DRAFT
JURISDICTIONAL DETERMINATION REPORT

FOR THE
AGINCOURT SOLAR SITE

Cougar Buttes USGS 7.5' quadrangle
Section 34, Township 4 North, Range 1 East
APNs 0449-641-27 and 0449-641-04

SAN BERNARDINO COUNTY, CALIFORNIA

Prepared for:

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URS Project Number 28907132

March 2012

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CERTIFICATION

"I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a nondisclosure or consultant confidentiality agreement with the project applicant or applicant's representative and that I have no financial interest in the project."

DATE: March 12, 2012 SIGNED: 

Report Author
Julie Love
Senior Biologist

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Field work Performed by:

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Greg Hoisington
Senior Biologist

EXECUTIVE SUMMARY

Agincourt Solar, LLC (the Applicant) has retained URS Corporation (URS) to prepare this Jurisdictional Determination Report for the Agincourt Solar Project (Project), a proposed 10 megawatt solar photovoltaic electrical power generating facility on approximately 59 acres of a 79.2-acre site located in unincorporated San Bernardino County, California. The proposed Project will connect with an existing Southern California Edison (SCE) 33-kilovolt (kV) transmission line. No new off-site transmission line is proposed.

A total of 12 ephemeral drainages were mapped, traversing the site in a south-north direction. Because the site's watershed is intra-state and is isolated from navigable waters, the waters on-site are not subject to federal jurisdiction under the Clean Water Act. However, the 12 ephemeral desert washes for a total of 9.15 acres are under state jurisdiction and are subject to the permitting authority of the CDFG and the Colorado River Basin RWQCB.

SECTION 1.0
INTRODUCTION

On behalf of WDG Capital Partners (WDG), URS has prepared this Wetland Delineation and Jurisdictional Determination Report for the Agincourt solar site (Project) located in San Bernardino County, California. This report presents an assessment and delineation of U.S. Army Corps of Engineers (USACE) jurisdictional waters of the U.S. (including wetlands), waters of the state subject to the permitting authority of the Colorado River Basin Regional Water Quality Control Board (RWQCB), and California Department of Fish and Game (CDFG) jurisdictional streams.

1.1 SUMMARY OF PROJECT DESCRIPTION

WDG proposes to construct and operate a 10 megawatt (MW) solar photovoltaic (PV) electrical power generating facility on approximately 59 acres of a 79.2-acre site. The proposed Project will connect with an existing Southern California Edison (SCE) 33-kilovolt (kV) transmission line. No new off-site transmission line is proposed.

1.2 PROJECT LOCATION

The approximately 79-acre Agincourt Project site is located in the Lucerne Valley in the Mojave Desert, in southwestern San Bernardino County. The Project site can be accessed from State Highway 247 (Old Woman Springs Road) and is bordered by two roads, Camp Rock Road on the eastern side and Rosewood Street along a portion of the northern side. The Project site is located in Section 34, Township 04N, and Range 01E. The Project site is undeveloped and rural single-family development and areas of undisturbed desert vegetation are located in the vicinity of the site. The San Bernardino Mountains are approximately 3 miles south of the site. See Figure 1 for a topographic map that shows the Project location.

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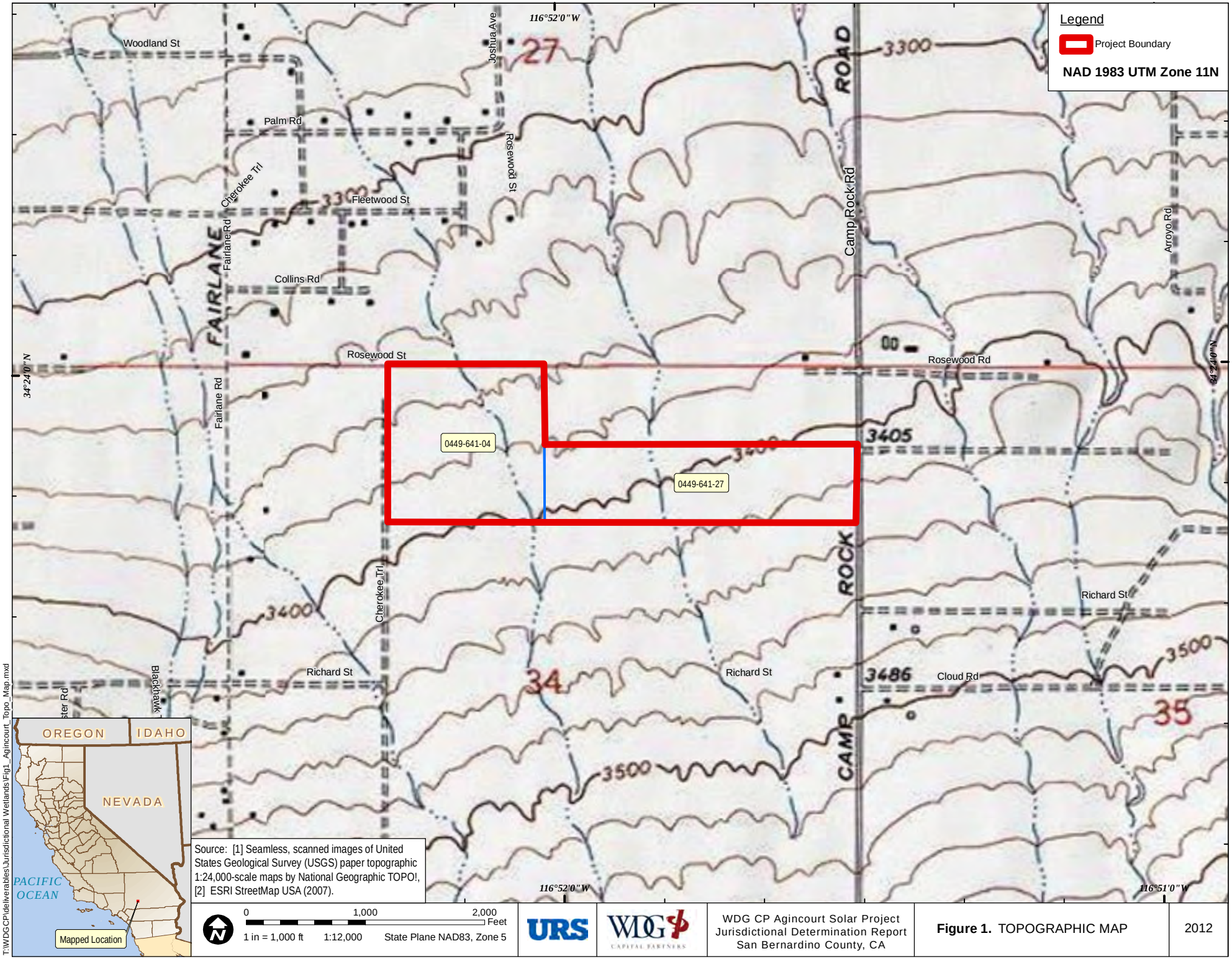

Legend
Project Boundary
NAD 1983 UTM Zone 11N
116°52'0"W
116°51'0"W
34°24'0"N
Woodland St
Palm Rd
Joshua Ave
Rosewood St
Cherokee Trl
Fleetwood St
Fairlane Rd
FAIRLANE
Collins Rd
Camp Rock Rd
ROAD
Arroyo Rd
Rosewood Rd
0449-641-04
0449-641-27
3405
3400
3300
3500
3486
Richard St
Cloud Rd
ROCK
CAMP
34
35
27
Blackhawk
OREGON
IDAHO
NEVADA
PACIFIC OCEAN
Mapped Location
Source: [1] Seamless, scanned images of United States Geological Survey (USGS) paper topographic 1:24,000-scale maps by National Geographic TOPO!, [2] ESRI StreetMap USA (2007).
0
1,000
2,000
Feet
1 in = 1,000 ft
1:12,000
State Plane NAD83, Zone 5
URS
WDG
CAPITAL PARTNERS
WDG CP Agincourt Solar Project
Jurisdictional Determination Report
San Bernardino County, CA
Figure 1. TOPOGRAPHIC MAP
2012
T:\WDG CP\deliverables\Jurisdictional Wetlands\Fig1_Agincourt_Topo_Map.mxd

SECTION 2.0
REGULATORY SETTING

Streams and waterways, including ephemeral drainages, dry streambeds, and wetlands, can possess unique ecological functions and values, and are protected from human-induced destruction or degradation by a number of federal and state statutes. The federal and state agencies charged with administering these statutes and their responsibilities are described briefly below.

2.1 FEDERAL

2.1.1 Clean Water Act – Section 404

Pursuant to Section 404 of the Clean Water Act (CWA), the USACE regulates the discharge of dredge and/or fill material into waters of the United States. Section 404 requires that any person proposing an activity that would discharge these materials must first obtain a permit from the USACE. For discharges proposed in the Project region, Section 404 Permits are issued by the USACE's Los Angeles District. The CWA stipulates that the USACE may not issue a Section 404 Permit if the proposed activity would be contrary to the public interest or would cause substantial degradation of the nation's waters, or if a less environmentally damaging practicable alternative exists.

Waters of the U.S. generally include navigable waterways and wetlands adjacent to navigable waterways, non-navigable tributaries to navigable waterways, and wetlands adjacent to non-navigable waters that are contiguous with navigable waterways. Regulatory definitions of wetlands and waters of the U.S., as well as recent Supreme Court decisions affecting the interpretation of those definitions, are discussed below.

