10/18/2024

1 inch = 1 mile

0 0.5 1 Miles

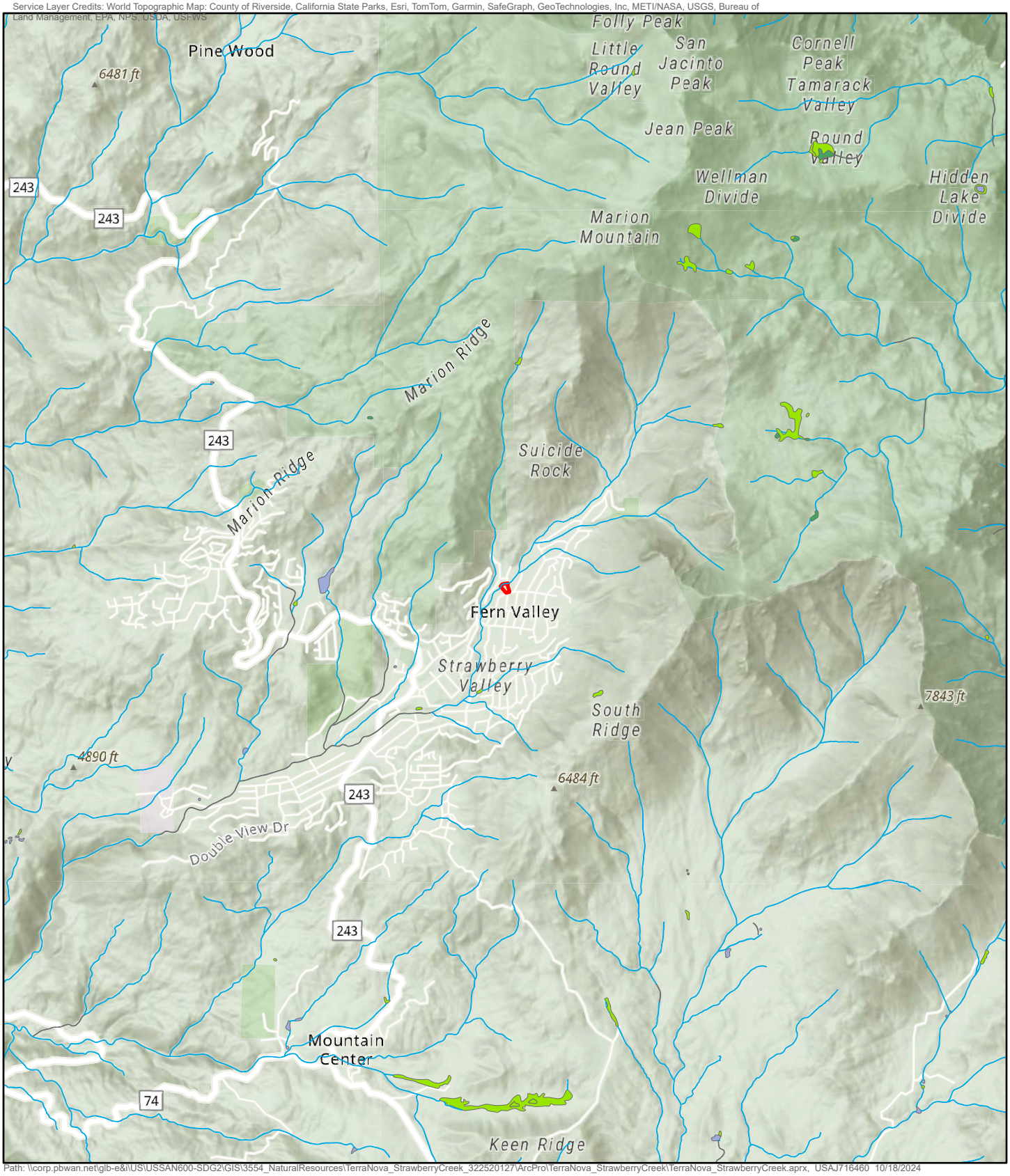
Watershed Boundary (HU12)

Project Boundary

FIGURE 3

Hydrology
Strawberry Creek
Terra Nova
Idyllwild, Riverside County, CA

Service Layer Credits: World Topographic Map: County of Riverside, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS



Path: \\corp.pbwan.net\glb-e&i\US\USSAN600-SDG2\GIS\3554_NaturalResources\TerraNova_StrawberryCreek_322520127\ArcPro\TerraNova_StrawberryCreek\TerraNova_StrawberryCreek.aprx, USAJ716460 10/18/2024

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Riverine

Project Boundary

1 inch = 1 mile

0 0.5 1 Miles

FIGURE 4

National Wetlands Inventory (NWI)
Strawberry Creek
Terra Nova
Idyllwild, Riverside County, CA

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_StrawberryCreek_322520127\MXD\ReportFigures\Fig3_Soils.mxd, jason.erlich 8/31/2022

1 inch = 250 feet

0 125 250 Feet

Project Boundary

KoD - Wind River-Oak Glen Families Association, 2 to 15 percent slopes

FIGURE 5

Soils
Strawberry Creek
Terra Nova
Idyllwild, Riverside County, CA

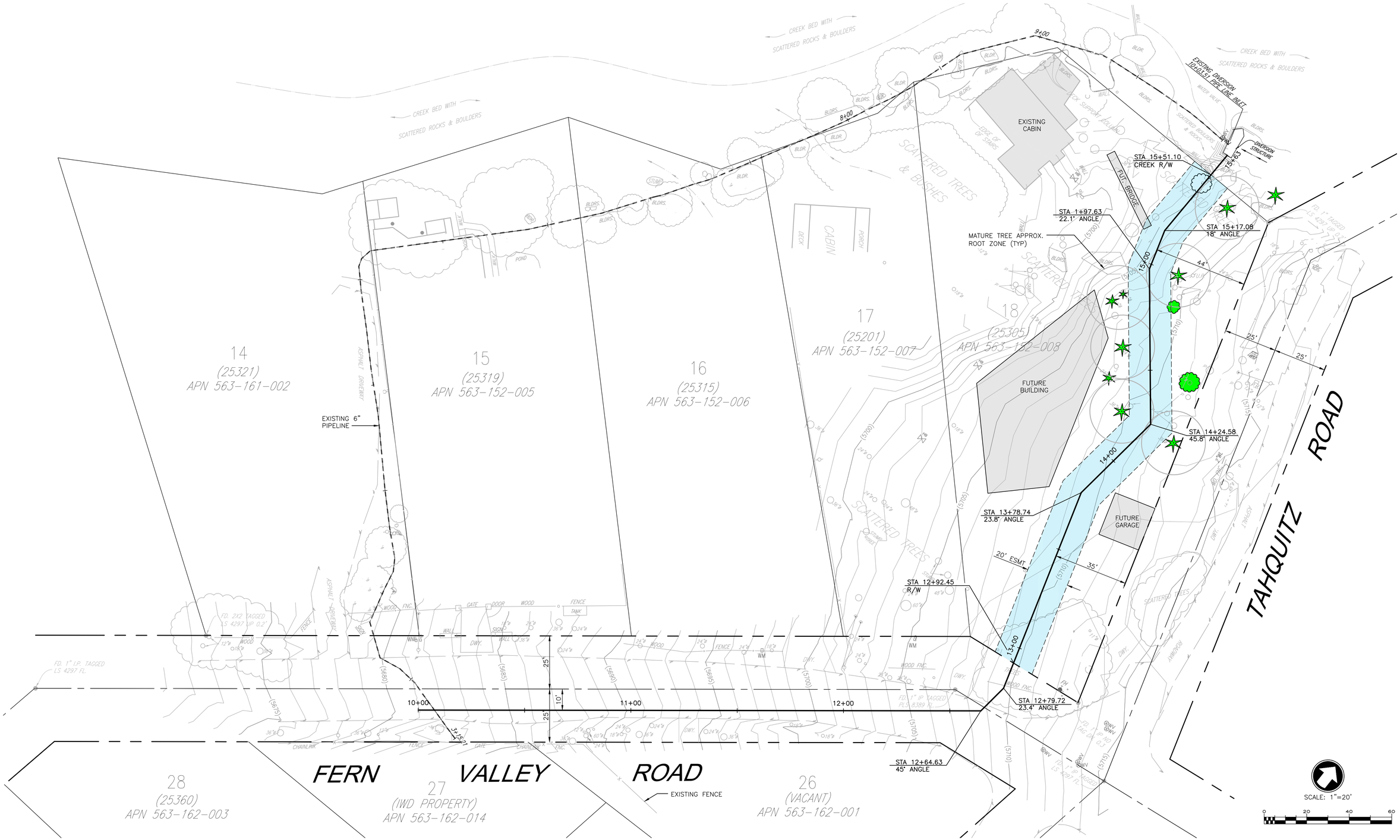
Service Layer Credits: World Imagery: Maxar

Path: \\corp.pbwan.net\glb-e&i\US\USSAN600-SDG2\GIS\3554_NaturalResources\TerraNova_StrawberryCreek_322520127\ArcPro\TerraNova_StrawberryCreek\TerraNova_StrawberryCreek.aprx, USAJ716460 10/18/2024

1 inch = 125 feet
0 62.5 125 Feet

RWQCB
CDFW
Project Boundary

FIGURE 6
Jurisdictional Delineation
Strawberry Creek
Terra Nova
Idyllwild, Riverside County, CA



Underground Service Alert

811

TWO WORKING DAYS BEFORE YOU DIG

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: E.H. DRAWN BY: J.G. CHECKED BY: E.H.