2.1.1.1 Waters of the United States Defined

The term "waters of the U.S." is defined in regulations promulgated by USACE under the authority of the CWA (see 33 CFR Part 328) and typically includes all navigable waters (including all waters subject to the ebb and flow of the tide); all interstate waters and wetlands; all impoundments of waters mentioned above; all tributaries to waters mentioned above; the territorial seas; and, all wetlands adjacent to waters mentioned above. However, recent Supreme Court decisions have curtailed CWA jurisdiction in some cases, as described in Section 2.1.1.2 below. In water bodies lacking adjacent wetlands, the lateral extent of the USACE's jurisdiction is bounded by Ordinary High Water Mark (OHWM). The OHWM is defined at 33 CFR 328.3(e) as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas." Where adjacent wetlands are present (see Section 2.1.1.3), CWA

jurisdiction extends laterally to the landward edge of the adjacent wetlands. The upstream/downstream limit of CWA jurisdiction is the point beyond which the OHWM is no longer perceptible.

2.1.1.2 Recent Court Cases Limiting Clean Water Act Jurisdiction

In the last decade, two important decisions by the U.S. Supreme Court have limited the scope of CWA jurisdiction. In 2001, the court ruled in *Solid Waste Agency of North Cook County v. United States Army Corps of Engineers* that the USACE exceeded its statutory authority by asserting CWA jurisdiction over "an abandoned sand and gravel pit in northern Illinois, which provides habitat for migratory birds." This ruling invalidated the 1986 "Migratory Bird Rule," and stands for the proposition that CWA jurisdiction does not extend to waters that are non-navigable, isolated, and intrastate. In *Rapanos v. United States* and *Carabell v. United States* (consolidated cases), the question was whether CWA jurisdiction extends to wetlands that do not contain, and are not adjacent to, waters traditionally understood as "navigable." The Court issued two controlling opinions in this case, specifying conditions under which ephemeral and intermittent tributaries and adjacent wetlands are subject to CWA jurisdiction. In the wake of these decisions, the Environmental Protection Agency (EPA) and the Department of the Army have issued a joint guidance memorandum clarifying CWA jurisdiction.

As described in the USACE and EPA guidance documents, the agencies will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent, where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)
- Wetlands that directly abut such tributaries

The USACE and EPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditionally navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to, but that do not directly abut, a relatively permanent non-navigable tributary

Where this significant nexus analysis is required, the analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters. The analysis will include consideration of hydrologic and ecologic factors.

The USACE and EPA generally will not assert CWA jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

2.1.1.3 Wetlands Defined

Wetlands are defined in USACE regulations at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987, the USACE published the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987; Wetland Delineation Manual) to guide its field personnel in determining jurisdictional wetland boundaries. In 2008, the USACE published the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008; Arid West Regional Supplement) to complement the Wetland Delineation Manual in the southwestern U.S. The methods set forth in the Wetland Delineation Manual and the Arid West Regional Supplement involves the delineation of wetlands based on the presence of three wetland parameters: a predominance of hydrophytic vegetation; wetland hydrology; and hydric soils. These wetland parameters are discussed in greater detail below.

2.1.1.3.1 Hydrophytic Vegetation. A site is considered to have a "predominance of hydrophytic vegetation" when 50 percent or more of the dominant plant species are classified as Obligate Wetland, Facultative Wetland, or Facultative according to the National List of Plant Species That Occur in Wetlands (Reed 1988). Hydrophytic vegetation can also be demonstrated using a different mathematical equation called the "Prevalence Index," as described in the Arid West Regional Supplement.

2.1.1.3.2 Hydric Soils. A hydric soil is defined by the National Technical Committee for Hydric Soils (NTCHS) as "a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part" (USDA-NRCS 1994). A hydric soil may be drained or undrained, and a drained hydric soil may not continue to support hydrophytic vegetation yet still retain the appearance of a hydric soil. The Wetland Delineation Manual and Arid West Regional Supplement describe

visual and textural indicators of hydric soils used in the field to determine the presence of hydric soils. In most situations, only one of these indicators is required to make a positive determination.

2.1.1.3.3 Wetland Hydrology. Wetlands are characterized by various hydrologic regimes that range from permanently inundated to irregularly inundated or saturated. In other words, some wetlands are always wet while other wetlands may contain water during only part of the year. For an area to have "wetland hydrology," as defined in the Wetland Delineation Manual, the area must be "inundated or saturated to the surface for at least five percent of the growing season in most years." In the Arid West Region, the minimum threshold for wetland hydrology under most circumstances is 14 or more consecutive days of flooding or ponding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10. The Wetland Delineation Manual and Arid West Regional Supplement describe visual indicators of wetland hydrology used in the field to determine the presence of wetland hydrology. Where either a single primary indicator or two secondary indicators are observed, a positive determination for wetland hydrology is made.

2.1.2 Clean Water Act – Section 401

Under Section 401 of the CWA, every applicant for a federal permit or license for any activity which may result in a discharge of dredge or fill material to a water body must obtain a state-issued Water Quality Certification that the proposed activity will comply with state water quality standards (i.e., beneficial uses, water quality objectives, and anti-degradation policy). In California, the State Water Resources Control Board (SWRCB) has delegated the responsibility for issuing Section 401 Certifications to the nine Regional Water Quality Control Boards (RWQCB) throughout the state. The Colorado River Basin RWQCB issues Section 401 Certifications for projects in San Bernardino County. A CWA Section 404 Permit is a federal permit subject to the terms of Section 401 as described above, and the USACE therefore cannot issue a Section 404 permit in the project region until the permit applicant also receives a Section 401 Certification from the Colorado River Basin RWQCB. Because Section 401 of the CWA is restricted to activities requiring a federal license or permit, this section does not apply to activities affecting waters outside federal jurisdiction, such as isolated, intrastate waters or those excluded from federal jurisdiction based on the significant nexus standard described in Section 2.1.1.2 above. If the waters on the project site are not under CWA jurisdiction, a certification under Section 401 will not be required.

2.2 STATE

2.2.1 California Fish and Game Code

Pursuant to Sections 1600–1616 of the California Fish and Game Code, the CDFG regulates all diversions, obstructions, or substantial changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. In regulations promulgated by

the CDFG at 14 CCR 1.72, a stream is defined as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." In practice, CDFG has interpreted the term "streambed" to encompass all portions of the bed, banks, and channel of any stream, including intermittent and ephemeral streams, extending laterally to the upland edge of riparian vegetation. In the case of watercourses with vegetated floodplains, this interpretation often results in a jurisdictional area that is much wider than the active channel of the stream. The upstream limit of CDFG jurisdiction is the point upstream of which there is no evidence of a defined bed and bank, and riparian vegetation is not present.

The CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and other wildlife. Generally:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses should be treated by CDFG as natural waterways
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions

2.2.2 Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act (a California statute), the SWRCB regulates discharges of pollutants into "waters of the state," broadly defined as any surface water or groundwater, including saline waters, within the boundaries of the state. This authority is independent of any federal requirements, and is applicable to all waters of the state regardless of whether CWA jurisdiction applies. To ensure that California's isolated waters are protected and that the permitting process is as efficient as possible, the SWRCB has issued general Waste Discharge Requirements (WDR) regulating discharges to "isolated" waters of the state that are not under federal CWA jurisdiction (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the USACE to be Outside of Federal Jurisdiction).

SECTION 3.0
STUDY METHODS

Waters of the U.S., CDFG-jurisdictional streambeds, and waters of the state within the Agincourt Project site were delineated using a combination of desktop literature review and field mapping methods.

3.1 LITERATURE REVIEW

Prior to field efforts, the United States Geologic Survey (USGS) Cougar Buttes, CA 7.5 minute quadrangle map (USGS 1994), the Soil Survey for the San Bernardino County, California, Mojave River Area (USDA-NRCS 1986, USDA-NRCS SSURGO 2008), the National Hydrography Dataset (NHD; USGS-NHD 2000), and a high quality aerial photograph of the Project site and the surrounding area (USDA-NAIP 2009) were reviewed to determine the locations of potential hydrologic features. Additionally, an initial reconnaissance-level survey was conducted on February 16, 2010 by URS biologists to determine potentially-jurisdictional areas.

The USGS 7.5 minute quadrangle map (USGS 1994) and the National Hydrography Dataset (NHD; USGS-NHD 2000) indicated the presence of two potential hydrological features on the Project site designated as intermittent streams (shown on Figure 1 with a dashed blue line). During the initial reconnaissance-level survey, approximately eleven other intermittent drainages were found on the Project site.

3.2 DELINEATION OF WATERS OF THE UNITED STATES

A formal wetland delineation and jurisdictional determination of waters of the U.S. (including wetlands), waters of the state, and CDFG-jurisdictional streambeds was performed on the Project site on September 12 and 13, 2011 (time: 0800–1830, 0800–1200; weather: temperature ranged from 66°F to 89°F, Ag wind ranged from calm to 23 mph [S]). The methods used during the field surveys are described below. The field delineations were conducted by URS biologists Julie Love and Greg Hoisington. Following completion of the surveys, watershed maps, aerial photographs, and other applicable literature were reviewed to ascertain whether waters identified in the field were tributary to navigable waters.