REGISTERED PROFESSIONAL ENGINEER ERIK T. HOWARD No. C53318 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:

DISTRICT ENGINEER — DATE

ERIK T. HOWARD, R.C.E. C53318 — DATE

ERSC INC.COM Engineering Resources of Southern California

1861 West Redlands Blvd.
Building 7-8
Redlands, California 92373-3119
(909) 890-1255

SCALE: 1" = 20'

BENCH MARK: ELEVATION=5575.93 FEET NGVD 29
RIVERSIDE CO. B.M. I-12 (IDY 2-2) A BRASS DISK STAMPED "I-12" SET IN THE TOP OF THE END OF THE SOUTHEASTERLY CONCRETE WING WALL OF BRIDGE NO. S-145 OVER STRAWBERRY CREEK, 165 FEET EAST OF THE INTERSECTION OF PINECREST DRIVE AND SOUTH CIRCLE DRIVE.

IDYLLWILD WATER DISTRICT

RIVERSIDE COUNTY, CALIFORNIA

STRAWBERRY CREEK DIVERSION PIPELINE

PLAN

PIPELINE REPLACEMENT EVALUATION

FOR: IDYLLWILD WATER DISTRICT

W.O.

SHEET 1 OF 2 SHEETS

DWG. NO. C1

T:\Projects\03018008 - IWD Strawberry Creek Survey\CAD\03018008 WORKING ALIGNMENT.dwg, 11/8/2022 3:11:02 PM

APPENDIX B

SITE PHOTOGRAPHS

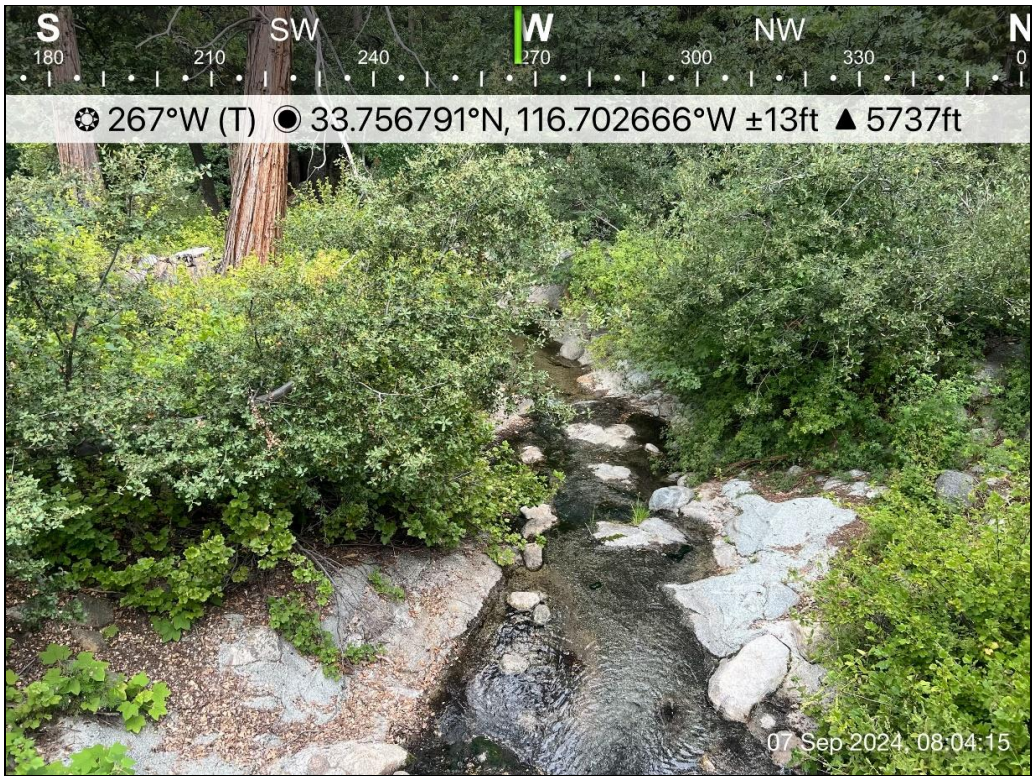


Photo 1. View from the bridge at Tahquitz Road looking downstream.