3.2.1 Ordinary High Water Mark

The extent of non-wetland waters within the Project site was determined based on the location of the OHWM. Each of the intermittent drainages identified during the preliminary investigations was visited in the field, and the channel banks were examined for signs of flow, terraces, drift deposits, changes in vegetation, and other indicators that would determine the location of the OHWM. The upstream and downstream ends of each drainage were explored, and locations where the drainages either crossed the site boundary (i.e.,

entered or exited the site) or ceased to exhibit an OHWM were documented. Once the OHWM was identified in the field, the boundary was walked with a Trimble GeoXH Geoexplorer 2008 handheld GPS unit set to collect positional data in a "streaming" fashion. In addition to the hydrologic features indicated on the USGS quadrangle map, NHD map, and found during the initial reconnaissance-level survey, the Project site was surveyed for additional hydrologic features via meandering transects.

At the drainage feature, average channel width and depth were estimated in the field and features such as substrate type and topography were recorded. When field data collection was complete, jurisdictional boundaries were downloaded from the Trimble GPS unit and converted into a GIS shape file using ArcGIS software. Properties such as length, width, and acreage of the drainage were calculated through ArcGIS. Photographs were taken to document site conditions (Appendix A).

3.2.2 Adjacent Wetlands

Typical of the Mojave Desert region, wetland characteristics were not observed on-site. The Project site consisted of xeric vegetation characteristic of the Mojave Desert region. Only a few individual desert willows (*Chilopsis linearis*) were present in Drainage W3, but they were not abundant enough to be dominant within the drainage. Therefore hydrophytic vegetation was not observed on-site. The Soil Survey for the San Bernardino County, California, Mojave River Area (USDA-NRCS 1986, USDA-NRCS SSURGO 2008) indicated that no hydric soils were present on-site. On-site soils were sandy and well drained upon observation. Hydric soils were not observed on-site; however, sandy soils are naturally problematic and may lack hydric soil indicators even if the soil is hydric. Hydrologic evidence indicates that flows on-site are ephemeral and that long-term inundation or saturation does not occur. In addition, only one hydrologic field indicator for all twelve drainages was observed on-site (drainage patterns). Therefore wetland hydrology was not observed on-site. Due to the lack of wetland indicators, sampling points could not be established in potential wetland areas, and a formal wetland delineation was not conducted on-site.

3.3 DELINEATION OF CDFG-JURISDICTIONAL STREAMBEDS

The extent of streambeds falling under the jurisdiction of the CDFG pursuant to section 1600 et seq. of the California Fish and Game Code was determined based on the presence of a defined physical bed, bank, or channel. A few riparian trees (desert willows) were present within the streambeds on-site; however, since the riparian vegetation was located within the defined physical bank, riparian vegetation was therefore not used as a determining characteristic. Upon investigation, no distinction between the OHWM and the top of the CDFG-jurisdictional stream bank was evident. Thus, the GIS shapefiles created from the OHWM boundaries were used to determine the extent of CDFG jurisdiction within the site.

3.4 DELINEATION OF WATERS OF THE STATE

The extent of waters of the state on-site subject to the authority of the Colorado River Basin RWQCB under the Porter-Cologne Water Quality Control Act was determined to be coterminous with the extent of CDFG jurisdictional streambeds, due to the simple nature of the drainages present and the absence of any aquatic features that would be under the jurisdiction of one agency but not the other. Therefore, the GIS shape files representing CDFG jurisdiction were also used to calculate the extent of waters of the state.

3.5 VEGETATION MAPPING

A plant species list was compiled from the initial reconnaissance level biological surveys conducted on February 16, 2010, focused botanical surveys conducted on April 13, 2011, and wetland delineation and jurisdictional determination surveys conducted on September 12 and 13, 2011 (Appendix B). On a Project-wide scale, vegetation communities were classified using Sawyer et al.'s A Manual of California Vegetation (2009), which establishes systematic classifications and definitions of vegetation communities. Each vegetation mapping unit was analyzed for characteristics to define the applicable vegetation community, such as dominant and/or co-dominant plant species and community membership rules. Vegetation within the Project site boundary was mapped by hand in the field using field observations and a high quality aerial photograph of the Project site (USDA-NAIP 2009), which was then converted into a GIS shape file using ArcGIS software.

SECTION 4.0
RESULTS

Results of the wetland delineation and jurisdictional determination are presented below. An overview of the site's vegetation, hydrology, and soils is presented, followed by a description of the jurisdictional areas identified during the delineation.

4.1 SITE OVERVIEW

This section provides an overview of the existing vegetation, soils, and hydrology within the Project site, to provide a context within which to understand the delineation results.

4.1.1 Vegetation

The Project site is located within the Mojave Desert geographical region (Sawyer Keeler-Wolf 1995), a distinct vegetation region. The Project site is relatively undisturbed. Native trees and shrubs are abundant with a low lying understory of herbaceous natives and non-natives. Vegetation within the site is relatively diverse. Within the drainages the vegetation is dominated by shrubs and herbaceous understory and most closely corresponds with Sawyer et al.'s (2009) creosote bush-white burr sage scrub (*Larrea tridentata-Ambrosia dumosa* shrubland alliance) (9.15 acres). Upland vegetation is dominated by shrubs and trees and most closely corresponds with Sawyer et al.'s (2009) Joshua Tree woodland (*Yucca brevifolia* woodland alliance) (70.36 acres). Dominant species on-site include native trees such as Joshua trees (*Yucca brevifolia*), native shrubs such as creosote bush (*Larrea tridentata*), white burr sage (*Ambrosia dumosa*), cheesebush (*Ambrosia* [*Hymenoclea*] *salsola* var. *salsola)*, and Mojave yucca (*Yucca schedigera*), and non-native herbs such as red brome (*Bromus madritensis* ssp. *rubens*), red-stem fillaree (*Erodium cicutarium*), and Arab grass (*Schismus arabicus*). See Figure 2 for a map of the vegetation communities and Appendix B for a plant species list.

4.1.2 Soils

The Project site is located in Lucerne Valley which is surrounded by the Granite mountain range, the Ord mountain range, and the San Bernardino mountain range. Lucerne Valley is characterized by relatively flat-lying topography. The Soil Survey for the San Bernardino County, California, Mojave River Area (USDA-NRCS SSURGO 2008) indicates that three soil types occur within the Project site, including the Arizo, Cajon, and Trigger series, which are described below. None of the soil series within the Project site are identified as hydric soils by the Soil Survey. The descriptions of these soils below are abridged from the USDA-NRCS Official Soil Series Description database (USDA-NRCS 2011) and reflect characteristics of the soils as series, not specific characteristics of the Agincourt Project site. See Figure 3 for a map of the soil types.

4.1.2.1 Arizo Series

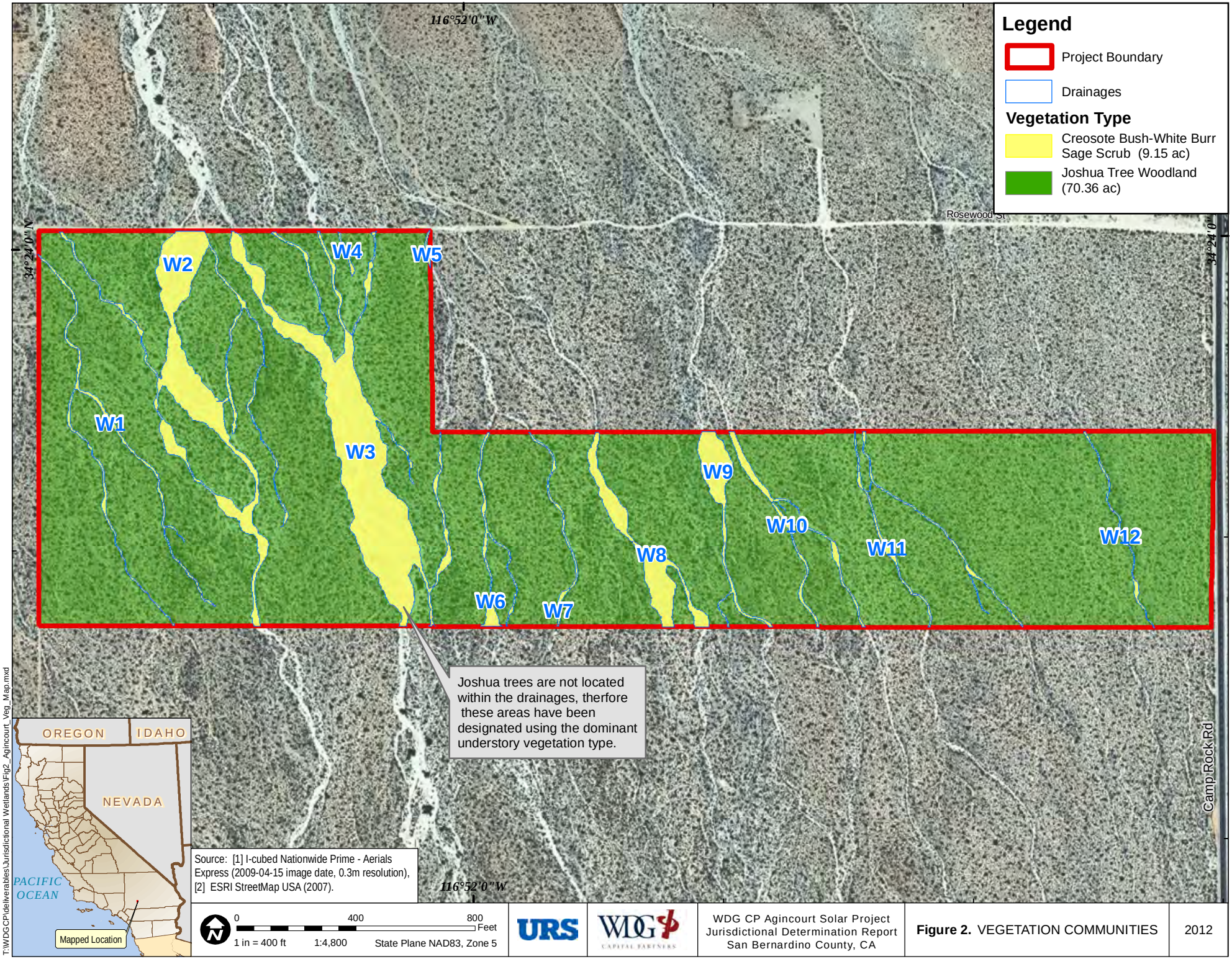
The Arizo series consists of very deep, excessively drained soils that formed in mixed alluvium. Arizo soils occur on recent alluvial fans, inset fans, fan apron, fan skirts, stream terraces, and floodplains of intermittent streams and channels. Slopes range from 0 to 15 percent. For the geographical area in which these soils occur, the mean annual precipitation is approximately 18 cm (7 in) and the mean annual temperature is about 17°C (62°F). Arizo soils tend to be used for rangeland and wildlife habitat. The associated vegetation is mainly creosote bush and white burr sage. Arizo soils are Entisols, which are defined by a dominance of mineral soil materials and an absence of distinct horizons. They are taxonomically classified as Sandy-skeletal, mixed, thermic Typic Torriorthents. Arizo soils occur in a majority of the Project site.

4.1.2.2 Cajon Series

The Cajon series consists of very deep, somewhat excessively drained soils that formed in sandy alluvium from dominantly granitic rocks. Cajon soils occur on alluvial fans, fan aprons, fan skirts, inset fans, and river terraces. Slopes range from 0 to 15 percent. For the geographical area in which these soils occur, the average annual precipitation is approximately 15.24 cm (6 in) and the mean annual temperature is approximately 18°C (65°F). Cajon soils are used mostly for range, watershed, and recreation; although specific examples for watershed and recreation use are not defined by the USDA-NRCS Official Soil Series Description database. A few areas are irrigated and are used for growing alfalfa and other crops. The associated vegetation is mostly desert shrubs including creosote bush, saltbush (*Atriplex* spp.), Mormon tea (*Ephedra* spp.), Joshua trees, some Indian ricegrass (*Stipa* [*Achnatherum*] *hymenoides*), annual grasses, and forbs. Cajon soils are Entisols. They are taxonomically classified as mixed, thermic Typic Torripsamments. Cajon soils occur in a small portion of the eastern side of the Project site.

4.1.2.3 Trigger Series

The Trigger series consists of shallow, well drained soils that formed in material weathered from hard sedimentary rocks. Trigger soils occur on uplands. Slopes range from 5 to 50 percent. For the geographical area in which these soils occur, the average annual precipitation is approximately 10.2 cm (4 in) and the average annual temperature is approximately 17°C (63°F). Trigger soils are used for wildlife habitat, limited grazing, and recreation. The associated vegetation is creosote bush, cactus, annual grasses, and forbs. Trigger soils are Entisols. They are taxonomically classified as loamy, mixed, superactive, calcareous, thermic Lithic Torriorthents. Trigger soils occur in a small portion of the eastern side of the Project site.


Legend
Project Boundary
Drainages
Vegetation Type
Creosote Bush-White Burr Sage Scrub (9.15 ac)
Joshua Tree Woodland (70.36 ac)
116°52'0"W
34°24'0"N
Rosewood St
Camp Rock Rd
W1
W2
W3
W4
W5
W6
W7
W8
W9
W10
W11
W12
Joshua trees are not located within the drainages, therfore these areas have been designated using the dominant understory vegetation type.
OREGON
IDAHO
NEVADA
PACIFIC OCEAN
Mapped Location
Source: [1] I-cubed Nationwide Prime - Aerials Express (2009-04-15 image date, 0.3m resolution), [2] ESRI StreetMap USA (2007).
0
400
800
Feet
1 in = 400 ft
1:4,800
State Plane NAD83, Zone 5
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WDG CAPITAL PARTNERS
WDG CP Agincourt Solar Project
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San Bernardino County, CA
Figure 2. VEGETATION COMMUNITIES
2012
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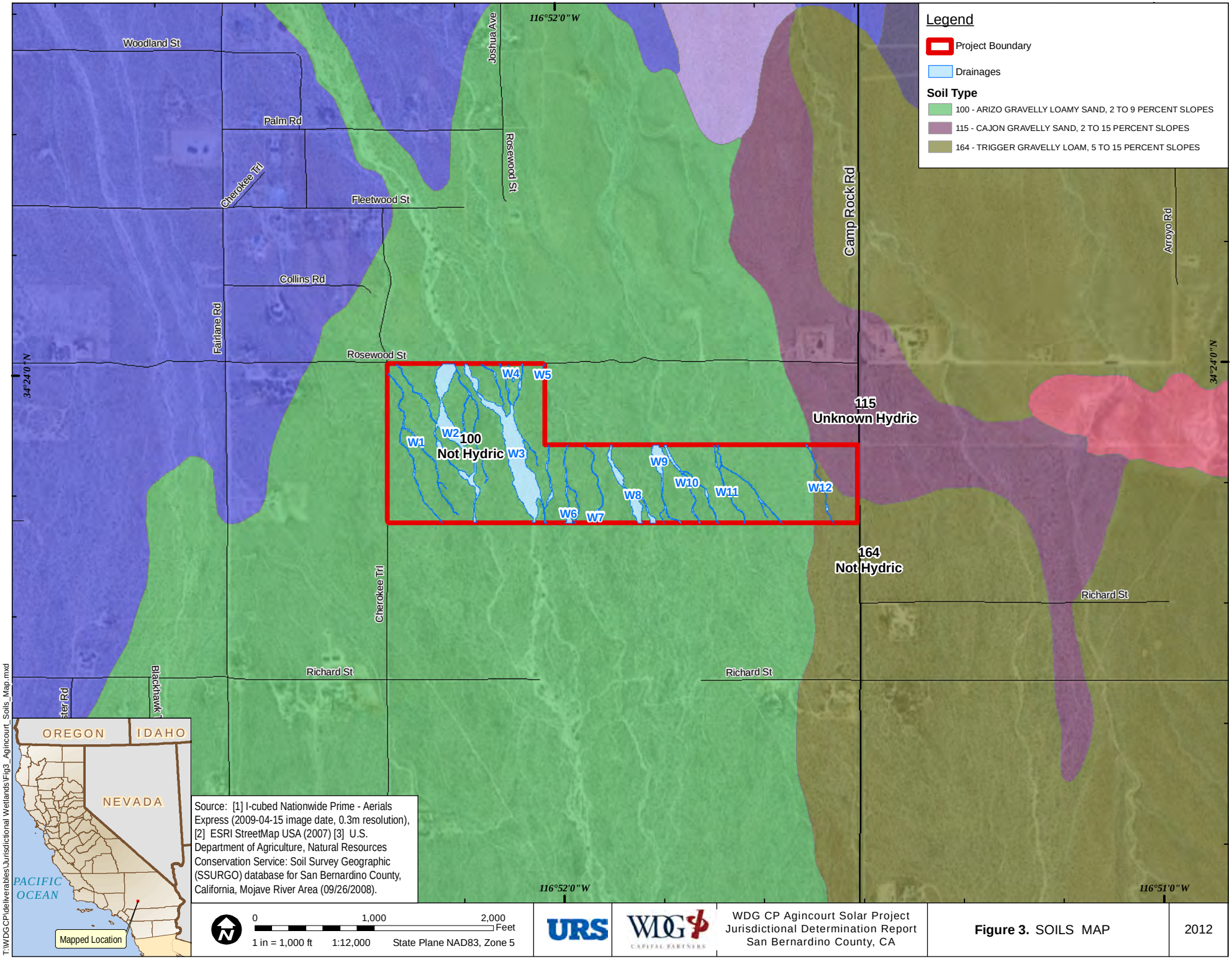
Legend
Project Boundary
Drainages
Soil Type
100 - ARIZO GRAVELLY LOAMY SAND, 2 TO 9 PERCENT SLOPES
115 - CAJON GRAVELLY SAND, 2 TO 15 PERCENT SLOPES
164 - TRIGGER GRAVELLY LOAM, 5 TO 15 PERCENT SLOPES
116°52'0"W
116°51'0"W
34°24'0"N
Woodland St
Palm Rd
Cherokee Trl
Fleetwood St
Joshua Ave
Rosewood St
Camp Rock Rd
Arroyo Rd
Collins Rd
Fairlane Rd
Rosewood St
Richard St
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W1
W2
W3
W4
W5
W6
W7
W8
W9
W10
W11
W12
100
Not Hydric
115
Unknown Hydric
164
Not Hydric
OREGON
IDAHO
NEVADA
PACIFIC OCEAN
Mapped Location
Source: [1] I-cubed Nationwide Prime - Aerials Express (2009-04-15 image date, 0.3m resolution), [2] ESRI StreetMap USA (2007) [3] U.S. Department of Agriculture, Natural Resources Conservation Service: Soil Survey Geographic (SSURGO) database for San Bernardino County, California, Mojave River Area (09/26/2008).
0
1,000
2,000
Feet
1 in = 1,000 ft
1:12,000
State Plane NAD83, Zone 5
URS
WDG
CAPITAL PARTNERS
WDG CP Agincourt Solar Project
Jurisdictional Determination Report
San Bernardino County, CA
Figure 3. SOILS MAP
2012
T:\WDGCP\deliverables\Jurisdictional Wetlands\Fig3_Agincourt_Soils_Map.mxd

4.1.3 Hydrology

According to the Watershed Boundary Dataset prepared by the California Interagency Watershed Mapping Committee (CalWater), which is responsible for all interagency watershed mapping and dataset creation in the state of California, the Project site is within the Lucerne Lake hydrologic unit of the Colorado River hydrologic region. More specifically, the site is within the Lucerne Lake planning watershed in the Lucerne Lake super planning watershed (CalWater 2004)[1]. This watershed is not tributary to the ocean or any other water body; rather, all water either infiltrates into the groundwater basin, evaporates, or flows toward the dry lakebed of Lucerne Lake. On-site drainages originate off-site (south) in the San Bernardino Mountains and convey flows downstream (northwest), ultimately conveying flow to the dry lakebed of Lucerne Lake via sheet flow. Drainage patterns within the site are well-defined in most cases, with many tributaries and interconnected/braided systems occurring on-site. Twelve main drainage systems bisect the Project site (see Section 4.2 for further details). All flow channels on-site are intermittent or ephemeral and likely only receive stream flow during and following significant rain events. Lucerne Valley is characterized by a moderate climate with warm, dry summers and cold, dry winters with occasional dustings of snowfall. Average monthly temperatures range from 30°F in January and February to 99°F in July and August. Average monthly rainfall totals range from 0.05 inches in June to 1.26 inches in February, with an average yearly total of 6.19 inches (The Weather Channel 2011).

4.2 JURISDICTIONAL DRAINAGES

The USGS 7.5 minute quadrangle map (USGS 1994) and the National Hydrography Dataset (NHD 2000) indicated the presence of two potential on-site intermittent drainages, represented by a dashed blue line on these maps. The drainages are located in the central portion the Project site, and were detected and evaluated in the field. In addition, field investigations identified ten other well-defined drainages, which were also evaluated. These drainages are described below, and drainage characteristics are summarized in Table 1.

4.2.1 Drainage W1

This ephemeral drainage was not mapped on the USGS topographic map, but was delineated in the field by URS staff. Drainage W1 is comprised of two drainages that originate off-site (south) and merge into one drainage that conveys flows downstream (northwest) and off-site. Near the northern (downstream) boundary of the Project site, a dirt road crosses the drainage.

[1] The California Interagency Watershed Map is the State of California's working definition of watershed boundaries. The California Interagency Watershed Map describes California watersheds, beginning with the division of the State's 101 million acres into ten Hydrologic Regions (HR). Each HR is progressively subdivided into six smaller, nested levels: the Hydrologic Unit (HU, major rivers), Hydrologic Area (HA, major tributaries), Hydrologic Sub-Area (HSA), Super Planning Watershed (SPWS), and Planning Watershed (PWS). At the Planning Watershed level (the most detailed level), where implemented, polygons range in size from approximately 3,000 to 10,000 acres. At all levels, a total of 7,035 polygons represent the State's watersheds (CalWater 2004).

TABLE 1
DRAINAGE DESCRIPTIONS

Drainage	Length (Feet)	Width (Feet)	Depth (Feet)	Acreage	Description
W1	1,445	1 to 10 average, up to 15	0.25 to 3 average, up to 5	0.35	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated sand to cobble H: mostly defined gradual sloped banks; two ephemeral drainages merge into one ephemeral drainage
W2	1,620	Highly variable, 1 to 5 average, up to 148	0.5 to 3 average	2.44	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated sand to boulders H: defined cut banks; complex ephemeral braided system
W3	1,476	Highly variable, 5 to 10 average, up to 210	0.5 to 3 average, up to 4	3.96	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated sand to boulders H: main channel has mostly defined gradual sloped banks; side channels have mostly cut banks; complex ephemeral braided system
W4	160	3 to 13		0.03	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated sand to boulders H: defined gradual sloped banks; single ephemeral drainage; old channel that may have at one time been connected to W3, potential for connection during high flows
W5	128	2 to 8	Up to 4	0.02	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated sand to boulders H: defined gradual sloped banks; single ephemeral drainage; potentially connects upstream to W3, W6, and W7
W6	701	2 to 5 average, up to 50	0.25 to 1	0.21	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated H: defined cut banks; two ephemeral drainages merge into one ephemeral drainage
W7	733	3 to 5 average, Up to 17	0.25 to 1	0.10	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated sand to boulders H: mostly defined gradual sloped banks; single ephemeral drainage

TABLE 1 (CONTINUED)
DRAINAGE DESCRIPTIONS

Drainage	Length (Feet)	Width (Feet)	Depth (Feet)	Acreage	Description
W8	796	Up to 95	0.25 to 4	0.85	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated H: defined cut banks; two ephemeral drainages merge into one ephemeral drainage
W9	734	3 to 8 average, Up to 106	0.25 to 1	0.54	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated H: mostly defined gradual sloped banks; two ephemeral drainages merge into one ephemeral drainage
W10	832	3 to 8 average, Up to 28	0.25 to 1	0.31	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated H: mostly defined gradual sloped banks; two ephemeral drainages merge into one ephemeral drainage
W11	891	3 to 5 average, Up to 40	0.25 to 1	0.26	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated H: mostly defined gradual sloped banks; two ephemeral drainages connected by a small ephemeral drainage
W12	717	3 to 5 average, Up to 17	0.25 to 0.5	0.08	V: mostly un-vegetated channel bottom S: channel substrate: loose and unconsolidated, mostly sand; bank substrate: consolidated H: mostly defined gradual sloped banks; ephemeral single drainage

Note: Length and acreage was determined using GIS, width was determined in the field and using GIS, and depth was determined in the field.
V = Vegetation, S = Soils, H = Hydrology.

Under moderate flow conditions, flow from the drainage would flow over the dirt road to connect with the remainder of the drainage located downstream. Drainage W1 has mostly defined gradual sloped banks with some cut banks. Bank heights range from 0.25 feet 3 feet on average, with heights up to 5 feet. The length of Drainage W1 within the Project site is approximately 1,445 feet, and the width varies from 1 to 10 feet on average, with widths up to 15 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated although typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to cobble. The bank substrate is consolidated and composed mostly of sand to cobble with some boulders.

4.2.2 Drainage W2

This ephemeral drainage was not mapped on the USGS topographic map, but was delineated in the field by URS staff. Drainage W2 is complex braided system that originates off-site (south) and conveys flows northwest (downstream) and off-site. Near the northern (downstream) boundary of the Project site, a dirt road crosses the drainage. Under moderate flow conditions, flow from the drainage would flow over the dirt road to connect with the remainder of the drainage located downstream. Drainage W2 has mostly defined cut banks. Bank heights range from 0.5 feet 3 feet on average. The length of Drainage W2 within the Project site is approximately 1,620 feet, making it the longest on-site drainage, and the width varies from 1 to 5 feet on average, with widths up to 148 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to boulder. The bank substrate is consolidated and composed mostly of sand to cobble, with some boulders.

4.2.3 Drainage W3

This drainage is identified as the eastern most intermittent stream on the USGS topographic map. Drainage W3 is a complex braided system that originates off-site (south) and conveys flows northwest (downstream) and off-site. Near the northern (downstream) boundary of the Project site, a dirt road crosses the drainage. Under moderate flow conditions, flow from the drainage would flow over the dirt road to connect with the remainder of the drainage located downstream. Drainage W3 has mostly defined gradual sloped banks with some cut banks. Bank heights range from 0.5 feet 3 feet on average, with heights up to 4 feet. The length of Drainage W3 within the Project site is approximately 1,476 feet, and the width varies from 5 to 10 feet on average, with widths up to 210 feet, making it the widest on-site drainage. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage supports a few desert willows. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to boulder. The bank substrate is consolidated and composed of sand to boulder.

4.2.4 Drainage W4

This ephemeral drainage was not mapped on the USGS topographic map, but was delineated in the field by URS staff. Drainage W4 is a single drainage that appears to be an old channel that may have at one time been connected to Drainage W3. There is potential for connection between the drainages during high flows. Flow is conveyed northwest (downstream) and off-site. Near the northern (downstream) boundary of the Project site, a dirt road crosses the drainage. Under moderate flow conditions, flow from the drainage would flow over the dirt

road to connect with the remainder of the drainage located downstream. Drainage W4 has mostly defined gradual sloped banks with some cut banks. The length of Drainage W4 within the Project site is approximately 160 feet, and the width varies from 3 to 13 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to boulder. The bank substrate is consolidated and composed of sand to boulders.

4.2.5 Drainage W5

This ephemeral drainage was not mapped on the USGS topographic map, but was delineated in the field by URS staff. Drainage W5 is a single drainage that potentially connects upstream with Drainages W3, W6, and W7. Flows are conveyed northwest (downstream) and off-site. Near the northern (downstream) boundary of the Project site, a dirt road crosses the drainage. Under moderate flow conditions, flow from the drainage would flow over the dirt road to connect with the remainder of the drainage located downstream. Drainage W5 has mostly defined gradual sloped banks. Bank heights range up to 4 feet. The length of Drainage W5 within the Project site is approximately 128 feet, making it the shortest on-site drainage, and the width varies from 2 to 8 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to boulder. The bank substrate is consolidated and composed of sand to boulders.

4.2.6 Drainage W6

This ephemeral drainage was not mapped on the USGS topographic map, but was delineated in the field by URS staff. Drainage W6 is comprised of two drainages that originate off-site (south) and merge into one drainage that conveys flows northwest (downstream) and off-site. Drainage W6 has mostly defined cut banks. Bank heights range from 0.25 to 1 foot. The length of Drainage W6 within the Project site is approximately 701 feet, and the width varies from 2 to 5 feet on average, with widths up to 50 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from fine sand to boulder. The bank substrate is consolidated.

4.2.7 Drainage W7

This ephemeral drainage was not mapped on the USGS topographic map, but was delineated in the field by URS staff. Drainage W7 is comprised of a single drainage that originates off-

site (south) and conveys flows northwest (downstream) and off-site. Drainage W7 has mostly defined gradual sloped banks with some cut banks. Bank heights range from 0.25 to 1 foot. The length of Drainage W7 within the Project site is approximately 733 feet, and the width varies from 3 to 5 feet on average, with widths up to 17 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to boulder. The bank substrate is consolidated and composed of sand to boulders.

4.2.8 Drainage W8

This drainage is identified as the western most intermittent stream on the USGS topographic map. Drainage W8 is comprised of two drainages that originate off-site (south) and merge into one drainage that conveys flows northwest (downstream) and off-site. Drainage W8 has mostly defined cut banks with some defined gradual sloped banks. Bank heights range from 0.25 foot to 4 feet. The length of Drainage W8 within the Project site is approximately 796 feet, and the width varies up to 95 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to boulder. The bank substrate is consolidated.

4.2.9 Drainage W9

This ephemeral drainage was not mapped on the USGS topographic map, but was delineated in the field by URS staff. Drainage W9 is comprised of two drainages that originate off-site (south) and merge into one drainage that conveys flows northwest (downstream) and off-site. Drainage W9 has mostly defined gradual sloped banks with some cut banks. Bank heights range from 0.25 to 1 foot on average. The length of Drainage W9 within the Project site is approximately 734 feet, and the width varies from 3 to 18 feet on average, with widths up to 106 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to boulder. The bank substrate is consolidated.

4.2.10 Drainage W10

This ephemeral drainage was not mapped on the USGS topographic map, but was delineated in the field by URS staff. Drainage W10 is comprised of two drainages that originate off-site (south) and merge into one drainage that conveys flows northwest (downstream) and off-site. Drainage W10 has mostly defined gradual sloped banks with some cut banks. Bank heights

range from 0.25 to 1 foot. The length of Drainage W10 within the Project site is approximately 832 feet, and the width varies from 3 to 8 feet on average, with widths up to 28 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to boulder. The bank substrate is consolidated.

4.2.11 Drainage W11

This ephemeral drainage was not mapped on the USGS topographic map, but was delineated in the field by URS staff. Drainage W11 is comprised of two drainages that originate off-site (south) that are connected by a small drainage. Flows are conveyed northwest (downstream) and off-site. Drainage W11 has mostly defined gradual sloped banks with some cut banks. Bank heights range from 0.25 to 1 foot. The length of Drainage W11 within the Project site is approximately 891 feet, and the width varies from 3 to 5 feet on average, with widths up to 40 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to boulder. The bank substrate is consolidated.

4.2.12 Drainage W12

This ephemeral drainage was not mapped on the USGS topographic map, but was delineated in the field by URS staff. Drainage W12 is a single drainage that originates off-site (south) and conveys flows northwest (downstream) and off-site. Drainage W12 has mostly defined gradual sloped banks with some cut banks. Bank heights range from 0.25 to 0.5 foot. The length of Drainage W12 within the Project site is approximately 717 feet, and the width varies from 3 to 5 feet on average, with widths up to 17 feet. Sinuosity is mild, as the channel is relatively straight. The channel bottom is mostly un-vegetated and typical desert wash species occur along the banks. The drainage does not support any riparian vegetation. The substrate within the channel bottom is loose and unconsolidated and composed mostly of sand, with varying particle size from sand to boulder. The bank substrate is consolidated.

4.3 JURISDICTIONAL WETLANDS

No jurisdictional wetlands were observed on-site. Refer to Section 3.2.2 for information on lack of hydrophitic vegetation, hydric soils, and wetland hydrology.

4.4 SUMMARY OF REGULATORY AGENCY JURISDICTION

As described above, the Project site contains twelve drainages that exhibit bed/bank characteristics. A summary of the total acreage of waters subject to the permitting authority of the USACE, CDFG, and the Colorado River Basin RWQCB is presented below. All jurisdictional areas are displayed on Figure 4 and summarized in Table 2.

TABLE 2
ACREAGES OF JURISDICTIONAL AREAS WITHIN THE PROJECT SITE

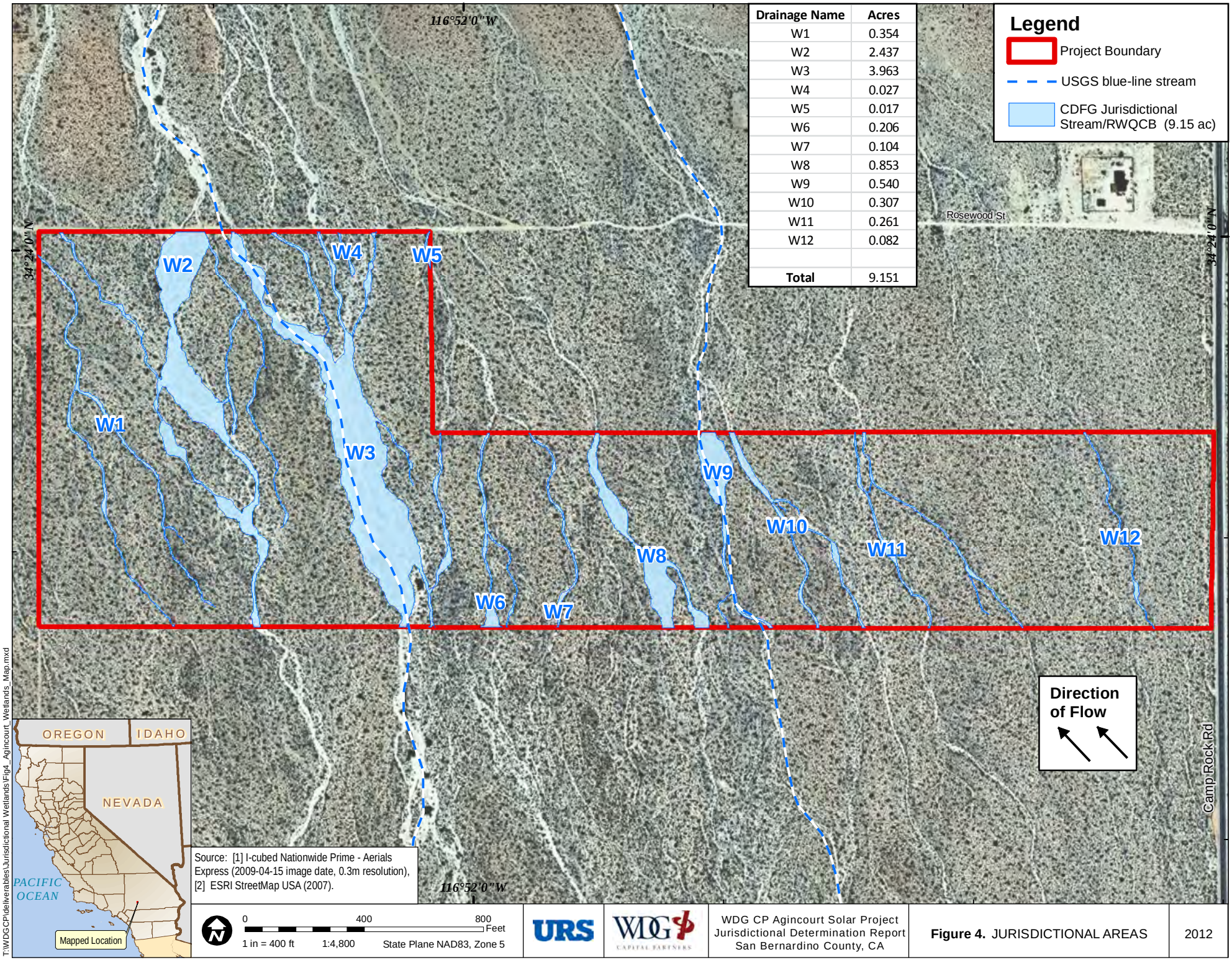
Drainage	Waters of the U.S. (Acres)	Waters of the State (Acres)	CDFG Jurisdictional Streams (Acres)
W1	--	0.35	0.35
W2	--	2.44	2.44
W3	--	3.96	3.96
W4	--	0.03	0.03
W5	--	0.02	0.02
W6	--	0.21	0.21
W7	--	0.10	0.10
W8	--	0.85	0.85
W9	--	0.54	0.54
W10	--	0.31	0.31
W11	--	0.26	0.26
W12	--	0.08	0.08
Total Jurisdictional Area	--	9.15	9.15

4.4.1 Waters of the United States

Because no hydrophytic vegetation (with the exception of a few desert willows), hydric soil, or wetland hydrology was observed on-site, no USACE-jurisdictional wetlands are present within the Project site. Further, because drainages within the Project site are contained within an isolated watershed that is not tributary to any navigable body of water, these ephemeral streams are not subject to CWA jurisdiction pursuant to regulatory guidance issued by the USACE and EPA (see 33 CFR Part 328). Thus, waters of the U.S. do not occur within the Project site.

4.4.2 Waters of the State

Although they lack federal CWA protection, the defined stream channels of Drainages W1 through W12 exhibit defined beds and banks, and are waters of the state. The jurisdictional



Drainage Name	Acres
W1	0.354
W2	2.437
W3	3.963
W4	0.027
W5	0.017
W6	0.206
W7	0.104
W8	0.853
W9	0.540
W10	0.307
W11	0.261
W12	0.082
Total	9.151

acreage in these areas under the Porter-Cologne Water Quality Control Act was determined to be coterminous with the extent of CDFG jurisdictional streambeds (see Section 4.4.3 below), due to the simple nature of the drainages present and the absence of any aquatic features that would be under the jurisdiction of one agency but not the other. A total of 9.15 acres of waters of the state under the jurisdiction of the Colorado River Basin RWQCB were present on the Project site (Figure 4).

4.4.3 California Department of Fish and Game Jurisdictional Streams

Because they exhibited a defined bed, banks, and channel, Drainages W1 through W12 are subject to the CDFG's permitting authority under Section 1600 *et seq*. of the California Fish and Game Code. A total of 9.15 acres of CDFG jurisdictional streams are present on the Project site (Figure 4). As stated above, the boundaries of CDFG-jurisdictional streambeds are coterminous with the limits of waters of the state in this case. A few riparian trees were present within Drainage W3. These trees were not adjacent to the top of bank and did not expand the jurisdictional boundary beyond the top of bank.

SECTION 5.0
CONCLUSIONS AND RECOMMENDATIONS

A total of 9.15 acres of intermittent drainages that are under the jurisdiction of the CDFG and the Colorado River Basin RWQCB are present at the Project site. No wetlands or non-wetland waters of the U.S. subject to CWA jurisdiction were found at the Project site, due to the fact that the waters present are intrastate and isolated from navigable waters.

5.1 U.S. ARMY CORPS OF ENGINEERS PERMIT REQUIREMENTS

Based on the current information available, no USACE permits will be needed for the proposed Project. However, URS recommends that this Wetland Delineation and Jurisdictional Determination Report be submitted to the USACE's Los Angeles District for approval, and that WDG obtain written concurrence from the USACE regarding the conclusions presented herein. Written concurrence from the USACE should be included in the Project record, and WDG may be required to provide this information to San Bernardino County.

5.2 COLORADO RIVER BASIN REGIONAL WATER QUALITY CONTROL BOARD PERMIT REQUIREMENTS

The Project site contains twelve intermittent drainages, comprising a total of 9.15 acres of waters of the state. If the Project impacts waters of the state, Colorado River Basin RWQCB permits would be needed. Pursuant to the Porter-Cologne Water Quality Control Act, WDG would be required to obtain authorization from the Colorado River Basin RWQCB if the proposed Project would discharge any pollutant (including fill material for construction) into these drainages. Because the waters present are not subject to CWA jurisdiction, a Section 401 Water Quality Certification would not be required. If feasible, avoiding impacts to waters of the state by planning for these features during site design would reduce the overall impacts of the Project, and would eliminate the need for RWQCB authorization. If impacts to waters of the state cannot be avoided, URS recommends that WDG obtain authorization from the Colorado River Basin RWQCB prior to discharging any fill or other material into the on-site drainages.

5.3 CALIFORNIA DEPARTMENT OF FISH AND GAME PERMIT REQUIREMENTS

The Project site contains twelve intermittent drainages, comprising a total of 9.15 acres of CDFG-jurisdictional streambeds. If the Project impacts CDFG-jurisdictional streambeds, CDFG permits would be needed. Sections 1600 *et seq.* of the California Fish and Game Code regulate activities that would alter the flow, bed, channel, or bank of streams and lakes. Any Project-related impacts to on-site CDFG-jurisdictional streambeds would require authorization in the form of a Streambed Alteration Agreement from CDFG. A Streambed Alteration Agreement for the Project would contain terms and conditions governing the nature of the impacts allowed, and

may include restrictions on the locations, methods, or timing of Project activities affecting the streams. In addition, compensatory mitigation to offset any permanent losses of streambeds caused by the Project may be required. If feasible, avoiding impacts to CDFG-jurisdictional streambeds by planning for these features during site design would reduce the overall impacts of the Project, and would eliminate the need for CDFG authorization. If impacts to CDFG-jurisdictional streambeds cannot be avoided, URS recommends that WDG submit a Notification of Lake or Streambed Alteration to the CDFG prior to diverting, obstructing, or altering the on-site drainages.

SECTION 6.0
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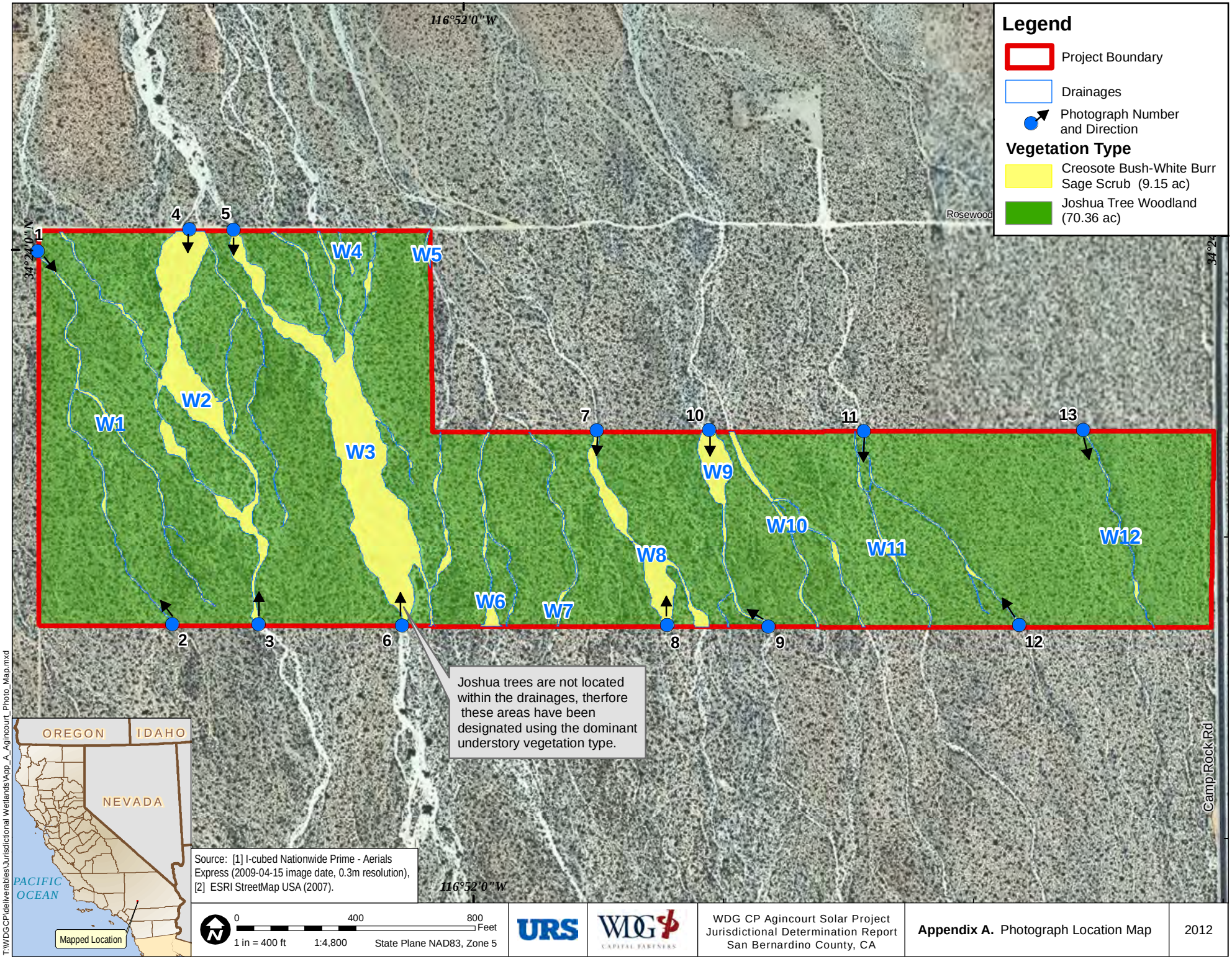
APPENDIX A
PHOTO DOCUMENTATION


Legend
Project Boundary
Drainages
Photograph Number and Direction
Vegetation Type
Creosote Bush-White Burr Sage Scrub (9.15 ac)
Joshua Tree Woodland (70.36 ac)
116°52'0"W
34°22'0"N
Rosewood
Camp Rock Rd
W1
W2
W3
W4
W5
W6
W7
W8
W9
W10
W11
W12
1
2
3
4
5
6
7
8
9
10
11
12
13
Joshua trees are not located within the drainages, therfore these areas have been designated using the dominant understory vegetation type.
OREGON
IDAHO
NEVADA
PACIFIC OCEAN
Mapped Location
Source: [1] I-cubed Nationwide Prime - Aerials Express (2009-04-15 image date, 0.3m resolution), [2] ESRI StreetMap USA (2007).
0
400
800
Feet
1 in = 400 ft
1:4,800
State Plane NAD83, Zone 5
URS
WDG CP Agincourt Solar Project
Jurisdictional Determination Report
San Bernardino County, CA
Appendix A. Photograph Location Map
2012
T:\WDGCP\deliverables\Jurisdictional Wetlands\App_A_Agincourt_Photo_Map.mxd

Photograph 1. September 12, 2011.
View to the southeast, taken from northern project boundary.
Drainage W1, facing upstream. APN 0449-641-04.

Photograph 2. September 12, 2011.
View to the north, taken from southern project boundary.
Drainage W1, facing downstream. APN 0449-641-04.

Photograph 3. September 12, 2011.
View to the north, taken from southern project boundary.
Drainage W2, facing downstream. APN 0449-641-04.

Photograph 4. September 12, 2011.
View to the south, taken from northern project boundary.
Drainage W2, facing upstream. APN 0449-641-04.

Photograph 5. September 12, 2011.
View to the south, taken from northern project boundary.
Drainage W3, facing upstream. APN 0449-641-04.

Photograph 6. September 12, 2011.
View to the north, taken from southern project boundary.
Drainage W3, facing downstream. APN 0449-641-04.

Photograph 7. September 12, 2011.
View to the south, taken from northern project boundary.
Drainage W8, facing upstream. APN 0449-641-27.

Photograph 8. September 12, 2011.
View to the north, taken from southern project boundary.
Drainage W8, facing downstream. APN 0449-641-27.

Photograph 9. September 13, 2011.
View to the northwest, taken from southern project boundary.
Drainage W9, facing downstream. APN 0449-641-27.

Photograph 10. September 13, 2011.
View to the south, taken from northern project boundary.
Drainage W9, facing upstream. APN 0449-641-27.

Photograph 11. September 13, 2011.
View to the south, taken from northern project boundary.
Drainage W11, facing upstream. APN 0449-641-27.

Photograph 12. September 13, 2011.
View to the northwest, taken from southern project boundary.
Drainage W11, facing downstream. APN 0449-641-27.

Photograph 13. September 13, 2011.
View to the south, taken from northern project boundary.
Drainage W12, facing upstream. APN 0449-641-27.

APPENDIX B
PLANT SPECIES LIST

TABLE B-1
PLANT SPECIES LIST

Scientific Name	Common Name	Habit	Family	Dominant?
Ambrosia acanthicarpa	Annual Burr Sage	AH	Asteraceae	
Ambrosia dumosa	White Burr Sage	S	Asteraceae	Y
Ambrosia [*Hymenoclea*] *salsola* var. *salsola*	Cheesebush	S	Asteraceae	Y
Amsinckia tessellata ssp. *tessellata*	Desert Fiddleneck	AH	Boraginaceae	
Brassica tournifortia[1]	Sahara Mustard	AH	Brassicaceae	
Bromus madritensis ssp. *rubens*[1]	Red Brome	AG	Poaceae	Y
Bromus tectorum[1]	Soft Chess	AG	Poaceae	
Calycoseris parryi	Yellow Tack-stem	AH	Asteraceae	
Camissonia boothii ssp. *desertorum*	Booth's Shredding Primrose	AH	Onagraceae	
Castilleja angustifolia	Desert Indian Paintbrush	PH	Orobanchaceae	
Chaenactis macrantha	Mojave Pincushion	AH	Asteraceae	
Chaenactis stevioides	Desert Pincushion	AH	Asteraceae	
Chilopsis linearis	Desert Willow	S	Bignoniaceae	
Chorizanthe brevicornu var. *brevicornu*	Brittle Spineflower	AH	Polygonaceae	
Cryptantha echinella	Hedgehog Forget-Me-Not	AH	Boraginaceae	
Cryptantha micrantha	Eremocarya Forget-Me-Not	AH	Boraginaceae	
Cylindropuntia (*Opuntia*) *echinocarpa*	Wigin's Cholla	S	Cactaceae	
Cylindropuntia ramosisima	Pencil Cholla	S	Cactaceae	
Datura wrightii	Jimsonweed	PH	Solanaceae	
Delphinium parishii ssp. *parishii*	Parish's Larkspur	PH	Ranunculaceae	
Descurainia californica	California Tansy Mustard	AH	Brassicaceae	
Echinocereus engelmannii	Hedgehog Cactus	S	Cactaceae	
Echincocactus polycephalus	Cotton Top Cactus	S	Cactaceae	
Elymus elymoides ssp. *elymoides*	Squirreltail	PG	Poaceae	
Encelia farinosa	Brittlebush	S	Asteraceae	
Encelia frutescens	Desert Brittlebush	S	Asteraceae	
Ephedra californica	California Ephedra	S	Ephedraceae	
Ephedra nevadensis	Nevada Ephedra	S	Ephedraceae	
Ericameria cooperi var. *cooperi*	Cooper's Goldenbush	S	Asteraceae	
Eriogonum fasciculatum var. *polifolium*	Desert Wild Buckwheat	S	Polygonaceae	
Eriogonum inflatum var. *inflatum*	Desert Trumpet	AH	Polygonaceae	
Eriogonum pusillum	Yellow Turbans	AH	Polygonaceae	
Eriophyllum pringlei	Pringle's Woolly Daisy	AH	Asteraceae	

TABLE B-1 (CONTINUED)
PLANT SPECIES LIST

Scientific Name	Common Name	Habit	Family	Dominant?
Eriophyllum wallacei	Wallace's Woolly Daisy	AH	Asteraceae	
Erodium cicutarium[1]	Redstem Filaree	AH	Geraniaceae	Y
Gilia sp.	Gilia	AH	Polemoniaceae	
Ferocactus cylindraceus	Barrel Cactus	S	Cactaceae	
Glyptopleura marginata	Prickly Leaf Sculpted Fruit	AH	Asteraceae	
Grayia spinosa	Hop Sage	S	Chenopodiaceae	
Krameria sp.	Ratany	S	Krameriaceae	
Kraschennikovia lanata	Winter Fat	S	Chenopodiaceae	
Larrea tridentata	Creosote Bush	S	Zygophyllaceae	Y
Lepidium fremontii var. *fremontii*	Fremont Peppergrass	S	Brassicaceae	
Lepidospartum squamatum	Scale Broom	*S*	*Asteraceae*	
Linanthus aureus ssp. *aureus*	Desert Gold	AH	Polemoniaceae	
Loeseliastrum schottii	Schott's Calico	AH	Polemoniaceae	
Lycium andersonii	Anderson's Desert Thorn	S	Solanaceae	
Malacothrix californica	California Desert Dandelion	AH	Asteraceae	
Mentzelia jonesii	Jones' Stickleaf	AH	Loasaceae	
Mirabilis sp.	Wishbone Bush	PH	Nyctaginaceae	
Opuntia basilaris ssp. *basilaris*	Beavertail Cactus	S	Cactaceae	
Pectocarya heterocarpa	Chuckwalla Pectocarya	AH	Boraginaceae	
Peritoma (*Isomeris*) *arborea*	Bladderpod	*S*	Cleomaceae	
Petalonyx thurberi	Sandpaper Plant	PH	Loasaceae	
Phacelia crenulata var. *ambigua*	Purplestem Scorpionweed	AH	Boraginaceae	
Phacelia tanacetifolia	Tansy Phacelia	AH	Boraginaceae	
Pleuraphis (*Hilaria*) *rigida*	Galleta grass	PG	Poaceae	
Rafinesquia neomexicana	Desert Chicory	AH	Asteraceae	
Salsola tragus (*S. kali*)	Russian Thistle	AH	Chenopodiaceae	
Schismus arabicus[1]	Arab Grass	AG	Poaceae	Y
Sphaeralcea ambigua var. *rugosa*	Desert Mallow	PH	Malvaceae	
Stephanomeria pauciflora	Wire Lettuce	PH	Asteraceae	
Stipa (*Achnatherum*) *hymenoides*	Indian Rice Grass	PG	Poaceae	
Xylorhiza tortefolia var. *tortefolia*	Desert Aster	PH	Asteraceae	
Yucca brevifolia	Joshua Tree	T	Agavaceae	Y
Yucca schidigera	Mojave Yucca	S	Agavaceae	Y

[1] Non-native species.

TABLE B-1 (CONTINUED)
PLANT SPECIES LIST

Notes:
Scientific nomenclature, native status, and habit follows Jepson 2012.
Habit definitions:

AF = annual fern or fern ally	AV= annual vine	PF = perennial fern or fern all	PV = perennial vine
AG = annual grass or graminoid	AV= annual vine	PG= perennial grass or graminoid	S = shrub
AH = annual herb	BH = biennial herb	PH = perennial herb	T = tree