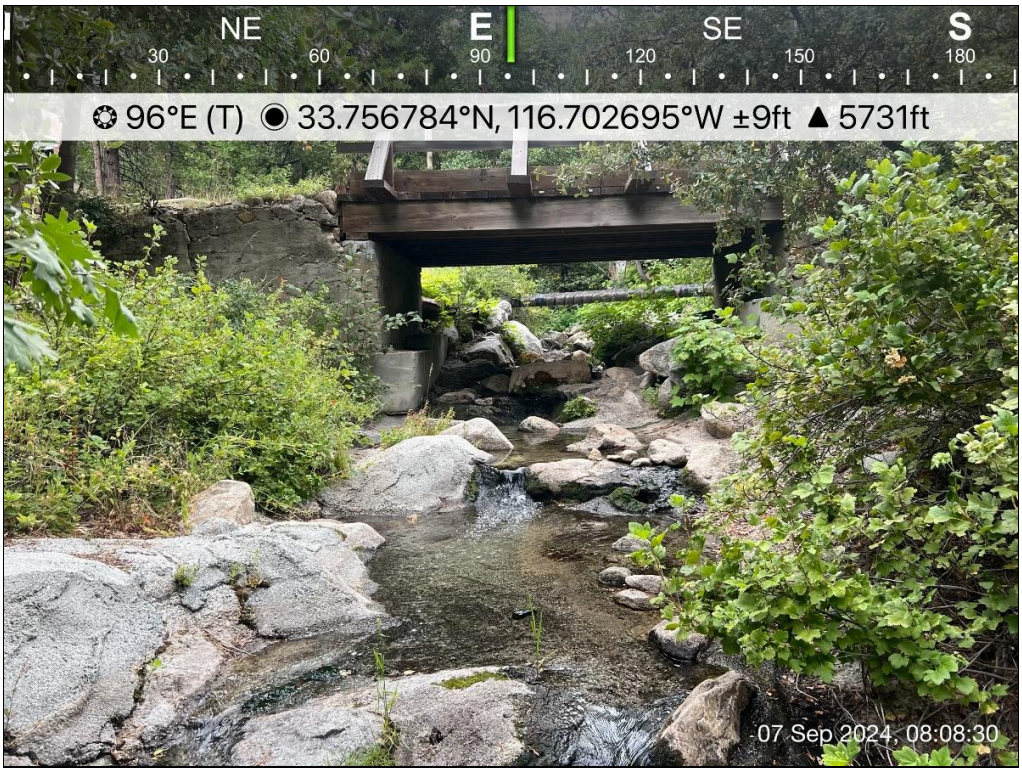


Photo 2. View within the creek showing the grouted bottom and very shallow pools.

Photo 3. View of the water diversion structure.

Photo 4. View of the water diversion structure and existing pipeline.

APPENDIX C

JURISDICTIONAL DELINEATION FORMS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Strawberry Creek Water Diversion Reconstructio City/County: Idyllwild , Riverside Sampling Date: 9/7/2024

Applicant/Owner: City of Banning State: CA Sampling Point: Strawberry Ck

Investigator(s): Dale Hameister Section, Township, Range: S 3; T 3 South; R 1 East

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR): _____ Lat: 33.756615 Long: -116.702839 Datum: _____

Soil Map Unit Name: _____ NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No _____	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus ponderosa	50	Y	UPL
2. Pinus lambertiana	15		UPL
3. Calocedrus decurrens	15		UPL
4. Alnus rhombifolia	10		FACW
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. Ribes nevadense	15		FAC
2. Calycanthus occidentalis	10		FAC
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Erythranthe cardinalis	2		OBL
2. Erythranthe guttata	2		OBL
3. Carex alma	1		OBL
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 75 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	10	x 2 =	20
FAC species	24	x 3 =	72
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	39 (A)		97 (B)

Prevalence Index = B/A = 2.4

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✔ **No** _____

Remarks:

Banks and some rocks are grouted. Very little sediment in channel and no access to in channel soils
Majority of cover rock and grouted streambed.

SOIL

Sampling Point: Strawberry

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

Soils pit could not be dug due to grouted streambed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✔ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✔ No _____ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? **Yes** ✔ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: