Cultural Resources Inventory Report

Big Rock 2 Cluster Solar and Storage Project,

Imperial County, California

MAY 2024

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El Centro, California 92243

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This report was prepared by Dudek Archaeologists Angela Pham, MA, RPA; Roshanne Bakhtiary, MA; Keshia Montifolca MA, RPA; and Micah Hale, PhD, RPA, who meet the Secretary of the Interior's professional qualifications standards for archaeology. This report is intended for the exclusive use of the Client and its representatives. It contains professional conclusions and recommendations concerning the potential for project-related impacts to cultural resources based on the results of Dudek's investigation. It should not be considered to constitute project clearance with regard to the treatment of cultural resources or permission to proceed with the project described in lieu of review by the appropriate reviewing or permitting agency. This report should be submitted to the appropriate state and local review agencies for their comments prior to the commencement of the project.

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National Archaeological Database (NADB) Information

Authors:	Angela Pham, MA, RPA; Roshanne Bakhtiary, MA; Keshia Montifolca, MA, RPA; Micah Hale, PhD, RPA
Firm:	Dudek
Project Proponent:	90FI 8me LLC
Report Date:	April 2024
Report Title:	Cultural Resources Inventory Report for the Big Rock Cluster Solar and Storage Project, Imperial County, California
Type of Study:	Phase I Cultural Resources Inventory
Resources:	None
USGS Quads:	Seeley, Plaster City, and Mount Signal, California USGS 7.5 Minute Series Quadrangles, Township 16S, Range 12E; Sections 14, 15, 16, 20, 21, 22, 23, 26, 27, 28, 29, 33, 34
Acreage:	1,849-acres
Permit Numbers:	N/A
Keywords:	positive, inventory, cultural resources, solar, imperial county

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Management Summary

Dudek conducted a Phase I cultural resources inventory study for the Big Rock 2 Energy Project (Project). The Project is located in unincorporated Imperial County, California, south of Interstate Highway 8 and west of the town of El Centro, California. The Project proposes to develop a PV solar energy generation and battery energy storage system (BESS) facility on approximately 1,849-acres of agricultural land. The entire 1,849-acre area will be developed and disturbed by Project implementation. The cultural resources Project area (Project area) is composed of the following 24 Assessor's Parcel Numbers (APNs): 051-270-020, 051-270-028, 051-270-036, 051-270-041, 051-280-054, 051-290-018, 051-290-019, 051-300-011, 051-300-016, 051-300-026, 051-300-032, 051-300-035, 051-300-36, 051-300-037, 051-310-027, 051-310-028,051-320-005, 051-320-006, 051-320-007, 051-330-003, 051-350-004, 051-350-006, 051-350-007, and 051-350-008 (Figure 1, Project Location). This study included a records search, an archival information and literature review, a cultural resources pedestrian survey of the 1,849-acre Project area, and the preparation of this cultural resources technical report.

This study was completed under the provisions of local regulations as well as the California Environmental Quality Act (CEQA). Public Resources Code (PRC) Section 5024.1, Title 14 California Code of Regulations (CCR) Section 15064.5 of the CEQA Guidelines, and PRC Sections 21083.2 and 21084.1 were also used as basic guidelines for this cultural resources study (Governor's Office of Planning and Research 1998). PRC Section 5024.1 requires the identification and evaluation of cultural resources to determine their eligibility for the California Register of Historical Resources (CRHR).

Dudek conducted a records search of the proposed Project area and surrounding one-mile radius at the South Coastal Information Center (SCIC). The records search identified seven (7) previously recorded cultural resources within the Project area (P-13-003403, P-13-012688, P-13-012689, P-13-012693, P-13-013758, P-13-014263, and P-13-014975), and eighteen (18) previously recorded cultural resources within the one-mile radius. The previously recorded cultural resources within the Project area are all considered historic-era built environment resources and include a wagon road, four (4) canal/water conveyance systems, and two (2) single-family residences. All built environment resources identified as part of this Project are addressed in the *Built Environment Inventory and Evaluation Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California*, prepared by Dudek in 2024 (Brisentine et al. 2024). In addition to a discussion of the previously recorded cultural resources within the Project area, the built environment report also discusses five (5) additional historic-era built environment resources (Map ID 3, Map ID 8, Map ID 17, Map ID 18, and Map ID 19) that were identified during the built environment pedestrian survey for the Project.

No prehistoric or historic-era archaeological resources were identified as part of the cultural resources pedestrian survey in support of this Project. A review of historic topographic maps and historic aerial imagery indicate the Project area and the surrounding properties were used primarily for agricultural and residential purposes throughout recorded history.

Dudek's Phase I inventory of the Project area suggests that there is a moderate potential for the inadvertent discovery of cultural resources during Project implementation. Based on available archival information, the presence of archaeological resources adjacent to the Project area, and in consideration of the topography, and the Project's vicinity to the New River; there is a moderate potential for the inadvertent discovery of archaeological resources during earth moving activities that will occur within the agricultural fields. Dudek recommends full time archaeological and Native American monitoring during initial ground disturbance for the

Project. If disturbed sediments (e.g., fill) or other sediments and formations are identified that do not have the potential to contain archaeological resources, then monitoring may be reduced or terminated.

The Built Environment Inventory and Evaluation Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California (Brisentine et al. 2024) determined that the Project would have no impact on historical resources as defined by CEQA and no further consideration of historic-era built environment resources is necessary prior to Project implementation (Brisentine et al. 2024). In addition, paleontological resources were evaluated for the Project and addressed in the Paleontological Resources Inventory Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California (Siren and Williams 2024) was prepared by Dudek for the Project. The paleontological resources survey did not observe in situ fossils within the Project area, however, the Project area is underlain by ancient Lake Cahuilla sediments that have high paleontological resource sensitivity or potential when not disturbed by agricultural activities. Surficial sediments that have been disturbed by agricultural activities or other man-made disturbances have low paleontological resource sensitivity or potential and do not require paleontological monitoring. A paleontological monitoring program was recommended during grading within previously undisturbed sedimentary deposits within the Project area (Siren and Williams 2024). Appended to this cultural resources inventory study are the Project's Built Environment Inventory and Evaluation Report (Appendix C) and the Paleontological Resources Inventory Report (Appendix D).

1 Introduction

Dudek conducted a Phase I cultural resources inventory study for the Big Rock 2 Cluster Solar and Storage Project (Project). The Project is located in unincorporated Imperial County, California, south of Interstate Highway 8 and west of the town of El Centro, California. The Project proposes to develop a PV solar energy generation and battery energy storage system (BESS) facility on approximately 1,849-acres of agricultural land. The entire 1,826-acre area will be developed and disturbed by Project implementation. The cultural resources Project area (Project area) is composed of the following 24 Assessor's Parcel Numbers (APNs): 051-270-020, 051-270-028, 051-270-036, 051-270-041, 051-280-054, 051-290-018, 051-290-019, 051-300-011, 051-300-016, 051-300-026, 051-300-032, 051-300-035, 051-300-036, 051-300-037, 051-310-027, 051-310-028, 051-320-005, 051-320-006, 051-320-007, 051-330-003, 051-350-004, 051-350-006, 051-350-007, and 051-350-008 (Figure 1, Project Location). This study included a records search, an archival information and literature review, a cultural resources pedestrian survey of the 1,849-acre Project area, and the preparation of this cultural resources technical report.

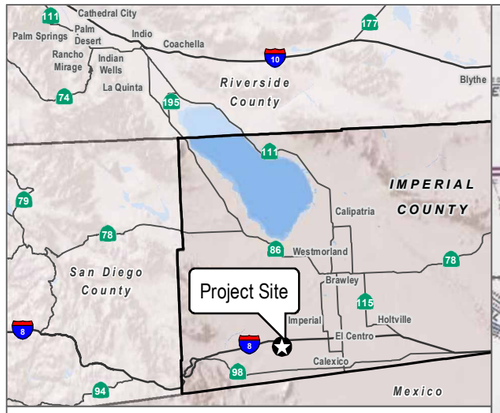
This study was completed under the provisions of local regulations as well as the California Environmental Quality Act (CEQA). Public Resources Code (PRC) Section 5024.1, Title 14 California Code of Regulations (CCR) Section 15064.5 of the CEQA Guidelines, and PRC Sections 21083.2 and 21084.1 were also used as basic guidelines for these cultural resources study (Governor's Office of Planning and Research 1998). PRC Section 5024.1 requires the identification and evaluation of cultural resources to determine their eligibility for the California Register of Historical Resources (CRHR).

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Dudek Archaeological Principal Investigator Angela Pham, M.A., and Registered Professional Archaeologist (RPA) managed the Project and co-authored this report with Dudek archaeologists Roshanne Bakhtiary M.A.; Keshia Montifolca, MA, RPA, and Micah Hale, PhD, RPA. Dudek archaeologists Javier Hernandez and Jason Collins, BA, served as field directors for the cultural resources field effort. Archaeologists Graham Plantz, Seth Bruck, Abigale Macias, Mark Abelon, Zachery Clow, and Norman Dimmick acted as field crew members.

Dudek also conducted built environment resources and paleontological resources investigation for the Project. Appended to this cultural resources inventory study are the *Built Environment Inventory and Evaluation Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California* (Brisentine et al. 2024 included in Appendix C) and *Paleontological Resources Inventory Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California* (Siren and Williams 2024 included in Appendix D).



- Project Boundary
- Project BESS
- Project Substation
- Switchyard
- Gen-Tie Line
- Alternative Gen-Tie Line

Township 16S Range 12E Section 13
Township 16S Range 12E Section 14
Township 16S Range 12E Section 15
Township 16S Range 12E Section 16
Township 16S Range 12E Section 17
Township 16S Range 12E Section 18
Township 16S Range 12E Section 19
Township 16S Range 12E Section 20
Township 16S Range 12E Section 21
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Township 16S Range 12E Section 31
Township 16S Range 12E Section 32
Township 16S Range 12E Section 33
Township 16S Range 12E Section 34
Township 16S Range 12E Section 35
Township 16S Range 12E Section 36

SOURCE: USGS 7.5-Minute Series Seeley, Plaster City, Mount Signal, Yuha Basin Quadrangles

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

P# 15207

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2 Project Description and Location

Dudek conducted a Phase I cultural resources inventory study for the Big Rock 2 Cluster Solar and Storage Project (Project). The Project is located in unincorporated Imperial County, California, south of Interstate Highway 8 and west of the town of El Centro, California. The Project proposes to develop a PV solar energy generation and battery energy storage system (BESS) facility on approximately 1,849-acres of agricultural land. The entire 1,849-acre area will be developed and disturbed by Project implementation. The cultural resources Project area (Project area) is composed of the following 24 Assessor's Parcel Numbers (APNs): 051-270-020, 051-270-028, 051-270-036, 051-270-041, 051-280-054, 051-290-018, 051-290-019, 051-300-011, 051-300-016, 051-300-026, 051-300-032, 051-300-035, 051-300-036, 051-300-037, 051-310-027, 051-310-028, 051-320-005, 051-320-006, 051-320-007, 051-330-003, 051-350-004, 051-350-006, 051-350-007, and 051-350-008. Specifically, the project is located in Township 16 South, Range 12 East, in Sections 14, 15, 16, 20, 21, 22, 23, 26, 27, 28, 29, 33, 34 of the Seeley, Plaster City, and Mount Signal, California USGS 7.5 Minute Series Quadrangles (Figure 1).

The Project includes the construction and operation of a 500-megawatt (MW) utility-scale photovoltaic solar energy generation and a 500MW battery energy storage system (BESS). The Project's permanent facilities would include service roads, a power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, project substations, energy storage system(s), and operations and maintenance (O&M) facilities. Power generated by the Project would be collected using up to 66-kilovolt (kV) collector lines, which could run overhead and/or underground to a dedicated Project substation. A 230-kV overhead gen-tie line would then link the Project substation to the planned Liebert Switchyard, which will be connected via an overhead 230-kilovolt gen-tie line to the existing San Diego Gas & Electric (SDG&E) Imperial Valley Substation.

2.1 Regulatory Context

This Project is subject to state and local regulations regarding cultural resources. The following section provides a summary of the applicable regulations, policies, and guidelines relating to the proper management of cultural resources for this project.

2.1.1 State Level Regulations

The California Register of Historic Resources (Public Resources Code section 5020 et seq.)

In California, the term "historical resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California Public Resources Code section 5020.1(j)). In 1992, the California legislature established CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California Public Resources Code section 5024.1(a)). A resource is eligible for listing in the CRHR if the State Historical Resources Commission determines that it is a significant resource and that it meets any of the following National Register of Historic Places (NRHP) criteria:

- Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

- Associated with the lives of persons important in our past.
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded, or may be likely to yield, information important in prehistory or history.

(California Public Resources Code section 5024.l).) Resources less than 50 years old are not considered for listing in the CRHR but may be considered if it can be demonstrated that sufficient time has passed to understand the historical importance of the resource (see 14 CCR, section 4852(d)(2)).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing on the NRHP are automatically listed on the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys. The State Historic Preservation Officer maintains the CRHR.

2.1.2 Native American Historic Cultural Sites (California Public Resources Code section 5097 et seq.)

State law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NRHC to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to 1 year in jail to deface or destroy an Indian historic or cultural site that is listed or may be eligible for listing in the CRHR.

2.1.3 California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act (California Repatriation Act), enacted in 2001, required all state agencies and museums that receive state funding and that have possession or control over collections of human remains or cultural items, as defined, to complete an inventory and summary of these remains and items on or before January 1, 2003, with certain exceptions. The California Repatriation Act also provides a process for the identification and repatriation of these items to the appropriate tribes.

2.1.4 California Environmental Quality Act

As described further below, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological and historic resources:

1. California Public Resources Code section 21083.2(g): Defines “unique archaeological resource.”
2. California Public Resources Code section 21084.1 and CEQA Guidelines section 15064.5(a): Define historical resources. In addition, CEQA Guidelines section 15064.5(b) defines the phrase “substantial adverse change in the significance of an historical resource;” it also defines the circumstances when a project would materially impair the significance of a historical resource.

3. California Public Resources Code section 5097.98 and CEQA Guidelines section 15064.5(e): Set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated cemetery.
4. California Public Resources Code sections 21083.2(b)-(c) and CEQA Guidelines section 15126.4: Provide information regarding the mitigation framework for archaeological and historic resources, including options of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context, and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (California Public Resources Code section 21084.1; CEQA Guidelines section 15064.5(b)). If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of California Public Resources Code section 5024.1(q)), it is a "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA (California Public Resources Code section 21084.1; CEQA Guidelines section 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (California Public Resources Code section 21084.1; CEQA Guidelines section 15064.5(a)).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines section 15064.5(b)(1); California Public Resources Code section 5020.1(q)). In turn, the significance of a historical resource is materially impaired when a project:

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA.

2.1.5 California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98.

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the County coroner has examined the remains (California Health and Safety Code Section 7050.5[b]). If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (California Health and Safety Code Section 7050.5[c]). In accordance with California Public Resources Code Section 5097.98(a), the NAHC will notify the Most Likely Descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. Within 48 hours of being granted access to the site, the MLD may recommend means of treatment or disposition, with appropriate dignity, of the human remains and associated grave goods.

2.1.6 Assembly Bill 52

California Assembly Bill 52 (AB 52), which took effect July 1, 2015, establishes a consultation process between California Native American Tribes and lead agencies in order to address tribal concerns regarding project impacts and mitigation to "tribal cultural resources" (TCR). Public Resources Code section 21074(a) defines TCRs and states that a project that has the potential to cause a substantial adverse change to a TCR is a project that may have an adverse effect on the environment. A TCR is defined as a site, feature, place, cultural landscape, sacred place, and object with cultural value to a California Native American tribe that is either:

1. listed or eligible for listing in the CRHR or a local register of historical resources, or
2. determined by a lead agency to be a TCR.

2.1.7 Traditional Cultural Properties

Native American Heritage Values

Federal and state laws mandate that consideration be given to the concerns of contemporary Native Americans with regard to potentially ancestral human remains, associated funerary objects, and items of cultural patrimony. Consequently, an important element in assessing the significance of the study site has been to evaluate the likelihood that these classes of items are present in areas that would be affected by the proposed project.

Also, potentially relevant to prehistoric archaeological sites is the category termed Traditional Cultural Properties in discussions of cultural resource management (CRM) performed under federal auspices. According to Patricia L. Parker and Thomas F. King (1998), "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. Examples of properties possessing such significance include:

1. A location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world;
2. A rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents;

3. An urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices;
4. A location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and
5. A location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity.

A Traditional Cultural Property, then, can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community.

2.1.8 County of Imperial

Section III(B) of the Imperial County Conservation and Open Space Element describes the cultural resources, goals and objectives to protect such resources (County of Imperial 2016). The planning goals and objectives are described below.

Goal 3 of the goals and objectives section of the Imperial County Conservation and Open Space Element addresses the preservation of cultural resources. Goal 3 states that the County will "preserve the spiritual and cultural heritage of the diverse communities of Imperial County." (County of Imperial 2016). Three objectives are enumerated to assist in implementation of the goal:

- **Objective 3.1:** Project and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.
- **Objective 3.2:** Develop management strategies to preserve the memory of important historic periods, including Spanish, Mexican, and early American settlements of Imperial County.
- **Objective 3.3:** Engage all local Native American Tribes in the protection of tribal cultural resources, including prehistoric trails and burials sites.

2.2 Project Personnel

Dudek Archaeological Principal Investigator Angela Pham, M.A., and Registered Professional Archaeologist (RPA) managed the Project and co-authored this report with Dudek archaeologists Roshanne Bakhtiary M.A.; Keshia Montifolca, MA; RPA; and Micah Hale, PhD, RPA. Dudek archaeologists Javier Hernandez and Jason Collins, BA, served as field directors for the cultural resources field effort. Archaeologists Graham Plantz, Seth Bruck, Abigale Macias, Mark Abelon, Zachery Clow, and Norman Dimmick acted as field crew members.

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3 Setting

3.1 Natural Setting

The Big Rock 2 Energy Project is located in California's Colorado Desert. The topography of the Project area is very flat, given its agricultural nature. Various earthen and concrete slab irrigation canals run on a north to south, east to west axis within and along the boundaries of the Project area. These are the only portions of the Project area with varying topographic relief. Current land use of the Project area includes active irrigated and dryland cropland, idle cropland, and developed land with agricultural and other rural infrastructure.

For detailed discussion relating to the environmental context of this area, please consult the biological, visual, and other technical studies prepared for The Big Rock 2 Energy Project.

3.2 Cultural Setting

The Project area is within California's Colorado Desert, a small part of the larger Sonoran Desert. The Colorado Desert encompasses Imperial County, and includes parts of San Diego County, Riverside County, and a small section of San Bernardino County, California. The general cultural sequence for the Colorado Desert can be viewed in terms of three or more time periods based on the evolutionary stages proposed by Willey and Phillips (1958). Among contemporary archaeologists and cultural resource managers, the Paleoindian and Archaic evolutionary stages of Willey and Phillips (1958) have evolved into time periods and, in southern California, their Formative stage became the Late Prehistoric time period. For this report, actual geological time periods and the evolutionary stage labels intended by Willey and Phillips will be employed. Within the time periods, various archaeological complexes occur on a regional basis. Various labels such as horizon, pattern and culture have been used, but the more universal term "complex" is preferred for this effort.

3.2.1 Late Pleistocene

Several researchers posit a Pre-Projectile Point Period that occurred in the late Pleistocene prior to the much better documented Clovis, San Dieguito, and Lake Mojave complexes (e.g., Begole 1974; Childers 1980; Hayden 1976). Archaeological material from the Greater Southwest dating to this posited Pre-Projectile Point Period is often called the Malpais Complex. Malpais is a term that was adapted from the early work of Malcolm Rogers, who used it to refer to what is now the first portion of the San Dieguito Lake Mojave Complex. The term was resurrected by Hayden (1976) to refer to a tool assemblage including choppers, scrapers, and other crude, core-based tools typically found on old desert pavements in the Sonoran Desert and in the Sierra Pinacate. These materials generally are heavily weathered, very darkly patinated and found deeply embedded in desert pavements. Lacking subsurface deposits, Hayden depended to a large degree upon the amount of patination and relative dates of geological formations to obtain relative dates. He argued that most of the Malpais Complex dates to some time prior to an altithermal that occurred about 20,000 years ago. At a shell scatter on a sand dune near Adair Bay on the Gulf of California, he was able to obtain, through radiocarbon dating, two subsurface dates on shell that were greater than 37,000 years before present (B.P.). He also obtained a surface date there of approximately 33,950 B.P. (corrected) (Hayden 1976). These very early dates are rather troubling to traditional "Clovis First" archaeologists and many are skeptical of the existence of this period (e.g., Schaefer 1994). Obtaining corroborating radiocarbon dates to support or refute this very early age for the Malpais continues to prove elusive.

3.2.2 Terminal Pleistocene-Very Early Holocene

The earliest well-documented sites in the southern Alta California desert region belong to the San Dieguito Complex, which is thought to date from approximately 11,000 to 9,300 B.P. to perhaps as late as 7,500 B.P. (Justice 2002; Warren et al. 1998). Beginning in 1924, Malcolm Rogers, of the San Diego Museum of Man, conducted surveys in the Colorado Desert during which he noted what became known as the San Dieguito Complex. Eventually, Rogers documented San Dieguito materials in the Mojave Desert, in Arizona, and as far south as San Quintin, in Baja California. The Project area is within Roger's Central Aspect for the San Dieguito (Rogers 1966).

Closely related to the San Dieguito are materials that have been identified in the Mojave Desert and in the Great Basin called the Lake Mojave Complex (Warren and Crabtree 1986; Warren et al. 1998). No San Dieguito radiocarbon dates have been published for the Colorado Desert, although many surface sites have been reported (Schaefer 1994).

Elsewhere, materials associated with human bone excavated on Santa Rosa Island were dated to 11,500 years B.P. (Johnson et al. 1999). Materials at Daisy Cave on San Miguel Island were also radiocarbon dated from approximately 11,600 to 11,000 B.P. (Erlandson 2007). Radiocarbon dated cultural deposits going back to approximately 15,000 B.P. have just been reported from the Debra L. Friedkin Site in Texas by Michael Waters (Ehrenberg 2011). While these scholars have substantiated the notion of terminal Pleistocene occupations in the American West, the relationships among these early sites and the San Dieguito Lake Mojave complex in the Colorado Desert are not yet understood.

The San Dieguito assemblage is typically dominated by finely flaked scrapers, planes, choppers and leaf-shaped projectile points made of slate-green felsite of the Santiago Peak Formation or fine-grained basalt. Evidence of seed grinding technology (manos and metates) is scarce or absent. Desert assemblages often contain Lake Mojave and Silver Lake projectile points that are rare along the coast. These points appear in the California deserts from about 11,000 to about 7,000 B.P. (Justice 2002:91; Warren and Crabtree 1986:184). San Dieguito sites in the deserts are typically found around dry Pleistocene playas and above ancient stream channels, not modern water sources. Rogers and many others have found numerous trails and cleared circles that they attribute to the San Dieguito in the Colorado Desert. The cleared circles are typically somewhat circular, but ovals and rectangles are also noted. These are also known as sleeping circles. Despite the problem with geometry, the terms 'cleared circles' and 'sleeping circles' are very well established in the archaeological literature. They are commonly interpreted as house or windbreak remains or just a smooth place to sleep. The desert site locations and assemblages suggest a subsistence emphasis on lacustrine resources, but the coastal San Dieguito sites seem to reflect a more generalized hunting and gathering economy with a special emphasis on marine resources, especially shellfish (Erlandson and Colten 1991; Warren et al. 1998).

3.2.3 Mid-Holocene

During the early and mid-Holocene, a generalized hunting and gathering economy, based to a large degree on collecting and grinding grasses and other hard seeds, appeared in the California deserts and along the coast. Beginning at approximately 8,500 years ago in southern Alta California, the assemblage is dominated by portable basin metates, manos, and crudely-fashioned core-based scrapers, choppers, and hammerstones. In the California deserts, Pinto series projectile points appear at about 8,000 B.P. and continue to about 4,000 B.P.

(Justice 2002:135). Gypsum series points begin to appear in desert sites at approximately 4,000 B.P. with the Elko series appearing shortly thereafter (Justice 2002: 294, 304). This assemblage suggests the mid-Holocene economy was more diversified and focused on gathering hard seeds and grasses, and on hunting small and big game. Near the Project area, McDonald (1992) found mid-Holocene cultural deposits in her excavation of Indian Hill rock shelter. Located in the Jacumba Mountains northwest of the current Project area, this is the only published excavation of a mid-Holocene archaeological site in the Colorado Desert. McDonald posits that the site was first occupied at about 5,000 B.P. She recovered 21 Elko dart points, one Gypsum Cave point, and four dart points that she was unable to type. She suggests that Indian Hill rock shelter functioned as a hunting camp for the mid-Holocene occupants (McDonald 1992).

3.2.4 Late Holocene

Around 2,000 B.P., patterns begin to emerge that suggest cultural links to the peoples found in the Colorado Desert at the time of the Spanish explorers (e.g., Alarcón and Diaz, in 1540 A.D.). This Late Holocene period is often referred to as the Late Prehistoric. The archaeological complex at this time in the Colorado Desert is referred to as the Yuman or Patayan Complex. It is recognized archaeologically by the presence of smaller projectile points, signaling the advent of the bow and arrow, the replacement of flexed inhumations with cremations, the introduction of ceramics, and an emphasis on plant food collection and processing, especially acorns and mesquite (Kroeber 1925; Schaefer 1994; Schaefer and Laylander 2007). Semi-sedentary rancherias were established along the Colorado River and around springs. These rancherias were not compact villages, but loose collections of residences and agricultural plots. Surrounding desert and mountain areas were seasonally occupied to exploit mesquite, acorns, and pinyon nuts. Mortars for mesquite and acorn processing become common for the first time in the area and bedrock milling features (slicks, basins, and mortars) first appear (Schaefer and Laylander 2007).

The highest frequency of archaeological resources in the Imperial Valley date to the Late Holocene. Most sites are small processing loci, associated with the grinding of plant resources. Larger habitation sites were less common, but displayed a wider range of activities and longer periods of occupation (Jefferson 1974; Schaefer and Laylander 2007). The typical Late Prehistoric assemblage includes Desert Side-Notched series and Cottonwood Triangular arrow points and Lower Colorado Buffware and Tizon Brownware ceramics. In the vicinity of the Project area, Salton Brownware ceramics are also found (Schaefer and Laylander 2007). Lithic artifacts are typically made from chert, volcanics, metavolcanics, or quartz materials (Jefferson 1974). The economy along the Colorado River and its sloughs, the Alamo River and New River, was based on mesquite collecting and flood plain horticulture. Corn, beans, and squash were the primary crops, but mesquite was the mainstay of the Kamia diet, even in years of good horticultural production (Castetter and Bell 1951; Gifford 1931).

During the Late Holocene, there were four or more events when Lake Cahuilla filled the Salton Sink up to the 40-foot elevation. As noted previously, Lake Cahuilla occurred periodically when the Colorado River filled up its river bed with silt in the area south of Pilot Knob. At these times the river changed course out of its silt-elevated channel and, instead of flowing into the Upper Gulf of California, flowed west down the Alamo River and New River, then north into the Salton Sink (Schaefer 1994; Singer 2011).

When Lake Cahuilla was full or filling, the entire flow of the Colorado River was probably diverted and the area from Pilot Knob south to the Gulf was dry. Since Alarcón estimated (or overestimated) about 20,000 people living south of Pilot Knob in 1540, it was presumably densely populated during the Late Prehistoric as well

(Forbes 1965). These people had to migrate when the Colorado River flowed into Lake Cahuilla, and they may have been the people who left the huge number of archaeological sites around the southern shore of Lake Cahuilla (Schaefer and Laylander 2007; Underwood 2007, 2008). The southwestern shoreline of Lake Cahuilla lies approximately 12 miles east of Ocotillo. Although the shoreline of this huge freshwater lake was outside the Project area, the lake would have had a profound influence on prehistoric Indians within the Project area.

3.2.5 Ethnohistoric Period

According to early ethnographers (e.g., Gifford 1931, Kroeber 1925) the Project area was in the traditional territory of the Kamia or Desert Kumeyaay. Their neighbors to the north are the Cahuilla whose territory extended to meet the Kamia at the San Felipe or Scissors Crossing area (where CR-S2 meets State Route 78). To the east of the Project area are the Quechan who live along the Colorado River just west of Yuma (Forde 1931). The traditional territory of the Cocopah, their neighbors to the southeast, lies at the head of the Gulf of California (Gifford 1931, Kelly 1977); to the west are the Kumeyaay proper.

It is important to understand that the Kamia did not occupy all of their traditional territory at one time. They tended to occupy a few farming rancherias or camping places within their territory at any given time, based largely on the availability of water. The Kamia were quite friendly with the Quechan, who lived in the vicinity of Yuma, and some bands occasionally lived with them on the Colorado River. They also were very closely related to the Kumeyaay and shared clans or lineages with them (Gifford 1931). The Kumeyaay rancheria of Jacum, near the town of Jacumba today, was perhaps the easternmost Kumeyaay settlement. Jacumba is about 19 miles southwest of Ocotillo. Ethnographic sources indicate that the cold season was a favorite time for the Kumeyaay who lived in the mountains bordering the desert to visit the Kamia (Gifford 1931:17). Kroeber noted that Diegueno (Kumeyaay) clans spent winter “in mixed groups in the eastern foothills, at the desert’s edge” (Kroeber 1925”720). Also, the Indians who lived in the Mount Laguna area wintered in the desert around Vallecitos, Agua Caliente, and Mason Valley (Cline 1979).

The Kamia lived primarily along the Alamo River and new River and along other sloughs of the Colorado River in what is now Mexico as far south as Volcano Lake. The nearest documented Kamia rancheria was Xachupai. This was a loose collection of farmsteads scattered along the north-south trending New River for several miles. Xachupai extended both north and south of where I-8 intersects the river today (Gifford 1931; Forbes 1965; Kroeber 1925; Shipek 1982).

3.2.6 Historic Period

The first Spanish exploration of what is now Imperial County occurred in 1540, when Hernando de Alarcón ascended the Colorado River probably up to where Yuma and Winterhaven are today. Juan Cabrillo was the first Spanish explorer to visit coastal southern Alta California, when he anchored in what would become known as San Diego Bay in 1542. Both explorers claimed Alta California for the king of Spain, thus initiating the Spanish Period in Alta California. Spanish explorers visited what was to become Imperial Valley on a sporadic basis from that time on. Travel in the vicinity of the Project area began when Juan Bautista de Anza of the Spanish Army and Francisco Garcés of the Franciscan Order established what became known as the Anza Trail in 1774 during the first Anza Expedition. Their guide was Sebastian Taraval, an Indian from Baja California who also served as translator. Captain Juan Bautista de Anza was the commanding officer of the presidio at Tubac, south of Tucson. The Anza Trail passed east of the Project area from Yuha Wells onward to San Francisco. The Yuha Wells were used by

Anza, who called them Santa Rosa de las Lajas (Flat Rocks) (Bolton 1930). They are on the southwest side of Dunaway Road about 12 miles east of Ocotillo. Anza's observations establish the fact that prehistoric wells were dug by the Kamia, at least in the Yuha Desert. This suggests that other wells may also have been dug in washes to support prehistoric Indian camps in the Project area.

In 1770, Pedro Fages was appointed military governor of California Nueva, which later became known as Alta California. In 1772, he discovered an Indian trail in the mountains of eastern San Diego County near Cuyamaca State Park. It passed down Oriflamme Canyon and then connected with a north trending trail. This trail went north through the Warner's Springs area. Fages continued on to Mission San Gabriel de Arcangel, founded in 1771 in what is now the San Gabriel Valley. Later, a trail was discovered that split from the Anza Trail in the vicinity of Yuha Wells and passed north through Vallecito and Agua Caliente. This linked up with the Fages Trail at the foot of Oriflamme Canyon, southeast of where the town of Julian is today. This combined Fages and Anza Trail became the principal route linking Sonora and Alta California in the late 18th and early 19th centuries. This route, followed today by CR-S2, became known as the Sonora Trail (Guerrero 2006).

In addition to the well-known Franciscan missions along the coast of Alta California, missions were also founded at Concepción, in the vicinity of present-day Yuma and San Pablo near Pilot Knob in 1780. A number of Spanish settlers accompanied the Franciscans and a small number of Spanish Army personnel; however, no presidio was established. Friction between the Spanish and the Quechan rapidly developed. The missions and settlements were destroyed in the successful Quechan Revolt of 1781. Padre Garcés and some 50 Spanish settlers were killed in that revolt. The dead included Fernando Rivera y Moncada, who led the first overland party of the Portolá Expedition to reach San Diego in 1769 and had been the military governor of Alta California in 1777 (Forbes 1965:185-202).

The Mexican people chafed under Spanish rule in the late 1700s and early 1800s. After a long struggle, the Spanish were expelled from Mexico in 1821. The Mexican Republic retained many Spanish institutions and laws, but they were very concerned about the abuses of the Catholic Church. Several reforms were passed, including the secularization of the mission system in 1834. Large tracts of former church land were granted to individuals and families and the Alta California rancho system flourished. Cattle ranching dominated the economy. The hide and tallow trade with Yankee ships increased during the 1830s. The Pueblo of Los Angeles, established in 1781, began to grow rapidly during this period and Native American influence and control greatly declined (Starr 2007).

The Mexican Republic had encouraged Americans to settle in Tejas in the 1820s and by the 1830s, the Americans greatly outnumbered the Mexicans. Friction developed between the two cultures and in 1835, Texas fought and won its independence. Disputes continued over the placement of the border and Mexico never recognized the legitimacy of the new Texas Republic. The US Congress admitted Texas to the Union in 1845 and provoked Mexico into a disastrous war. Many Americans, including Abraham Lincoln and John Quincy Adams, denounced the rush to war as a Southern ploy to expand slavery.

Early in the war, Colonel Stephen Watts Kearney was dispatched to take charge of what became known as the Army of the West. After taking Santa Fe without a shot, Kearney headed west at the head of a column of dragoons. Captain Philip St. George Cook took charge of the Mormon Battalion, whose task was to follow behind Kea'ney's column and build a wagon road from Santa Fe to San Diego (Starr 2007; Guerrero 2006).

The dragoons under Kearney and the Mormon Battalion under Cook both used the Old Sonora Trail in 1846. The war ended with the Treaty of Guadalupe Hidalgo on February 2, 1848 and as part of the treaty, Mexico ceded

Alta California to the US. At that time, the Mexican territory of Alta California also included southern Nevada, southern Utah, and most of Arizona. By the time Alta California was admitted to the Union in 1850 as the State of California, it was only a small fraction of its former self. Gold had been discovered in what is now known as the Mother Lode of California prior to the end of the war. However, it was not made public until March 1848, when the Americans were firmly in control. The sudden influx of American and Europeans quickly drowned out much of the old Californio culture of the Spanish-speaking Catholics born in California prior to 1848.

Tens of thousands of gold seekers ("49ers") flooded into California over the Old Sonora Trail and through passes in the Sierra Nevada to the north. The Old Sonora Trail became known as the Southern Emigrant Trail during this period. This influx of gold-seekers and adventurers hastened the decline of the Indians, particularly in the Mother Lode area (Phillips 1996). In southern California, the rancho system prospered for several years by supplying beef to the tens of thousands of "49ers" flooding the Mother Lode (Starr 2007:111). These little known California cattle drives preceded the better known Texas drives by about 15 years.

In the 1850s, communication and trade between California and the other states remained expensive, time-consuming, and difficult. In 1857, congress authorized the first transcontinental mail, known as the San Antonio and San Diego Mail. Today, it is sometimes called the Birch Overland Mail after its founder James E. Birch (Lake 1957; Van Wormer et al. 2007). The Birch Overland Mail used the Southern Emigrant Trail (formerly the western reach of the Santa Fe Trail) through the Project area along what is now CR-S2. It branched off of the Southern Emigrant Trail at Oriflamme Canyon and headed west to San Diego. In the next year, a bigger mail contract was awarded to the Butterfield Overland Mail. This bypassed San Diego and continued north through Los Angeles and on to San Francisco. These historic mail and stage lines used the same route in this area passing through the Ocotillo vicinity (Van Wormer et al. 2007).

As mentioned previously, Yuha Wells were first noted by Anza, who called them Santa Rosa de las Lajas. These wells are sometimes confused with Coyote Wells, southeast of Ocotillo. Coyote Wells were "discovered" by James E. Mason of the Birch Overland Mail in 1857 (Lake 1957; Van Wormer et al. 2007). It is highly likely that these wells were originally dug by the Kumeyaay. Coyote Wells is not listed as a stage stop and presumably was used as an auxiliary water source by the mail lines and packers.

During the American Period, the homestead system rapidly increased American settlement beyond the coastal plain, which subsequently accelerated the decline of the California Indians (Philips 1996). Under Mexican rule, full property and civil rights were provided for women and people of color including Indians. The Treaty of Guadalupe Hidalgo preserved these rights, although the American and California state governments ignored these provisions completely in the case of the Indians and forced the Californio land holders to abandon their vast landholdings through lengthy, expensive, and complicated legal proceedings. In less than 20 years, very few ranchos in Alta California remained intact (Starr 2007:104-105). However, Spanish remained one of the two official languages of California until 1879 (Starr 2007: 93).

The Colorado Desert area remained largely unaffected by the transition to American control until after 1904, when the Imperial Canal brought water to the Imperial Valley. A small boom in farming and homesteading began, but in 1905, the Colorado River breached the head gate of the Imperial Canal and began to fill the Salton Sink. This created the Salton Sea and threatened to fill the entire valley, re-creating Lake Cahuilla. The river was brought under control in 1907 after a heroic effort led by the Southern Pacific Railroad. In 1935, Hoover Dam was completed finally ending the dramatic floods, and containing the Colorado River which paved the way for other dams and more dependable canal systems.

U.S. Route 80 (US-80) linked El Centro and San Diego in 1915, and the portion of the San Diego Eastern and Arizona Railroad between these towns was completed in 1919. US-80 and the railroad facilitated the transport of farm products from Imperial Valley and were a benefit to the local economy.

No factor contributed more to the development of the Imperial Valley than irrigation. The following historical information is summarized from IID: The First 40 Years (Dowd 1956). This manuscript presents the history of the Imperial Irrigation District and the subsequent development of the Imperial Valley from early development to the 1940's, and identified important periods, events, and patterns of development for Imperial Valley.

It was on one of the railroad corridor expeditions in 1853, led by Lieutenant R. S. Williamson of the U.S. Topographical Engineers, that geologist Dr. W. P. Blake discovered the possibility of irrigating Imperial Valley from the Colorado River. Blake observed a region of fertile soil capable of sustaining agriculture but lacking in water. He measured the dry bed of the Salton Sea at below sea level, a fact that made feasible the cutting of a canal from the Colorado River to the interior of the desert which would bring with it a constant supply of water. Dr. Oliver Wozencraft, a proponent of irrigating Imperial Valley, lobbied support from the California legislature, who, in turn, asked Congress to convey six million acres to Wozencraft. He endeavored to secure action by Congress on his plan to bring potable water to the desert for over thirty years without success. Despite Wozencraft's failed attempts at reclamation, by his death in 1887, settlers and developers alike were eager to bring water to Imperial Valley (Dowd 1956).

Preliminary investigations into the feasibility of irrigating the Colorado Desert began in 1893 with the Colorado River Irrigation Company, but inability to procure financing quickly led to the company's demise. In 1896, the California Development Company was organized, under the direction of Charles Rockwood and George Chaffey, to take hold of the project. The proposed canal route would run from the diversion point at the Colorado River through lower California, Mexico, and back into the United States in order to reach Imperial Valley. To gain title to the Mexican lands, the California Development Company organized a Mexican subsidiary company in 1898 known as La Sociedad de Yrrigacion y Terrenos de la Baja California, S. A. With plans to colonize the region, the California Development Company divided Imperial Valley into districts of varying size, each with its own mutual water company (Dowd 1956).

By August 1900, construction of the first diversion canal and irrigation system was underway. The canal was excavated from the point of diversion from the Colorado River south about 4 miles into Mexico where it swung west and connected for forty miles within the Alamo River channel until it reached Sharp's Heading and turned north to the Salton Sea. A series of main canals was constructed to divert from Sharp's Heading into various stretches of Imperial Valley: Central Main, Boundary, West Side Main, and East Side Main. The Central Main Canal continued from the international boundary line and traveled north through the present cities of Brawley and Imperial; the Boundary Canal diverted west towards Calexico; the West Side Main Canal traveled west towards Calexico then north; and the East Side Main Canal traveled east then north to the eastern Salton Sea. Water delivery reached Calexico through the Boundary Canal less than one year after the start of construction. That same year, nearly 1,500-acres of land was put under crops (Dowd 1956).

Few natural resources existed for potable water prior to the construction of the irrigation system. Domestic use water had to be hauled to the Valley via the Southern Pacific Railroad. Once considered a barren wasteland, Imperial Valley was making good progress with colonization by the early 1900's. The Imperial Land Company, under the direction of the California Development Company, began laying out townsites in Imperial Valley based primarily on the density of purchased water stock. The town of Imperial was the first to be laid out with settlement commencing in 1901. Over a period of ten years from 1901 to 1911, irrigable land in Imperial Valley jumped from 1,500-acres to 220,000-acres. As the water flowed into the Valley, so did the people. In 1902, a year after the

first water reached Calexico, nearly 2,000 settlers came to Imperial Valley. The population grew to seven times that amount within four years. To accommodate the growing population, the Southern Pacific Railroad constructed the Niland to Calexico branch rail. At the same time, the newly developed Imperial Valley broke apart from San Diego County to form its own government as Imperial County, with El Centro being designated as the County Seat (Dowd 1956).

The rapid colonization of Imperial Valley in the early 1900's strained the relationship between settlers and the California Development Company. Initial land and soil surveys were inaccurate leading to discrepancies with land titles, and water rights held by the California Development Company were called into question. The Reclamation Act was proposed in 1902 to take the Imperial Valley project from the California Development Company and organize it under Government control. Further dissatisfaction with California Development Company arose after hurried and negligible attempts to correct the heavily silt laden waters of the Colorado River ultimately led to grave damage to Imperial Valley following the massive flooding events of 1905 and 1906. The River break destroyed nearly 12,000-acres of cultivated land and over 30,000-acres of irrigable land, caused immense damage to Southern Pacific Company railroad lines; and severed the ties between settlers and the California Development Company. The River break took two years to repair, during which time the Salton Sea filled and expanded to a length of 50 miles and a width of 10 to 15 miles (Dowd 1956).

Preceding litigation brought to the California Development Company following the flood ultimately resulted in bankruptcy. In 1911, a petition for formation of an irrigation district was presented to the Imperial County Board of Supervisors. The IID was formed to acquire properties of the bankrupt California Development Company and its Mexican subsidiary. Over the span of a decade, IID completed improvements and repairs to the canal and distribution system, rebuilt the entire Westside Main Canal, received deeds to all of the properties of the California Development Corporation, and acquired 13 mutual water companies. Within a few years of acquiring the mutual companies, IID was delivering water to nearly 550,000-acres of Imperial Valley. Over a century later, IID is still servicing communities of the Imperial Valley. IID is the largest irrigation district in the nation and Imperial County ranks among the top ten agricultural counties in the nation. Ninety-eight percent of the water IID transports is used for agriculture and the remaining two percent is treated potable and delivered to the nine Imperial Valley cities (Dowd 1956)

4 Methods

4.1 South Coastal Information Center Records Search

An examination of existing maps, records, and reports was conducted by Dudek to determine if the Project could potentially impact previously recorded cultural resources. Dudek archaeologist Makayla Murillo conducted an in-person records search of the Project area at the South Coastal Information Center (SCIC) at San Diego State University (SDSU) on March 31, 2023. The search encompassed the entire Project area and a one-mile search radius round the Project area. The purpose of the records search is to identify any previously recorded cultural resources that may be located in or adjacent to the Project area and to identify previous studies in the Project vicinity. In addition to a review of previously prepared site records and reports, the records search also included a review of historical maps of the Project area, ethnographies, the NRHP, the CRHR, the California Historic Property Data File, and the lists of California State Historical Landmarks, California Points of Historical Interest, and Archaeological Determinations of Eligibility.

4.2 Native American Consultation

As the lead agency under CEQA, the County is responsible for and will be performing formal government-to-government consultation with Native American Tribes under California AB 52. The County will conduct formal consultation. Assuming details related to consultation are provided, Dudek will include a summary of tribal consultation and associated information provided in subsequent drafts of this report.

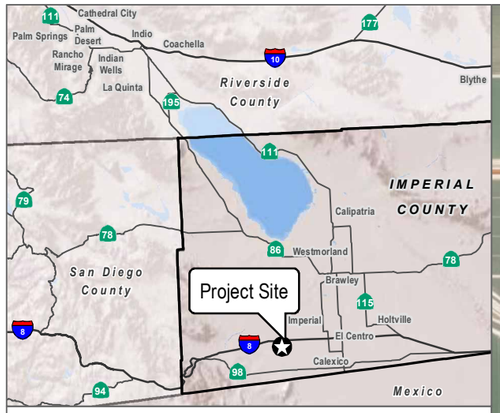
4.3 Pedestrian Survey

Dudek archaeologists conducted an intensive-level cultural resources pedestrian survey of the entire Project area from April 10, 2023, to April 14, 2023, and from April 4, 2024 to April 5, 2024, using standard archaeological procedures and techniques (Figure 2, Project Area). All field practices met the Secretary of Interior's standards and guidelines for a cultural resources inventory (NPS 2018). Intensive-level survey methods consisted of a pedestrian survey conducted in parallel transects spaced no more than 15 meters apart over entire portions of the Project area, when appropriate. Several fields were densely vegetated by agricultural crops/grasses and ground visibility was between 0-30% (poor visibility). Though physically feasible, the complete intensive-level survey of these fields using formal parallel transects was determined unproductive as these areas are considered to have a low potential for containing significant cultural resources. Instead, a sample of each of these fields was surveyed using formal parallel transects. An opportunistic/reconnaissance survey approach was also utilized, selectively examining exposed ground surface areas (canals, drainages, dirt roads, low lying vegetation) where possible. In summary, 88.9% of the Project area (1,662-acres) consisted of active agricultural fields with ground visibility ranging from 0% to 30% (poor visibility). Dudek surveyed a 5% sample of each of these fields. The remaining 11.1% of the Project area (165-acres) had moderate to excellent visibility (40-60%, and 70-100%, respectively) and was subject to 50% to 100% survey using formal 15 meter parallel transects. The proposed generation intertie (gen-tie) corridor location was also surveyed within a 100' corridor measured from the center line.

Within each transect, the ground surface was examined for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire- affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, features indicative of the current or former presence of

structures or buildings (e.g., standing exterior walls, post holes, foundations), and historic artifacts (e.g., metal, glass, ceramics, building materials). Ground disturbances such as burrows, cut banks, and drainages were also visually inspected for exposed subsurface materials.

All fieldwork was documented using field notes and iPad technology with close-scale field maps and aerial photographs. Location-specific photographs were taken using an Apple iPad equipped with eight (8) mega-pixel (MP) 1080p resolution and georeferenced PDF maps of the Project area. Accuracy of this device ranged between 3 and 10 meters. All field notes, photographs, and records related to the current study are on file at Dudek's Encinitas, California office.



Project Boundary

100-ft Linear Corridor

SOURCE: Maxar 2023; Imperial County 2023

DUDEK 0 1,000 2,000 Feet

FIGURE 2

Study Area

P# 15207

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5 Results

5.1 South Coastal Information Center Records Search

Dudek archaeologist, Makayla Murillo, conducted an in-person records search of the Project area at the South Coastal Information Center (SCIC) at San Diego State University (SDSU) on March 31, 2023. The search included a review of previously recorded cultural resources and previously conducted studies within a one-mile radius of the Project area. The CHRIS records search also included a review of the NRHP, the CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. Confidential Appendix A provides the records search results maps and a complete list of all previously recorded cultural resources and prior cultural resources studies occurring within one-mile of the Project area.

5.1.1 Previously Conducted Cultural Resources Studies

Fifty-one (51) cultural resources studies have been previously conducted within a one-mile radius of the Project area. Seven (7) of those studies intersect the Project area (Table 1). All seven studies were conducted between 1979 to 2006 and include two Class II cultural resources inventories, two archaeological assessments, two environmental studies, and a management plan. Although approximately 30% of the Project area overlaps with previous study areas, none of the studies are considered adequate according to the Secretary of Interior's standards and guidelines for a cultural resources inventory. The results of the records search are attached as part of Confidential Appendix A.

Table 1. Previous Cultural Resources Studies within the Project area

SCIC Report ID	Author	Year	Report Title
IM-00203	Gallegos, Dennis	1979	Class II Cultural Resources Inventory East Mesa and West Mesa Regions, Imperial Valley, California, Volume I
IM-00207	Davis, Emma Lou	1980	Class II Cultural Resources Inventory East Mesa and West Mesa Regions, Imperial Valley, California
IM-00210	Von Werlhof, Jay and Karen McNitt	1980	Archaeological Examinations of the Republic Geothermal Field, East Mesa, Imperial Valley County
IM-01306	Wirth Associates, Inc.	1980	APS/SDG&E Interconnection Project Environmental Study Phase II Corridor Studies – Native American Cultural Resources Appendices
IM-01388	Olech, Lilliana	1981	Yuha Basin Area of Critical Environmental Concern (ACEC) Management Plan
IM-00512	RTP Environmental Associates, Inc.	1994	Conditional Use Permit and Environmental Information for the Hazard Area Exploration Wells
IM-00993	Wlodarski, Robert J.	2006	Nextel Wireless Communications Site CA899IC (Sunbeam: Kuhn 2)

5.1.2 Previously Recorded Cultural Resources

The SCIC records search indicates that seven (7) previously recorded cultural resources are located within the Project area (Table 2). These six (6) resources consist of an historic wagon road (P-13-003403), three (3) canal/water conveyance systems for agricultural use (P-13-012688, P-13-12689, P-13-12693, and P-13-014975), and two single-family residences (P-13-013758 and P-13-014263). The recorded sections of three canal/water conveyance systems (P-13-012689, P-13-012693 and P-13-014975), and the two single-family residences have all been recommended not eligible for listing on the CRHR and the NRHP. The historic wagon road and portions of one water-conveyance system (P 13-012688) have not been formally evaluated for listing on the CRHP and the NRHP. The SCIC records search also indicates that an additional eighteen (18) cultural resources have been recorded within the one-mile radius of the Project area (Table 2).

Table 2 provides brief descriptions and CRHR/NRHP eligibility for each resource identified, within and outside of the Project area, in the SCIC records search. The results of the records search and all DPR forms for resources located within and outside the Project area are attached as part of Confidential Appendix A.

Table 2. Previously Recorded Cultural Resources Within One-Mile of the Project area

Primary Number	Trinomial	Age	Type	Recorded By/Date	CRHR/NRHP Status
Within the Project area					
P-13-003403	CA-IMP-3403/H	Historic	AH7; Wagon Road from Fort Yuma to Warner's Ranch	R.C. Matthewson/ 1856	Unevaluated
P-13-012688	—	Historic	HP20; Dixie Drains 2, 3, and 4 and Dixie Lateral 1	URS Corporation/ 2009	Dixie Drain 3 and Lateral 1 recommended not eligible; Dixie Drains 2 and 4 unevaluated
P-13-012689	—	Historic	HP20; Fern Canal and Drain System	URS Corporation/ 2009	Recommended not eligible
P-13-012693	—	Historic	HP20; Fig Canal	URS Corporation/ 2009	Recommended not eligible
P-13-013758	CA-IMP-11759/H	Historic	HP2; 1651 Westside Road	KP Environmental/ 2011	Recommended not eligible
P-13-014263	—	Historic	HP2; Preece Residence	Chambers Group/ 2012	Recommended not eligible
P-13-014975	—	Historic	HP20; Wixom Drain	ASM Affiliates/2011	Recommended not eligible
Outside of the Project area					
P-13-014260	—	Historic	HP2, HP4; Farmhouse and Barn	Chambers Group/ 2012	Recommended not eligible
P-13-014261	—	Historic	HP4; Barn	URS Corporation/2010	Recommended not eligible
P-13-014262	—	Historic	HP2; Bryant Residence	URS Corporation/2010	Recommended not eligible

Table 2. Previously Recorded Cultural Resources Within One-Mile of the Project area

Primary Number	Trinomial	Age	Type	Recorded By/Date	CRHR/NRHP Status
P-13-014264	—	Historic	HP15; Westside Elementary School	Chambers Group/ 2012	Recommended not eligible
P-13-014265	—	Historic	HP3; Multiple Residence Compound	Chambers Group/ 2012	Recommended not eligible
P-13-014266	—	Historic	HP2; Black Residence	Chambers Group/ 2012	Recommended not eligible
P-13-017714	CA-IMP-13040	Prehistoric	AP2, AP11; Lithic scatter and hearth	Power Engineers/ 2018	No formal recommendation
P-13-017729	—	Prehistoric	Lithic debitage isolate	RECON/2018	Not eligible
P-13-017730	—	Prehistoric	Lithic debitage isolate	RECON/2018	Not eligible
P-13-017731	—	Prehistoric	Lithic utilized flake tool isolate	RECON/2018	Not eligible
P-13-017732	—	Prehistoric	Lithic debitage isolate	RECON/2018	Not eligible
P-13-017733	—	Prehistoric	Lithic assayed cobble isolate	RECON/2018	Not eligible
P-13-017734	—	Prehistoric	Lithic debitage isolate	RECON/2018	Not eligible
P-13-017735	—	Prehistoric	Lithic debitage isolate	RECON/2018	Not eligible
P-13-017736	—	Prehistoric	Lithic retouched flake tool	RECON/2018	Not eligible
P-13-017737	—	Prehistoric	Lithic core fragment and debitage isolate	RECON/2018	Not eligible
P-177740	—	Prehistoric	Colorado Buff Ceramic body fragment	RECON/2018	Not eligible

P-13-003403/CA-IMP-3403/H (AH7; Wagon Road from Fort Yuma to Warner's Ranch)

P-13-003403 is a wagon road that historically connected Fort Yuma in Imperial County to Warner's Ranch in San Diego County. It was first recorded in 1956 in United States Geological Survey (USGS) notes by R.C. Matthewson. The historic placement of P-13-003403 crosses the Project area on a roughly east to west axis, although there is no current evidence to indicate this resource still exists with the integrity it was first recorded.

P-13-012688 (HP20; Dixie Drains 2, 3, and 4, and Dixie Lateral 1)

P-13-012688 consists of Dixie Drains 2, 3, and 4 and Dixie Lateral 1. Dixie Drain 3 was first recorded by URS Corporation (URS) in 2009 and given the primary number P-13-012688. In 2011, DPR forms for P-13-012688 were updated by ASM Affiliates, Inc. (ASM) to include a larger section of Dixie Drain 3, as well as Dixie Drains 2 and 4, and Dixie Lateral 1. The Dixie Drain Irrigation System is a part of a larger water conveyance system that

includes Westside Drain, Forget-Me-Not Drain, and Salt Creek Drain that all empty into the New River. Dixie Lateral 1 dates back to before 1914, while Dixie Drains 2, 3, and 4 were likely constructed ca. 1940. In 2009, URS recommended Dixie Drain 3 as not eligible for listing on the CRHR or NRHP due to its loss of integrity from the regular dredging and widening of the canals and drains over time. In 2011, ASM recommended in addition to Dixie Drain 3, Dixie Lateral 1 as not eligible for listing on the CRHR or NRHP for similar reasons. ASM did not conduct a formal evaluation or provide a recommendation of eligibly for Dixie Drains 2 and 4. The Dixie Drains run along the boundaries of the southwestern portion of the Project area on a north to south axis, while Lateral 1 runs through the Project area on an east to west axis.

P-13-012689 (HP20; Fern Canal and Drain System)

P-13-012689 consists of a section of the Fern Canal and an associated section of the Fern Side Main. This resource was first recorded in 2009 by URS. Updates to include additional sections of the Fern Canal were completed in 2010 by Chambers Group, in 2011 by KP Environmental and ASM, and in 2017 by ASM. The Fern Canal was constructed ca. 1909 as is approximately 10 miles long. Modifications were made to the canal in the 1960s, and at present, the canal is lined with concrete. URS, Chamber Group, KP Environmental and ASM have all recommended that the recorded portions of the Fern Canal are not eligible for listing on the CRHR or NRHP due to a lack of integrity. The Fern Canal runs through the middle of the northern portion of the Project area, on a north to south axis.

P-13-012693 (HP20; Fig Canal)

P-13-012693 consists of a concrete-lined section of the Fig Canal that was constructed ca. 1912 and spans over 4 miles on a north to south axis through the easternmost portion of the Project area. The Fig Canal was first recorded in 2009 by URS. DPR form updates to include additional portions of the Fig Canal were conducted in 2011 by KP Environmental and ASM. URS, KP Environmental, and ASM have all recommended that the recorded portions of the Fig Canal are not eligible for listing on the CRHR or NRHP due to a lack of integrity.

P-13-013758/CA-IMP-11759 (1651 Westside Road)

1651 Westside Road is a one-story ranch style house constructed as a single-family residence ca. 1955. The residence was first recorded by KP Environmental in 2011 and again in 2011 by ASM. The building is wood-framed and rectangular in plan with a concrete foundation. The exterior is clad in stucco, and the roof is a low-pitched side gable with a front gable projection on the south section of the building and clad in asphalt roll. 1651 Westside Road was recommended not eligible for listing on the NRHP and the CRHR due to not meeting any of the criteria for inclusion in the national or state register. This resource sits along the northwestern portion of the Project boundary on the west side of Westside Road, approximately 0.2 miles south of Interstate Highway 8.

P-13-014263 (2396 Vaughn Road)

2396 Vaughn Road is a modern style ranch house with a low-pitch gable roof and composite roofing, a pedimented front gable entry with full-length porch, and stucco cladding on the exterior. This resource was recorded in 2009 by Chambers Group. P-13-014263 was recommended not eligible for listing on the NRHP and CRHR due to it not meeting any of the criteria for inclusion in the national or state register. This single-family residence sits along Vaugh Road, directly west of Dixie Drain 3 and within the western-central portion of the Project area.

P-13-014975 (HP20; Wixom Drain)

P-13-014975 (Vaughn and Jessup Roads) is an earthen-dug irrigation drainage ditch constructed ca. 1940. It is approximately 10–20 feet wide, about 10–15 feet deep, and about 2 miles long. This resource was recorded in 2011 by ASM. P-13-014975 was recommended as not eligible for listing on the NRHP and CRHR due to it not meeting any of the criteria for inclusion in the national or state register. The drain is located east of the Westside Main Canal and flows north to the New River from the Fig Canal at Liebert Road and West Wixom Road.

5.1.3 Historic Archival Research

Dudek conducted an online review of Bureau of Land Management (BLM) General Land Office Records, historical topographic maps, and historic aerial photographs to understand the historic development of the Project area and vicinity. The Project area was first subdivided into Township 16 South, Range 12 East in an 1857 original survey for the BLM by John C. Hays. The Plat image of the original survey shows the Project area as undeveloped with the exception of a dirt wagon road (connecting "Warner's Rancho" to "Fort Yuma") bisecting the parcel on an east to west axis (BLM 2023). U.S. Geological Survey historical topographic maps (historic topos) depicting the Project area are available from 1940 to 1989 (USGS 2023). The earliest available historic topo from 1940 shows robust roadway and agricultural canal development throughout the project area. U.S. Route 80 (re-named as Interstate Highway 8 in 1964) appears along the northern boundary of the Project area, Fox Glove Canal and Westside Canal appear along the western boundary of the Project area, and Fig Canal appears along the eastern boundary of the Project area. In addition to these manmade water conveyance features, there are several additional unnamed perennial and seasonal streams and sloughs that run through the Project area on a north to south axis. The historic topo from 1940 also shows several additional unnamed canals and roadways throughout the Project area, as well as several unnamed structures (likely single-family residences and agricultural buildings) and a primary school (USGS 2023).

Historic aerial photographs (historic aerials) for the Project area are available from 1953 to 2020 and give more detail on the land use and development not depicted in the historic topos (NETR 2023). The historic aerial from 1953 shows that the Project area was utilized mainly for agricultural purposes, as evidenced by the many delineated agricultural cropland parcels. In 1953, much of the eastern portion of the Project area appears to be a part of the New River wetlands system and floodplains. By 1984, the New River had been channelized, and its surrounding wetlands and floodplains were replaced by irrigated cropland parcels, some containing agricultural structures and other rural infrastructure. There is little change in the aerial depiction of the Project area from 1984 to 2012; irrigated cropland parcels persist. By 2014, the Campo Verde Solar Farm first appears directly adjacent to the Project area among the still present actively irrigated and dryland cropland parcels (NETR 2023).

Overall, the Project area appears to have been used primarily for agricultural and residential purposes throughout recorded history. As indicated in the historic topos and historic aerial photographs, there are several historic-age built environment cultural resources within and adjacent to the Project area. These include several canal/water conveyance systems, roadways, historic residences, and a primary school. All built environment resources identified as part of this Project are addressed in the *Built Environment Inventory and Evaluation Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California*, prepared by Dudek in 2023 (Brisentine et al. 2024).

5.2 Survey Results

The Project area encompasses active irrigated and dryland cropland, idle cropland, and developed land with various agricultural buildings, single family residences, and other rural infrastructure. There are also several water conveyance canals and established roads throughout the Project area. Ground surface visibility was poor (0-30%) in areas with dense vegetation present (non-native grasses, hayfield, and grain crops) and within paved roads (Figure 3). Areas of poor visibility accounted for approximately 88.9% of the Project area. Visibility was moderate to excellent (40-60% and 70-100%, respectively) within fields that had been recently planted or with sparce vegetation (row crops) and within dirt access roads (Figure 4 and Figure 5). Areas of moderate to excellent visibility accounted for approximately 11.1% of the Project area. Overall, archaeologists observed that the Project area has been heavily disturbed by years of agricultural activities as evidenced by plow scars, irrigation canals and drainages, and the presence of active irrigated cropland, dryland cropland, and idle cropland. Irrigation canals and drainages are considered as built environment resources and are addressed in the *Built Environment Inventory and Evaluation Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California*, prepared by Dudek in 2024 (Brisentine et al. 2024).

Figure 3. Example of poor ground visibility (0-30%). Photo taken from northeast corner of APN 051-300-037, view facing south.



Figure 4. Example of moderate ground visibility (40-60%). Photo taken from northern boundary of APN 051-270-036, view facing south.



Figure 5. Example of excellent ground visibility (70-100%). Photo taken from northeast corner of APN 051-280-054, view facing south.



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6 Summary and Recommendations

No newly identified prehistoric or historic-era archaeological resources were recorded as part of this Phase 1 Cultural Resources Inventory of the Big Rock 2 Cluster Solar and Storage Project. Based on available archival information, the presence of archaeological resources adjacent to the Project area, and in consideration of the topography, and the Project's vicinity to the New River; there is a moderate potential for the inadvertent discovery of archaeological resources during Project implementation. Dudek recommends full-time archaeological and Native American monitoring during initial ground disturbance for the Project. If disturbed sediments (e.g., fill) or other sediments and formations are identified that do not have the potential to contain archaeological resources, then monitoring may be reduced or terminated. Management recommendations to reduce potential impacts to unanticipated archaeological resources and human remains during construction activities are provided below.

The previously recorded cultural resources (P-13-003403, P-13-012688, P-13-012689, P-13-012693, P-13-013758, P-13-014263, and P-13-014975) that are located within the Project area are all considered built environment resources. All built environment resources identified as part of this Project are addressed in the *Built Environment Cultural Resources Constraints Memorandum for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California*, prepared by Dudek in 2024 (Brisentine et al. 2024) along with five (5) additional historic-era built environment resources (Map ID 3, Map ID 8, Map ID 17, Map ID 18, and Map ID 19) that were identified during the built environment pedestrian survey for the Project (See Appendix B for Cultural Resources Overview Map).

Unanticipated Discovery of Archaeological Resources

In the event that an archaeological or Native American monitor identifies cultural resources (sites, features, or artifacts) during construction activities for the Project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards can evaluate the significance of the find and determine whether or not additional study is warranted. If the discovery is clearly not significant (e.g., and isolate) the archaeologist may simply record the find and allow work to continue. If the discovery proves potentially significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

Unanticipated Discovery of Human Remains

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the MLD from the deceased Native American. The MLD shall complete inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Dudek also conducted built environment resources and paleontological resources investigations for the Project. Appended to this cultural resources inventory study is the *Built Environment Inventory and Evaluation Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California* (Brisentine et al. 2024 included in Appendix C) and *Paleontological Resources Inventory Report for the Big Rock 2 Energy Project, Imperial County, California* (Siren and Williams 2024 included in Appendix D).

The *Built Environment Inventory and Evaluation Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California* (Brisentine et al. 2024) found 18 historic-age properties within the Project's area of potential impacts (API). Thirteen properties: 2396 West Vaughn Road (APN 051-300-031); Westside Elementary (APN 051-300-010); 1651 Westside Road (APN 051-270-038); Property at the Intersection of Liebert Road and Mandrapa Road (APN 051-350-017); 2094 Wixom Road (APN 051-330-024); 1905 Wixom Road (APN 051-360-038); the Wixom Drain (multiple APNs); the Fig Canal (multiple APNs); the Fern Canal (multiple APNs); and the Dixie Drains and Laterals (multiple APNs), Westside Main Canal and Drain (multiple APNs); Fox Glove Canal (multiple APNs); and the Crossed Wagon Road from Fort Yuma to Warners Ranch (multiple APNs) were previously recorded and recommended as and ineligible for the NRHP and Dudek concurred with these findings. In addition, Dudek inventoried and evaluated the following newly recorded properties: 2250 West Vaughn Road (APN 051-300-027); 2104 West Wixom Road (APN 051-330-021); Cattle Corral Shelter (051-310-026); the Diehl Drain (multiple APNs); and the Fig Drain (multiple APNs). The Built Environment Report determined that the Project would have no impact on historical resources as defined by CEQA and no further consideration of historic-era built environment resources is necessary prior to Project implementation (Birsentine et al. 2024).

The *Paleontological Resources Inventory Report for the Big Rock 2 Energy Project, Imperial County, California* (Siren and Williams 2024) did not observe in situ fossils within the Project area during the paleontological survey, however, the Project area is underlain by ancient Lake Cahuilla sediments that have high paleontological sensitivity when not disturbed by agricultural activities, and surficial sediments that have been disturbed by agricultural activities or other man-made disturbances have low paleontological determined that the Project area is underlain by ancient Lake Cahuilla sediments that have high paleontological sensitivity when not disturbed by agricultural activities, and surficial sediments that have been disturbed by agricultural activities or other man-made disturbances have low paleontological resource sensitivity and do not require paleontological monitoring. However, deeper excavations, below the disturbance level, that encounter undisturbed Lake Cahuilla sediments, would be considered a potentially significant impact, therefore, a paleontological monitoring program is recommended during grading within previously undisturbed sedimentary deposits within the Project area (Siren and Williams 2024).

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Appendix A

SCIC Records Search Results (Confidential)

Appendix B

Cultural Resources Overview Map (Confidential)

Appendix C

Built Environment Inventory and Evaluation Report for the Big Rock 2 Cluster Solar and Storage Project

FINAL

Built Environment Inventory and Evaluation Report

Big Rock 2 Cluster Solar and Storage Project, Imperial County, California

MAY 2024

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Report Contributions: The report was also prepared with contributions from Katie Ahmanson, who completed sections in Chapter 3, and Senior Architectural Historians Adrienne Donovan-Boyd, MSHP, and Monte Kim, PhD, who provided a senior-level review of the report.

Team Support: Jason Greenstein, GIS Analyst, managed the geographic information system data and created the figures in the report.

Intended Use: This report is intended for the Client's and its representatives' exclusive use. Based on the results of Dudek's investigation, it contains professional conclusions and recommendations concerning the potential for project-related impacts on cultural resources. It should not be considered to constitute project clearance with regard to the treatment of cultural resources or permission to proceed with the Project described in lieu of review by the appropriate reviewing or permitting agency. This report should be submitted to the appropriate federal, state, and local review agencies for their comments prior to the commencement of the Project.

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Executive Summary

90FI 8me LLC retained Dudek to prepare a built environment inventory and evaluation report for the proposed Big Rock 2 Cluster Solar and Storage Project (Project) in Imperial County, California. The Project is in unincorporated Imperial County, California (Figure 1, Project Location), south of Interstate Highway 8 and west of El Centro, California. The Project proposes to develop a photovoltaic (PV) solar energy generation and battery energy storage system (BESS) facility on approximately 1,849 acres of agricultural land (Figure 2, Built Environment Area of Potential Impact). Dudek completed this report under the provisions of local regulations and the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 5024.1, Title 14 California Code of Regulations (CCR) Section 15064.5 of the CEQA Guidelines, and PRC Sections 21084.1 (OHP 2005).

This report documents Dudek's efforts to identify and evaluate built environment resources 45 years of age or older (historic era) that may be subject to direct or indirect impacts under the CEQA as a result of the construction and operation of the proposed Project. These efforts included developing an Area of Potential Impacts (API), a records search of the California Historical Resources Information System (CHRIS), an intensive-level survey of the API for built resources of historic age (45 years of age or older); building development and archival research, the creation of an appropriate historic context, and recordation and evaluation of historic-era properties located in the API under National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) designation criteria.

Dudek's archival research and field survey found 18 historic-age properties within the API. Thirteen properties were previously recorded and recommended as ineligible for the NRHP. Dudek concurred with these findings and completed Department of Parks and Recreation (DPR) updates for the following properties: 2396 West Vaughn Road (Assessor's Parcel Number [APN] 051-300-031); Westside Elementary (APN 051-300-010); 1651 Westside Road (APN 051-270-038); Property at the Intersection of Liebert Road and Mandrapa Road (APN 051-350-017); 2094 Wixom Road (APN 051-330-024); 1905 Wixom Road (APN 051-360-038); the Wixom Drain (multiple APNs); the Fig Canal (multiple APNs); the Fern Canal (multiple APNs); and the Dixie Drains and Laterals (multiple APNs), Westside Main Canal and Drain (multiple APNs); and the Fox Glove Canal (multiple APNs). Dudek inventoried and evaluated the following newly recorded properties: 2250 West Vaughn Road (APN 051-300-027); and 2104 West Wixom Road (APN 051-330-021), Cattle Corral Shelter (APN 051-310-026), the Diehl Drain (multiple APNs), and the Fig Drain (multiple APNs).

Dudek concludes that the properties evaluated within the API do not appear eligible for listing in the NRHP or CRHR due to a lack of significance. As such, no properties within the API are considered to be historical resources under CEQA. In conclusion, this study finds that the Project would have no impact on historical resources as defined by CEQA. No further consideration of historic era-built environment resources is necessary prior to Project implementation.

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
ACHP	Advisory Council on Historic Preservation
API	Area of Potential Impacts
APN	Assessor's Parcel Number
ASM	ASM Affiliates, Inc.
BESS	battery energy storage system
BLM	Bureau of Land Management
ca.	circa
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
County	Imperial County
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
gen-tie line	generation transmission line
GLO	General Land Office
IID	Imperial Irrigation District
kV	kilovolts
MW	megawatts
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
Project	Big Rock 2 Cluster Solar and Storage Project
PV	photovoltaic
SCIC	South Coastal Information Center
SDG&E	San Diego Gas & Electric
SHPO	State Historic Preservation Officer
URS	URS Corporation
USBR	U.S. Bureau of Reclamation

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1 Introduction

This Built Environment Inventory and Evaluation Report aims to identify previously identified and unidentified built environment cultural resources within or adjacent to the proposed Big Rock 2 Cluster Solar and Storage Project (Project) that might require additional analysis for compliance under the California Environmental Quality Act (CEQA) regarding historical resources. This report includes the following components: (1) an introduction including project location, description, the Area of Potential Impacts (API), and the regulatory context; (2) background research, which includes the review of the California Historical Resources Information System (CHRIS) records search conducted for the Project, specifically looking at built environment resources, a review of historical maps and aerial photographs; and the field methodology and the reconnaissance-level survey of the API; (3) the development of an applicable historic context for the project area; (4) an evaluation of significance for all properties within the API; and (5) recommendations.

1.1 Project Location

Dudek conducted a Phase I cultural resources inventory study for the Big Rock 2 Cluster Solar and Storage Project (Project). The Project is located in unincorporated Imperial County, California, south of Interstate Highway 8 and west of the town of El Centro, California. The Project proposes to develop a photovoltaic (PV) solar energy generation and battery energy storage system (BESS) facility on approximately 1,849 acres of agricultural land. The entire 1,849-acre area will be developed and disturbed by Project implementation. The cultural resources Project area (Project area) is composed of the following 24 Assessor's Parcel Numbers (APNs): 051-270-020, 051-270-028, 051-270-036, 051-270-041, 051-280-054, 051-290-018, 051-290-019, 051-300-011, 051-300-016, 051-300-026, 051-300-032, 051-300-035, 051-300-036, 051-300-037, 051-310-027, 051-310-028, 051-320-005, 051-320-006, 051-320-007, 051-330-003, 051-350-004, 051-350-006, 051-350-007, and 051-350-008. Specifically, the project is located in Township 16 South, Range 12 East, in Sections 14, 15, 16, 20, 21, 22, 23, 26, 27, 28, 29, 33, and 34 of the Seeley, Plaster City, and Mount Signal, California USGS 7.5 Minute Series Quadrangles (Figure 1).

1.2 Project Description

The Project includes the construction and operation of a 500-megawatt (MW) utility-scale PV solar energy generation and a 500 MW BESS. The Project's permanent facilities would include service roads, a power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, project substations, energy storage system(s), and operations and maintenance facilities. Power generated by the Project would be collected using up to 66-kilovolt (kV) collector lines, which could run overhead and/or underground to a dedicated Project substation. A 230-kV overhead generation transmission line (gen-tie line) would then link the Project substation to the planned Liebert Switchyard, which will be connected via an overhead 230-kV gen-tie line to the existing San Diego Gas & Electric (SDG&E) Imperial Valley Substation.

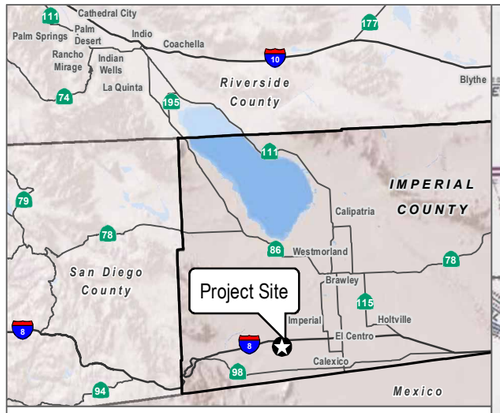
1.3 Project Personnel

This report, associated fieldwork, and property significance evaluation were prepared by Dudek Architectural Historians EJ Jones, MA, and Evan Brisentine, MSHP. The report was reviewed by Senior Architectural Historians

Adrienne Donovan-Boyd, MSHP, and Monte Kim, PhD. Resumes for key personnel are provided in Appendix A, Preparers' Qualifications.

1.4 Regulatory Setting

While the Project, as planned, is subject only to state and local regulatory conditions, federal regulations are also provided here for reference should they be relevant in the future. The following sections provide a brief overview of the federal and state regulatory framework by which historic properties and historical resources are identified and evaluated, as well as the rubric by which significant impacts under CEQA are assessed.



- Project Boundary
- Project BESS
- Project Substation
- Switchyard
- Gen-Tie Line
- Alternative Gen-Tie Line

Township 16S Range 12E Section 13
Township 16S Range 12E Section 14
Township 16S Range 12E Section 15
Township 16S Range 12E Section 16
Township 16S Range 12E Section 17
Township 16S Range 12E Section 18
Township 16S Range 12E Section 19
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Township 16S Range 12E Section 30
Township 16S Range 12E Section 31
Township 16S Range 12E Section 32
Township 16S Range 12E Section 33
Township 16S Range 12E Section 34
Township 16S Range 12E Section 35
Township 16S Range 12E Section 36

SOURCE: USGS 7.5-Minute Series Seeley, Plaster City, Mount Signal, Yuha Basin Quadrangles

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

P# 15207

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1.4.1 Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act (NHPA) established the National Register of Historic Places (NRHP) and the President's Advisory Council on Historic Preservation (ACHP), and provided that states may establish State Historic Preservation Officers (SHPOs) to carry out some of the functions of the NHPA. Most significantly, for federal agencies responsible for managing cultural resources, Section 106 of the NHPA directs that "[t]he head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP." Section 106 also affords the ACHP a reasonable opportunity to comment on the undertaking (54 USC 306108).

36 Code of Federal Regulations, Part 800 (36 CFR 800) implements Section 106 of the NHPA. It defines the steps necessary to identify historic properties (those cultural resources listed in or eligible for listing in the NRHP), including consultation with federally recognized Native American tribes to identify resources with important cultural values; to determine whether or not they may be adversely affected by a proposed undertaking; and the process for eliminating, reducing, or mitigating the adverse effects.

The provisions of 36 CFR 60.4 include eligibility criteria for listing properties in the NRHP. The significance of cultural resources identified during an inventory must be formally evaluated for historic significance in consultation with the California SHPO to determine if the resources are eligible for inclusion in the NRHP. Cultural resources are eligible for listing in the NRHP if they possess both significance and the requisite quality of those features necessary to convey their significance. The NRHP criteria recognize seven aspects that define integrity in various combinations, including a property's integrity of location, design, setting, materials, workmanship, feeling, and association. The NRHP criteria for evaluation thus consider the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

A. are associated with events that have made a significant contribution to the broad patterns of our history; or
B. are associated with the lives of persons significant in our past; or
C. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. have yielded or may be likely to yield, information important in prehistory or history [36 CFR 60.4].

The current cultural resources inventory is not designed to generate enough data to make eligibility recommendations on previously recorded cultural resources that are outside of the API or newly discovered cultural resources; such determinations are typically made during a subsequent evaluation phase (e.g., excavations at prehistoric sites). However, the survey was designed to generate enough information to provide informal assessments of eligibility to help guide management considerations.

1.4.2 State Regulations

California Environmental Quality Act

Public or private projects funded or approved by public agencies are required to comply with regulations outlined under CEQA to assess the impacts of the project on historical resources. Under CEQA, historical resources are defined as buildings, sites, structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. Should a project result in a substantial adverse change to a historical resource, CEQA requires that consideration of project modifications or measures to mitigate impacts be considered. As such, significance of cultural resources must be determined. The following steps are typically required under CEQA for cultural resources investigations:

- Identification of cultural resources.
- Evaluation of the significance of resources.
- Assessment of the impacts of the project on CEQA historical resources.
- If the project will result in significant impacts to historical resources, then create, outline, and implement measures to mitigate impacts.

Under CEQA, a cultural resource may qualify as a significant historical resource if it falls within the following three categories:

- The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR).
- The resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code (PRC), or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (California Code of Regulations [CCR], Title 14, Division 6, Chapter 3, Section 15064.5[a]).

The ways of qualifying as a CEQA historical resource are related to the eligibility criteria outlined in the CRHR (PRC 5020.1[k], 5024.1, 5024.1[g]). A property may be considered a CEQA historical resource if it meets one of the following CRHR criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

NRHP listed or eligible properties are considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC Section 5024.1[d][1]).

1.4.3 Local Regulations

Imperial County

Section III(B) of the Imperial County (County) Conservation and Open Space Element describes the cultural resources, goals, and objectives to protect such resources (County of Imperial 2016). The planning goals and objectives are described below.

Goal 3 of the goals and objectives section of the Conservation and Open Space Element addresses the preservation of cultural resources. Goal 3 states that the County will "preserve the spiritual and cultural heritage of the diverse communities of Imperial County" (County of Imperial 2016). Three objectives are enumerated to assist in the implementation of the goal:

- Objective 3.1: Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.
- Objective 3.2: Develop management strategies to preserve the memory of important historic periods, including Spanish, Mexican, and early American settlements of Imperial County.
- Objective 3.3: Engage all local Native American Tribes in the protection of tribal cultural resources, including prehistoric trails and burial sites.

1.5 Area of Potential Impacts

The API is the study area delineated to assess potential impacts from the construction and operation of the Project on both archaeological and historic built environment resources. The built environment API encompasses the geographic area or areas within which the Project may directly or indirectly cause a substantial adverse change in the significance of a known or unknown historical resource. A substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource is materially impaired (14 CCR Section 15064.5[b][1]). Under CEQA, material impairment of a historical resource is considered a significant impact (or effect), which can be direct, indirect, or cumulative.[1]

A direct or primary effect on a historical resource is one that is caused by the Project and occurs at the same time and place (14 CCR Section 15358[a][1]). Examples of direct effects that are caused by, and immediately related to, the Project include, but are not limited to, demolition, destruction, relocation, and alteration of a historical resource as a result of ground disturbance and other construction activities. Direct effects, however, are not limited to physical effects and, in certain circumstances, can be visual, vibratory, auditory, or atmospheric in nature if the effect is immediate and results in the material impairment of the significance of a historical resource. Visual intrusions within the viewshed of a historical resource, for example, could result in the material impairment of the resource's integrity of setting if an unencumbered view of the surrounding area or a specific area is a characteristic that contributes to the significance of the resource. Similarly, operational noise that exceeds the ambient level of a sensitive noise receptor can cause material impairment to a historical resource that derives part or all its

[1] As used in the CEQA Guidelines and 14 CCR Section 15358, the terms "effects" and "impacts" are synonymous in this report.

significance from an inherently quiet auditory setting.[2] Finally, atmospheric intrusions, such as those caused by the introduction of high levels of fugitive dust emissions or chemical pollutants, can result in adverse effects that directly and physically affect biological landscape features that have been identified as historical resources for the purposes of CEQA. Overall, while direct effects clearly include physical effects, they may also include other types of effects that are visual, vibratory, auditory, or atmospheric in nature if the effect is caused by and occurs at the same time and place as the Project and there is no other intervening cause between the activities or components of the Project and the historical resource.

By contrast, an indirect or secondary effect is a reasonably foreseeable effect caused by the Project that occurs later in time or is farther removed in distance. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems (14 CCR Section 15358[a][2]). Because these types of effects are not immediately related to the Project, they are considered secondary effects.

Cumulative impacts refer to two or more individual effects that, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the Project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (14 CCR Section 15355[a]-[b]). The API for cumulative impacts, if any exist, would be coincident with the API for direct effects, indirect effects, or both because in order for a cumulative impact to exist, a historical resource must first be directly or indirectly affected by the Project.

1.5.1 Area of Potential Impacts for Built Environment Properties

Delineation of the API considered the proposed Project activities in conjunction with historic-era built resources that are 45 years of age or older (those built in or before 1979) that may sustain impacts due to the construction or operation of the Project.[3] The horizontal limits of the API include the legal parcels included in the Project Description; because of the size and height of the proposed solar array, the API was expanded to include adjacent parcels, as

[2] Construction noise that exceeds the ambient level of a sensitive noise receptor is not analyzed because it is considered a temporary impact that would not have an adverse effect on historical resources because it would not cause physical damage and would not permanently alter or diminish the integrity of such resources. Temporary construction noise would not result in a substantial adverse change in the significance of a historical resource and, therefore, would not cause a significant impact under CEQA.

[3] While the 50-year threshold is generally used for listing resources in the NRHP and the CRHR, the Office of Historic Preservation's (OHP) Instructions for Recording Historical Resources recommends recording "any physical evidence of human activities over 45 years . . . for the purposes of inclusion in the OHP's filing system." It also allows for the "documentation of resources less than 45 years . . . if those resources have been formally evaluated, regardless of the outcome of the evaluation." Further, the guidance notes that the 45-year threshold recognizes that there is commonly a 5-year lag between resource identification and the date that planning decisions are made, and thus it explicitly encourages the collection of data about resources that may become eligible for the NRHP or CRHR within that planning period. More restrictive criteria must be met before the resources included in OHP's filing system are listed, found eligible for listing, or otherwise determined to be important in connection with federal, state, and local legal statuses and registration programs (OHP 1995: 2).

delineated in Figure 2, Built Environment Area of Potential Impact. Additional considerations used to justify the delineation of the API include the following:

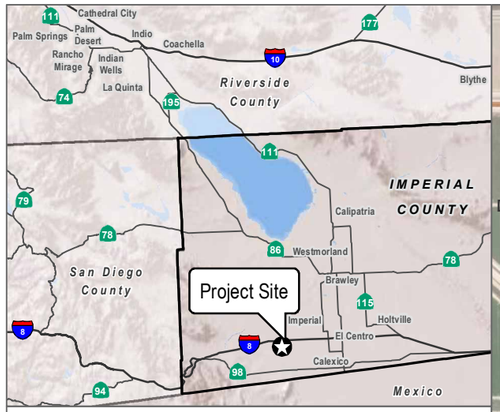
- The API includes an area of direct physical effect, encompassing the 1,848-acre Project site. The area of direct physical effect occupies the following 24 APNs: 051-270-020, 051-270-028, 051-270-036, 051-270-041, 051-280-054, 051-290-018, 051-290-019, 051-300-011, 051-300-016, 051-300-026, 051-300-032, 051-300-035, 051-300-036, 051-300-037, 051-310-027, 051-310-028, 051-320-005, 051-320-006, 051-320-007, 051-330-003, 051-350-004, 051-350-006, 051-350-007, and 051-350-008. These parcels include all areas where ground disturbance, grading, and site preparation associated with the Project would occur.
- The API also includes the adjacent parcels where there are buildings or structures that are more than 45 years of age. These were included in the API and area of direct effect out of consideration for any potential visual impacts the Project may have on the surrounding setting.
- The area south of the Westside Main Canal was removed from the proposed Project API because these properties are vacant.
- The API excludes any properties north of Kumeyaay Highway (Interstate 8) as the four-lane divided highway, constructed in circa (ca.) 1970, creates a substantial visual barrier. Any properties north of the transportation corridor are spatially removed from the proposed Project, making significant adverse impacts unlikely.
- The API also excludes the area to the east of the lake adjacent to the Rio Bend Golf Course in the northeast corner of the API. The lake creates a formidable barrier to the solar array, providing a buffer between the Project and any potential historic properties.
- The API currently contains no geographic areas of indirect effect since no reasonably foreseeable Project activities occurring later in time or farther removed in distance have been identified, nor have any of the newly identified resources in the API been evaluated yet to determine their potential significance. Consequently, there are currently no historical resources in the API that would be indirectly affected by the Project.

The properties that were found to have historic-era components within the API were each assigned a Map ID number, and each building and structure observed on each Map ID property was assigned a corresponding alphabetical label. Map IDs 1 through 19 were given ID numbers. As a result of the initial research conducted on properties within API, the Imperial Valley Substation appeared to have built environment components over 45 years of age and was assigned Map ID 5. However, archival research showed that it did not meet the age threshold for the survey as it is not yet 45 years of age. As such, this property was excluded from the analysis of this report. The remaining Map IDs were addressed in detail throughout this report and evaluated for historic significance under NRHP and CRHR criteria to assess potential impacts as the result of this Project. Detailed analysis of these properties is presented in Chapter 5, Results of Identification and Evaluation Efforts. Table 1 summarizes the properties located within the API. The table includes the Map ID, property type, address (if available), APN(s), the approximate year built, and primary numbers from the South Coastal Information Center (SCIC), if previously recorded.

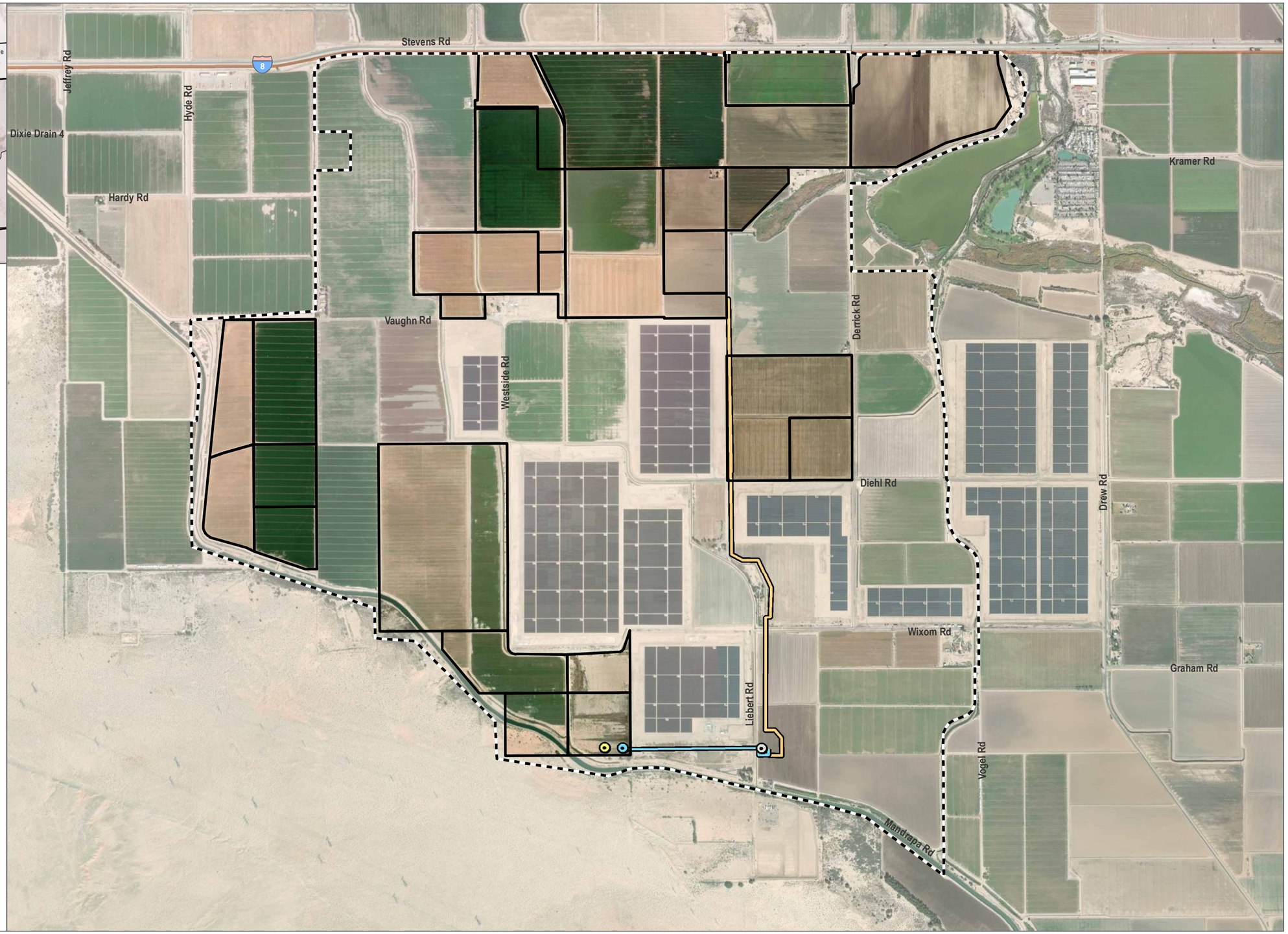
Table 1. Historic Era Properties Identified in the API During Background Research and Field Survey

Figure 3 Map ID	Property Type	Address/APN	Year Built	Evaluation Status
Previously Recorded within the API				
1	Residential	2396 West Vaughn Road (051-300-031)	ca. 1960	P-13-014263
2	Education	2294 West Vaughn Road (051-300-010)	ca. 1965	P-13-014264
4	Residential	1651 Westside Road (051-270-038)	ca. 1955	P-13-013758
6	Residential	No Situs Address (previously associated with 1105 Liebert Road) (051-350-017)	ca. 1974	P-13-012700
7	Residential	2094 Wixom Road (051-330-024)	ca. 1945	P-13-014265
9	Residential	1905 Wixom Road (051-360-038)	ca. 1970	P-13-014266
10	Water Conveyance	Wixom Drain (Linear Resource)	ca. 1940	P-13-014975
11	Water Conveyance	Fig Canal (Linear Resource)	ca. 1912	P-13-012693
12	Water Conveyance	Fern Canal (Linear Resource)	ca. 1909	P-13-012689
13	Water Conveyance	Dixie Drains and Laterals (Linear Resource)	1911/ ca. 1940	P-13-012688
14	Water Conveyance	Westside Main Canal and Drain (Linear Resources)	1908	P-13-008334
15	Water Conveyance	Fox Glove Canal (Linear Resource)	ca. 1912	P-13-009880
16	Road	Wagon Road (Linear Resource)	ca. 1850	P-13-003403
Newly Recorded within the API				
3	Residential	2250 West Vaughn Road (051-300-027)	ca. 1976	Previously unevaluated
5	Substation	2104 West Wixom Road (051-330-021)	ca. 1982	Previously unevaluated
8	Residential	2104 West Wixom Road/051-330-021	1940	Previously unevaluated
17	Agricultural	No Situs Address (APN 051-310-026)	ca. 1956	Previously unevaluated
18	Water Conveyance	Diehl Drain (Linear Resource)	ca. 1950	Previously unevaluated
19	Water Conveyance	Fig Drain (Linear Resource)	ca. 1940	Previously unevaluated

Notes: APN = Assessor's Parcel Number; API = Area of Potential Impacts; ca. = circa.



Project Boundary
Built Environment Area of Potential Impact
Project BESS
Project Substation
Switchyard
Gen-Tie Line
Alternative Gen-Tie Line



SOURCE: Maxar 2023; Imperial County 2023

DUDEK

0 1,000 2,000 Feet

FIGURE 2

Built Environment Area of Potential Impact

P# 15207

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2 Literature Review and Background Research

Background research was conducted for the API in an effort to establish a thorough and accurate understanding of associated historic properties. The records search aims to identify any previously recorded built environment resources that may be located in the API. Below is a summary of the research conducted by the staff at the SCIC, which included an examination of the records search at San Diego State University and a review of previously prepared site records and reports, historical maps, ethnographies, the NRHP, the CRHR, the California Historic Property Data File, and the lists of California State Historical Landmarks and California Points of Historical Interest.

2.1 CHRIS Records Search

Dudek personnel defined a records search area that included the maximum extent of the proposed Project site boundary and a 1-mile record search buffer. The large records search area helps to ensure the identification of previously recorded resources and cultural reports. On March 31, 2023, Dudek archaeologist Makayla Murillo conducted an in-person records search of the API and a 1-mile search radius at the SCIC, which houses cultural resources records for Imperial County. Upon further review, Dudek returned to SCIC in June 2023 to retrieve three resource reports that were not recovered from the initial records search. The search included previously recorded prehistoric and historic-age archaeological resources, historic-age built-environment resources, Department of Parks and Recreation (DPR) site records, technical reports, archival resources, and ethnographic references. The following summary focuses on records that include built environment resources and reports. The complete confidential records search results are presented in the Cultural Resources Inventory Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California, prepared by Dudek in 2024 (Bakhtiary et al. 2024).

2.1.1 Previously Conducted Cultural Resource Studies

Fifty-one cultural resources studies have been previously conducted within a 1-mile radius of the Project site. Seven of those studies intersect the API (Table 2). All seven studies were conducted between 1979 and 2006. None of the seven studies identified built environment historic resources in the API. Although approximately 30% of the API overlaps with previous study areas, none of the studies are considered adequate according to the Secretary of Interior's standards and guidelines for cultural resource inventories. These studies were reviewed as part of background research conducted for this project.

Table 2. Previous Cultural Resources Studies within the API

SCIC Report ID	Author	Year	Report Title
IM-00203	Gallegos, Dennis	1979	Class II Cultural Resources Inventory East Mesa and West Mesa Regions, Imperial Valley, California, Volume I
IM-00207	Davis, Emma Lou	1980	Class II Cultural Resources Inventory East Mesa and West Mesa Regions, Imperial Valley, California
IM-00210	Von Werlhof, Jay, and Karen McNitt	1980	Archaeological Examinations of the Republic Geothermal Field, East Mesa, Imperial Valley County

Table 2. Previous Cultural Resources Studies within the API

SCIC Report ID	Author	Year	Report Title
IM-01306	Wirth Associates, Inc.	1980	APS/SDG&E Interconnection Project Environmental Study Phase II Corridor Studies – Native American Cultural Resources Appendices
IM-01388	Olech, Lilliana	1981	Yuha Basin Area of Critical Environmental Concern (ACEC) Management Plan
IM-00512	RTP Environmental Associates, Inc.	1994	Conditional Use Permit and Environmental Information for the Hazard Area Exploration Wells
IM-00993	Wlodarski, Robert J.	2006	Nextel Wireless Communications Site CA899IC (Sunbeam: Kuhn 2)

Notes: API = Area of Potential Impacts; SCIC = South Coastal Information Center.

2.1.2 Previously Recorded Built Environment Cultural Resources in the API

After conducting two record searches (March and June 2023), the SCIC records indicate that 13 previously recorded built environment resources are within the API (P-13-003403, P-13-012688, P-13-012689, P-13-012693, P-13-013758, P-13-014263, P-13-014264, P-13-014265, P-13-014266, P-13-014975, P-13-008334, P-13-009880, and P-13-012700) (Table 3). These 13 resources consist of four canal/water conveyance systems for agricultural use, one road, two drainage systems, a school, a multiple-residence complex, and four residences, which are discussed below. One resource, P-13-003403, has not been evaluated, and 12 (P-13-012688, P-13-012689, P-13-012693, P-13-013758, P-13-014263, P-13-014264, P-13-014265, P-13-014266, P-13-014975, P-13-008334, and P-13-009880, and P-13-12700) have been determined not eligible for listing on the CRHR and the NRHP (Table 3).

Table 3. Previously Recorded Built Environment Cultural Resources within the API

Primary Number/ Trinomial	Resource Type	Description	Recorded By/Date	CRHR/NRHP Status
Within the API				
P-13-003403/ CA-IMP-3403/H	Historic Road	AH7; Wagon Road from Fort Yuma to Warner's Ranch	Unknown/ 2009	Unevaluated
P-13-012688	Historic Water Infrastructure	HP20; Dixie Drains 2, 3, and 4 and Dixie Lateral 1	URS Corporation/ 2009	Dixie Drain 3 and Lateral 1 were recommended as not eligible; Dixie Drains 2 and 4 were unevaluated per DPR 523
P-13-012689	Historic Water Infrastructure	HP20; Fern Canal and Drain System	URS Corporation/ 2009	Recommended not eligible

Table 3. Previously Recorded Built Environment Cultural Resources within the API

Primary Number/ Trinomial	Resource Type	Description	Recorded By/Date	CRHR/NRHP Status
P-13-012693	Historic Water Infrastructure	HP20; Fig Canal	URS Corporation/ 2009	Recommended not eligible
P-13-013758/ CA-IMP-11759/H	Historic Residential	HP2; 1651 Westside Road	ASM Affiliates/2011	Recommended not eligible
P-13-014263	Historic Residential	HP2; Preece Residence	Chambers Group/2012	Recommended not eligible
P-13-014264	Historic School	HP15; Westside Elementary School	Chambers Group/2012	Recommended not eligible
P-13-014265	Historic Residential	HP3; Multiple Residence Compound	Chambers Group/2012	Recommended not eligible
P-13-014266	Historic Residential	HP2; Black Residence	Chambers Group/2012	Recommended not eligible
P-13-014975	Historic Water Infrastructure	HP20; Wixom Drain	ASM Affiliates/2011	Recommended not eligible
P-13-008334	Historic Water Infrastructure	HP20; Westside Main Canal	ASM Affiliates/ 2017	Recommended not eligible
P-13-009880	Historic Water Infrastructure	HP20; Fox Glove Canal	ASM Affiliates/ 2011	Recommended not eligible
P-13-012700	Historic Residential	HP2; 1105 Liebert Road	URS/2010	Recommended not eligible

Notes: API = Area of Potential Impacts; CRHR = California Register of Historical Resources; NRHP = National Register of Historic Places.

2.1.3 Previously Recorded Built Environment Resources in the API

The following previously recorded resources were located in the API and are described below. These are described in detail in Chapter 5; this information was compiled as part of background research and to inform the field survey.

P-13-003403 (AH7; Wagon Road from Fort Yuma to Warner's Ranch); CA-IMP-3403/H

P-13-003403 is a wagon road that historically connected Fort Yuma in Imperial County to Warner's Ranch in San Diego County. It was first recorded in 2009. The historic placement of P-13-003403 crosses the API on a roughly east-to-west axis, although no current evidence indicates this resource still exists.

P-13-012688 (HP20; Dixie Drains 2, 3, and 4 and Dixie Lateral 1)

P-13-012688 consists of Dixie Drains 2, 3, and 4 and Dixie Lateral 1. Dixie Drain 3 was first recorded by URS Corporation (URS) in 2009 and given the primary number P-13-012688. In 2011, DPR forms for P-13-012688 were updated by ASM Affiliates, Inc. (ASM) to include a larger section of Dixie Drain 3, as well as Dixie Drains 2 and 4 and Dixie Lateral 1. The Dixie Drain Irrigation System is part of a more extensive water conveyance system that includes the Westside Drain, Forget-Me-Not Drain, and Salt Creek Drain, which all empty into the New River. Dixie Lateral 1 dates back to before 1914, while Dixie Drains 2, 3, and 4 were likely constructed in ca. 1940. In 2009, URS recommended Dixie Drain 3 as not eligible for listing on the CRHR or NRHP due to its loss of integrity from the regular dredging and widening of the canals and drains over time. In 2011, ASM recommended Dixie Lateral 1 as not eligible for listing on the CRHR or NRHP for similar reasons. ASM did not conduct a formal evaluation or provide a recommendation of eligibility for Dixie Drains 2 and 4. The Dixie Drains run along the boundaries of the southwestern portion of the API on a north-to-south axis, while Lateral 1 runs through the API on an east-to-west axis.

P-13-012689 (HP20; Fern Canal and Drain System)

P-13-012689 consists of a section of the Fern Canal and an associated section of the Fern Side Main. This resource was first recorded in 2009 by URS. Updates to include additional sections of the Fern Canal were completed in 2010 by Chambers Group, in 2011 by KP Environmental and ASM, and in 2017 by ASM. The Fern Canal was constructed ca. 1909 and is approximately 10 miles long. Modifications were made to the canal in the 1960s, and the canal is currently lined with concrete. URS, Chamber Group, KP Environmental, and ASM have all recommended that the recorded portions of the Fern Canal are not eligible for listing on the CRHR or NRHP due to a lack of integrity. The Fern Canal runs through the middle of the northern portion of the API on a north-to-south axis.

P-13-012693 (HP20; Fig Canal)

P-13-012693 consists of a concrete-lined section of the Fig Canal that was constructed ca. 1912 and spans over 4 miles on a north-to-south axis through the easternmost portion of the API. The Fig Canal was first recorded in 2009 by URS. DPR form updates to include additional portions of the Fig Canal were conducted in 2011 by KP Environmental and ASM. URS, KP Environmental, and ASM have all recommended that the recorded portions of the Fig Canal are not eligible for listing on the CRHR or NRHP due to a lack of integrity.

P-13-013758 (HP2; 1651 Westside Road); CA-IMP-11759/H

1651 Westside Road is a one-story, ranch-style house constructed as a single-family residence ca. 1955. The residence was first recorded by KP Environmental in 2011 and again in 2011 by ASM. The building is wood-framed and rectangular in plan with a concrete foundation. The exterior is clad in stucco, and the roof is a low-pitched side gable with a front gable projection on the south section of the building, which is clad in asphalt roll. 1651 Westside Road was recommended as not eligible for listing on the NRHP and the CRHR due to not meeting any criteria for inclusion in the national or state register. This resource sits along the northwestern portion of the Project boundary on the west side of Westside Road, approximately 0.2 miles south of Interstate 8.

P-13-014263 (HP2; Preece Residence)

P-13-014263 (2396 Vaughn Road) is a modern-style ranch house with a low-pitch gable roof and composite roofing, a pedimented front gable entry with a full-length porch, and stucco cladding on the exterior. This resource was

recorded in 2012 by Chambers Group. P-13-014263 was recommended as not eligible for listing on the NRHP and CRHR due to it not meeting any of the criteria for inclusion in the national or state register. This single-family residence sits along Vaughn Road, directly west of Dixie Drain 3 and within the western-central portion of the API.

P-13-014264 (HP15; Westside Elementary School)

P-13-014264 (2394 Vaughn Road) is a one-story school building with an irregular plan, designed in the modern style, and constructed with concrete blocks. The roof is flat and covered with rolled asphalt. This resource was recorded in 2012 by Chambers Group. P-13-014264 was recommended as not eligible for listing on the NRHP and CRHR due to it not meeting any of the criteria for inclusion in the national or state register. This elementary school sits along Vaughn Road, directly east of Fox Glove Canal and within the western-central portion of the API.

P-13-014265 (HP3; Multiple Residence Compound)

P-13-014265 (2094 W Wixom Road) consists of two single-story residences, an ancillary building, and some shade structures. The first building is a Minimal Traditional style single-story residence with a rectangular and composite tile side-gable roof. The second residence is a single-story English Cottage style residence with an irregular plan that was constructed with river rocks clad in a rough daubed stucco and a cross-gabled roof. This resource was recorded in 2012 by Chambers Group. P-13-014265 was recommended as not eligible for listing on the NRHP and CRHR due to it not meeting any of the criteria for inclusion in the national or state register. The multiple-residence compound sits along Wixom Road, directly east of Fern Canal and within the western-central portion of the API.

P-13-014266 (HP2; Black Residence)

P-13-014266 (1905 Wixom Road) is a Spanish Colonial Style one-story, single-family residence with a rectangular plan on 1.86 acres. The building contains an arched gallery on the exterior and an interior courtyard but has elements of the French Colonial style, such as the dual-pitched pavilion roof. This resource was recorded in 2012 by Chambers Group. P-13-014266 was recommended as not eligible for listing on the NRHP and CRHR due to it not meeting any of the criteria for inclusion in the national or state register. This single-family residence sits along Wixom Road, southeast of Fig Canal and within the eastern-central portion of the API.

P-13-014975 (HP20; Wixom Drain)

P-13-014975 (Vaughn and Jessup Roads) is an earthen-dug irrigation drainage ditch constructed ca. 1940. It is approximately 10–20 feet wide, about 10–15 feet deep, and about 2 miles long. This resource was recorded in 2011 by ASM. P-13-014975 was recommended as not eligible for listing on the NRHP and CRHR due to it not meeting any of the criteria for inclusion in the national or state register. The drain is east of the Westside Main Canal and flows north to the New River from the Fig Canal at Liebert Road and West Wixom Road.

P-13-014260 (HP2 and HP4; Farmhouse and Barn)

P-13-014260 is an abandoned farmhouse and barn located on the southeast corner of the Albert and Margaret Studer farm, near the intersection of Vogel Road and Mandrapa Road, north of the Westside Main Canal. The subject property was last documented in 2012 by the Chambers Group. P-13-014260 was recommended as not eligible for listing on the NRHP and CRHR due to not meeting any of the criteria for inclusion in the national or state

register. The subject property was demolished ca. 2015. After the CHRIS records search, the subject property was found to be outside of the project API.

P-13-008334 (HP20; Westside Main Canal)

P-13-008334 is an irrigation canal that runs approximately 40 miles throughout agricultural land in the Imperial Valley section of Imperial County. The canal was first documented in 1999 and most recently recorded in 2017. Portions of the canal have been recommended as eligible for listing in the NRHP/CRHR under Criterion A/1 for its significance in developing the Imperial Valley and its association with the All-American Canal. In addition, segments of the canal have been recommended as not eligible for the NRHP due to lack of integrity.

P-13-009880 (HP20; Fox Glove Canal)

P-13-009880 is an irrigation canal that runs parallel to the Westside Main Canal between Hyde Road and the intersection of Westmoreland and W. Hetzel Road. The concrete-lined canal is approximately 12 feet wide, about 6 feet deep, and 9 miles long. In 2009, URS recommended the Fox Glove Canal as not eligible for the NRHP or the CRHR for the loss of integrity and because it does not convey a strong theme of early irrigation systems of the Imperial Valley. The canal runs parallel along the western boundary of the Project area.

P-13-012700 (HP2; 1105 Liebert Road)

1105 Liebert Road consists of two parcels (APN 051-350-012 and APN 051-350-017) located at Liebert Road and Mandrapa Road along the Westside Main Canal. The subject property was recorded in 2010 by URS. The property included a two-story house, a two-car garage, and a storage shed on APN 051-350-012. APN 051-350-017 contained a single-story, storage-like structure and appeared to be vacant. P-13-012700 was recommended as not eligible for listing on the NRHP and CRHR due to not meeting any criteria for inclusion in the national or state register.

2.2 Additional Records Reviewed

The following sources provide additional information regarding the potential of built environment resources located within the API. This information was used to understand the history of the area and how the landscape has changed and developed over time.

Built Environment Resource Directory

The California Office of Historic Preservation (OHP) maintains the Built Environment Resource Directory, an inventory of built environment cultural resources that are processed through OHP's office. In April 2024, search of the Built Environment Resource Directory for Imperial County did not reveal any new information pertaining to the project.

Calisphere

Calisphere provides access to 2,000 collections contributed by more than 300 cultural heritage organizations in California, including universities, libraries, archives, museums, and historical societies. Dudek searched for subject properties' addresses and other keywords on Calisphere in April 2024. This search identified multiple historic

photographs of the Imperial Valley Irrigation efforts held at multiple institutions, but the search did not identify any additional materials pertaining to the subject properties.

Online Archive of California

The Online Archive of California provides free public access to detailed descriptions of primary resource collections maintained by more than 300 contributing institutions, including libraries, special collections, archives, historical societies, and museums throughout California and collections maintained by the 10 University of California campuses. Dudek searched for historical tenants and addresses associated with the subject properties on the Online Archive of California on April 20, 2024, and did not identify any relevant materials.

Imperial County Assessor

Dudek obtained assessor data from the Imperial County Assessor's GIS map for the subject properties between April 2023 and April 2024. These assessor data, along with the ParcelQuest database, provided information about construction dates, square footage, tract numbers, and limited information on deed transfers.

Historical Aerials

A review of historical aerial photographs was conducted as part of the archival research effort for the proposed project. The aerial photographs provided a general idea of growth in the farmlands, neighborhoods, and on the subject properties (NETR 2024a).

Historical Map

Historic maps, including General Land Office (GLO) and U.S. Coast and Geodetic Survey maps, county plat maps, and U.S. Geological Survey topographic maps, were examined to determine the growth in the area and how the properties developed over time (NETR 2024b).

Historical Newspapers

Dudek reviewed historical newspapers from the California Digital Newspaper Collection and Newspapers.com covering the surrounding communities to understand the development of El Centro and the subject properties. These documents were used in the preparation of Chapter 3, Historic Context, and Chapter 5, Results of Identification and Evaluation Efforts.

2.2.1 Imperial Irrigation District Archival Research

The Imperial Irrigation District (IID) maintains a webpage of previously prepared historic content related to the broad-scale water distribution and irrigation systems attributed to the development of Imperial Valley. The IID History webpage was used to prepare the historic context provided in this report. Of relevance to the current Project was Dowd's 1956 manuscript, which details the historical development of the IID and the subsequent rise of the City of Imperial. This manuscript was used as a baseline source for developing the historic context.

Dudek also emailed IID Records Management on April 25, 2023, to inquire about the original construction dates for all irrigation components within the API. The IID Records Management did not provide any information by the time this report was completed in October 2023.

2.2.2 Imperial Valley Desert Museum

On April 13, 2023, Dudek visited the Imperial Valley Desert Museum located in Ocotillo, California. Material from the museum's general exhibits, including information on irrigation and early water conveyance systems, was used in the preparation of Chapter 3, Historic Context. Dudek spoke with a museum representative who stated that the museum does not hold archival collections other than a handful of books about the general area.

2.3 Review of Historical Maps and Aerial Photographs

Dudek consulted historical topographic maps and aerial photographs to understand the development of the API and its surrounding area. Important to note is that while topographic maps are informative, they do not show the minute changes to a landscape over time and, at times, are inconsistent with what is depicted year to year. Nevertheless, the information gathered contributes to the understanding of the chronological development of the API.

2.3.1 Historical Topographic Maps

Dudek conducted an online review of Bureau of Land Management (BLM) GLO Records, historical topographic maps, and historical aerial photographs to understand the historic development of the API and vicinity. The API was first subdivided into Township 16 South and Range 12 East in an 1857 original survey for BLM by John C. Hays. The plat image of the original survey shows the API as undeveloped with the exception of a dirt wagon road (connecting "Warner's Rancho" to "Fort Yuma") bisecting the parcel on an east-to-west axis (BLM 2024). U.S. Geological Survey historical topographic maps depicting the API are available from 1940 to 1989 (USGS 2024). The earliest available historical topographic map from 1940 shows robust roadway and agricultural canal development throughout the API. U.S. Route 80 (re-named as Interstate 8 in 1964) appears along the northern boundary of the API, Fox Glove Canal and Westside Main Canal appear along the western boundary of the API, and Fig Canal appears along the eastern edge of the API. In addition to these man-made water conveyance features, several additional unnamed perennial and seasonal streams and sloughs run through the API on a north-to-south axis. The historical topographic map from 1940 also shows several additional unnamed canals and roadways throughout the API, several unnamed structures (likely single-family residences and agricultural buildings), and a primary school (USGS 2024).

2.3.2 Historical Aerial Photographs

A review of historical aerial photographs was conducted as part of the archival research effort from the following years: 1953, 1984, 1985, 1996, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2019, and 2020 (NETR 2024a). The first historical aerial photograph available in 1953 shows the API as gridded agricultural parcels with the same configuration as today. Much of the eastern portion of the API appears to be a part of the New River wetlands system and floodplains. The Westside Main Canal and Mandrapa Road are visible west of the API. However, Interstate 8 has yet to be developed. By 1984, Interstate 8 had been developed north of the API, and development was visible northeast of the API. The New River and its surrounding wetlands and floodplains were replaced by

irrigated cropland parcels, some with structures. There are no discernible changes to the API or surrounding area from 1984 to 1985.

In 1996, industrial development was visible on the south side of West Evan Hewes Highway, northwest of the API; however, there are no discernible changes to the API, and irrigated cropland parcels persist. By 2002, more development is visible on the south side of West Evan Hewes Highway, northwest and east of the API. The surrounding area and the API continue to consist primarily of agricultural properties. No discernible API or surrounding area changes occurred between 2002 and 2012. By 2014, the Campo Verde Solar Farm first appeared directly adjacent to the API among the actively irrigated cropland parcels. No discernible changes to the API or surrounding area exist between 2016 and 2020 (NETR 2024a).

2.4 Interested Party Correspondence

Dudek architectural historian EJ Jones, MA, emailed the Imperial Valley Desert Museum, the Pioneers' Park Museum, and the Imperial County Historical Society. The correspondence briefly described the proposed Project and requested information about cultural resources in or near the direct API. Ms. O'Lear from the Imperial Valley Desert Museum responded on September 29, 2023, suggesting a monitor from the members of the local Kumeyaay and Quechan nations during any ground-disturbing activities. The correspondence can be found in Appendix B of this report.

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3 Historic Context

This context is provided to ascertain what significant themes are present. Dudek provides this context to better understand the context of any of the identified previously recorded or newly documented resources in the API. This context provides an overview of the historic themes and the building types that were documented as part of this study.

3.1 Land Acknowledgment

Historically, the land in and around the API was inhabited for more than 9,000 years by several bands of Native Americans, including the Kumeyaay, Paipai, Cocopah, Quechan, Cahuilla, and Ancient Lake Cahuilla peoples. Native Americans migrated seasonally across the Imperial Valley between the mountains and the lake. Their villages were primarily settled along the coast and the shore of the lake, where food and trees were abundant. Coastal dwellings consisted of huts made of tule, while inland huts were made with brush or branches. Native Americans prospered until the Spanish settled the region in the sixteenth century (Imperial Valley Museum 2023). For a complete discussion of the cultural resources and the cultural setting of the project area, the reader is directed to the Cultural Resources Inventory Report for the Big Rock 2 Cluster Solar and Storage Project, Imperial County, California, prepared by Dudek in 2024 (Bakhtiary et al. 2024).

3.2 Historic Period

3.2.1 Non-Native Exploration and Settlement in Imperial County

The Spanish colonization of Alta California began in 1769 with the founding of Mission San Diego de Alcalá by Father Junípero Serra. Concerns over Russian and English interests in California motivated the Spanish government to send an expedition of soldiers, settlers, and missionaries to occupy and secure the northwestern borderlands of New Spain through the establishment of a Presidio, Mission, and Pueblo (Smythe 1908: 58). The site for the Mission was chosen because of its proximity to Kumeyaay villages, which were known to be a reliable source of fertile land and water. Members of the local tribes were gathered from the surrounding area and were required to build the Mission San Diego and a Presidio structure on the hill near the river. Additionally, they cultivated wheat, barley, corn, and beans in the fields and maintained orchards and vegetable gardens at the Mission with more than 50,000 acres of land cultivated by 1797 (NPS 2023). Spanish soldiers primarily garrisoned the forts and guarded the Mission and its resources. They lived on small lots in houses made from wood, rushes, tule, and adobe with garden plots; by 1821, their residences spread to the base of the Presidio Hill and across Mission Valley (Smythe 1908: 47–59).

In 1822, the political situation changed as Mexico won its independence from Spain, and the Imperial County region became part of the Mexican Republic. The Mexican government opened California to foreign trade and began issuing private land grants, creating the rancho system of large agricultural estates throughout the Southern California area (City of San Diego 2007: 16). Although the region was plentiful with fertile soil capable of sustaining agriculture, it lacked water for irrigation, so the area of Imperial County remained largely undeveloped until the late nineteenth century (Frisby 1992: iv).

The American Period began in 1846 when United States military forces occupied San Diego; this period continues today. By 1848, America assumed formal control of California with the Treaty of Guadalupe-Hidalgo and introduced Anglo culture and society (Smythe 1908: 282). In 1848, a temporary camp was established in the valley when American settlers investigated the terrain for agricultural potential. Dr. Oliver M. Wozencraft was the first to try to develop the land with an attempt to create an irrigation system in 1849, but this ultimately failed. On a railroad corridor expedition led by Lieutenant R.S. Williamson of the U.S. Topographical Engineers in 1853, geologist Dr. W.P. Blake discovered the possibility of irrigating Imperial Valley from the Colorado River. Blake measured the elevation of the dry bed of the Salton Sea at below sea level, a technique that would later aid in the creation of a canal from the Colorado River to the interior of the desert to support a constant supply of water (Frisby 1992: 1–2).

In 1896, the California Development Company was formed to research the possibility of irrigating the valley under the direction of Charles Rockwood and George Chaffey. The company proposed a route from the Colorado River to Mexico, then back to the United States, where it would reach the Imperial Valley. By August 1900, construction of the irrigation system had started, and water delivery reached the region of Imperial County through the Boundary Canal less than 1 year after the start of construction. Additionally, the arrival of water brought more people to the area. That same year, the Imperial Land Company plotted townsites in Imperial Valley based on the amount of water stock that had been purchased. By 1902, about 2,000 settlers had arrived, so the Southern Pacific Railroad Company constructed the Niland to Calexico branch rail to accommodate the growing population (Frisby 1992: 29, 35–38).

After severe flooding in November 1905, about 12,000 acres of cultivated land and more than 30,000 acres of irrigable land were destroyed, causing immense damage to Southern Pacific Railroad Company railroad lines. Likewise, tension increased between settlers and the California Development Company because of their inability to mitigate the risk of flooding. As a result, the Southern Pacific Railroad Company took over management of the California Development Company in 1906 to ensure the protection of their railroads and establish protective measures against flooding. However, the California Development Company became bankrupt after litigations proceeding the flood. By 1911, IID was formed to acquire properties of the bankrupt California Development Company and its Mexican subsidiary. During the next decade, IID improved the County's irrigation system, rebuilt the entire Westside Main Canal, and obtained 13 mutual water companies. As such, IID delivered water to nearly 550,000 acres of Imperial Valley and continues to provide water to Imperial County today (Frisby 1992: 66–74).

Before 1907, the region of Imperial County was part of San Diego County until the residents petitioned to create Imperial Valley County. The San Diego Board of Supervisors came to a vote on August 6, 1907, and proposed the division be between two mountains within the San Bernardino Mountains. Imperial County was composed of 4,000 square miles and had a population of 20,320. The county continued growing throughout the early twentieth century but maintained an agricultural identity (Farr 1918).

During the Great Depression, the County attracted migrating farm workers from across the country. Agriculture continued to drive the economy, expanding with America's entry into World War II in 1941. The war effort stimulated the need for higher crop yields and led to the development of the All-American Canal. The canal was completed in 1951 and brought water from the Colorado River to the Imperial Valley. The 1950 census reveals that more than 50,000 residents lived in the county, with an increase in residents during the winter when migrant laborers from Mexico would come for work. The farms substantially supported the economy with crops such as alfalfa, cotton, sugar beets, and livestock until the 1960s. The winter of 1960 was the "worst frost onslaught in a decade," leading

to severe crop loss in Imperial County (SBS 1960). Additionally, the water arriving in the Imperial Valley during this period had high salinity levels, further reducing crop yields and increasing unemployment. During the 1970s, steps were taken to correct the drainage of the canals so the water would contain less salt (Finley 1974).

In the 1980s, the County reinvigorated its agricultural industries and introduced the cattle raising and animal feed industries. The economy's focus on agriculture continues, with the County producing nearly half of the nation's winter vegetables. As of 2023, there are approximately 180,000 residents within the County's seven cities: Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmorland (Imperial County 2023).

3.2.2 Water Conveyance in Imperial Valley

The rapid development and sustainability of Imperial Valley rests solely on water conveyance systems. Dowd (1956) states, "There are few, if any, other areas in the United States which are so dependent upon the importation of water for all their requirements." Historically, the Imperial Valley was considered an inhospitable place. It is located within the large, enclosed basin of the Colorado Desert and confined between the western Coast Range Mountains and the eastern Chocolate Mountains. The area's high temperatures and low average rainfall proved to many of the first European explorers that the Imperial Valley was worthless and irreclaimable land (Farr 1918). Although the first European exploration of what is now Imperial County was accomplished by the Spanish in 1540, when Hernando de Alarcón ascended the Colorado River likely up to present-day Yuma and claimed Alta (upper) California for the king of Spain, the area remained largely unexplored for the two centuries that followed (Lawton 1976; Warren 1984).

It was not until the 1770s that travel through Imperial Valley resumed with the onset of the de Anza expedition. In 1774, Captain Juan Bautista de Anza of the Spanish Army sought to provide a major land use route for the Spanish colonization of California. His overland route departed from Sonora, Mexico (south of present-day Arizona), to the future city of Los Angeles. The epic expedition successfully crossed the Colorado River from the west, traveled along the modern California/Mexico border, passed through Imperial Valley, and ended at its destination at the Mission San Gabriel Arcángel. The expedition brought with it achievement, which other Spanish and Mexican settlers followed. Subsequent use of the Anza Trail was interrupted by the 1781 Quechan revolt but resumed in the early nineteenth century (Lawton 1976; Warren 1984).

This overland route was the first of many historic events that brought interest to Imperial Valley over the coming century. The Mexican-American War of 1846–1848, the Gold Rush in Northern California, the development of the Butterfield Stage route, and explorations of potential railroad routes through the Colorado Desert opened the region up to possibilities of its development (Schonfeld 1968). However, none of these events had as much impact on the development of Imperial Valley as did the possibility of harnessing water for the arid yet potentially fertile region.

3.2.3 Bringing Irrigation to Imperial Valley

The following historical information is summarized from IID: The First 40 Years (Dowd 1956), which was prepared by M.J. Dowd, Consulting Engineer and Executive Officer to the Board of Directors for IID. This manuscript presents IID's history and the Imperial Valley's subsequent development. It identifies important periods, events, and development patterns for the Imperial Valley.

On one of the railroad corridor expeditions in 1853, led by Lieutenant R.S. Williamson of the U.S. Topographical Engineers, geologist Dr. W.P. Blake discovered the possibility of irrigating Imperial Valley from the Colorado River. Blake observed a region of fertile soil capable of sustaining agriculture but lacking in water. He measured the elevation of the dry bed of the Salton Sea at below sea level, a fact that made feasible the cutting of a canal from the Colorado River to the interior of the desert, which would bring with it a constant supply of water. Dr. Oliver Wozencraft, a proponent of irrigating Imperial Valley, lobbied for support from the California legislature, who, in turn, asked Congress to convey 6 million acres to Wozencraft. He endeavored to secure action by Congress on his plan to bring potable water to the desert for more than 30 years without success. Despite Wozencraft's failed attempts at reclamation, by his death in 1887, settlers and developers alike were eager to bring water to Imperial Valley.

Preliminary investigations into the feasibility of irrigating the Colorado Desert began in 1893 with the Colorado River Irrigation Company, but an inability to procure financing quickly led to the company's demise. In 1896, the California Development Company was organized to take charge of the project under the direction of Charles Rockwood and George Chaffey. The proposed canal route would run from the diversion point at the Colorado River through lower California, Mexico, and back into the United States to reach Imperial Valley. To gain title to the Mexican lands, the California Development Company organized a Mexican subsidiary company in 1898, La Sociedad de Yrrigacion y Terrenos de la Baja California, S.A. With plans to colonize the region, the California Development Company divided Imperial Valley into districts of varying size, each with its own mutual water company.

By August 1900, the construction of the first diversion canal and irrigation system was underway. The canal was excavated from the point of diversion from the Colorado River south about 4 miles into Mexico, where it swung west and connected for 40 miles within the Alamo River channel until it reached Sharp's Heading and turned north to the Salton Sea. A series of main canals were constructed to divert from Sharp's Heading into various stretches of Imperial Valley: Central Main, Boundary, West Side Main, and East Side Main. The Central Main Canal continued from the international boundary line and traveled north through the present cities of Brawley and Imperial; the Boundary Canal diverted west toward Calexico; the West Side Main Canal traveled west toward Calexico then north; and the East Side Main Canal traveled east then north to the eastern Salton Sea. Water delivery reached Calexico through the Boundary Canal less than 1 year after construction. That same year, nearly 1,500 acres of land were put under crops.

Few natural resources existed for potable water prior to the construction of the irrigation system. Domestic use water had to be hauled to the valley via the Southern Pacific Railroad Company. Once considered a barren wasteland, Imperial Valley was making good progress with colonization by the early 1900s. The Imperial Land Company, under the direction of the California Development Company, began laying out townsites in Imperial Valley based primarily on the density of purchased water stock. The town of Imperial was the first to be laid out, with settlement commencing in 1901. Over 10 years, from 1901 to 1911, irrigable land in Imperial Valley jumped from 1,500 to 220,000 acres. As the water flowed into the valley, so did the people. In 1902, a year after the first water reached Calexico, nearly 2,000 settlers came to Imperial Valley. The population grew to seven times that amount within 4 years. The Southern Pacific Railroad Company constructed the Niland to Calexico branch rail to accommodate the growing population. At the same time, the newly developed Imperial Valley broke apart from San Diego County to form its government as Imperial County, with El Centro being designated as the county seat.

The rapid colonization of Imperial Valley in the early 1900s strained the relationship between settlers and the California Development Company. Initial land and soil surveys were inaccurate, leading to discrepancies with land titles, and water rights held by the California Development Company were called into question. The Reclamation

Act was proposed in 1902 to take the Imperial Valley project from the California Development Company and organize it under government control. Further dissatisfaction with the California Development Company arose after hurried and negligible attempts to correct the Colorado River's heavily silt-laden waters, ultimately leading to grave damage to Imperial Valley following the massive flooding events of 1905 and 1906. The Colorado River break destroyed nearly 12,000 acres of cultivated land and more than 30,000 acres of irrigable land, caused immense damage to the Southern Pacific Railroad Company lines, and severed the ties between settlers and the California Development Company. The Colorado River break took two years to repair, during which time the Salton Sea filled and expanded to a length of 50 miles and a width of 10 to 15 miles.

Preceding litigation brought to the California Development Company following the flood resulted in bankruptcy. In 1911, a petition to form an irrigation district was presented to the Imperial County Board of Supervisors. IID was formed to acquire properties of the bankrupt California Development Company and its Mexican subsidiary. Over a decade, IID completed improvements and repairs to the canal and distribution system, rebuilt the entire Westside Main Canal, received deeds to all the properties of the California Development Corporation, and acquired 13 mutual water companies. Within a few years of acquiring the mutual companies, IID was delivering water to nearly 550,000 acres of Imperial Valley. Over a century later, IID is still servicing communities of the Imperial Valley. IID is the largest irrigation district in the nation, and Imperial County ranks among the top 10 agricultural counties in the nation. Of the water IID transports, 98% is used for agriculture, and the remaining 2% is treated potable water and delivered to the nine current Imperial Valley cities (Dowd 1956; IID 2024).

3.2.4 Drainages and Laterals

Around the mid-1910s, there was a growing realization that drainage of the land in Imperial Valley was becoming necessary. High water tables were developing in several areas, and crop production was at a loss due to inundation and saturation. Some mutual water companies started constructing miles of shallow ditches at the lower end of fields to drain surplus irrigation water; however, the surface waste ditches were considered a quick fix for a much larger drainage problem.

By the 1920s, investigations into groundwater drainage solutions were sorely needed. IID hired a consulting drainage engineer to plan the drainage system. A grid system of north–south and east–west lines were developed, spaced at 1-mile intervals, and laid out over the entire valley. Included in the design were observation wells used to note the elevation of the groundwater table with required monthly checks of the wells. A comprehensive system of main drain outlets was installed in areas with a high water table. While 234 miles of deep drains were constructed by 1929, the drainage problem continued partly because the water table was perched on a compact and impervious geological stratum in select portions of the valley.

IID implemented an intensive program to initiate the development of a lateral drain system. The system consisted of deepening existing surface drains to 6 or 8 feet and constructing additional deep drains to serve as outlets. The drain systems were tailored to meet the needs of individual landowners following a survey and examination of their land. The use of farm tile drains was also implemented. The intensive program paid off; within 1 year, IID had added 740 miles of lateral drains and 10 miles of tile drains to the drainage system (Dowd 1956; IID 2024).

After the major flooding in the Imperial Valley in 1905–1906, the California Development Company decided to reconstruct a wooden flume conveyance system located in Mexico named the Encina Canal. This system would extend into the United States and become the Westside Main Canal. The Westside Main Canal was completed

through Imperial County in 1908. Contractors for the construction of the Westside Main Canal include the Hollywood Realty, Building and Grading Company and W.K. Peasley (IVP 1908: 2). In 1911, Imperial Valley voters approved the organization of the IID. Farmers and settlers were drawn to the Imperial Valley by the federal government's Desert Entry Land Program, which allowed individuals to apply for 160 acres of desert ground or 320 acres for a married couple. The Westside Main Canal was used to irrigate land throughout the Imperial Valley and became the center of farming communities such as Dixieland, Seeley, and Calexico. By the 1920s, IID delivered water to more than 500,000 agricultural lands (IID 2024).

The passing of the Boulder Canyon Act in 1928 authorized a canal system that would travel across the majority of the United States and connect diversion dam systems to Imperial and Coachella Valleys. In 1929, the United States Contracted the IID to estimate the cost of a canal that would connect the Yuma Project to the proposed All-American Canal by using the already existing water conveyance systems such as the Westside Main Canal. in 1932, the IID and the Bureau of Reclamation would enter into a contract to build the dam, canals, and structures, and the delivery of water for $38.5 million (Stene 2009:5-8). The construction of the Boulder Dam in 1935 brought immediate hydroelectric power to the valley. The All-American Canal began construction in 1934 and was completed in 1941. The Westside Main Canal was incorporated into the All-American Canal upon its completion. The All-American Canal brings water from the Colorado River at Imperial Dam to the farmland of the Imperial Valley. The three main canals that make up the All-American Canal include the East Highline Central Main and the Westside Main Canal, which divert water from the All-American Canal (Wlodarski 2006: 3; Johnson 2012e; URS 2009e; IID 2024).

During the Great Depression and severe droughts of the 1930s, Imperial Valley farmers struggled with unemployment and financial hardships like the rest of the country. The IID requested one million dollars for the force account of labor in part of the Canal in the Imperial Valley. More than 250 men were hired through the Federal Re-employment Office in El Centro (Stene 2009:8).

3.2.5 Agriculture Development in Imperial County

The Imperial Valley has been one of the most successful farm areas in the United States since the early twentieth century. Agricultural production was slowly introduced to the valley after the first canal was created in 1901. Nutrient-rich soil varied throughout the valley and included heavy clay and loose sand. The soil type determined the type of crop grown in each region. Fruits were often grown in sands and sandy loams, while grains were cultivated in clays and clay loams. However, most of the valley was devoted to grain and alfalfa. Alfalfa was grown to supply the soil with organic matter and proved crucial during the valley's early agricultural industry. The land used to grow alfalfa was worth more than raw land and was in great demand for the growth of cotton and fruit. Additionally, the crops varied by season, with barley and wheat grown in the winter and corn in the summer (Farr 1918; Schonfeld 1968).

Early farming techniques involved planting in newly leveled ground, discing it, and irrigating it before harvesting. Farmers relied on volunteer crop growth for 3 to 4 years following this establishment period. Such methods did not result in a high crop yield but produced a profit for little investment. Early County settlers did not have much wealth and depended on crop yields. Barley provided the highest crop yield and was the main crop grown during winter. Alfalfa grew during the spring so that barley could be planted in its nutrient-rich soil by the fall and produce a winter pasture. This practice is still used today in barley cultivation in the Imperial Valley. Most of the barley is produced today to support the livestock and dairy industries as cow feed (Farr 1918).

While large areas of clay are still devoted to the growth of barley, the acreage of other crops has increased throughout the County's history. By 1909, when 300 acres and a cotton gin were established, cotton became an important crop in the valley. By 1910, the acreage increased to 1,400 acres, and by 1911, the valley supported 14,000 acres of cotton, reaching a peak of 70,000 acres in 1917. Likewise, cotton and oil mills were constructed to produce the crop (Farr 1918).

The production of agricultural products continued to increase throughout the twentieth century due to the area's temperate climate. Low humidity and high temperatures have created a stable environment for the growth of crops supported by the region's extensive irrigation system (Schonfeld 1968). During the area's development, cantaloupe and lettuce became popular summer crops, and cabbage, onions, asparagus, and peas were plentiful during winter (VRIC 2023). Although the cattle industry surpassed the agricultural industry during the twenty-first century, the County's agricultural production remains significant. As of 2019, alfalfa, lettuce, broccoli, carrots, sugar beets, and spinach have dominated agricultural production in the County (Office of Agricultural Commissioner 2019).

3.2.6 Early Educational Development in Imperial County (1901–1950)

Mr. J.E. Carr established the first school in the Imperial Valley in 1901. The school was built with an arrow-weed roof supported by eight poles; 50 children enrolled when the school opened on September 8, 1901. Most of the children lived in the nearby rural communities and walked about 4 to 5 miles through the desert to attend school. By 1903, John E. Shenk opened a second school, a tent containing a board floor with a canvas top and walls, in the newly organized Calexico School District. When the second school opened, about 15 students enrolled from the surrounding area, with Schenk commenting that (Farr 1918):

> The pupils came on burros, on horseback, and on foot from habitations not as a rule visible from the school. Two or three ranch tents in the distance and the California Development Company's building and water tank at the international boundary line were the only signs of civilization apparent to the eye. The pupils were earnest and eager, with but an occasional infraction of the arbitrary rules prescribed by the schoolmaster. Corporal punishment was seldom resorted to and when it was used it was, with the full approval of the parents, obtained after the incident was closed.

Additionally, Mr. L.E. Cooley opened a third school in 1903 in the Van Horn community that was described as a "rag knowledge box" (Farr 1918). These three schools served the Imperial Valley community until Imperial County was established in 1907, and the following school districts were created: Adair, Alamo, Brawley, Calexico, Central, Colorado, Eastside, El Centro, Elder, Eucalyptus, Heber, Holtville, Imperial, Jasper, Picacho, Silsbee, and Sunset Springs. Carr became the first Superintendent of Schools in the County. In total, the County contained about 34 elementary schools that enrolled 1,067 students and employed 38 teachers. However, the Imperial Valley Union High School was the only high school in the County from 1907–1908 and enrolled only 48 students with three teachers (Farr 1918).

In 1911, Superintendent Carr was succeeded by Cooley during a period of rapid growth in the County. At this time, the elementary schools enrolled 1,700 students, while the five high schools enrolled 400 students. Enrollment continued to increase through Cooley's retirement in 1915. By 1918, the County included 50 elementary schools with 4,000 students, and the high school enrolled 500 students (Farr 1918).

During the 1920s, the Imperial County schools continued to grow, "keeping pace with the agricultural development" (IVP 1920). Enrollment increased by 108% in 1920, with about 12,000 students enrolled in the County schools (IVP 1920). However, daily attendance by 1927 was recorded at just over half the enrollment rate, with only 7,355 students (IVP 1927). By 1930, efforts were made within the school system to change the education format to be more "child-centered, instead of teaching and subject-matter centered" (IVP 1930). The change was made to encourage students to engage with subject matter through meaningful experiences that would promote increased attendance (IVP 1930). However, the Great Depression led to budget cuts that saw the County school system decrease teachers' wages and school budgets (IVP 1932a). The Works Progress Administration also created a program to serve free hot lunches to children in poverty (IVP 1936).

Attendance within the County school system remained stable until the beginning of World War II. In 1942, the schools saw a decrease in attendance as Japanese students were evacuated (IVP 1942). By 1943, elementary school enrollment was down to 5,857 students, and high school enrollment was down to 1,586 students (IVP 1943). The war continued to affect attendance and population rates throughout the County until its end in 1945. In January of 1945, 366 Japanese students under the age of 16 returned to the County school system, and attendance began to increase slowly (IVP 1945). By 1950, more than 50,000 residents lived in the County, and the school system continued to grow with the increasing population (U.S. Census Bureau 1950).

4 Field Survey Methods and Results

4.1 Methods

Dudek built environment resources specialists conducted a reconnaissance-level survey of the API from April 10–13, 2023, and April 4 and 5, 2024. The specialists drove along access roads that circle each field. Upon encountering a historic-era feature, the specialists measured elements of the feature, took photographs, took detailed notes, and recorded the GPS coordinates. The specialists then drove the extent of each component and recorded any additional elements, such as drainage ditches or water gates. For clarity, the subject properties discussed below were each assigned a Map ID number associated with the API map (see Figure 3, Built Environment Historic Era Properties Identified), and each building and structure observed on each Map ID property was assigned a corresponding number label. On April 13, 2023, Dudek's architectural historian visited the Imperial Valley Desert Museum in Ocotillo, California, for in-person archival research for information on the area. All fieldwork was documented using field notes and iPad technology with close-scale field maps and aerial photographs. Location-specific photographs were taken using an Apple 3rd Generation iPad equipped with 8-megapixel resolution, ArcGIS systems, and georeferenced PDF maps of the API. All field notes, photographs, and records related to the current study are on file at Dudek's Portland, Oregon, office. This survey data will be utilized should subsequent built environment work be required.

Map ID 5, the Imperial Valley Substation (APN 051-380-024, 2626 West U.S. Hwy 98), was visible on a 1984 aerial, but archival research revealed that it did not meet the age threshold for the survey, as it is not yet 45 years of age. SDG&E owns the substation. They partnered with IID to construct the substation in 1982 (CC 1982). The property was not reported on further.

4.2 Survey Results

Dudek identified the following built environment components as being more than 45 years old in the API through records search and field survey information. Initial research found that there were 18 historic resources located in the API (Table 4); Dudek recorded each resource with a Map ID that corresponds to Figure 3. Upon further research, Map ID 5, Imperial Valley Substation, was found to have a construction date of 1982; therefore, it does not fulfill the age requirement of recordation and evaluation for listing on the NRHP. The Map IDs' APNs were found using Imperial County Assessor Data and the ParcelQuest Database (see Figure 3 for locational information).

Table 4. Built Environment Properties Recorded and Evaluated in the API

Map ID	Property Type	Address/APN	Year Built	Primary Numbers (if previously Evaluated)
Previously Recorded within the API				
1	Residential	2396 West Vaughn Road (051-300-031)	ca. 1960	P-13-014263
2	Education	2294 West Vaughn Road (051-300-010)	ca. 1965	P-13-014264
4	Residential	1651 Westside Road (051-270-038)	ca. 1955	P-13-013758
6	Residential	No Situs Address (previously associated with 1105 Liebert Road) (051-350-017)	ca. 1974	P-13-012700

Table 4. Built Environment Properties Recorded and Evaluated in the API

Map ID	Property Type	Address/APN	Year Built	Primary Numbers (if previously Evaluated)
7	Residential	2094 Wixom Road (051-330-024)	ca. 1945	P-13-014265
9	Residential	1905 Wixom Road (051-360-038)	ca. 1970	P-13-014266
10	Water Conveyance	Wixom Drain (Linear Resource)	ca. 1940	P-13-014975
11	Water Conveyance	Fig Canal (Linear Resource)	ca. 1912	P-13-012693
12	Water Conveyance	Fern Canal (Linear Resource)	ca. 1909	P-13-012689
13	Water Conveyance	Dixie Drains and Laterals (Linear Resource)	1911/ca. 1940	P-13-012688
14	Water Conveyance	Westside Main Canal and Drain (Linear Resources)	1908	P-13-008334
15	Water Conveyance	Fox Glove Canal (Linear Resource)	ca. 1912	P-13-009880
16	Wagon Road	Wagon Road (Linear Resource)	ca. 1850	P-13-003403
Newly Recorded within the API				
3	Residential	2250 West Vaughn Road (051-300-027)	ca. 1976	
8	Residential	2104 West Wixom Road (051-330-021)	1940	
17	Agricultural	Cattle Coral Shelter (051-310-026)	ca. 1956	
18	Water Conveyance	Diehl Drain (Linear Resource)	ca. 1950	
19	Water Conveyance	Fig Drain (Linear Resource	ca. 1940	

Note: APN = Assessor's Parcel Number.

5 Results of Identification and Evaluation Efforts

This section provides a physical description and an evaluation of each of the subject properties located in the API under the NRHP and CRHR designation criteria. To assess the historical significance and integrity of each property located within the API, the subject properties were recorded and evaluated in consideration of NRHP and CRHR criteria and integrity requirements. A physical description of each property and its development history are also provided below. The significance evaluations were prepared by Dudek Architectural Historians EJ Jones, MA, and Evan Brisentine, MSHP, who both meet the Secretary of the Interior's Professional Qualification Standards for architectural history. The preparers' qualifications are included in Appendix A, the previously recorded DPR Update sets are located in Appendix C, and the complete DPR 523 form set for each newly recorded property is provided in Appendix D of this report.

5.1 Previously Recorded Properties

5.1.1 Map ID 1. 2396 West Vaughn Road (051-300-031)

Description

The subject property, sited at 2396 West Vaughn Road (APN 051-300-031), consists of a modern-style ranch house with a low-pitch gable roof and composite roofing, a pedimented front gable entry with a full-length porch, and stucco cladding on the exterior. This single-family residence was initially recorded in 2012 by Chambers Group, and there do not appear to be any notable changes since the original recordation in 2012 (Exhibit 1).

Statement of Significance

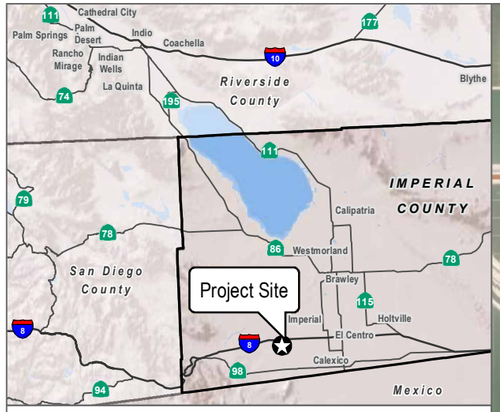
The property was previously evaluated in 2012 by Chambers Group and recommended as not eligible for listing in the NRHP or the CRHR. In the original recordation, the property was incorrectly addressed as 2396 Vaughn Road. However, the property's legal address is 2396 W Vaughn Road. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that Jerry Preece developed the subject property in 1952, although historical aerials show no development had occurred by that time. Historical aerials indicate that the property was developed in ca. 1960 (Johnson 2012d: 1–3; ParcelQuest 2024; NETR 2024a).

Chambers Group Historian Brent Johnson determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for NRHP/CRHR Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction and did not appear to represent the work of a master, or possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Johnson found that the property did not appear eligible under NRHP/CRHR Criterion 3/C. Johnson also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under NRHP/CRHR Criterion 4/D. Johnson documented that the property had retained its integrity of location, feeling, association, materials, and workmanship.

On August 14, 2023, Dudek revisited the residential property at 2396 W Vaughn Road and did not observe any noticeable alterations since the last recordation in 2012. Dudek concurs with the previous finding that the residence does not meet any of the criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

Exhibit 1. Main (north) elevation of the residence at 2396 West Vaughn Road, view looking northeast. Photograph taken on April 11, 2023.





- Project Boundary
- Built Environment Area of Potential Impact
- Project BESS
- Project Substation
- Switchyard
- Gen-Tie Line
- Alternative Gen-Tie Line
- **Previously Identified Properties**
  - Map ID 1. 2396 West Vaughn Road (051-300-031) (ca. 1960)
  - Map ID 2. 2294 West Vaughn Road (051-300-010) (ca. 1965)
  - Map ID 4. 1651 Westside Road (051-270-038) (ca. 1955)
  - Map ID 6. No Situs Address (051-350-017) (ca. 1974)
  - Map ID 7. 2094 Wixom Road (051-330-024) (ca. 1945)
  - Map ID 9. 1905 Wixom Road (051-360-038) (ca. 1970)
  - Map ID 10. Wixom Drain (Linear Resource) (ca. 1940)
  - Map ID 11. Fig Canal (Linear Resource) (ca. 1912)
  - Map ID 12. Fern Canal (Linear Resource) (ca. 1909)
  - Map ID 13. Dixie Drains and Laterals (Linear Resource) (1911/ca. 1940)
  - Map ID 14. Westside Main Canal and Drain (Linear Resources) (1908)
  - Map ID 15. Fox Glove Canal (Linear Resource) (ca. 1912)
  - Map ID 16. Wagon Road (Linear Resource) (ca. 1850)
- **Newly Recorded Properties**
  - Map ID 3. 2250 West Vaughn Road (051-300-027) (ca. 1976)
  - Map ID 8. 2104 West Wixom Road (051-330-021) (1940)
  - Map ID 17. APN 051-310-026
  - Map ID 18, Diehl Drain, Multiple APN's (no address)
  - Map ID 19. Fig Drain, Multiple APN's (no address)

SOURCE: Maxar 2023; Imperial County 2023

DUDEK 0 1,000 2,000 Feet

FIGURE 3

Built Environment Historic Era Properties Identified

P# 15207

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5.1.2 Map ID 2. Westside Elementary School, 2294 West Vaughn Road (051-300-010)

Description

The subject property, sited at 2294 West Vaughn Road, consists of a modern-style one-story school building with an irregular plan constructed with concrete blocks. The flat roof is clad in rolled asphalt and features a wide cornice, parapet, and a series of fluted pilasters along the primary elevation. The east wing of the building has a utilitarian main entrance with a nearly full-width ribbon window composed of a series of aluminum sash windows. The Westside Elementary School building, constructed ca. 1965, was originally recorded in 2012 by Chambers Group, and there does not appear to be any changes to the resource since its original recordation (Johnson 2012b: 1–3) (Exhibit 2).

Six additional buildings, which were not recorded during the 2012 survey, are present on the campus. An ancillary building, located immediately west of the recorded Westside Elementary School building, appears to have been constructed within the historic era, and features complementary architectural elements. The one-story, square building has a raised foundation, flat roof, overhanging eaves on the south (primary) and north (rear) elevations, and wide cornices. The building features a utilitarian door, lacks windows, and is clad in T1-11 plywood siding. Five additional structures appear to have been constructed between ca. 1980 and ca. 2003 (NETR 2024a) (Exhibits 3 and 4).

Statement of Significance

The property was previously evaluated in 2012 by Chambers Group and recommended as not eligible for listing in the NRHP or the CRHR. In the original recordation, the property was incorrectly addressed as 2394 W Vaughn Road (APN 051-300-029-000). However, the property's legal address is 2294 W Vaughn Road (051-300-010-000). The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that the original, no longer extant school complex was constructed in 1911 but replaced with the current (extant) building in ca. 1965 (Johnson 2012b: 1–3; ParcelQuest 2024).

Chambers Group Historian Brent Johnson determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for NRHP/CRHR Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or construction method and did not appear to represent the work of a master, possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Johnson found that the property did not appear eligible under NRHP/CRHR Criterion 3/C. Johnson also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under NRHP/CRHR Criterion 4/D. Johnson documented that the property had retained its integrity of location, feeling, association, materials, and workmanship.

On April 11, 2023, Dudek revisited the subject property at 2294 W Vaughn Road and observed the six additional buildings located on the property. Otherwise, there have not been any noticeable alterations since the 2012 record. Dudek concurs with the previous finding that the residence does not meet any of the criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of

the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

Exhibit 2. Primary (south) and east elevations of the Westside Elementary School building, view looking northwest. Photograph taken on April 11, 2023.



Exhibit 3. Primary (south) and west elevations of the ancillary building, view looking northeast. Photograph taken on April 11, 2023.



Exhibit 4. Overview of the Westside Elementary School campus, including four of the seven extant buildings, view looking north. Photograph taken on April 11, 2023.



5.1.3 Map ID 4. 1651 Westside Road (051-270-038)

Description

The subject property, sited at 1651 Westside Road, consists of a one-story ranch-style single-family residence constructed in ca. 1955. The rectangular, wood-framed residence has a concrete foundation and stucco cladding. The roof is a low-pitched, cross-gable roof clad in rolled asphalt. A projection extends from the building's south elevation. The residence's windows are vinyl-framed sliders and a brick chimney is located along the roof ridge. Other structures located on the property (constructed outside the historic period) include a front-gable carport and garage, shed, square swimming pool, and three pole shelters. The property includes mature landscaping. Fern Lateral Three, an agricultural irrigation system associated with the larger Fern Canal network, runs north to south across the east side of the property. This single-family residential property was initially recorded in 2011 by KP Environmental and ASM. There do not appear to have been any changes to the resource since its original recordation (Exhibit 5).

Statement of Significance

The property was previously evaluated in 2011 by KP Environmental and ASM and recommended as not eligible for listing in the NRHP or the CRHR. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that the property was likely constructed in ca. 1955 despite a U.S. Department of Agriculture document that listed the construction date as 1949 (Thomson and Adame 2011: 1–3; Krintz 2011a: 1–2).

ASM Architectural Historian Jennifer Krintz determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for NRHP/CRHR Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction, and did not appear to represent the work of a master, or possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Krintz found that the property did not appear eligible under NRHP/CRHR Criterion 3/C. Krintz also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under NRHP/CRHR Criterion 4/D. Krintz did not evaluate the property's historical integrity.

On April 11, 2023, Dudek revisited the residential property at 1651 Westside Road and did not observe any noticeable alterations since the last recordation in 2011. Dudek concurs with the previous finding that the residence does not meet any of the criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject residence is not a historical resource for the purposes of CEQA. Dudek has assigned the subject residence a 6Z California Historical Resource status code.

Exhibit 5. Overview of the property addressed as 1651 Westside Road, view looking northwest. Photograph taken on April 11, 2023.



5.1.4 Map ID 6. Property at the Intersection of Liebert Road and Mandrapa Road (No Situs Address; 051-350-017)

Description

The subject property located on APN 051-350-017 does not have a situs address but was previously recorded as part of 1105 Liebert Road. Two additional buildings on the parcel were demolished in 2004. The property was observed from the access roads surrounding the Fig and Westside Main Canals. Historical aerials show two buildings on the parcel, both of which were demolished in ca. 2004. The existing building was constructed prior to 1984 and is in the northeast corner of the parcel. A concrete canal was constructed along the north side of the property, with unofficial writing on the concrete with a date of February 15, 1974 (NETR 2024a).

The only building on the property, an abandoned barn, sits at the southeast corner of the intersection of Liebert Road and Mandrapa Road, north of the Westside Main Canal (Exhibit 6). The wood frame building has a gable-end entry with minimal overhang and dropped secondary roof over a shed room, a wood frame tractor entrance with no door attached, vertical wood board siding, with flat wood board roofing, a louvered wood attic vent, exterior mounted air conditioning vent system on the north elevation that appears to have been a later addition. Located on the main (south) and the north elevations are two offset to the right ventilation windows.

Exhibit 6. View of the existing building, looking north.



Statement of Significance

The property was previously evaluated in 2011 by ASM and AECOM. In 2012, Chambers Group recommended it as not eligible for listing in the NRHP or the CRHR. The property was assigned a status code of 6Z: found ineligible for

the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that the property was likely constructed in ca. 1940, ca. 1930s, and ca. 1945 based on visual observation and historic aerials.

Brent D. Johnson of Chambers Group most recently determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for NRHP/CRHR Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction, and did not appear to represent the work of a master, or possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Johnson found that the property did not appear eligible under NRHP/CRHR Criterion 3/C. Johnson also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under NRHP/CRHR Criterion 4/D. Johnson did not evaluate the property's historical integrity.

On April 11, 2023, Dudek revisited the residential property at APN 051-350-017 and did not observe any noticeable alterations since the last recordation in 2012. Dudek concurs with the previous finding that the building does not meet any of the criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject residence is not a historical resource for the purposes of CEQA. Dudek has assigned the subject residence a 6Z California Historical Resource status code.

In conclusion, the farm property at APN 051-350-017 lacks sufficient significance to meet any of the criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above before determining whether the resource retains its historic character and can convey its significance. In the specific case of the farm property at APN 051-350-017, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further analysis of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), individually or as a contributing element to an existing or potential historic district.

5.1.5 Map ID 7. 2094 West Wixom Road (051-330-024)

Description

The subject property, sited at 2094 West Wixom Road, comprises two single-story residences, an ancillary building, and several shade structures. The first single-family residence is a single-story residence with a rectangular plan built in the Minimal Traditional architectural style. The side-gable roof, which features exposed rafter tails, is clad in composite roofing. The building is of brick construction that is clad in stucco, has double-hung windows with multi-pane glazing, louvered attic vents, and a pent roof over the center window on the main (west) elevation. The second single-family residence on the property is a single-story residence with an irregular plan that is clad in stucco. The roof has a medium-pitched, cross-gabled roof that has vented peaks. The second residence has a combination of aluminum-framed and vinyl-framed sliding-sashed windows. This property was originally recorded in 2012 by

Chambers Group and there does not appear to be any changes to the resource since its original recordation (Exhibits 7 and 8).

Statement of Significance

The property was previously evaluated in 2012 by Chambers Group and recommended as not eligible for listing in the NRHP or the CRHR. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that the property that encompasses APN 051-330-024 was likely constructed in ca. 1945 (Johnson 2012c: 1–3).

Chambers Group Historian Brent Johnson determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for NRHP/CRHR Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction and did not appear to represent the work of a master, or possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Johnson found that the property did not appear eligible under NRHP/CRHR Criterion 3/C. Johnson also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under NRHP/CRHR Criterion 4/D. Johnson documented that the property had retained its integrity of location, feeling, association, materials, and workmanship.

On April 11, 2023, Dudek revisited the residential property at 2094 West Wixom Road and did not observe any noticeable alterations since the last recordation in 2012. Dudek concurs with the previous finding that the residence does not meet any of the criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject residence is not a historical resource for the purposes of CEQA. Dudek has assigned the subject residence a 6Z California Historical Resource status code.

Exhibit 7. Overview of the first single-family residence located at 2094 West Wixom Road, view looking east. Photograph taken on April 11, 2023.



Exhibit 8. The main (south) elevation of the second single-family residence located on the property, view looking north. Photograph taken on April 11, 2023.



5.1.6 Map ID 9. 1905 Wixom Road (051-360-038)

Description

The subject property, sited at 1905 Wixom Road, consists of a one-story single-family residence with a rectangular plan. The building was designed in the Spanish Colonial architectural style with an arched gallery on the exterior elevations and an interior courtyard with a rectangular pool. The residence also features elements of the French Colonial style including a dual-pitched pavilion roof. The building is constructed from concrete masonry blocks reinforced with steel. A north–south-oriented rectangular building, which appears to be a garage built during the same period as the residence, is located east of the main building. This single-family residence was originally recorded in 2012 by Chambers Group and there does not appear to be any changes to the resource since its original recordation (Exhibit 9).

Statement of Significance

The property was previously evaluated in 2012 by Chambers Group and recommended as not eligible for listing in the NRHP or the CRHR. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that the property that encompasses APN 051-360-038 was constructed in ca. 1970 (Johnson 2012a: 1–3).

Chambers Group Historian Brent Johnson determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for NRHP/CRHR Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction. It did not appear to represent the work of a master, possess high artistic value, or represent a significant or distinguishable entity whose

components lack individual distinction. Consequently, Johnson found that the property did not appear eligible under NRHP/CRHR Criterion 3/C. Johnson also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under NRHP/CRHR Criterion 4/D. Johnson documented that the property had retained its integrity of location, feeling, association, materials, and workmanship.

On April 11, 2023, Dudek revisited the residential property at 1905 Wixom Road and observed no noticeable alterations to the main residence since the last recordation in 2012. A rectangular building, which is complementary and has similar building materials, is located directly east of the main residence. Dudek concurs with the previous finding that the residence does not meet any criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject residence is not a historical resource for the purposes of CEQA. Dudek has assigned the subject residence a 6Z California Historical Resource status code.

Exhibit 9. Overview of the property located at 1905 Wixom Road, view looking northeast. Photograph taken on April 11, 2023.



5.1.7 Map ID 10. Wixom Drain

Description

The Wixom Drain is an earthen-dug irrigation drainage ditch located east of the Westside Main Canal and flows north to the New River from the Fig Canal at Liebert Road and West Wixom Road. The 2-mile drainage ditch is approximately 10–20 feet wide and about 10–15 feet deep. Concrete weirs are located intermittently along the drain to control water flow. Wixom Drain was originally recorded in 2011 by ASM and there does not appear to be any changes to the resource since its original recordation (Exhibit 10).

Statement of Significance

Wixom Drain was previously evaluated in 2011 by ASM and recommended as not eligible for listing in the NRHP or the CRHR. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that Wixom Drain was constructed between 1922 and 1949 and assigned a construction date of ca. 1940 (Krintz 2011b: 1).

ASM Architectural Historian Jennifer Krintz determined that the Wixom Drain was a late, and modest, example of irrigation systems in Imperial Valley, California. The drain does not appear to be a significant representation of a significant historical trend or event and was recommended ineligible for NRHP/CRHR Criteria 1/A. Krintz did not evaluate Wixom Drain for significance under NRHP/CRHR Criteria 2/B, 3/C, or 4/D (Krintz 2011b: 1–3).

On April 11, 2023, Dudek revisited Wixom Drain and observed no noticeable alterations since the last recordation in 2011. Dudek concurs with the previous finding that the drain appears ineligible for NRHP/CRHR Criteria 1/A. However, the drain is unlikely to be associated with the lives of persons significant to the community's, state's, or nation's past. As such, the drain appears ineligible for NRHP/CRHR Criterion 2/B. The property also lacks the characteristics of a type, period, or construction method and does not appear to represent the work of a master, possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Accordingly, the property does not appear eligible under NRHP/CRHR Criterion 3/C. Wixom Drain is unlikely to yield information important to prehistory or history and, therefore, is recommended ineligible under NRHP/CRHR Criterion 4/D. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code (Krintz 2011b: 1–3).

Exhibit 10. North section of Wixom Drain, view looking south. Photograph taken on April 11, 2023.



5.1.8 Map ID 11. Fig Canal

Description

This portion of the Fig Canal is a trapezoidal concrete-lined channel with various widths and depths as it meanders and follows along the boundaries of several agricultural fields along Derrick Road and Wixom Road before terminating at the Westside Main Canal. The Fig Canal spans more than 4 miles and is predominantly 10 feet wide and approximately 6 feet deep. Sections of the canal vary in width as it traces along the boundaries of nearby agricultural fields. The Fig Heading, comprising two concrete-lined winged wall culverts and two metal gate structures, is associated with the canal (Exhibit 11).

Statement of Significance

Five previous historical studies document the subject portion of the Fig Canal. In the 1983 draft report Lake Cahuilla (East Mesa Segment) Management Plan and Environmental Assessment, BLM recommended that the All-American Canal be found eligible for the NRHP as part of a district under Criteria A and C. BLM communicated with SHPO and addressed comments on boundaries, significance criteria, setting, and national versus local levels of significance. After the comments were addressed, SHPO elected not to comment on the undertaking. BLM presumed SHPO concurrence in accordance with a Programmatic Agreement between the two agencies (BLM 1983; Schaefer and O'Neil 2001: v).

In 2001, IID employed ASM to complete an inventory and evaluation report for the entire All-American Canal system. ASM employees Jerry Schaefer and Collin O'Neill conducted an inventory system composed of 148 miles of main canals, 1,438 miles of laterals, and 1,406 irrigation and drainage ditches. ASM concurred that the entire All-American Canal system (trinomial CA-IMP-7130H), including components under 50 years old, was eligible for the NRHP for its historical and engineering significance. ASM conducted preliminary research for "any future efforts to actually nominate the AAC [All-American Canal] to the National Register of Historical Places, possibly as part of a larger district that would include the Imperial Dam and distilling plant, the Coachella Canal, and all the mains, laterals, and drains throughout the Imperial Valleys" (Schaefer and O'Neil 2001: 1). ASM concluded that the All-American Canal is eligible for the NRHP, CRHR, and local level as a historic district under Criteria A/1 and C/3 because of its association with a major federal public works project, IID, and Imperial Valley. ASM recommended that although "all of the elements of the canal evaluated here [are] significant contributing elements of a district, even if they are less than 50 years old, additional research is required to determine if all the elements are contributory prior to any NR nomination submittals" (Schaefer and O'Neil 2001: 71).

In 2009, URS evaluated (but did not survey) a portion of the Fig Canal, a component of the All-American Canal irrigation system. URS documented that the subject portion of the 4-mile-long Fig Canal, constructed in ca. 1912 was altered over time through dredging and widening. Date stamps indicate that the concrete on the canal was updated in the mid-1950s. URS concluded that the subject portion of the Fig Canal appeared ineligible for the NRHP due to a lack of significant historical associations and historic integrity. URS stated that the canal was constructed several years after the All-American Canal opened, but substantial improvements and reconstruction do not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials).

In summary, in 2009, URS recommended that the portion of the Fig Canal near Evan Hewes Highway did not appear to be individually eligible for listing in the NRHP, CRHR, or considered a historical resource for purposes of CEQA. In 2011, ASM Architectural Historian Jennifer Krintz concurred with URS's recommendation that the canal be found ineligible for a lack of historical associations and integrity. In the same year, a subsequent study conducted by Chambers Group also concurred with URS's earlier recommendation (URS 2009a: 1-3; Krintz 2011d: 2; Johnson et al. 2011a: 1, 4).

On April 11, 2023, Dudek revisited the subject portion of the Fig Canal and did not observe any noticeable alterations since the last recordation. Dudek also reviewed all available documentation pertaining to this portion of the Fig Canal and concurs that the aqueduct does not meet any criteria for listing in the NRHP or CRHR. In 1983, BLM recommended that this ancillary canal may be eligible for the NRHP because of its association with the All-American Canal but requested that additional research be conducted to confirm its eligibility. ASM and URS conducted subsequent studies in 2001, 2009, and 2011 and recommended that the canal be found ineligible for recordation due to a lack of integrity. Dudek disagrees that routine maintenance, required to keep the aqueduct operational, disqualifies this portion of the Fig Canal from recordation on the NRHP. This portion of the Fig Canal is an ancillary extension of an extensive water conveyance system designed to irrigate individual, private agricultural ventures. The Fig Canal's mere association with the All-American Canal does not elevate the aqueduct to a level of significance worthy of recordation. This portion of the Fig Canal does not represent any significant historical trends associated with any important persons, architecturally significant, or likely to yield additional information about pre-history or history. As such, this portion of the Fig Canal appears ineligible for the NRHP and CRHR due to a lack of historical significance. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

Exhibit 11. The north section of Fig Canal, view looking south. Photograph taken on April 11, 2023.



5.1.9 Map ID 12. Fern Canal

Description

This portion of the 10-mile-long Fern Canal system is a trapezoidal concrete-lined channel approximately 20 feet wide and 10 feet deep. The canal travels beneath Evan Hewes Highway through a concrete-lined winged wall culvert (stamped 1953), while the south portion has a wood and metal control gate constructed across the mouth of the culvert. The canal features a concrete and earthen bank (Exhibit 12).

Statement of Significance

Five previous historical studies document the subject portion of the Fern Canal and Fern Side Main. In the 1983 draft report Lake Cahuilla (Est Mesa Segment) Management Plan and Environmental Assessment, BLM recommended that the All-American Canal be found eligible for the NRHP/CRHR as part of a district under Criteria A/1 and C/3. BLM communicated with SHPO and addressed comments on boundaries, significance criteria, setting, and national versus local levels of significance. After the comments were addressed, SHPO elected not to comment on the undertaking. BLM presumed SHPO concurrence in accordance with a Programmatic Agreement between the two agencies (BLM 1983; Schaefer and O'Neil 2001: v).

In 2009, URS reevaluated but did not survey the canal segments and recommended that they be ineligible for the NRHP and CRHR due to a lack of significant historical associations and historic integrity. URS disagreed with the U.S. Bureau of Reclamation (USBR) and OHP's determination that the canal is a contributing element or significant related feature/component to the larger linear All-American Canal. For integrity, URS stated that the canal was originally constructed in ca. 1909, but substantial improvements and reconstruction may have occurred since the 1940s, as evidenced by the date-stamped culverts. Routine dredging and widening of canals and drains were also conducted to alleviate problems of silt and buildup. URS also stated that the Fern Canal crossing at Evan Hewes Highway does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). In summary, in 2009, URS recommended that the portion of the Fern Canal near Evan Hewes Highway did not appear to be individually eligible for listing in the NRHP or CRHR nor considered a historical resource for purposes of CEQA. In 2011, ASM Architectural Historian Jennifer Krintz concurred with URS's recommendation that the canal be ineligible for a lack of historical associations and integrity. In the same year, a subsequent study conducted by Chambers Group also concurred with URS's earlier recommendation (URS 2009b: 1-3; Krintz 2011e: 2; Johnson et al. 2011b: 1, 4).

On April 11, 2023, Dudek revisited this portion of the Fern Canal and did not observe any noticeable alterations since the last recordation in 2011. Dudek also concurs that the aqueduct does not meet any of the criteria for listing in the NRHP or CRHR. In 1983, BLM recommended that this ancillary canal may be eligible for the NRHP because of its association with the All-American Canal. However, it requested that additional research be conducted to confirm its eligibility. URS and ASM conducted subsequent studies in 2009 and 2011 and recommended that the canal be found ineligible for recordation due to a lack of integrity and historical associations. Dudek disagrees that routine maintenance, required to keep the aqueduct operational, disqualifies this portion of the Fern Canal from recordation on the NRHP. This canal, however, is an ancillary extension of an extensive water conveyance system designed to irrigate individual, private agricultural ventures. The Fern Canal's mere association with the All-American Canal does not elevate the aqueduct to a level of significance worthy of recordation. This portion of the Fern Canal and the Fern Side Main does not represent any significant historical trends associated with any

important persons, architecturally significant, or likely to yield additional information about pre-history or history. As such, this portion of the Fern Canal appears ineligible for the NRHP and CRHR due to a lack of historical significance. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

Exhibit 12. North section of Fern Canal, view looking south. Photograph taken on April 11, 2023.



5.1.10 Map ID 13. Dixie Drains and Laterals

Description

The subject property is a system of drains and laterals that bisect the API along portions northeast of the Westside Main Canal. Dixie Drains 2, 3, 3A, 3B, and 3C and Lateral 1 are part of a larger drainage system that runs parallel to Mandrapa Road, Westside Road, and north-to-south perpendicular to West Vaughn Road. The Dixie Drain system is a series of earthen-dug canals that are approximately 10 feet wide and 6 feet deep and were built in 1911 and modified in ca. 1940. Dixie Lateral 1 is a concrete irrigation canal that extends east from the Westside Main Canal west of Hyde Road and south of West Vaughn Road. It is connected to Dixie Drain 3 at Diehl Road and Westside Road (Exhibits 13 and 14).

Statement of Significance

Five previous historical studies document Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral. In the 1983 draft report Lake Cahuilla (East Mesa Segment) Management Plan and Environmental Assessment, BLM recommended that all elements associated with the All-American Canal be found eligible for the NRHP/CRHR as part of a district under Criteria A/1 and C/3. BLM communicated with SHPO and addressed

comments on boundaries, significance criteria, setting, and national versus local levels of significance. After the comments were addressed, SHPO elected not to comment on the undertaking. BLM presumed SHPO concurrence in accordance with a Programmatic Agreement between the two agencies (BLM 1983; Schaefer and O'Neil 2001: v).

In 2009, URS reevaluated, but did not survey, the canal segments and recommended that they be found ineligible for the NRHP and CRHR due to a lack of significant historical associations and historic integrity. URS disagreed with USBR and OHP's determination that the canal is a contributing element or significant related feature/component to the larger linear All-American Canal. For integrity, URS stated that the canal system has undergone significant improvements and that reconstruction may have occurred since the mid-twentieth century, as evidenced by the date stamped on the culverts. Routine dredging and widening of the canals and lateral were also conducted to alleviate problems of silt and buildup. In summary, in 2009, URS recommended that the Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and Dixie Lateral did not appear to be individually eligible for listing in the NRHP or CRHR, nor considered a historical resource for purposes of CEQA. In 2011, ASM Architectural Historian Jennifer Krintz concurred with URS's recommendation that the canal be found ineligible for a lack of historical associations and integrity. In the same year, a subsequent study conducted by Chambers Group also concurred with URS's earlier recommendation (URS 2009c: 1-3; Krintz 2011c: 2; Johnson et al. 2011b: 1, 4).

On April 11, 2023, Dudek revisited Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral and did not observe any noticeable alterations since the last recordation in 2011. Dudek also concurs that the aqueduct does not meet any criteria for listing in the NRHP or CRHR. In 1983, BLM recommended that these ancillary canals may be eligible for the NRHP because of their association with the All-American Canal. However, it requested that additional research be conducted to confirm their eligibility. URS and ASM conducted subsequent studies in 2009 and 2011 and recommended that the drains and lateral be found ineligible for recordation due to a lack of integrity and historical associations. Dudek disagrees that routine maintenance, required to keep the aqueduct operational, disqualifies Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral from recordation on the NRHP. These canals, however, are ancillary extensions of a large water conveyance system designed to irrigate individual, private agricultural ventures. Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral's mere association with the All-American Canal does not elevate the aqueduct to a level of significance worthy of recordation. Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral are not representative of any significant historical trends, associated with any important persons, architecturally significant, or likely to yield additional information about pre-history or history. As such, Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral appear to be ineligible for the NRHP and CRHR due to a lack of historical significance. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

Exhibit 13. West side of Dixie Lateral Drain 1, view looking east. Photograph taken on April 11, 2023.



Exhibit 14. North side of Dixie Lateral Drain 3, view looking south. Photograph taken on April 11, 2023.



5.1.11 Map ID 14. Westside Main Canal and Drain

Description

The 4-mile segment of the Westside Main Canal was identified using aerial images and observed from the right-of-way during the survey. The Westside Main Canal was constructed between 1906 and 1908 by the California Development Company and was extended into the API from a canal in Mexico. The earthen canal is approximately 75–80 feet wide and 10 feet deep. In 1941, the Westside Main Canal was incorporated into the All-American Canal system. Features along the Westside Main Canal include the Fern Check Bridge, built in 1947, and another spillway system, built in 1967, near the Fox Glove Canal. The segment observed is the main canal that feeds the Fig and Fern Canals and the Wixom and Dixie Drains (Exhibit 15). The Westside Main Canal was constructed and incorporated into the All-American Canal in 1941, and the portions of the canal that were located in Mexico were removed from the IID (URS 2009d: 1–5).

Exhibit 15. Photo taken from bridge to substation, looking southeast toward the Fern Check Bridge.



Statement of Significance

The Westside Main Canal was incorporated into the All-American Canal upon its completion the following year in 1942 (Wlodarski 2006: 3; Johnson 2012e; URS 2009d; IID 2024).

BLM and IID have determined the All-American Canal is eligible for the NRHP/CRHR as a historic district under Criterion A/1 and Criterion C/3. According to report from 2001, BLM stated that the All-American Canal was found to be significant on local, state, and national levels due to its association with major federal public works projects, IID, and Imperial Valley. All elements of the canal are evaluated here as significant contributing elements of a district even if they are less than 50 years old. Additional research is required to determine if elements are contributory, prior to any NRHP nomination submittals. The All-American Canal is an ongoing and vital element of Imperial Valley's

infrastructure that, since its construction, has required regular maintenance and upgrading (Schaefer and O'Neil 2001: 71).

Individual segments of the Westside Main Canal have been previously evaluated 12 times. The first evaluation in 1999 considered the Westside Main Canal, as a whole, significant under NRHP/CRHR Criteria A/1 and C/3 for its association with the development of irrigated commercial agriculture in the Imperial Valley as a good example of an early large-scale irrigation canal system. However, the report mentioned that the segment within the project area did not possess sufficient integrity (Hupp 1999). One report from 2000 and three from 2007 considered the Westside Main Canal eligible for the NRHP/CRHR under Criterion A/1 as an extension of the All-American Canal. In 2009 and 2010, URS and the IID Dixieland 203-kilovolt Transmission Line and Substation Expansion Project considered the Westside Main Canal not eligible for the NRHP under the NRHP Status Code 6Z (URS 2009d: 2-4; Bowden-Renna 2010: 1).

In 2011, ASM concurred in two separate updates with the 2007 report from SWCA Environmental Consultants recommending that the segment of the Westside Main Canal was eligible for the NRHP/CRHR under Criterion A/1 as a contributor to the All-American Canal for its association with the irrigation of the Imperial Valley (Davis 2011a; Krintz 2011f:1). Three additional reports in 2011 by KP Environmental, Chambers Group, and AECOM evaluated a portion of the Westside Main Canal that included the Pump 6 site location, which was located on the south side of Mandrapa Road. KP Environmental and Chambers Group concluded that the segment of the property was not eligible and does not appear to be a contributing element to the Westside Main Canal system (Johnson et al. 2011c; Thomson 2011a). AECOM concurred with the 1999 California Department of Transportation report that the 7-mile portion of the canal that crosses under Interstate 8 is not eligible due to lack of integrity. In 2017, ASM did not give an updated evaluation but conducted an intensive-level survey of the canal between Mandrapa and Vogel Roads to Mandrapa and Liebert Roads (Lennen 2017:1)

On April 11, 2023, Dudek revisited a portion of the Westside Main Canal adjacent to the Project API and observed multiple alterations since the last recordation in 2017. Portions of the surveyed segment of the Westside Main Canal are included in past evaluations: the 2011 IID Dixieland 230-kilovolt Transmission Line and Substation Expansion Project (Thomson 2011a); and the Imperial Valley Solar Farm Project, West Imperial County, California (Krintz 2011f; URS 2009d). A concrete bridge that spans over the Westside Main Canal 830 feet west of the Fern Check is present and leads to the entrance of the Imperial Valley Substation, built ca. 2022.

Dudek concurs with the previous findings that the canal does not meet the criteria for listing in the NRHP or CRHR due to lack of integrity. The 4-mile segment of the Westside Main Canal between West Vaughn Road and Liebert Road does not reflect its original construction through the construction of features outside of its period of significance (1908–1941). Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the segment of the Westside Main Canal is not a historical resource for the purposes of CEQA. Dudek has assigned the segment of the Westside Main Canal a 6Z California Historical Resource status code.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), individually or as a contributing element to an existing or potential historic district.

5.1.12 Map ID 15. Fox Glove Canal

Description

The Fox Glove Canal was constructed in ca. 1912 and modified between 1954 and 1981. It was built parallel to the Westside Main Canal, most likely in the 1940s, and the spillway along the Westside Main Canal was built in 1967. In 1982, the diversion from the Westside Main Canal into the Fox Glove was constructed in concrete (Exhibit 16). The canal is approximately 20 feet wide, made of concrete slab sidings and metal gate structures, and runs for 1.1 miles parallel to the Westside Main Canal and the Dixie Drain 2 on the west portion of the API. The Fox Glove Canal connects to the Westside Main Canal by a spillway gate located southwest of the intersection of Mandrapa Road and Hyde Road, constructed in 1967. At 0.5 miles to the north, Fox Glove Canal connects to Dixie Lateral 1, which bisects multiple farmland segments in the API. The canal runs north to West Vaughn Road and continues northwest, parallel to the Westside Main Canal north of Interstate 8. The canal is approximately 9 miles long (NETR 2024a).

Exhibit 16. View of the Fox Glove Canal on the corner of Hyde Road and West Vaughn Road, facing east.



Source: Dudek IMG_3640

Statement of Significance

The property has been previously evaluated six times. The first evaluation was conducted by USBR and OHP in 2006. USBR and OHP determined that a portion of Fox Glove Canal is associated with the All-American Canal, which appeared to be eligible under NRHP/CRHR Criteria A/1 and C/3. USBR and OHP recommended that the canal be found ineligible under NRHP/CRHR Criteria B/2 and D/4. The IID report from 2001 included the entire IID system with all associated canals and was used as reference in this evaluation by USBR and for further evaluations (Schaefer and O'Neil 2001), In 2008, the Southeastern Information Center confirmed that SHPO considers eligible all components of the All-American Canal system. SWCA Environmental Consultants determined the Fox Glove Canal

eligible for the NRHP/CRHR under Criterion A/1 for its significance in association with the development of the Imperial Valley and under NRHP/CRHR Criterion C/3 as part of "one of the great engineering marvels of the American West" as a contributor to the All-American Canal system, which is a linear historic district (Steely 2008). In 2009, URS considered the portion of the Fox Glove Canal crossing the Evan Hewes Highway as not eligible for listing on the NRHP or CRHR nor considered a historical resource for CEQA purposes (URS 2009e). In 2011, portions of the Fox Glove Canal were evaluated by KP Environmental, ASM, and AECOM. Both KP Environmental and ASM considered portions of the Fox Glove Canal not eligible, while AECOM considered the portion of the canal surveyed as largely unchanged and retained integrity; therefore, it was recommended eligible for the NRHP and CRHR (Davis 2011b; AECOM 2011; Thomson 2011b).

On April 11, 2023, Dudek revisited this portion of the Fox Glove Canal and did not observe any noticeable alterations since the last recordation in 2011. Dudek concurs with the previous findings of ASM and KP Environmental that the Fox Glove Canal does not meet any of the criteria for listing in the NRHP or CRHR. The canal has been altered throughout its development, most recently in the 1980s, and exhibits a loss of integrity with its restructuring and widening throughout its existence. Although it fits into the Imperial Valley's agricultural development theme, the canal is an ancillary extension of a large water conveyance system designed to irrigate individual, private agrarian ventures. The Fox Glove Canal's mere association with the West Side Main Canal or All-American Canal does not elevate the aqueduct to a level of significance worthy of recordation. The Fox Glove Canal does not represent any significant historical trends associated with any important persons, architecturally significant, or likely to yield additional information about pre-history or history. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

5.1.13 Map ID 16. Crossed Wagon Road from Fort Yuma to Warners Ranch

Description

The location of the Wagon Road was noted on the previously completed site record in the API in Township 16 South, Range 12 East in Sections 21 and 22, adjacent to the Fern Canal and north of West Vaughn Road. However, the Wagon Road appears on the GLO maps from 1857 bisecting Sections 15 and 16 running southeast to northwest. This is north of the API, beyond the Kumeyaay Highway (Exhibits 17 and 18) (GLO 1857; Matthewson 1856). It seems likely that the road was noted incorrectly on the previous study. There is no indication of the road in the location where it was previously recorded.

Exhibit 17. Previously recorded site form map (P-13-003403).



Exhibit 18. Aerial view of a GLO overlay from 1857 and Google Earth 2023.



Statement of Significance

According to the SCIC records search, the road was recorded as recently as 2009. The associated site form provides limited information and no evaluation was completed at this time. On April 11, 2023, Dudek revisited the site and did not find any indications the road was ever at this location and was likely incorrectly mapped in the API. Dudek concluded that the resource as it was previously mapped is not extant in this location.

5.2 Newly Identified Properties

5.2.1 Map ID 3. 2250 West Vaughn Road (051-300-027)

Description

This 13.7-acre, rectangular-shaped parcel (051-300-027) is located adjacent to the API at the intersection of Westside Road and West Vaughn Road, directly east of APN 051-300-010. Mobile Home A is a single-story mobile home with an irregular-shaped floor plan with a cross-gabled roof. There are metal roof overhangs on the east and south elevations. The roof appears to be corrugated metal. The siding is unknown, as a lattice fence covers the façade. Features include palm tree landscaping and a front-facing gable porch covered with a red composite material. Mobile Home B is a single-story mobile home with a rectangular-shaped floor plan and a side-gabled roof. The roof appears to be corrugated metal, and the siding consists of horizontal and vertical board along the southern elevation. Additions to the property include metal porch overhangs on the north, east, and west elevations.

Outbuilding 1, located 25 feet north of Mobile Home A, is a single-story shed with a rectangular floor plan built in ca. 1976. The subject property has a side gabled roof made of corrugated metal with a pyramidal cupola on the interior north side of the building (Exhibit 19). The entrance to the building appears to be on the west elevation. Alterations to the building include repairs to the roof. Outbuilding 2, located 30 feet north of Mobile Home B, is a single-story shed built in ca. 1976. The subject property has a rectangular-shaped floor plan with a side gabled roof made of corrugated metal. The main elevation is most likely on the west elevation, and the siding material is unknown. Additions or alterations to the building are unknown (Exhibit 20).

Exhibit 19. View from the right-of-way of Westside Elementary School at Mobile Home A (green arrow) and Outbuilding 1 (red arrow) looking northeast.



Exhibit 20. View from right-of-way with Mobile Home A (left) and Mobile Home B (right), looking north.



Property-Specific Historic Context

The California Development Company and the Imperial Land Company began building canal systems from Calexico, heading north and west to El Centro and Holtville, in 1900. During the next 5 years, water companies were formed, and water from the Colorado River was distributed throughout the Imperial Valley, allowing settlers to apply for a desert land entry claim and settle along newly irrigated lands. By 1905, residents in the Imperial Valley numbered 12,000, and irrigated acreage increased from 1,500 to 67,000 acres (Pioneers Museum of the Imperial Valley 2000).

Vaughn Road was likely named after the Vaughn family, who were ranchers around the project API in the early 1910s. John Chester (J.C.) Vaughn Sr. and son J. Chester Vaughn were ranchers in Seeley, California, which was unincorporated lands west of El Centro (Ancestry 1918: 893). In 1911, the Vaughn family purchased land in Township 16 South, Range 12 East, in Sections 21 and 28. Prior to purchasing land in 1911, J.C. Vaughn Sr. (68) lived with his wife Huldah H. (53) and son J. Chester (28) in what was documented as "Road West of Calexico City" (U.S. Census Bureau 1910: 21). By 1920, J. Chester Vaughn was registered as farm manager in Silsbee, California, separate from J.C. Vaughn and Huldah H. Vaughn at their home in Seeley (U.S. Census Bureau 1920: 17). Huldah Vaughn was known for hosting Girls War Work Committee meetings and was the department chairmen for Home Economics, and later Westside Country Club Meetings (IVP 1918: 2; IVP 1923a: 2). Into the 1920s, the property was used as ranching land for cattle, and dairy sales (IVP 1923b: 3). The Westside Elementary School was also a gathering place for the Seeley-Westside Farm Bureau and the Woman's Christian Temperance Union. In 1931, it was announced that J. Chester Vaughn was building an addition to his ranch home near the Westside Elementary School (IVP 1931: 2); it was also announced that year that several ranchers would organize the Westside Ranchers Association (IVP 1932b: 3). In 1938, Rosielee McCoy Vaughn asked for a divorce from J. Chester Vaughn due to irritable behavior and forcing to deed some of their property to her brother (IVP 1938: 8).

Archival research does not conclude that the two buildings on the property in the 1950s were part of the Vaughn Ranch addition announced in 1931. Before the construction of the current residential buildings, ca. 1978, the property was mostly agricultural land with two small farm buildings located in the southwest corner near West Vaughn Road. By 1984, aerials show the two small farm buildings were demolished, and the two residences were set farther back on the property. There are currently five buildings and two garage structures on the subject parcel. Only one of the existing buildings appears on the 1980 topographic maps. The other four buildings appear on historical aerials from 1984–1985 (Ancestry 1956: 245; NETR 2024a, 2024b).

Statement of Significance

Under NRHP/CRHR Criterion A/1, the property at 2250 West Vaughn Road lacks a direct and important association with any event significant in local, state, or national history. The Mobile Home Complex does not appear to have been directly involved in significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. For these reasons, 2250 West Vaughn Road does not appear eligible for listing in the NRHP/CRHR under Criterion A/1.

Under NRHP/CRHR Criterion B/2, the property at 2250 West Vaughn Road lacks a significant association with the productive life of any person important in local, state, or national history. Archival research does not indicate that the mobile home complex at 2250 West Vaughn Road is connected to any significant individuals or persons at a local, state, or national level. Due to a lack of significant associations with important persons in history, the subject property is not recommended to be eligible under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the property at 2250 West Vaughn Road does not include resources that fully embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or creative individual or that possess high artistic values. The extant buildings located on the subject property were developed ca. 1978. The built environment resources located on the subject property do not possess high artistic value or contribute to the significance of a larger resource. Despite archival research, no information was found about the architect for the original design of the subject property buildings. Therefore, nothing suggests that the property is associated with an expert architect. Due to the pervasive nature of the buildings and structures, a lack of high artistic value, and a lack of evidence to suggest the extant buildings and structures are associated with an expert architect, the subject property buildings are not eligible under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the property at 2250 West Vaughn Road is not significant as a source, or likely source, of important information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies. This technology is well understood through contemporary trade journals and scientific monographs. Therefore, the property is not eligible under NRHP/CRHR Criterion D/4.

In conclusion, 2250 West Vaughn Road lacks sufficient significance to meet any criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the above significance criteria before determining whether it retains its historic character and can convey its significance. In the specific case of the property at 2250 West Vaughn Road, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further analysis of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation

also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), individually or as a contributing element to an existing or potential historic district.

5.2.2 Map ID 8. 2104 West Wixom Road (051-330-021)

Description

The subject property was identified using aerial images and observed from the access roads. Parcel information reveals that the subject property was built in 1940. The residential property includes one residential building with two garage-like structures. Historical aerials reveal multiple structures on the property before 1953, including a residence and other ancillary buildings that were removed by 1959. Today, the property includes one mobile home located near where the Wixom Drain and the Fern Canal meet. The mobile home is a shotgun-style rectangular floor plan elevated with concrete slabs and a front gabled roof. The main façade faces east and has an overhanging roof extension over the main entrance. The roof is made of composite shingles, and the siding appears to be horizontal board. Windows on the east and south elevations include one-by-one siding windows. The west elevation includes an extended wall made of concrete and appears to have an entrance on the south elevation with decorative concrete ornament slabs (Exhibit 21). Other structures located on the property include a standalone metal garage overhang with metal pole siding and a flat wooden roof (NETR 2024a; ParcelQuest 2024).

Exhibit 21. View from dirt road between Wixom Drain and Fern Canal of residential farmstead, looking northwest.



Property-Specific Historic Context

The California Development Company and the Imperial Land Company began building canal systems from Calexico, heading north and west to El Centro and Holtville, in 1900. During the next 5 years, water companies were formed, and water from the Colorado River was distributed throughout the Imperial Valley, allowing settlers to apply for a

desert land entry claim and settle along newly irrigated lands. By 1905, residents in the Imperial Valley numbered 12,000, and irrigated acreage increased from 1,500 to 67,000 acres. Between 1905 and 1907, the community of Silsbee was largely destroyed by flooding and was relocated. Seeley was established in 1910 along U.S. Highway 80 (Pioneers Museum of the Imperial Valley 2000; Gallegos 1979: 47).

The earliest depiction of residential development on the property is in 1940 topographic maps (USGS 2024). The building from the 1940s was not present by 1959. The subject property was first visible in 1984, but the mobile home was likely erected in ca. 1975. The parcel north of the subject property and south of the Fern Canal has remained agricultural land (NETR 2024a).

Statement of Significance

Under NRHP/CRHR Criterion A/1, the property at 2104 West Wixom Road lacks a direct and important association with any event significant in local, state, or national history. The residential farmstead does not appear to have been directly involved in significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. For these reasons, 2104 West Wixom Road does not appear eligible for listing in the NRHP/CRHR under Criterion A/1.

Under NRHP/CRHR Criterion B/2, the property at 2104 West Wixom Road lacks a significant association with the productive life of any person important in local, state, or national history. Archival research does not indicate that the subject property is connected to any significant individuals or persons at a local, state, or national level. Due to a lack of significant associations with important persons in history, the subject property is not recommended to be eligible under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the property at 2104 West Wixom Road does not include resources that fully embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or creative individual or that possess high artistic values. The extant buildings located on the subject property were developed in ca. 1975. The built environment resources located on the subject property do not possess high artistic value or contribute to the significance of a larger resource. Despite archival research, no information was found about the architect for the original design of the subject property buildings. Therefore, nothing suggests that the property is associated with an expert architect. Due to the pervasive nature of the buildings and structures, a lack of high artistic value, and a lack of evidence to suggest the extant buildings and structures are associated with an expert architect, the subject property buildings are not eligible under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the property at 2104 West Wixom Road is not significant as a source, or likely source, of important information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies. This technology is well understood through contemporary trade journals and scientific monographs. Therefore, the property is not eligible under NRHP/CRHR Criterion D/4.

In conclusion, 2104 West Wixom Road lacks sufficient significance to meet any criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above before determining whether the resource retains its historic character and can convey its significance. In the specific case of the property at 2104 West Wixom Road, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further analysis of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), individually or as a contributing element to an existing or potential historic district.

5.2.3 Map ID 17. Cattle Corral Shelter (051-310-026)

Description

This 40-acre, square-shaped parcel (051-310-026) is adjacent to the API on Derrick Road, directly north of APN 051-310-027. The Cattle Corral Shelter has a rectangular floor plan and a front-gabled roof. The roof overhang is oriented east to west and appears to be made of corrugated metal. There are four horizontal wood beam pillars on the south and north elevations, maintaining the roof shelter. No exterior or interior walls are present. Features of the property include triangle-shaped metal fences along the west and east borders of the corral, with a gate on the north side for entry and exit. The southern border of the corral is the only concrete-lined fence surrounding the Cattle Corral Shelter. There are no noticeable additions to the property. The fencing appears in disrepair and is surrounded by refuse such as tires, downed trees, and metal debris (Exhibits 22 and 23).

Exhibit 22. View from the elevated dirt road between Derrick Road and the Fig Canal, facing west.



Exhibit 23. View from the southeast corner of the Cattle Corral Shelter near the Fig Canal, facing northwest.



Property-Specific Historic Context

The California Development Company and the Imperial Land Company began building canal systems from Calexico, heading north and west to El Centro and Holtville, in 1900. During the next 5 years, water companies were formed, and water from the Colorado River was distributed throughout the Imperial Valley, allowing settlers to apply for a desert land entry claim and settle along newly irrigated lands. By 1905, residents in the Imperial Valley numbered 12,000, and irrigated acreage increased from 1,500 to 67,000 acres (Pioneers Museum of the Imperial Valley 2000).

The subject property is in the southwest corner of Section 23 of Township 16 South, Range 12 East. The earliest map of the area shows the "road from Warners Rancho to Fort Yuma" in the northeast corner of Section 23, about 0.5 miles from the property, in 1857 (GLO 1857). By 1909, the entire area was divided into tracts, with the subject property is located in Tract No. 52 (GLO 1909). Derrick Road was likely named after the Derrick family, who were farmers around the project API as early as 1893. Anderson B. Derrick first came to the Imperial Valley in 1893 and began buying land in the 1910s (IVP 1933a:2).

In 1911, George H. Woolliscroft applied for a desert land entry to establish a claim of the southwest corner of Section 23, Township 16 South, Range 12 East. Woolliscroft was an alfalfa farmer into the 1930s. Census data show George H. and Bertha M. had two children, Mabel and Merlin, and lived along San Diego Highway and Fern Ditch Road. Woolliscroft also sold Guernsey bulls and milk cows in the 1930s (IVP 1911:2, 1928:5, 1933b:5; U.S. Census Bureau 1930:16).

Prior to 1953, two buildings were located near the same area where the current Cattle Corral Shelter stands today. By 1959, the current structure and a building to the south and the north were present. The farm lands to the west and south are split into two sections, and a dirt road bisects them between Derrick Road and Jessup Road. By

1996, the only building on the property is the Cattle Corral Shelter. Today, the property is owned by J.R. Preece Inc., a large alfalfa, Bermuda grass, and oat hay grower in Imperial Valley (NETR 2024a, 2024b; ParcelQuest 2024; Preece Farms 2014).

Statement of Significance

Under NRHP/CRHR Criterion A/1, the Cattle Corral Shelter lacks a direct and important association with any event significant in local, state, or national history. The Cattle Corral Shelter does not appear to have been directly involved in significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. For these reasons, the Cattle Corral Shelter does not appear eligible for listing in the NRHP/CRHR under Criterion A/1.

Under NRHP/CRHR Criterion B/2, the Cattle Corral Shelter lacks a significant association with the productive life of any person important in local, state, or national history. Archival research did reveal the original owner of the property. However, it did not reveal the property owner at the time the structure was built. Therefore, there is no known connection to any significant individuals or persons at a local, state, or national level. Due to a lack of significant associations with important persons in history, the subject property is not recommended to be eligible under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the Cattle Corral Shelter does not include resources that fully embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or creative individual or that possess high artistic values. The extant structures located on the subject property were developed ca. 1956. The built environment resources located on the subject property do not have high artistic value or contribute to the significance of a larger resource. Despite archival research, no information was found about the builder for the subject property buildings. Therefore, nothing suggests that the property is associated with an expert architect or builder. Due to the pervasive nature of the buildings and structures, a lack of high artistic value, and a lack of evidence to suggest the extant buildings and structures are associated with an expert architect, the subject property buildings are not eligible under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the Cattle Corral Shelter is not significant as a source, or likely source, of important information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies. This technology is well understood through contemporary trade journals and scientific monographs. Therefore, the property is not eligible under NRHP/CRHR Criterion D/4.

In conclusion, the Cattle Corral Shelter lacks sufficient significance to meet any criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above before determining whether the resource retains its historic character and can convey its significance. In the specific case of the Cattle Corral Shelter, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further study of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC

Section 5024.1 and 14 CCR Section 15064.5(a), individually or as a contributing element to an existing or potential historic district.

5.2.4 Map ID 18. Diehl Drain

Description

The Diehl Drain is an earthen-dug irrigation drainage ditch located east of Derrick Road. It flows west from the Fig Drain south to the agricultural fields along Derrick Road. The 1.1-mile drainage ditch is approximately 10–20 feet wide and about 10–15 feet deep. Concrete weirs are located intermittently along the drain to control water flow, including underneath Diehl Road and other paths between agricultural fields. It appears the Diehl Drain would allow overflow water to drain into the Fig Drain. However, the concrete weirs connecting the irrigation system appear out of use and in decay. The Diehl Drain connects to the agricultural lands to the north and south (Exhibits 24 and 25).

Exhibit 24. View from southern end of Diehl Drain, facing north.



Exhibit 25. View of Diehl Drain and its connection to the Fig Drain, facing east.



Property-Specific Historic Context

The California Development Company and the Imperial Land Company began building canal systems from Calexico, heading north and west to El Centro and Holtville, in 1900. During the next 5 years, water companies were formed, and water from the Colorado River was distributed throughout the Imperial Valley, allowing settlers to apply for a desert land entry claim and settle along newly irrigated lands. By 1905, residents in the Imperial Valley numbered 12,000, and irrigated acreage increased from 1,500 to 67,000 acres (Pioneers Museum of the Imperial Valley 2000). Between 1905 and 1907, the community of Silsbee was largely destroyed by flooding and was relocated. Seeley was established in 1910 along U.S. Highway 80 (Pioneers Museum of the Imperial Valley 2000; Gallegos 1979: 47).

In 1910, the Fig Canal, along with other distribution ditches were constructed as part of the irrigation land extension system by Mr. Edgar (IVP 1910:4). Both the Fig Canal and Fig Drain were not visible until a 1940s topographic map (NETR 2024b). A 1953 aerial photo shows the earliest visual of the Diehl Drain. However, it does not appear to be connected to the Fig Drain. By 1959, the Diehl Drain was widened and appeared regulated in size. A connection to the Fig Drain appears to be constructed. Between 1959 and 1984, a residential building was removed near the Diehl Drain on the southeast corner of Derrick Road and Diehl Road. The drain appeared unchanged until the late 1990s and 2000s, when the section connecting to the Fig Drain appeared slightly wider, with farm equipment and hay derricks staged north of the drain (NETR 2024a, 2024b).

Statement of Significance

Under NRHP/CRHR Criterion A/1, the Diehl Drain lacks a direct and important association with any event significant in local, state, or national history. The Diehl Drain does not appear to have been directly involved in significant

events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. For these reasons, the Diehl Drain does not appear eligible for listing in the NRHP/CRHR under Criterion A/1.

Under NRHP/CRHR Criterion B/2, the Diehl Drain lacks a significant association with the productive life of any person important in local, state, or national history. Archival research does not indicate that the Diehl Drain is connected to any significant individuals or persons at a local, state, or national level. Due to a lack of significant associations with important persons in history, the subject property is not recommended to be eligible under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the Diehl Drain does not include resources that fully embody the distinctive characteristics of a type, period, or construction method or represent the work of a master or creative individual or that possess high artistic values. The ditch appears to be constructed ca. 1950. The linear resource does not have high artistic value or contribute to the significance of a larger resource. Despite archival research, no information was found about the architect or builder for the original design of the earthen drainage ditch. Therefore, nothing suggests that the property is associated with an expert. Due to the pervasive nature of the resource, a lack of high artistic value, and a lack of evidence to suggest the drainage ditch associated with an expert architect, the subject property is not eligible under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the Diehl Drain is not significant as a source, or likely source, of important information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies. This technology is well understood through contemporary trade journals and scientific monographs. Therefore, the property is not eligible under NRHP/CRHR Criterion D/4.

In conclusion, the Diehl Drain lacks sufficient significance to meet any criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above before determining whether the resource retains its historic character and can convey its significance. In the specific case of the Deihl Drain, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further analysis of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), individually or as a contributing element to an existing or potential historic district.

5.2.5 Map ID 19. Fig Drain

Description

The Fig Drain is an earthen-dug irrigation drainage ditch located east of Derrick Road and flows in between the New River and the Westside Main Canal. The 2.6-mile drainage ditch is approximately 20–30 feet wide and about 15–20 feet deep and runs north and south through the project API (Exhibits 26 and 27). Concrete weirs are located intermittently along the drain to control water flow, including underneath Diehl Road, Wixom Road, and other dirt paths between agricultural fields. The Fig Drain extends parallel to the Westside Main Canal 2 miles south of the project area.

Exhibit 26. View of the Fig Drain and an intact concrete weir near Diehl Road, facing south.



Exhibit 27. View of Fig Drain near W Wixom Road, facing north.



Property-Specific Historic Context

The California Development Company and the Imperial Land Company began building canal systems from Calexico, heading north and west to El Centro and Holtville, in 1900. During the next 5 years, water companies were formed, and water from the Colorado River was distributed throughout the Imperial Valley, allowing settlers to apply for a desert land entry claim and settle along newly irrigated lands. By 1905, residents in the Imperial Valley numbered 12,000, and irrigated acreage increased from 1,500 to 67,000 acres. Between 1905 and 1907, the community of Silsbee was largely destroyed by flooding and was relocated. Seeley was established in 1910 along U.S. Highway 80. In 1910, the Fig Canal was constructed as part of the irrigation land extension system by Mr. Edgar (Pioneers Museum of the Imperial Valley 2000; Gallegos 1979: 47; IVP 1910:4).

A 1945 topographic map provides the earliest visual of the Fig Drain. However, it only shows the portion of the Fig Drain south of Diehl Road. By 1959, agricultural fields populated the area along the Fig Drain. By this time, the Fig and Deihl Drains appeared to be connected and widened. By 1984, agricultural fields were established along the Fig Drain near the confluence of the New River Wixom Drain area. The Fig Drain has experienced minimal changes since the 1980s (NETR 2024a, 2024b).

Statement of Significance

Under NRHP/CRHR Criterion A/1, the Fig Drain lacks a direct and important association with any event significant in local, state, or national history. The Fig Drain does not appear to have been directly involved in significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. The Fig Drain was just an addition to a preexisting irrigation system that had already been established throughout the area. Therefore, the Fig Drain does not appear eligible for listing in the NRHP/CRHR under Criterion A/1.

Under NRHP/CRHR Criterion B/2, the Fig Drain lacks a significant association with the productive life of any person important in local, state, or national history. Archival research does not indicate that the Fig Drain is connected to any significant individuals or persons at a local, state, or national level. Due to a lack of significant associations with important persons in history, the subject property is not recommended to be eligible under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the Fig Drain does not include resources that fully embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or creative individual or that possess high artistic values. The ditch appears to be constructed ca. 1940. The linear resource does not possess high artistic value or contribute to the significance of a larger resource. Despite archival research, no information was found about the architect for the original design of the earthen drainage ditch. Therefore, nothing suggests that the property is associated with an expert architect. Due to the pervasive nature of the resource, a lack of high artistic value, and a lack of evidence to suggest the drainage ditch associated with an expert architect, the subject property is not eligible under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the Fig Drain is not significant as a source, or likely source, of important information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies. This technology is well understood through contemporary trade journals and scientific monographs. Therefore, the property is not eligible under NRHP/CRHR Criterion D/4.

In conclusion, the Fig Drain lacks sufficient significance to meet any criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above

before determining whether the resource retains its historic character and can convey its significance. In the specific case of the Fig Drain, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further analysis of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), individually or as a contributing element to an existing or potential historic district.

6 Findings and Conclusions

Dudek's survey of the API indicates that built environment properties located within and adjacent to the proposed API are limited to several historic-era (over the age of 45) water conveyance canals, drains, laterals, roads, residences, and a transmission line system. The water conveyance system features and the transmission line system all appear to be associated with the IID. Many of the resources in the API have been previously recorded and recommended as ineligible, but none appear to have concurrence from the California State Historic Preservation Office. Dudek completed DPR updates on the following properties: Map IDs 1, 2, 4, 6, 7, 9, 10, 11, 12, 13, 14, and 15. Map ID 16 was not identified during the survey. In addition, resources that have not been previously evaluated (Map IDs 3, 8, 17, 18, and 19) were recorded and evaluated for their significance within NRHP and CRHR criteria. None of these properties were found eligible for the NRHP and do not qualify as CEQA historical resources (Table 5).

Table 5. Summary of Significance Evaluations and Findings

Map ID	Address/APN	Year Built	Primary Number*	NRHP/ CRHR Eligibility	Assigned California Historical Resource Status code	CEQA Finding
Previously Recorded within the API						
1	2396 West Vaughn Road/051-300-031	ca. 1960	P-13-014263	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
2	2294 West Vaughn Road/051-300-010/	ca. 1965	P-13-014264	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
4	1651 Westside Road051-270-038	ca. 1955	P-13-013758	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
6	No Situs Address (previously associated with 1105 Liebert Road)/ 051-350-017	ca. 1974	P-13-012700	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
7	2094 Wixom Road/051-330-024	ca. 1945	P-13-014265	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
9	1905 Wixom Road/051-360-038	ca. 1970	P-13-014266	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
10	Wixom Drain (Linear Resource)	ca. 1940	P-13-014975	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
11	Fig Canal (Linear Resource)	ca. 1912	P-13-012693	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources

Table 5. Summary of Significance Evaluations and Findings

Map ID	Address/APN	Year Built	Primary Number*	NRHP/ CRHR Eligibility	Assigned California Historical Resource Status code	CEQA Finding
12	Fern Canal (Linear Resource)	ca. 1909	P-13-012689	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
13	Dixie Drains and Laterals (Linear Resource)	1911/ ca. 1940	P-13-012688	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
14	Westside Main Canal and Drain (Linear Resources)	1908	P-13-008334	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
15	Fox Glove Canal (Linear Resource)	ca. 1912	P-13-009880	Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
16	Crossed Wagon Road from Fort Yuma to Warners Ranch	Ca. 1856	P-13-003403	Not Eligible	N/A	No Impact to Historical Resources
Newly Recorded within the API						
3	2250 West Vaughn Road051-300-027	ca. 1976		Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
8	2104 West Wixom Road/051-330-021	1940		Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
17	Preece Cattle Corral Shelter	ca. 1956		Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
18	Diehl Drain	ca. 1950		Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources
19	Fig Drain	ca. 1940		Not Eligible	6Z: Found ineligible for NR, CR, or local designation through survey evaluation	No Impact to Historical Resources

Notes: APN = Assessor's Parcel Number; API = Area of Potential Impacts; ca. = circa; CEQA = California Environmental Quality Act; NRHP = National Register of Historic Places; CRHR = California Register of Historical Resources.
* If previously evaluated

Dudek evaluated the API in accordance with Section 15064.5 (a)(2)-(3) of the State CEQA Guidelines and using the criteria outlined in Section 5024.1 of the PRC. Dudek concludes that the properties evaluated within the API do not appear eligible for listing in the NRHP or CRHR due to a lack of significance. As such, no properties within the API are considered to be historical resources under CEQA. In conclusion, this study finds that the Project would have no impact on historical resources as defined by CEQA. No further consideration of historic era-built environment resources is necessary prior to Project implementation.

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Appendix A
Preparers' Qualifications

Evan Brisentine

ARCHITECTURAL HISTORIAN

Evan Brisentine (*EH-vin BRISS-n-tyn; he/him*) is an architectural historian with 2 years' experience in historic preservation. He has experience in transportation resources, National Register of Historic Places (NRHP) nominations, historic context statements, reconnaissance-level survey reports, and local landmark designation. Mr. Brisentine also has experience with National Historic Preservation Act, Section 106, compliance; National Register Bulletins; and Historic American Buildings Survey documentation. Mr. Brisentine meets the Secretary of the Interior's Professional Qualification Standards for architectural history and is familiar with research methods in Oregon, Washington, and California.



Education

University of Oregon
MS, Historic Preservation, 2022

Santa Clara University
BA, History, 2015

Project Experience

Cultural Resources Inventory for Hillsboro Airport Land Release Project, Port of Portland, Multnomah County, Oregon. Served as an architectural historian for the background research and identification of built environment in the project area and the client's property in its entirety. The investigations involved General Land Office surveys, Metsker maps, historic aerials, and archival research. The project is subject to State Historic Preservation Officer standards and must meet the requirements of National Historic Preservation Act, Section 106, for Federal Aviation Administration compliance. (2022–Present)

Cultural Resources Inventory Report for Chief Joseph Snohomish No. 3 Access Roads Improvements Project, Bonneville Power Administration, Douglas County, Washington. Served as an architectural historian for the cultural resources inventory of Bonneville Power Administration's 35-mile transmission line corridor located between Bridgeport, Washington, and Entiat, Washington. Conducted background research and prepared a literature review report. Historic context, methods, and results of the survey will be compiled into a technical report that meets Department of Archaeology and Historic Preservation and Bonneville Power Administration standards. It will include NRHP eligibility evaluations and management recommendations for any identified resources. (2022)

Cultural Resources Inventory and Evaluation Report for Lower Cowiche Floodplain Restoration Project, Mid-Columbia Fisheries and Wildlife, Yakima County, Washington. Served as an architectural historian on a multidisciplinary team working on the evaluation of a previously documented historic built environment and archaeological resource. The project included archival research and an analysis of previous evaluation reports, including the historic context statement, significance evaluation, and recommendations. The project proposed that the historic-period structure is in ruin and should remain as an archaeological resource; therefore, it is not eligible for the NRHP. (2022)

Heritage Survey for the Boundary Vegetation Management Project, Oregon Department of Forestry, Harney and Grant Counties, Oregon. Served as an architectural historian on a multidisciplinary team for a 2600-acre pedestrian inventory survey and site documentation for a portion of the Malheur National Forest managed by the Oregon Department of Forestry. The team of archaeologists recorded new cultural resources, updated previously identified sites, and coauthored a technical report that met State Historic Preservation Officer and Bureau of Land Management standards, including NRHP eligibility evaluations and management recommendations. Mr. Brisentine conducted background research on potential built environment in the project area and created a historic context for this specific portion of the national forest. This project was found to have no built environment resources in the survey area. (2022)

Cultural Resources Inventory Report for Delta Campground Decommissioning and Restoration Project, Eugene Water & Electric Board, Lane County, Oregon. Served as an architectural historian. Dudek conducted a cultural resources inventory for Eugene Water & Electric Board's proposed Delta Campground Decommissioning and Restoration Project within the McKenzie River watershed in Lane County, Oregon. Eugene Water & Electric Board is partnering with the U.S. Forest Service and Willamette National Forest to complete the project, which will include post-Holiday Farm Fire cleanup and watershed restoration. The project is anticipated to be funded by the Federal Emergency Management Agency's Post-Fire Hazard Mitigation Grant Program and is subject to the National Environmental Policy Act, Section 106 of the National Historic Preservation Act (as amended) and its implementing regulations, 36 Code of Federal Regulations 800. No historic built environment resources were previously identified within the area of potential effect. The Delta Campground district was inventoried and evaluated as a part of this undertaking and was found not eligible for the NRHP. (2022)

Built Environment Inventory and Cultural Resources Risk Assessment, Confidential Client, Oregon. Served as an architectural historian, completing a built environment inventory report and conducting a reconnaissance-level survey for an energy-related development. Contributed to archival research and conducted the report, including the historic context statement, identification of resources, and recommendations. The project proposed that several of the remaining historic-period buildings and structures were not eligible for the NRHP. (2022)

Built Environment Inventory and Evaluation Report, Confidential Client, Sacramento County, California. Served as an architectural historian, completing a built environment inventory and evaluation report for an energy-related development. Contributed to archival research and coauthored the report, including the historic context section, significance evaluations, and recommendations. The project proposed that several of the remaining historic-period buildings were eligible for the NRHP. (2022)

Class III Cultural Resources Inventory and Evaluation Report for a Confidential Solar Project, Confidential Client, Laramie County, Wyoming. Served as an architectural historian on a multidisciplinary team working on a Class III resources inventory and evaluation report. Contributed to archival research and the evaluation report, including the historic context statement, significance evaluations, and recommendations. The project proposed that the remaining historic-period buildings were not eligible for the NRHP. (2022)

Relevant Previous Experience

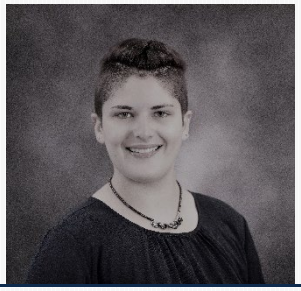
Preservation Intern, Greater Portland Landmarks Department of Education and Advocacy, Portland, Maine. Continued a citywide neighborhood survey report conducted between 2017 and 2020. From previous survey work, used the State of Maine's GIS database to insert reconnaissance-level data for a potential local historic district. In addition to survey work, conducted individual property research projects that were presented to the Local Landmarks Committee for potential designation. These projects helped document the city's immigrant population history and history of urban renewal in neighborhoods of Portland, Maine. (2021)

Historic Research for Watzek House Historic American Buildings Survey Report, University of Oregon, Portland, Oregon. Performed historical landscape archival research and submitted a section for the Watzek House that is affiliated with the John Yeon Center for Architecture and Landscape for an updated Historic American Buildings Survey report conducted by the University of Oregon. (2021)

Pacific Northwest Preservation Field School, University of Oregon, Concrete, Washington. Attended University of Oregon's Field School with National Park Service professionals and cultural resource management professionals in the State of Washington. Met with professionals that specialize in materials conservation and restoration, historic district nominations, and Tribal Historic Preservation Office consultation. (2021)

EJ (Erin) Jones, MA

ARCHITECTURAL HISTORIAN



EJ (Erin) Jones (EE-JAY *JO-nes; they/them*) is a cultural resource manager with 3 years' experience specializing in Washington, Oregon, and California. Jones is an expert researcher and is adept at context writing and the evaluation of historic properties. They have experience authoring California Environmental Quality Act (CEQA) compliance documents, National Historic Preservation Act (NHPA) Section 106 compliance reports, Historic Resource Evaluation Reports (HRERs), Cultural Resources Inventory and Evaluation Reports (CRIERs), Historical Resource Inventories (HRI), Cultural Resource Technical Reports (CRTRs), Historical Resources Inventory and Evaluation Reports (HRIERs), and Historic American Building Survey (HABS)–level documentation. Jones meets the Secretary of the Interior's Professional Qualification Standards for architectural history.

Education

California State University, Sacramento
MA, Public History with Distinguished Honors,

University of Oregon
BA, History and Political Science

Dudek Project Experience

Confidential Energy Project, Confidential Client, Kern County, California. Serving as architectural historian, conducted in-person archival research and authored the Historic Architectural Landscape Survey (HALS) documentation as a mitigation measure for a proposed energy facility and energy storage system in Kern County, California. (2022–2023)

Confidential Solar Project, Confidential Client, Washoe County, Nevada. Serving as architectural historian, coauthored the technical study for the project, which proposed the development of a solar energy facility and energy storage system. The project sites are in unincorporated Washoe County, Nevada. All buildings and structures more than 45 years old were recorded and evaluated for historical significance, which included conducting archival research and building development research for a potential historic vernacular landscape, energy transmission, mined areas, and related histories located on the project sites and completing a historic context. (2022–2023)

Confidential Solar Project, Confidential Client, Sacramento County, California. Serving as architectural historian, authored the technical study for the project, which proposed the development of a solar energy facility, energy storage system, and Gen-Tie Line. The project sites are in unincorporated south Sacramento County, California. The technical study involved a pedestrian survey for the presence of historic built environment resources. All buildings and structures more than 45 years old were recorded and evaluated for historical significance, which included conducting archival research and building development research for a potential historic vernacular landscape located on the project site and completing a historic context. (2023)

Confidential Solar Project, Confidential Client, Sacramento County, California. Serving as architectural historian, coauthored the technical study for the project, which proposed the development of a solar energy facility and energy storage system. The project sites are in unincorporated eastern Sacramento County, California. The technical study involved a pedestrian survey for the presence of historic built environment resources. All buildings

and structures more than 45 years old were recorded and evaluated for historical significance, which included conducting archival research and building development research for a potential historic vernacular landscape, military development, energy transmission, mined areas, ranching, dairy, and related histories located on the project sites and completing a historic context. Contributed to the associated archeology site work and authored a section of the archeological context. (2021–2023)

Confidential Solar Project, Confidential Client, Sacramento County, California. Serving as architectural historian, coauthored the technical study for the project, which proposed the development of a solar energy facility and energy storage system. The project sites are in unincorporated eastern Sacramento County, California. The technical study involved a pedestrian survey for the presence of historic built environment resources. All buildings and structures more than 45 years old were recorded and evaluated for historical significance, which included conducting archival research and building development research for a potential historic vernacular landscape, hop growing, and related histories located on the project sites and completing a historic context. (2021–2023)

Confidential Solar Project, Confidential Client, San Bernardino County, California. Serving as architectural historian, authored the technical study for the project, which proposed the demolition of extant structures and development of a solar energy facility and energy storage system. The project sites are in unincorporated San Bernardino County, California. All buildings and structures more than 45 years old were recorded and evaluated for historical significance. Efforts included conducting archival research and building development research for a potential historic significance. (2022)

BEIER for NSCD Biomass Project, NCSD, Truckee, Placer County, California. Dudek was retained by Northstar Community Services District (NCSD) to prepare a BEIER for the proposed NCSD Biomass Project located in Northstar at Tahoe Ski Resort community, which is located approximately 6 miles south of downtown Truckee in Placer County. The NCSD proposes to build a biomass energy system to meet heating loads that are currently served by natural gas-fired boilers in approximately 14 buildings in the Northstar California ski resort community. The new energy system will consist of two wood chip–fired hot water boilers located on NCSD property at 908 Northstar Drive. Heating loads include a range of residential and commercial space heating, domestic hot water, and swimming pools and spas. As lead architectural historian, authored the technical report as part of supporting documentation for the initial study prepared in accordance with the requirements of CEQA (PRC, Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.) (2022)

Confidential Solar Project, Confidential Client, Santa Clara County, California. Project architectural historian and author of the technical study for the project. The proposed project sites are in unincorporated Santa Clara County, California. Efforts included conducting archival research for a county wide historic context document. (2022)

BEIER for Golden State Natural Resources Gould Site, Golden State Finance Authority, Lassen County, California. Served as the architectural historian and coauthor of the BEIER for the Golden State Natural Resources Gould Site Project. Dudek was retained by the Golden State Finance Authority to complete a BEIER for a proposed project that would redevelop a site in Nubieber, Lassen County, to facilitate the transport of forest material (such as trees or underbrush that have no lumber value). The project parcels comprised approximately 65 acres, a light-industrial site associated with regional logging, and an abandoned 1930s Great Northern and Western Pacific Railroad station. Conducted the CHRIS records search; the pedestrian surface reconnaissance survey of the built environment Area of Potential Effects (APE); extensive archival and building development research; the development of an appropriate historic context for the project area; recordation and evaluation of the buildings over 45 years of age for the NRHP, CRHR, and local historic resource eligibility criteria and integrity requirements in compliance with CEQA; and report and accompanying DPR 523 form set preparation. (2022)

Katie Ahmanson, MA

ARCHITECTURAL HISTORIAN



Katie Ahmanson (*KAY-tee AH-mun-son; she/her*) is an architectural historian with 2 years' experience in the field of architectural history and heritage conservation. She has experience with Historic-Cultural Monument and National Register of Historic Places (NRHP) nominations, historic context statements, building descriptions, and California Department of Parks and Recreation (DPR) 523 forms. Ms. Ahmanson has worked with environmental compliance documentation in support of projects that fall under the California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA), and Sections 106 and 110 of the National Historic Preservation Act (NHPA).

Education

University of Southern California School of Architecture
MA, Heritage Conservation, 2022

Claremont McKenna College
BA, Art History, 2019

Project Experience

Palisade Santee Commerce Center Project Built Environment Inventory and Evaluation Report, North Palisade Partners, Santee, California. Dudek was retained by North Palisade Partners to prepare a Built Environment Inventory and Evaluation Report (BEIER) for the proposed Santee Warehouse Project in the City of Santee, California. The project proposes the demolition of all existing on-site structures located at 10990 Woodside Avenue (APN: 381-070-52) that was originally developed in 1962 as the Santee Drive-In Theatre. The purpose of this report is to determine if the project would impact any historical resources pursuant to CEQA. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, surveyed the property, and completed archival research. (2023)

14940 Proctor Avenue BEIER, Rexford Industrial Realty, City of Industry, California. Dudek was retained by the Rexford Industrial Realty to prepare a BEIER for the proposed 14940 Proctor Avenue Project in the City of Industry, California. The project proposes demolition of the existing 90,828 square-foot warehouse and manufacturing facility located at 14940 Proctor Avenue (AIN 8208-002-049) that was originally constructed in 1962 for the construction of a new, approximately 165,537 square-foot warehouse facility. The purpose of this report is to determine if the project would impact any historical resources pursuant to CEQA. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, surveyed the property, and completed archival research. (2023)

Seguro Storage Historic Technical Report, County of San Diego, California. Dudek was retained by the County of San Diego to complete a Historic Technical Report to determine if the proposed project would impact any historical resources pursuant to CEQA. Seven properties/historic-age structures in Escondido, California, were evaluated for historical significance pursuant to CEQA. As an architectural historian, completed significance evaluations. (2023)

Ben Clark Training Center BEIER, Riverside County Fire/California Department of Forestry and Fire Protection, Riverside, California. Dudek was retained by the Riverside County Fire/California Department of Forestry and Fire Protection to complete a BEIER to identify all historical resources (if any) on the subject properties. This BEIER

included a records search of the Ben Clark Training Center (BCTC) campus and a 0.5-mile buffer around its boundary; an intensive level survey of the campus; archival and property specific development research for historic built resources over 45 years of age that are located within the campus boundaries; evaluation of buildings for the NRHP, California Register of Historical Resources, and local eligibility criteria and integrity requirements; and the delineation of a study area to assess potential impacts of the BCTC Modernization Project on historical resources in compliance with CEQA. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, surveyed the property, and completed archival research. (2023)

9065 and 9061 Nemo Street Historical Resource Assessment, Carlyle Group Inc., West Hollywood, California. Dudek was retained by Carlyle Group Inc. to complete a Historical Resource Assessment to identify all historical resources (if any) on the subject properties. The purpose of this report is to determine if the subject properties at 9065 Nemo Street (APN: 4340-013-005) and 9061 Nemo Street (APN: 4340-013-006) in the West Hollywood, California, would impact any historical resources pursuant to CEQA. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, surveyed the property, and completed archival research. (2022)

517 I Avenue, City of Coronado, California. Dudek was retained by the City of Coronado to evaluate the property located at 517 I Avenue (APN: 536-351-04-00) for historical significance under City of Coronado designation criteria and integrity requirements. The evaluation involved research and development of an occupancy timeline, supplemental research on occupants and building development, survey of the property, a description of the property, and completion of a historical resource evaluation in consideration of City of Coronado designation criteria and integrity requirements. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, and completed archival research. (2022)

1222 Brunswick Historical Resource Evaluation Report, City of South Pasadena, California. Dudek was retained by the City of South Pasadena to complete a historic resource evaluation for a single-family residential property built in 1946 and located at 1222 Brunswick Avenue in South Pasadena, California. As part of this study, Dudek completed archival and building development research, occupancy research, and an intensive-level survey of the subject property and recorded and evaluated the property for historical significance and integrity on the local, state, and national levels. The purpose of this report is to determine if the subject property would impact any historical resources pursuant to CEQA. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, surveyed the property, and completed archival research. (2022)

743 B Avenue Historical Resource Evaluation Report, City of Coronado, California. Dudek was retained by the City of Coronado to evaluate the property located 743 B Avenue (APN: 537-101-07-00) for historical significance under City of Coronado designation criteria and integrity requirements. The evaluation involved research and development of an occupancy timeline, supplemental research on occupants and building development, survey of the property, a description of the property, and completion of a historical resource evaluation in consideration of City of Coronado designation criteria and integrity requirements. As an architectural historian, co-authored the report, wrote building descriptions and significance evaluations, and completed archival research. (2022)

Tooley Carlsbad Historical Resources Technical Report, Atlantis Group Land Use Consultants, Carlsbad, California. Dudek was retained by Atlantis Group Land Use Consultants to complete a historical resources technical report (HRTR) to identify all historical resources (if any) on the subject property. The purpose of this report is to determine if the subject property at 945-1065 Carlsbad Village Drive (APN: 203-320-53-00-203-320-56-00) in the City of Carlsbad, California, would impact any historical resources pursuant to CEQA. As an architectural historian, co-authored the report, wrote significance evaluations, and completed archival research. (2022)

Adrienne Donovan-Boyd, MSHP

ARCHITECTURAL HISTORIAN



Education

University of Oregon
MS, Historic Preservation, 2009

Portland State University
BA, Community Development, 2006

Certifications

National Safety Council First Aid/CPR/AED Certification, 2019

Professional Affiliations

National Trust for Historic Preservation

Portland Architectural Heritage Center

Oregon Historical Society

Adrienne Donovan-Boyd (*AY-dree-en DON-uh-vin BOID; she/her*) is an architectural historian with significant experience in Oregon and the Pacific Northwest. Ms. Donovan-Boyd has 17 years of experience in all elements of cultural resources management, including intensive- and reconnaissance-level field investigations, architectural history studies, and historical significance evaluations for compliance projects, the National Register of Historic Places (NRHP), and local landmark designations. She is a skilled researcher, is adept at evaluating historic properties, and is an experienced author of historical resources evaluation reports, findings-of-effect documentation for Sections 106 and 110 of the National Historic Preservation Act (NHPA), historic context statements, and management plans for historic properties. Ms. Donovan-Boyd meets the Secretary of the Interior's Professional Qualification Standards for architectural history and maintains a strong professional relationship with State Historic Preservation Office staff in Washington and Oregon. Ms. Donovan-Boyd has completed numerous projects requiring compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Project Experience

Education

Built Environment Inventory and Evaluation Report for Monterey Bay Master Plan, California State University, Monterey Bay, California. Dudek was retained by California State University, Monterey Bay, to conduct a built environment inventory and evaluation study and report for the proposed California State University, Monterey Bay, Master Plan. For the purposes of this project, Dudek formally recorded and evaluated 11 campus properties more than 45 years old that were proposed for renovation, alteration, or demolition as part of the project. All 11 of these built environment properties were identified as not eligible for national, state, or local designations. Ms. Donovan-Boyd worked with a team of architectural historians. The properties were photographed, researched, and evaluated in consideration of NRHP, California Register of Historical Resources, California Historic Landmarks, local designation criteria and integrity requirements, and potential impacts to historical resources under California Environmental Quality Act and Public Resources Code, Sections 5024 and 5024.5. (2021)

Phase I Historic Resources Technical Report for Building 7045, Devereux Gymnasium, University of California, Santa Barbara, California. Served as an architectural historian and coauthor of the report for Phase I: Building 7045, Devereux Gymnasium, on the west campus of the University of California, Santa Barbara. Dudek was retained by the University of California, Santa Barbara, to complete the project. The project was federally funded by the National Endowment for the Humanities, making the project subject to federal review under Section 106. The project was also subject to review under California Environmental Quality Act and Public Resources Code, Sections 5024 and 5024.5, for state-owned resources. The project report included a California Historical Resource Status records search of the proposed project area and a 1-mile radius; the identification of previously recorded historic

properties in the vicinity of the project area; an intensive-level survey; archival and building development research; an evaluation of the building for NRHP, California Register of Historical Resources, California Historic Landmarks and Santa Barbara County local eligibility criteria and integrity requirements; and an assessment of effects to historic properties. (2021)

Cultural Landscape Report for The Shire, University of Oregon, Skamania County, Washington. Served as the lead architectural historian on a multidisciplinary team working for the University of Oregon on a Cultural Landscape Inventory for John Yeon's Columbia River Gorge property, The Shire. Contributed archival research, in-field research, geographic information system data, and sections of the report, including landscape descriptions, the historic context section, existing conditions, significance evaluations, and treatment recommendations. The project proposed that the site was eligible at the local and state level for the NRHP. (2019–2020)

Energy

Class III Inventory and Cultural Resources Report, Confidential Client, Washoe County, Nevada. Served as the lead architectural historian on a multidisciplinary team to complete a Class III Cultural Resources Inventory for an energy-related development. Coauthored the report, including the historic context section, significance evaluations, and recommendations. The project proposed that the historic period residential buildings and linear features that remained were not eligible for the NRHP. (2022)

Built Environment Inventory and Evaluation Report, Confidential Client, Sacramento County, California. Served as an architectural historian for a built environment inventory and evaluation for an energy-related development. Contributed to archival research and coauthored the report, including the historic context section, significance evaluations, and recommendations. The project proposed that several of the historic period buildings remaining were eligible for the NRHP. (2021–2022)

Class III Cultural Resources Inventory and Evaluation Report for a Solar Project, Confidential Client, Laramie County, Wyoming. Served as the lead architectural historian on a multidisciplinary team working on a Class III Cultural Resources Inventory report. Contributed to archival research and reporting—including the historic context statement, significance evaluations, and recommendations—and provided quality assurance and quality control for the project. The project proposed that the historic period buildings remaining were not eligible for the NRHP. (2022)

Cultural Resources Inventory for the Olympia–Grand Coulee No. 1 Insulator Replacement Phase 4 Project, Bonneville Power Administration, Pierce and King Counties, Washington. Served as the lead architectural historian for the Cultural Resources Inventory for Bonneville Power Administration's 50-mile-long project to replace worn insulators. Dudek conducted background research and prepared a literature review report. Historic context, methods, and survey results will be compiled into a technical report to the Washington Department of Archaeology and Historic Preservation and Bonneville Power Administration's standards, including NRHP eligibility evaluations and management recommendations for any identified resources. (2020–2022)

Built Environment Inventory and Evaluation Report for Golden State Natural Resources Gould Site, Golden State Finance Authority, Lassen County, California. Served as an architectural historian and coauthor of the report for the project. Dudek was retained by the Golden State Finance Authority to complete a built environment inventory and evaluation report for the proposed project that would redevelop a site in Nubieber, located in Lassen County, to facilitate the transport of forest material (such as trees or underbrush that have no lumber value). The project parcels comprised approximately 65 acres, a light-industrial site associated with regional logging, and an abandoned 1930s Great Northern and Western Pacific Railroad station. (2022)

Appendix B
Interested Party Correspondence

From: EJ Jones
To: info@ivdesertmuseum.org
Cc: Adrienne Donovan-Boyd; Evan Brisentine
Subject: Outreach for Historical Information
Date: Thursday, September 14, 2023 2:37:00 PM
Attachments: Imperial Valley IPC Attachments.pdf

Hello Mrs. O'Lear,

I am reaching out today to provide you with information as part of the cultural resources study for a proposed project near El Centro, California. Dudek is consulting all regional historical organizations to determine if there are any known historic or cultural resources that may be within the proposed project area. Please see the attached letter and map for more information about the nature and location of the project, and please feel free to contact me should you have questions or information regarding cultural or historical resources in this area.

Thank you,

EJ (Erin) **Jones**, **MA**
Cultural Resources-Architectural Historian (They/Them)
1810 13th Street, Suite 110, Sacramento, CA, 95811
E: ejones@dudek.com C: 916-247-7918
www.dudek.com

DUDEK
1810 13TH STREET, SUITE 110
SACRAMENTO, CALIFORNIA 95811
T 916.443.8335

Kristin O'Lear, Executive Director
Imperial Valley Desert Museum
11 Frontage Road
Ocotillo, Ca 92259

September 14, 2023

Subject: Outreach for Historical Information

Dear Mrs. O'Lear,

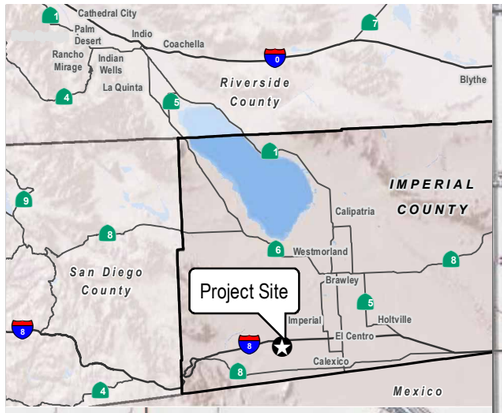
Dudek has been retained to complete a technical report for a proposed project west of El Centro in Imperial County, California (see Figure 1 enclosed).

As part of our study, we are consulting all regional historical organizations to determine if there are any known historic or cultural resources that may be affected by the Proposed Project. Your efforts in this process will provide invaluable information for the proper identification and treatment of such resources. If you have any information regarding known cultural resources in the Proposed Project area, please feel free to contact me via phone or email (listed below). All comments, emails, or letters received will be included in the reports generated by this study. Thank you for your time regarding our request.

Sincerely,

EJ. Jones

EJ (Erin) Jones
Architectural Historian
916.438.5308 // ejones@dudek.com
Att.: Figure 1, Project Area
cc: Evan Brisentine and Adrienne Donovan-Boyd, Dudek; David Hochart, Dudek



Township 16S Range 11E Section 24
Township 16S Range 12E Section 19
Township 16S Range 12E Section 17
Township 16S Range 12E Section 16
Township 16S Range 12E Section 15
Township 16S Range 12E Section 14
Township 16S Range 12E Section 13
Township 16S Range 13E Section 07
Township 16S Range 12E Section 20
Township 16S Range 12E Section 21
Township 16S Range 12E Section 22
Township 16S Range 12E Section 23
Township 16S Range 12E Section 24
Township 16S Range 13E Section 18
Township 16S Range 11E Section 25
Township 16S Range 12E Section 30
Township 16S Range 12E Section 29
Township 16S Range 12E Section 28
Township 16S Range 12E Section 27
Township 16S Range 12E Section 26
Township 16S Range 12E Section 25
Township 16S Range 13E Section 19
Township 16S Range 11E Section 36
Township 16S Range 12E Section 31
Township 16S Range 12E Section 32
Township 16S Range 12E Section 33
Township 16S Range 12E Section 34
Township 16S Range 12E Section 35
Township 16S Range 12E Section 36
Township 16S Range 13E Section 30
Township 16S Range 11E Section 01
Township 16S Range 12E Section 06
Township 16S Range 12E Section 05
Township 16S Range 12E Section 04
Township 16S Range 12E Section 03
Township 16S Range 12E Section 02
Township 16S Range 12E Section 01

SOURCE: USGS 7.5-Minute Series Seeley, Plaster City, Mount Signal, Yuha Basin Quadrangles

DUDEK

0 1,150 2,300 Feet

FIGURE 1, Project Area

P# 15207

From:	EJ Jones
To:	IV Desert Museum
Cc:	Adrienne Donovan-Boyd; Evan Brisentine
Subject:	RE: Outreach for Historical Information
Date:	Friday, September 29, 2023 3:32:02 PM

Good afternoon,

Kristin, thank you! We will incorporate IVDM's comments into the report and I'll reach out with any questions.

We appreciate your time and effort. I hope you have a good weekend,

EJ. Jones

EJ Jones, MA
Cultural Resources-Architectural Historian (They/Them)

1810 13th Street, Suite 110, Sacramento, CA, 95811
E: ejones@dudek.com C: 916-247-7918
www.dudek.com

From: IV Desert Museum <info@ivdesertmuseum.org>
Sent: Friday, September 29, 2023 3:28 PM
To: EJ Jones <ejones@dudek.com>
Cc: Adrienne Donovan-Boyd <adonovanboyd@dudek.com>; Evan Brisentine <ebrisentine@dudek.com>
Subject: Re: Outreach for Historical Information

Good afternoon EJ,

Please find enclosed IVDM's comments as it relates to the proposed project in Imperial Valley.

If you have any additional questions or concerns, please do not hesitate to contact me.

Best,
Kristin

PO Box 430, 11 Frontage Rd
Ocotillo, CA 92259
Kristin O'Lear, Executive Director
Pronouns: She/Her/Hers

info@ivdesertmuseum.org
(760) 358-7016

On Thu, Sep 14, 2023 at 3:40 PM IV Desert Museum <info@ivdesertmuseum.org> wrote:

> Thank you EJ for the information, it is immensely helpful! I will have a response/comments to you no later than Friday September 29.
>
> If you have any additional questions, please do not hesitate to contact me.
>
> Best,
> Kristin
>
> 
> **PO Box 430, 11 Frontage Rd**
> **Ocotillo, CA 92259**
> **Kristin O'Lear, Executive Director**
> **Pronouns: She/Her/Hers**
> **info@ivdesertmuseum.org**
> **(760) 358-7016**
>
> On Thu, Sep 14, 2023 at 3:14 PM EJ Jones <ejones@dudek.com> wrote:
>
> > Hello Kristin,
> >
> > Thank you for the speedy reply, I hope you're having a good afternoon. If we receive comments on local cultural resources the week of September 25 (25^{th}-29^{th}), we'll be able to amend the report before it goes to the city.
> >
> > I appreciate your participation,
> >
> > **EJ** (Erin) **Jones**, **MA**
> > Cultural Resources-Architectural Historian (They/Them)
> > 
> > 1810 13th Street, Suite 110, Sacramento, CA, 95811
> > E: ejones@dudek.com C: 916-247-7918
> > www.dudek.com
> >
> > ---
> >
> > **From:** IV Desert Museum <info@ivdesertmuseum.org>
> > **Sent:** Thursday, September 14, 2023 2:56 PM
> > **To:** EJ Jones <ejones@dudek.com>

Cc: Adrienne Donovan-Boyd <adonovanboyd@dudek.com>; Evan Brisentine <ebrisentine@dudek.com>
Subject: Re: Outreach for Historical Information

Good afternoon EJ,

Thank you for sending this over and including IVDM as part of the project. I am happy to assist in any way I can!

I will be out of the office beginning tomorrow September 15 and will not be returning until September 24. What is the proposed timeline, not only for the project to start/end, but also the timeline for Dudek to receive comments. I want to make sure I have adequate time to respond to your request.

If you have any additional questions or concerns, please do not hesitate to contact me.

Best,
Kristin

PO Box 430, 11 Frontage Rd
Ocotillo, CA 92259
Kristin O'Lear, Executive Director
Pronouns: She/Her/Hers
info@ivdesertmuseum.org
(760) 358-7016

On Thu, Sep 14, 2023 at 2:38 PM EJ Jones <ejones@dudek.com> wrote:

> Hello Mrs. O'Lear,
>
> I am reaching out today to provide you as part of the cultural resources study for a proposed project near El Centro, California. Dudek is consulting all regional historical organizations to determine if there are any known historic or cultural resources that may be within the proposed project area. Please see the attached letter and map for more information about the nature and location of the project, and please feel free to contact me should you have questions or information regarding cultural or historical resources in this area.
>
> Thank you,
>
> **EJ** (Erin) **Jones**, MA
> Cultural Resources-Architectural Historian (They/Them)

1810 13th Street, Suite 110, Sacramento, CA, 95811
E: ejones@dudek.com C: 916-247-7918
www.dudek.com

IMPERIAL VALLEY
Desert Museum
Imperial County, California
PO Box 2455 El Centro, CA 92244

September 29, 2023

EJ (Erin) Jones
Dudek
1810 13th Street, Suite 10
11 Frontage Rd, PO Box 430
Ocotillo, CA 92259

Re: Proposed Project in Imperial County on behalf of Dudek

Dear Mx. Jones,

The Imperial Valley Desert Museum Society, Inc. is a registered 501(c)(3) nonprofit, which operates the Imperial Valley Desert Museum (IVDM), a federally recognized curation facility and museum, located at 11 W. Frontage Rd., Ocotillo, CA 92259. The Museum is located near the projected project by Dudek in Imperial County.

The mission of IVDM is to preserve, interpret, and celebrate the deserts of Southern California through outstanding research, collections, and educational programs. The lands of IVDM and the surrounding region of Ocotillo and western Imperial County reside on the traditional lands of the Kumeyaay and Quechan peoples, which today still preserves over 10,000 years of their history on and beneath the modern landscape.

Given the rich and documented history of indigenous activity throughout the region in antiquity, there exists the possibility of an accidental discovery or disturbance of sensitive cultural materials with any new ground disturbance activity. It is recommended that any ground disturbance be preceded by a Cultural Resource Inventory, owing to the abundance of known material culture within the immediate area. An abundance of caution is also recommended in this and all other projects within the area, whenever they would require subsurface work.

The Imperial Valley Desert Museum recognizes that Dudek maintains a roll of agencies and individuals capable of performing the necessary Cultural Resource Inventory. In addition, IVDM recommends reaching out for monitoring services with members of the local Kumeyaay and Quechan nations to ensure representation from the tribes while the project is underway.

If you have further questions, please do not hesitate to contact the museum at info@ivdesertmuseum.org or (760) 358-7016.

Sincerely,

Kristin O'Lear, M.A
Executive Director
Executive Director, Imperial Valley Desert Museum

From: EJ Jones
To: curator@pioneersmuseum.net
Cc: Adrienne Donovan-Boyd; Evan Brisentine
Subject: Outreach for Historical Information
Date: Thursday, September 14, 2023 2:39:00 PM
Attachments: Pioneers Park IPC Attachments.pdf

Hello Mrs. Montes,

I am reaching out today to provide you with information as part of the cultural resources study for a proposed project near El Centro, California. Dudek is consulting all regional historical organizations to determine if there are any known historic or cultural resources that may be within the proposed project area. Please see the attached letter and map for more information about the nature and location of the project, and please feel free to contact me should you have questions or information regarding cultural or historical resources in this area.

Thank you,

EJ (Erin) **Jones**, **MA**
Cultural Resources-Architectural Historian (They/Them)
1810 13th Street, Suite 110, Sacramento, CA, 95811
E: ejones@dudek.com C: 916-247-7918
www.dudek.com

DUDEK
1810 13TH STREET, SUITE 110
SACRAMENTO, CALIFORNIA 95811
T 916.443.8335

Alyssa Montes, Curator
Pioneers' Park Museum and Imperial County Historical Society
373 East Aten Road
Imperial, Ca 92251

September 14, 2023

Subject: Outreach for Historical Information

Dear Mrs. Montes,

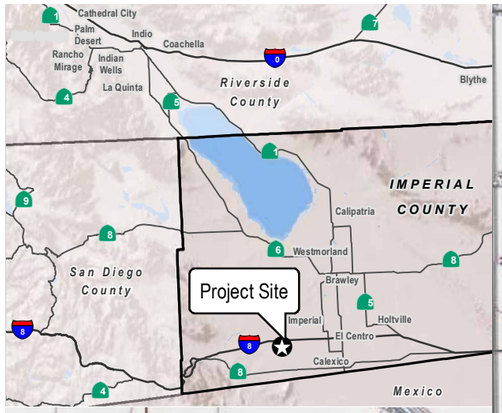
Dudek has been retained to complete a technical report for a proposed project west of El Centro in Imperial County, California (see Figure 1 enclosed).

As part of our study, we are consulting all regional historical organizations to determine if there are any known historic or cultural resources that may be affected by the Proposed Project. Your efforts in this process will provide invaluable information for the proper identification and treatment of such resources. If you have any information regarding known cultural resources in the Proposed Project area, please feel free to contact me via phone or email (listed below). All comments, emails, or letters received will be included in the reports generated by this study. Thank you for your time regarding our request.

Sincerely,

EJ. Jones

EJ (Erin) Jones
Architectural Historian
916.438.5308 // ejones@dudek.com
Att.: *Figure 1, Project Area*
cc: *Evan Brisentine and Adrienne Donovan-Boyd, Dudek; David Hochart, Dudek*



Township 16S Range 11E Section 24
Township 16S Range 12E Section 19
Township 16S Range 12E Section 17
Township 16S Range 12E Section 16
Township 16S Range 12E Section 15
Township 16S Range 12E Section 14
Township 16S Range 12E Section 13
Township 16S Range 13E Section 07
Township 16S Range 12E Section 20
Township 16S Range 12E Section 21
Township 16S Range 12E Section 22
Township 16S Range 12E Section 23
Township 16S Range 12E Section 24
Township 16S Range 13E Section 18
Township 16S Range 11E Section 25
Township 16S Range 12E Section 30
Township 16S Range 12E Section 29
Township 16S Range 12E Section 28
Township 16S Range 12E Section 27
Township 16S Range 12E Section 26
Township 16S Range 12E Section 25
Township 16S Range 13E Section 19
Township 16S Range 11E Section 36
Township 16S Range 12E Section 31
Township 16S Range 12E Section 32
Township 16S Range 12E Section 33
Township 16S Range 12E Section 34
Township 16S Range 12E Section 35
Township 16S Range 12E Section 36
Township 16S Range 13E Section 30
Township 16S Range 11E Section 01
Township 16S Range 12E Section 06
Township 16S Range 12E Section 05
Township 16S Range 12E Section 04
Township 16S Range 12E Section 03
Township 16S Range 12E Section 02
Township 16S Range 12E Section 01

SOURCE: USGS 7.5-Minute Series Seeley, Plaster City, Mount Signal, Yuha Basin Quadrangles

DUDEK

0 1,150 2,300 Feet

FIGURE 1, Project Area

P# 15207

Appendix C

Previously Recorded Resources/DPR Updates

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

UPDATE SHEET

Primary # P-13-014263
HRI #
Trinomial
NRHP Status Code(s) 6Z

*Resource Name or #: Building 4; Preece Residence

☐ Continuation X Update

Map Reference Number: 1

P1. Other Identifier: 2396 West Vaughn Road, El Centro, Imperial County, California. 92243.
e. Other Locational Data: Assessor Parcel Number (APN): 051-300-031-000

*P3a. Description: The subject property, sited at 2396 West Vaughn Road (APN 051-300-031), consists is comprised of a modern-style ranch house with a low-pitch gable roof and composite roofing, a pedimented front gable entry with a full-length porch, and stucco cladding on the exterior. This single-family residence was originally initially recorded in 2012 by Chambers Group, and there does do not appear to be any notable changes to the resource since its the original recordation in 2012 (Photograph 1).

*P3b. Resource Attributes: HP2. Single Family Property; HP4. Ancillary Building

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

The property was previously evaluated in 2012 by Chambers Group and recommended as not eligible for listing in the NRHP or the CRHR. In the original recordation, the property was incorrectly addressed as 2396 Vaughn Road. However, the property's legal address is 2396 W Vaughn Road. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that Jerry Preece developed the subject property in 1952, although historical aerials show no development had occurred by that time. Historical aerials indicate that the property was developed in ca. 1960 (Johnson 2012d: 1–3; ParcelQuest 2023; NETR 2023a).

Chambers Group Historian Brent Johnson determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction, and did not appear to represent the work of a master, or possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Johnson found that the property did not appear eligible under Criterion 3/C. Johnson also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under Criterion 4/D. Johnson documented that the property had retained its integrity of location, feeling, association, materials, and workmanship.

On August 14, 2023, Dudek revisited the residential property at 2396 W Vaughn Road and did not observe any noticeable alterations since the last recordation in 2012. Dudek concurs with the previous finding that the residence does not meet any of the criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

*B14. Evaluator: EJ (Erin) Jones, MA, Dudek. 1810 13th Street, Suite 110, Sacramento, CA. 95811.

*Date of Evaluation: August 14, 2023.

Photograph(s):

Photograph 1. Main (north) elevation of the residence located at 2396 W Vaughn Road, view looking northeast. Photograph taken on April 11, 2023.



References

Johnson, B. "DPR 523 Form for 2396 Vaughn Road." Prepared by Chambers Group. 2012.

NETR (National Environmental Title Research). 2023. "2396 West Vaughn Road, El Centro." Accessed August 15, 2023.

Parcel Quest. 2023. "051-300-030-000." Accessed August 15, 2023. https://pqweb.parcelquest.com/

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-014263
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

 ***Resource Name or #:** Building 4

P1. Other Identifier: Preece Residence

***P2. Location:** ☐ **Not for Publication** ☒ Unrestricted ***a. County:** Imperial
and
***b. USGS 7.5' Quad:** Mount Signal **Date:** 1981 **T** 5S;**R** 13W; **¼ of ¼ of Sec** 1; San Bernardino B.M.
c. Address: 2396 Vaughn Road City: El Centro Zip: 92243
d. UTM: NAD83 Zone: 11N; 617663 mE/ 3625194 mN (G.P.S.)
e. Other Locational Data: Parcel # 051-300-030-000, Elevation: 0 ft.

***P3a. Description:** The resource consists of a Modern Ranch style house with a low-pitch front gable roof and composite roofing, a pedimented front gable entry with full-length porch, stucco cladding on the exterior, and fenestration that includes both casement windows with transom lights, and contemporary vinyl sliding windows with multi-pane glazing. Ancillary buildings located on the property include barns and storage sheds for maintaining and storing tractors and farm equipment. Jerry Preece is the third owner of the property who operates a working farm that produces dairy quality seed and hay from alfalfa and Bermuda grass.

***P3b. Resource Attributes:** HP2. Single Family Property

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo:
View looking north toward the south elevation of the residence.
Photo taken 1/27/2012

***P6. Date Constructed/Age and Sources:**
☒ Historic
☐Prehistoric ☐Both
Date of construction according to Jerry Preece is 1952.

***P7. Owner and Address:**
Jerry Preece
2396 Vaughn Road
El Centro CA

***P8. Recorded by:**
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***P9. Date Recorded:** 4/24/2012
***P10. Survey Type:** Reconnaissance

***P11. Report Citation:** A Built Environment Survey for the Silverleaf Solar LLC Photovoltaic Solar Project near the city of El Centro, Imperial County, California. March 2012

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☒ Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: Unknown
B2. Common Name: Preece Residence
B3. Original Use: Residential/Agricultural B4. Present Use: Same
***B5. Architectural Style:** Modern Ranch style building with multiple ancillary buildings

***B6. Construction History:** No history of the building's construction was discovered. The current owner is the third owner of the property.

***B7. Moved?** ☐**No** ☐**Yes** ☒**Unknown** **Date:** **Original Location:**
***B8. Related Features:** N/A
B9a. Architect: N/A b. Builder: N/A
***B10. Significance: Theme:** Farm House and Ancillary Buildings **Area:** Western El Centro

Period of Significance: circa 1952 **Property Type:** Farm House and Ancillary Buildings
Applicable Criteria: N/A
The community is located in the Imperial Valley, approximately 10 miles southwest of El Centro. The construction of a canal system from the Colorado River in 1901 brought water via the Encina Canal (Westside Main Canal) to the area, liberating the productivity of ancient silt deposits and alluvium that comprise the region. Farmers and speculators were soon attracted by the Federal Government's Desert Land Entry program that allowed individuals to file for ownership on 160 acres of desert ground, or 320 acres for married couples. Pioneering settlers to the region lived in simple tents and lean-to's covered with woven tule mats. The typical valley home consisted of a tent house, frame built with a floor, lumber sides three-feet high, and a canvas top with arrow weed built over the canvas. The first "proper" wood frame homes and masonry buildings would not be erected until the middle of the first decade.

B11. Additional Resource Attributes: HP2. Single Family Property: Farm House; HP4. Ancillary Building: Barn

***B12. References:**
Ching, Francis D.K., *A Visual Dictionary of Architecture*, John Wiley & Sons, Inc., 1995
Imperial County Historical Society, 1956-1958. *The Valley Imperial, Book I and Book II*. Published by Imperial Valley Pioneers. Revised and Reprinted, June 1991
Howe, Edgar F. and Wilbur Jay Hall, *The Story of the First Decade In Imperial Valley, California*. Edgar F. Howe and Sons, 1910. Reprinted by Imperial County Historical Society, December 1998.
Nuffer, David, *Saga of Imperial Valley*. Self-published. 1990

B13. Remarks: None

***B14. Evaluator:**
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***Date of Evaluation:** 4/24/2012

(This space reserved for official comments.)



***Recorded by:** Brent D. Johnson ***Date:** 4/24/2012 ☒ Continuation ☐ Update

Integrity Statement

In regard to the seven aspects of integrity of location, design, setting, materials, workmanship, feel and association, the building has retained its original location. The building's setting, feel and association appear to have remained intact since its construction. In addition, its original materials, and workmanship have remained intact. The integrity level of the property is good and the condition of the building is good.

National Register of Historic Places Eligibility Evaluation

The property was assessed under the National Register Criterion A for its potential significance as part of an historic trend that may have made a significant contribution to the broad patterns of history. The subject property cannot be said to represent a significant historic trend or event. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion A.**

The property was considered under Criterion B for its association with the lives of persons significant in our past. No information was discovered that would indicate an association with the lives of persons significant in the past.**Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion B.**

The property was evaluated under Criterion C for embodying the distinctive characteristics of a type, period, or method of Modern construction, or representing the work of a master, or possessing high artistic values, or representing a significant and distinguishable entity whose components lack individual distinction. The building does not represent a significant and distinguishable entity whose components may lack individual distinction. The building does not serve as a significant example of the style to qualify for National Register status. The building does not include significant artistic values and does not represent the work of a master architect or craftsman. No builders or architects associated with the construction of the building could be identified.The building retains its basic integrity in terms of mass and form. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion C.**

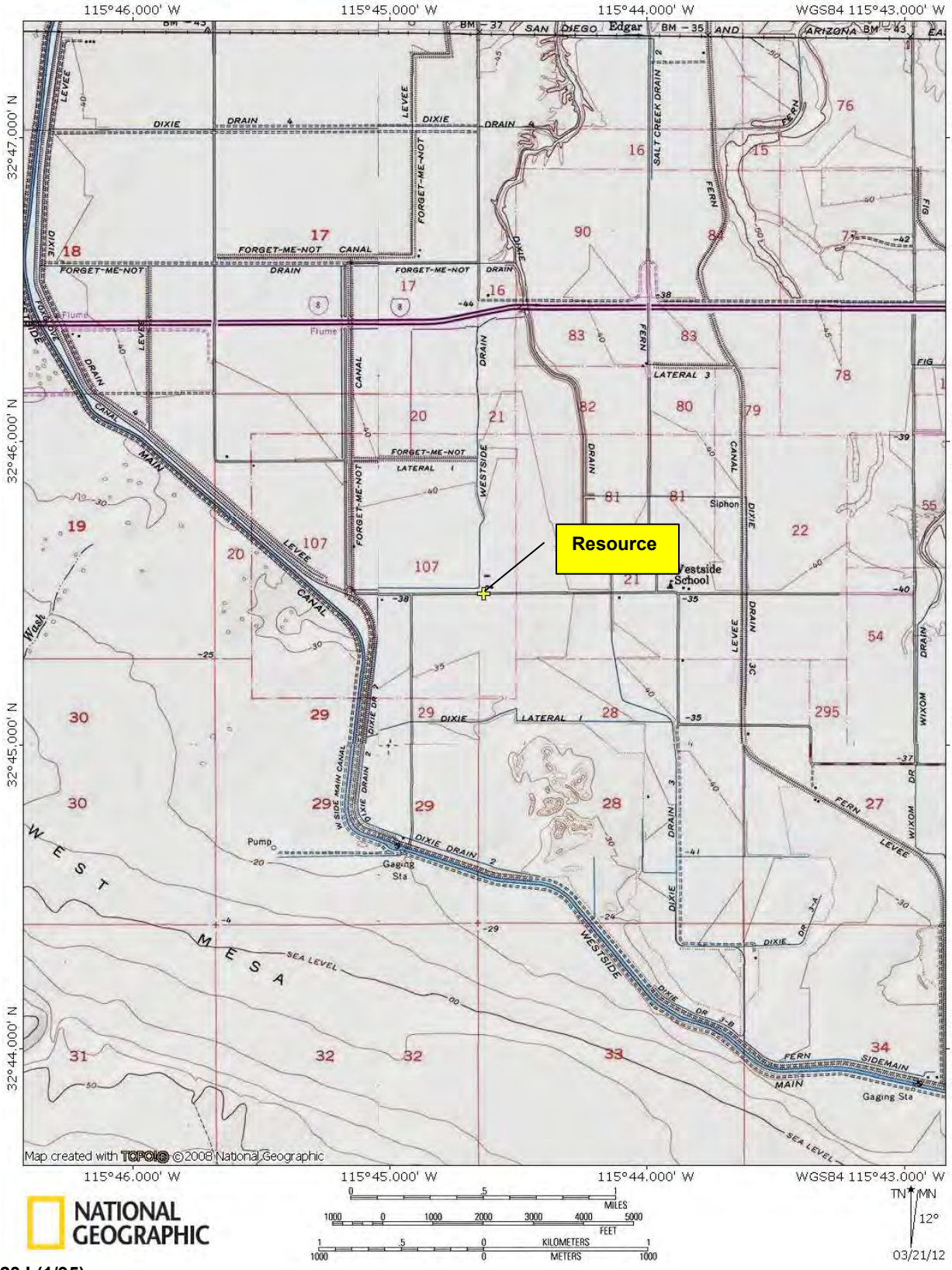
The property was considered for Criterion D for the potential to yield, or may be likely to yield, information important to prehistory or history. In order for buildings, structures and objects to be eligible under this criterion, they need to "be, or must have been, the principal source of information." This is not the case with this property. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion D.**

In summary, the property does not appear to qualify for the NRHP under Criterion A, B, C, and/or D. Therefore, the building is not potentially eligible for the NHPA.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **LOCATION MAP**	Primary # HRI# Trinomial	P-13-014263

Page **4** of **4** *Resource Name or #: Building 4

***Map Name:** Mount Signal Quadrangle ***Scale:** 1:24,000 ***Date of Map:** 1990



DPR 523J (1/95)

*Resource Name or #: Building 5; Westside Elementary School

☐ Continuation X Update

Map Reference Number: 2

P1. Other Identifier: 2294 West Vaughn Road, El Centro, Imperial County, California. 92243.
e. Other Locational Data: Assessor Parcel Number (APN): 051-300-010-000

*P3a. Description: The subject property, sited at 2294 West Vaughn Road, consists of a modern-style one-story school building with an irregular plan constructed with concrete blocks. The flat roof is clad in rolled asphalt and features a wide cornice, parapet, and a series of fluted pilasters along the primary elevation. The east wing of the building has a utilitarian main entrance with a nearly full-width ribbon window composed of a series of aluminum sash windows. The Westside Elementary School building, constructed ca. 1965, was originally recorded in 2012 by Chambers Group, and there does not appear to be any changes to the resource since its original recordation (Johnson 2012b: 1–3) (Photograph 1).

Six additional buildings, which were not recorded during the 2012 survey, are present on the campus. An ancillary building, located immediately west of the recorded Westside Elementary School building, appears to have been constructed within the historic era, and features complementary architectural elements. The one-story, square building has a raised foundation, flat roof, overhanging eaves on the south (primary) and north (rear) elevations, and wide cornices. The building features a utilitarian door, lacks windows, and is clad in T1-11 plywood siding. Five additional structures appear to have been constructed between ca. 1980 and ca. 2003 (NETR 2023a) (Photograph 2; Photograph 3).

*P3b. Resource Attributes: HP15. Education Building; HP4. Ancillary Building

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

The property was previously evaluated in 2012 by Chambers Group and recommended as not eligible for listing in the NRHP or the CRHR. In the original recordation, the property was incorrectly addressed as 2394 W Vaughn Road (APN 051-300-029-000). However, the property's legal address is 2294 W Vaughn Road (051-300-010-000). The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that the original, no longer extant school complex was constructed in 1911 but replaced with the current (extant) building in ca. 1965 (Johnson 2012b: 1–3; ParcelQuest 2023).

Chambers Group Historian Brent Johnson determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction, and did not appear to represent the work of a master, possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Johnson found that the property did not appear eligible under Criterion 3/C. Johnson also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under Criterion 4/D. Johnson documented that the property had retained its integrity of location, feeling, association, materials, and workmanship.

On April 11, 2023, Dudek revisited the subject property at 2294 W Vaughn Road and observed the six additional buildings located on the property. Otherwise, there did not appear to be any noticeable alterations since the 2012 recordation. Dudek concurs with the previous finding that the residence does not meet any of the criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

***B14. Evaluator:** EJ (Erin) Jones, MA, Dudek. 1810 13th Street, Suite 110, Sacramento, CA. 95811.

***Date of Evaluation:** August 15, 2023.

References

Johnson, B. "DPR 523 Form for 2394 Vaughn Road." Prepared by Chambers Group. 2012.

NETR (National Environmental Title Research). 2023. "2396 West Vaughn Road, El Centro." Accessed August 15, 2023.

Parcel Quest. 2023. "051-300-030-000." Accessed August 15, 2023. https://pqweb.parcelquest.com/

Photograph(s):

Photograph 1. Primary (south) and east elevations of the Westside Elementary School building, view looking northwest. Photograph taken on April 11, 2023.



Photograph 2. Primary (south) and west elevations of the ancillary building, view looking northeast. Photograph taken on April 11, 2023.



Photograph 3. Overview of the Westside Elementary School campus, including four of the seven extant buildings, view looking north. Photograph taken on April 11, 2023.



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-014264
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

 ***Resource Name or #:** Building 5

P1. Other Identifier: Westside Elementary School

***P2. Location:** ☐ **Not for Publication** ☒ Unrestricted ***a. County:** Imperial
and
***b. USGS 7.5' Quad:** Mount Signal **Date:** 1981 **T** 5S;**R** 13W; **¼ of ¼ of Sec** 1; San Bernardino B.M.
c. Address: 2394 Vaughn Road City: El Centro Zip: 92243
d. UTM: NAD83 Zone: 11N; 618808 mE/ 3625208 mN (G.P.S.)
e. Other Locational Data: Parcel # 051-300-029-000, Elevation: 0 ft.

***P3a. Description:** The resource is a one-story school building with an irregular plan, designed in the Modern style and constructed with concrete blocks. The roof is flat and covered with rolled asphalt. There is a wide cornice band along the parapet and a series of fluted pilasters along the front façade, which features a blind wall. The east wing of the building has a simple, unadorned main entrance with a nearly full-width ribbon window composed of a series of aluminum sash windows. The original Westside Elementary School was constructed in 1911, but none of the original buildings remain. The only relic from the first school is the original school bell. Principal Nancy Rood believes the current building was constructed circa, 1960-1970.

***P3b. Resource Attributes:** HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo:
View looking north toward the south elevation of the building.
Photo taken 1/27/2012

***P6. Date Constructed/Age and Sources:**
☒ Historic
☐Prehistoric ☐Both
Date of construction according to Nancy Rood is 1960-1970.

***P7. Owner and Address:**
El Centro Elementary School District
1256 Broadway Street
El Centro CA 92243

***P8. Recorded by:** (Name, affiliation, and address)
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***P9. Date Recorded:** 4/24/2012

***P10. Survey Type:** Reconnaissance

***P11. Report Citation:** A Built Environment Survey for the Silverleaf Solar LLC Photovoltaic Solar Project near the city of El Centro, Imperial County, California. March 2012

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☒ Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: Westside Elementary School
B2. Common Name: Westside Elementary School
B3. Original Use: Educational B4. Present Use: Same
***B5. Architectural Style:** Modern

***B6. Construction History:** School Principal, Nancy Rood, believes the current school building was constructed sometime between 1960 and 1970.

***B7. Moved?** ☐**No** ☐**Yes** ☒**Unknown** **Date:** **Original Location:**
***B8. Related Features:** N/A
B9a. Architect: N/A b. Builder: N/A
***B10. Significance: Theme:** School Building **Area:** Western El Centro

Period of Significance: circa 1960 **Property Type:** School Building
Applicable Criteria: N/A
The community is located in the Imperial Valley, approximately 10 miles southwest of El Centro. The construction of a canal system from the Colorado River in 1901 brought water via the Encina Canal (Westside Main Canal) to the area, liberating the productivity of ancient silt deposits and alluvium that comprise the region. Farmers and speculators were soon attracted by the Federal Government's Desert Land Entry program that allowed individuals to file for ownership on 160 acres of desert ground, or 320 acres for married couples. Pioneering settlers to the region lived in simple tents and lean-to's covered with woven tule mats. The typical valley home consisted of a tent house, frame built with a floor, lumber sides three-feet high, and a canvas top with arrow weed built over the canvas. The first "proper" wood frame homes and masonry buildings would not be erected until the middle of the first decade.

B11. Additional Resource Attributes: HP15. Educational Building: Any building with an educational purpose, e.g. schools, libraries, museums, etc.

***B12. References:**
Ching, Francis D.K., *A Visual Dictionary of Architecture*, John Wiley & Sons, Inc., 1995
Imperial County Historical Society, 1956-1958. *The Valley Imperial, Book I and Book II*. Published by Imperial Valley Pioneers. Revised and Reprinted, June 1991
Howe, Edgar F. and Wilbur Jay Hall, *The Story of the First Decade In Imperial Valley, California*. Edgar F. Howe and Sons, 1910. Reprinted by Imperial County Historical Society, December 1998.
Nuffer, David, *Saga of Imperial Valley*. Self-published. 1990

B13. Remarks: None

***B14. Evaluator:**
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***Date of Evaluation:** 4/24/2012

(This space reserved for official comments.)



***Recorded by:** Brent D. Johnson ***Date:** 4/24/2012 ☒ Continuation ☐ Update

Integrity Statement

In regard to the seven aspects of integrity of location, design, setting, materials, workmanship, feel and association, the building has retained its original location. The building's setting, feel and association appear to have remained intact since its construction. In addition, its original materials, and workmanship have remained intact. The integrity level of the property is good and the condition of the building is good.

National Register of Historic Places Eligibility Evaluation

The property was assessed under the National Register Criterion A for its potential significance as part of an historic trend that may have made a significant contribution to the broad patterns of history. The subject property cannot be said to represent a significant historic trend or event. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion A.**

The property was considered under Criterion B for its association with the lives of persons significant in our past. No information was discovered that would indicate an association with the lives of persons significant in the past.**Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion B.**

The property was evaluated under Criterion C for embodying the distinctive characteristics of a type, period, or method of Modern construction, or representing the work of a master, or possessing high artistic values, or representing a significant and distinguishable entity whose components lack individual distinction. The building does not represent a significant and distinguishable entity whose components may lack individual distinction. The building does not serve as a significant example of the style to qualify for National Register status. The building does not include significant artistic values and does not represent the work of a master architect or craftsman. No builders or architects associated with the construction of the building could be identified.The building retains its basic integrity in terms of mass and form. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion C.**

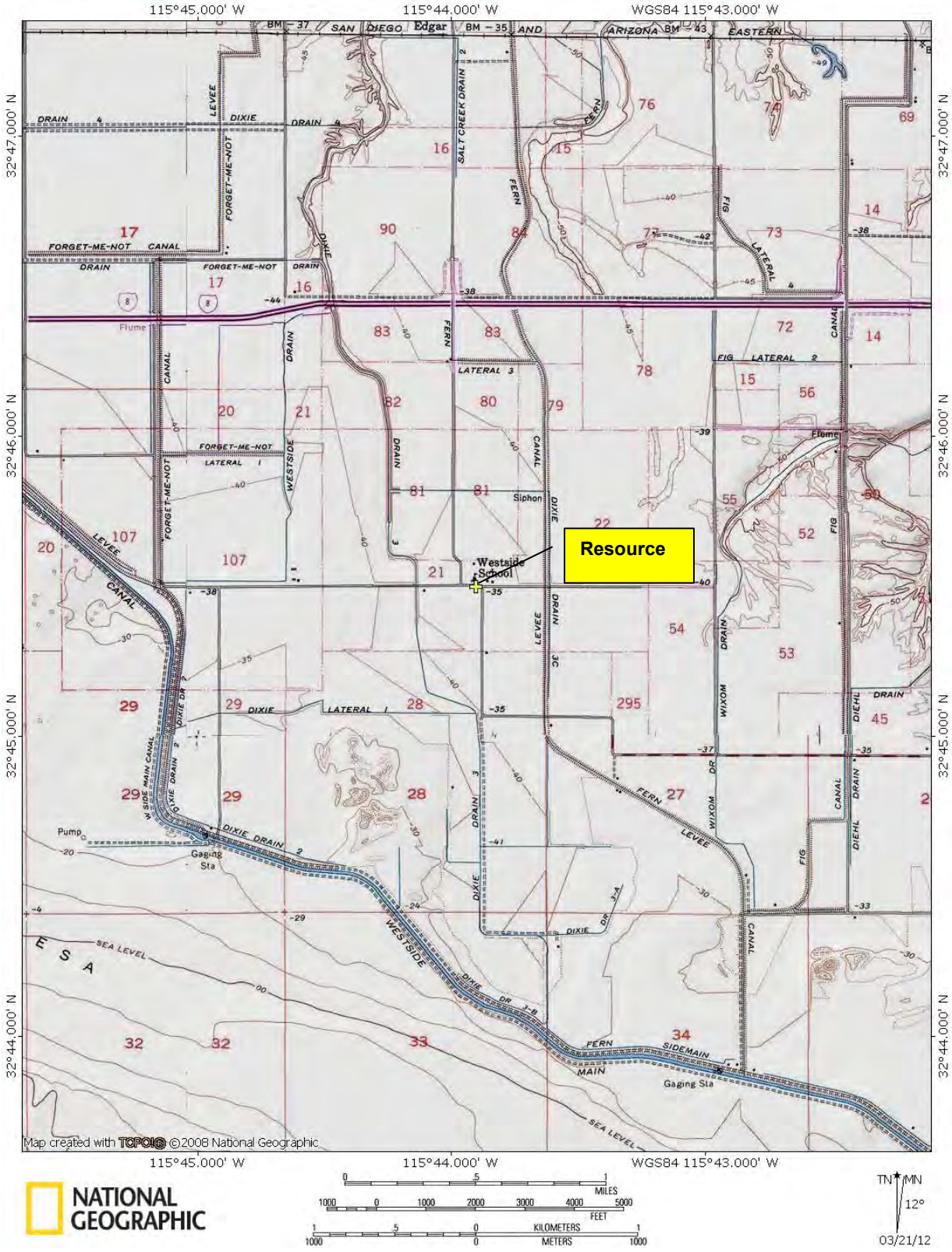
The property was considered for Criterion D for the potential to yield, or may be likely to yield, information important to prehistory or history. In order for buildings, structures and objects to be eligible under this criterion, they need to "be, or must have been, the principal source of information." This is not the case with this property. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion D.**

In summary, the property does not appear to qualify for the NRHP under Criterion A, B, C, and/or D. Therefore, the building is not potentially eligible for the NHPA.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **LOCATION MAP**	Primary # HRI# Trinomial	P-13-014264

Page **4** of **4** *Resource Name or #: Building 5

***Map Name:** Mount Signal Quadrangle ***Scale:** 1:24,000 ***Date of Map:** 1990



DPR 523J (1/95)

Map Reference Number: 4

P1. Other Identifier: 2651 Westside Road, El Centro, Imperial County, California. 92243.
e. Other Locational Data: Assessor Parcel Number (APN): 051-270-038-000

*P3a. Description: The subject property, sited at 1651 Westside Road, consists of a one-story ranch-style single-family residence constructed in ca. 1955. The rectangular, wood-framed residence has a concrete foundation and stucco cladding. The roof is a low-pitched, cross-gable roof clad in rolled asphalt. A projection extends from the building's south elevation. The residence's windows are vinyl-framed sliders and a brick chimney is located along the roof ridge. Other structures located on the property (constructed outside the historic period) include a front-gable carport and garage, shed, square swimming pool, and three pole shelters. The property includes mature landscaping. Fern Lateral Three, an agricultural irrigation system associated with the larger Fern Canal network, runs north to south across the east side of the property. This single-family residential property was initially recorded in 2011 by KP Environmental and ASM. There do not appear to have been any changes to the resource since its original recordation (Photograph 1).

*P3b. Resource Attributes: HP2. Single Family Property; HP4. Ancillary Building

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

The property was previously evaluated in 2011 by KP Environmental and ASM and recommended as not eligible for listing in the NRHP or the CRHR. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that the property was likely constructed in ca. 1955 despite a U.S. Department of Agriculture document that listed the construction date as 1949 (Thomson and Adame 2011: 1–3; Krintz 2011a: 1–2).

ASM Architectural Historian Jennifer Krintz determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction and did not appear to represent the work of a master, or possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Krintz found that the property did not appear eligible under Criterion 3/C. Krintz also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under Criterion 4/D. Krintz did not evaluate the property's historical integrity.

On April 11, 2023, Dudek revisited the residential property at 1651 Westside Road and did not observe any noticeable alterations since the last recordation in 2011. Dudek concurs with the previous finding that the residence does not meet any of the criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject residence is not a historical resource for the purposes of CEQA. Dudek has assigned the subject residence a 6Z California Historical Resource status code.

*B14. Evaluator: EJ (Erin) Jones, MA, Dudek. 1810 13th Street, Suite 110, Sacramento, CA. 95811.

*Date of Evaluation: August 15, 2023.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
UPDATE SHEET

Primary # P-13-013758
HRI #
Trinomial
NRHP Status Code(s) 6Z

*Resource Name or #: MS 10; 1651 Westside Road

☐ Continuation X Update

Photograph(s):

Photograph 1. Overview of the property addressed as 1651 Westside Road, view looking northwest. Photograph taken on April 11, 2023.



References

Thompson, H. "DPR 523 Form for 2651 Westside Road." Prepared by kp Environmental, LLC. 2011.

Krintz, J. "DPR 523 Form for 2651 Westside Road." Prepared by ASM Affiliates, Inc. 2011.

UPDATE

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # ~~P-13-013758~~ CA-IMP-11759
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

Page 1 of 2 ***Resource Name or #:** 1651 Westside Road
P1. Other Identifier:
***P2. Location:** ☒ **Not for Publication** ☐ **Unrestricted**
***a. County:** Imperial **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Seeley **Date** 1957; 1976 **T** 16 S **R** 12 E; **¼ of** **of Sec** 82; S.B. **B.M.**
c. Address 1651 Westside Road City El Centro Zip 92243
d. UTM: (give more than one for large and/or linear resources) Zone 11S, 618613.72 mE/ 3626595.34 mN;
e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) APN: 051-270-038

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

1651 Westside Road is a one-story Ranch house constructed as a single-family residence ca. 1955. A structure may have existed on property by March 1949, but it is not the present-day building (United States Department of Agriculture 1949). Located on the west side of Westside Road, it is a wood frame building, rectangular in plan with a concrete foundation. The exterior is clad in stucco siding. The roof is a low-pitched side gable roof with a front gable projection on the south section of the building and clad in an asphalt roll. On the east elevation, a concrete walkway leads to a primary entrance located on the north or east elevation. The primary entrance could not be seen from the street at the time of the survey. The windows consist of vinyl sliders with sandwich muntins. There is one chimney located within the roof surface. Modifications to the building include the replacement windows. Landscape features include tall palm trees. Other buildings include a front gable carport and garage as well as a shed roof storage shed.

(continued on page)

***P3b. Resource Attributes:** (List attributes and codes) HP2. Single Family Property
***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)
P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession#)
View looking west at the property
Photo taken November 2, 2011

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
Circa 1955,
1949 Imperial County Aerials, US Dept of Agriculture
USGS Topo Quad Map, 1957

***P7. Owner and Address:**
Earl G. Vandergriff
1651 Westside Road
El Centro, CA 92243

***P8. Recorded by:** (Name, affiliation, and address)
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
2034 Corte Del Nogal
Carlsbad, CA 92011

***P9. Date Recorded:** November 2011

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** (cite survey report and sources, or enter "none.")
Inventory, Evaluation, and Analysis of Impacts on Historic Resources On Private Lands within the Area of Potential Effect of the Campo Verde Solar Project, Imperial County, California, ASM Affiliates, November 2011.

***Attachments:** ☐ NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #
HRI #

***NRHP Status Code** 6Z
***Resource Name or #** (Assigned by recorder) 1651 Westside Road

B1. Historic Name: Unknown
B2. Common Name: Unknown
B3. Original Use: Single family residence
B4. Present Use: Single family residence
***B5. Architectural Style:** Ranch
***B6. Construction History:** **(Construction date, alterations, and date of alterations)** The building was constructed circa 1955. Alterations include replacement windows circa 1990.
***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A
***B8. Related Features:** None
B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance: Theme** Agricultural Homestead **Area:** Imperial Valley, CA

Period of Significance: N/A **Property Type:** Single Family Property **Applicable Criteria:** None

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

1651 Westside Road is not recommended as eligible for listing in the NRHP and CRHR. Specifically, under Criterion A/1, research failed to tie the buildings to events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S. Under Criterion B/2, research failed to link the building with the lives of persons important to local, California, or national history. Under Criterion C/3, the building does not embody significant characteristics of a type, period, region, or method of construction; nor does it represent the work of a master, or possess high artistic values that would qualify it for listing. Finally, because this resources is a common property type it does not have the potential to provide information about history or prehistory that is not available through historic research. Therefore, the building was not evaluated for the NRHP or the CRHR under Criterion D/4.

(continued on page)

B11. Additional Resource Attributes: (List attributes and codes) None

***B12. References:** United States Department of Agriculture. 1949 Imperial County Aerials.

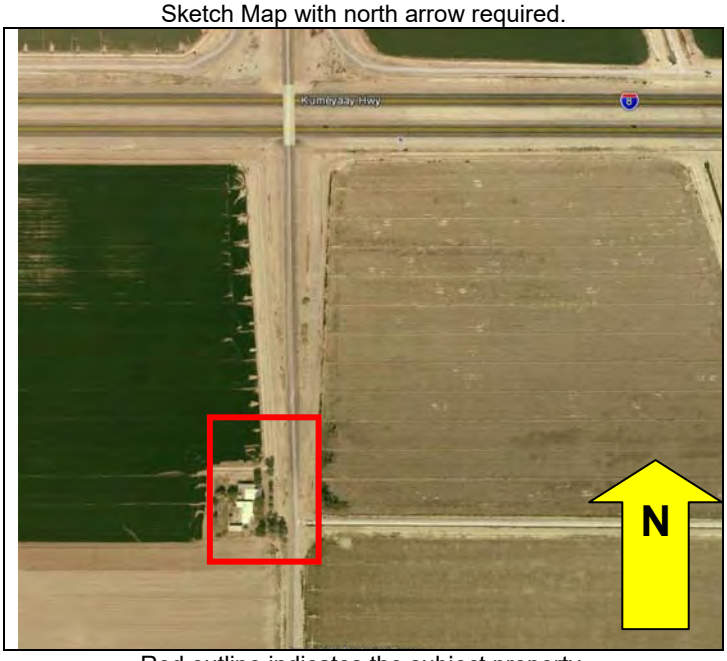
B13. Remarks: None

***B14. Evaluator:** Jennifer Krintz, Architectural Historian

***Date of Evaluation:** November 2011

(This space is reserved for official comments)

Sketch Map with north arrow required.



Red outline indicates the subject property.
Map courtesy of Google Earth.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-013758
HRI # CA-IMP-11759
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

 *Resource Name or #: MS 10

P1. Other Identifier:

***P2. Location:** ☒ **Not for Publication** ☐ **Unrestricted** ***a. County:** Imperial County

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Seeley, Calif **Date:** 1957 (1979) T 12E; R16S; SE ¼ **of** S ½ **of Sec** 83**;** M.D. San Bernardino **B.M.**

c. Address: 1651 Westside Road City: Zip:

d. UTM: Zone: 11; 618628mE/ 3626616mN(G.P.S.) NAD83 UTM coordinates

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: -36'

The site is located in the Imperial Valley, west of the town of El Centro and south of the town of Seeley. To reach the isolate from Interstate 8, take the Drew Road exit south. Drive 1.7 miles and turn west onto West Diehl Road. Drive 2.5 miles and turn right onto Westside Road. Drive north for 2591 feet and turn left onto West Vaughn Road. Drive 437' and turn right onto Westside Road. Travel 4642'. The site will be on the left side of the road. It is the only residence in this area.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The site consists of a residential complex composed of a single family dwelling unit, a garage, and several outbuildings. The house is an irregularly shaped building. It has a front gabled roof with open eaves. The front elevation has four windows, three of these are three panel sliders with the fixed interior sash having 12-lites and the outside sliding sashes each 6-lites. The remaining window is a sliding casement window with each sash having 9-lites. The main entrance door is on the north elevation. North of the living area is a detached garage with a shed roof overhang off the front elevation. North of the house and garage is a shed roof which shelters a motorhome and an additional shed roof at the northwest corner of the complex that is used as a shelter for heavy equipment. There is one additional outbuilding at the southwest corner of the complex with a porch roof overhang on the east elevation of the structure. A canal and several palm trees and other ornamentals line the roadway at the front of the complex. This complex was also evaluated for this project by ASM Affiliates and found to be not eligible for listing on the NRHP or CRHR (Davis et al. 2011).

***P3b. Resource Attributes:** (List attributes and codes) HP2-single family property, HP20-canal

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☒Site ☐District ☐Element of District ☒Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) IMG_1933; overview to north.

***P6. Date Constructed/Age and Sources:**
☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
Imperial 1585 LLC, 6160 Plumas St. Reno, NV 89519

***P8. Recorded by:** (Name, affiliation, and address)
Heather Thomson and Marina Adame, kp environmental, LLC, 2387 Montgomery Ave. Cardiff By The Sea, CA 92007

***P9. Date Recorded:** July 21, 2011

***P10. Survey Type:** (Describe) Intensive pedestrian survey (15-meters)

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Mitchell, Patricia T. 2011. Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project, Imperial County, California.

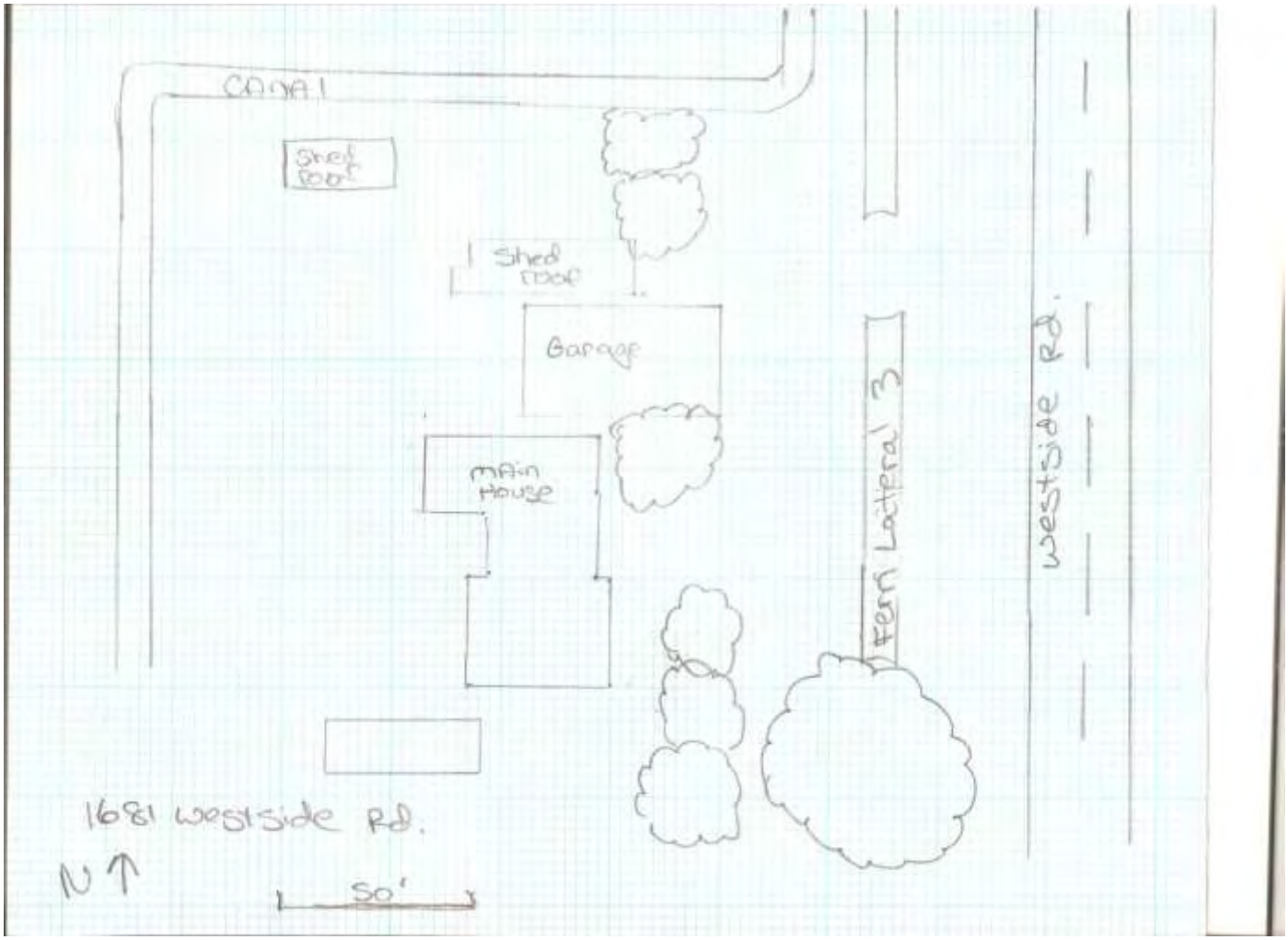
Davis, Shannon, Jennifer Krintz, Sarah Stringer-Bowsher, and Sinéad Ní Ghabhláin. 2011. Impacts on Historic Resources on Private Lands, Campo Verde Solar Project, Imperial County, California.

***Attachments:** ☐NONE ☒Location Map ☒Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☒Photograph Record ☐ Other (List):

Camera Format: Digital – Canon Powershot SD1300 IS Digital ELPH 12.1 megapixel
Negatives Kept at: kp environmental, LLC. 2387 Montgomery Ave, Cardiff By The Sea, CA 92007

Mo.	Day	Frame	Site	Subject/Description	View Toward
07	18	1894	Site 6	finish	D
07	18	1895	Site 6	finish	D
07	18	1896	Site 6	Site overview	W
07	18	1897	Site 6	Site overview	W
07	18	1898	Site 6	Bottle base	D
07	18	1899	Site 6	Bottle base	D
07	18	1900	Site 6	finish	D
07	18	1901	Site 6	finish	D
07	18	1902	Site 6	finish	D
07	18	1903	Site 6	finish	D
07	18	1904	Site 6	Bottle base	D
07	18	1905	Site 6	Fuzzy potsherd	D
07	18	1906	Site 6	Potsherd	D
07	18	1907	Site 6	Bone fragment	D
07	18	1908	/	Aqua glass fragment	D
07	19	1915	/	View of visibility on northeast side	D
07	19	1916-1919	/	House on Westside Road	W
07	20	1926	/	Wormwood Check	NE
07	20	1927	/	Concrete ditch	W
07	20	1928	/	Concrete ditch adjacent to Fig Drain in SE area	N
07	21	1930-1931	/	Memorial	W
07	21	1933-1935	Iso 9	Green glass bottle fragments	N
07	21	1936	/	Example of gate	S
07	21	1937-1938	Iso 7	bottle	D
07	21	1948-1951	/	snake	D
07	21	1962-1965	/	1651 West side Road	W
07	15	1858	/	North end of canal next to wormwood	
07	15	1859	/	Fig drain at southern end of western area	SE
07	15	1860	/	Same as above with tile line sign	
07	15	1861	/	East-west lateral at Derrick Drive & Wixom concrete ditch, check is out of project area on other side of road.	
07	15	1863	/	owl	
07	16	1873	/	Rykerson 1966	
07	16	1874	/	Overview at NE corner of west area turnouts 26 & 27	ESE
07	16	1875	/	Turnout 27	
07	16	1876	/	Bone	D
07	16	1877	/	Bone	D
07	16	1878	/	Bone	D
07	18	1879	Site 6	1-Yellow ceramic fragment with part of handle	D
07	18	1880	Site 6	2- can with external friction lid and piece of cut bone pork?	D
07	18	1881	Site 6	-3 bottle base	D
07	18	1882	Site 6	-4 Metal hinge and piece of milled lumber	D
07	18	1883	Site 6	5- light green bottle fragment	D
07	18	1884	Site 6	6- white ceramic fragment	D
07	18	1885	Site 6	Sherd and pipe stem	D
07	18	1886	Site 6	Sherd	D

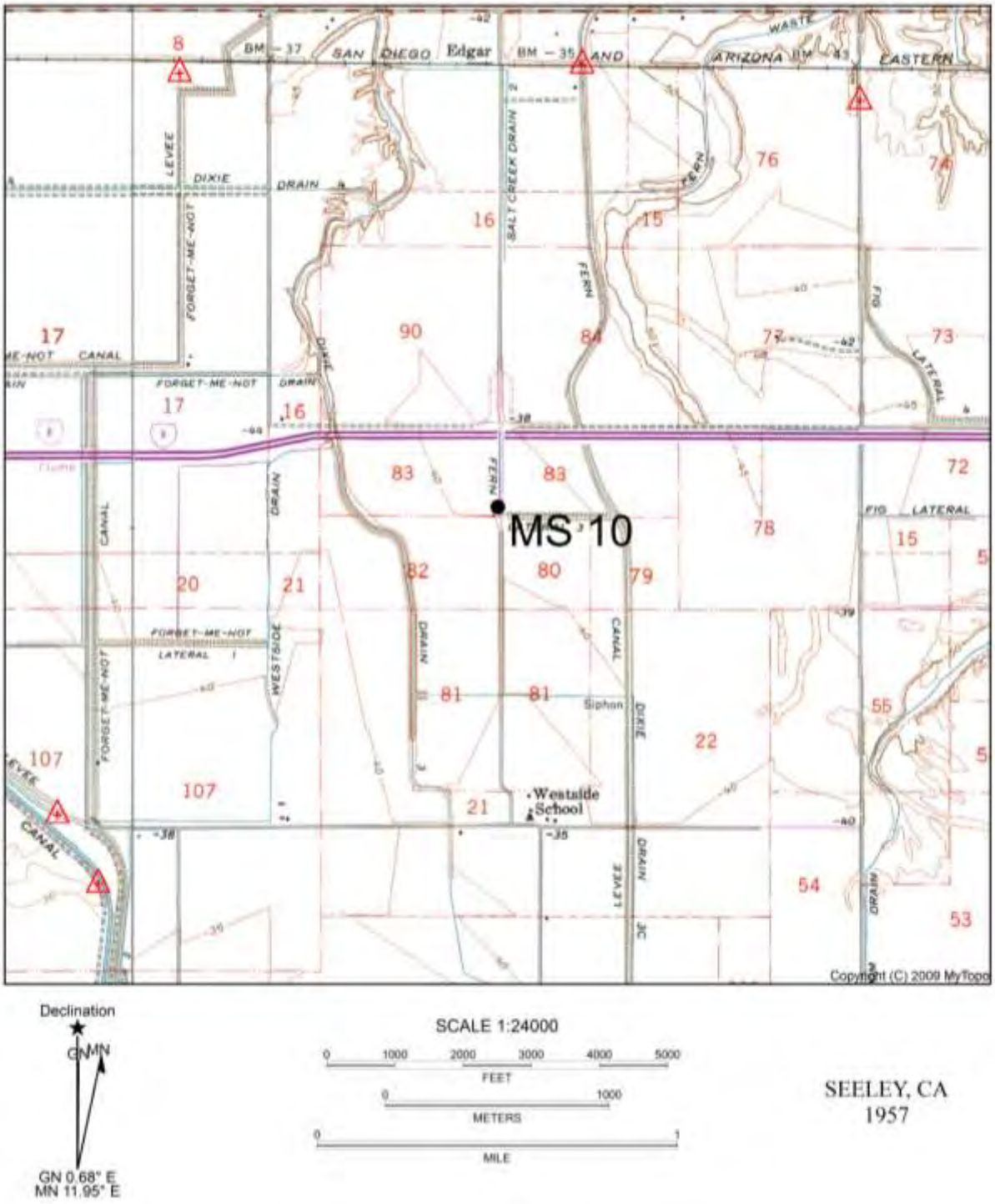
*Drawn By: Heather Thomson, kp environmental, LLC, 2387 Montgomery Ave. Cardiff By The Sea, CA 92007 *Date: 07/12/2011



LOCATION MAP

***Resource Name or #:** MS 10

***Map Name:** Seeley, Calif. ***Scale: 1: 24,000** ***Date of Map:** 1957 (1979)



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
UPDATE SHEET

Primary # P-13-012700
HRI # _____
Trinomial _____
NRHP Status Code(s) 6Z

Page 1 of 2 *Resource Name or #: Property at the Intersection of Liebert Road and Mandrapa Road

☐ Continuation X Update

Map Reference Number: 6

P1. Other Identifier: N/A
e. Other Locational Data: Assessors Parcel Number (APN) 051-350-017.

*P3a. Description: The subject property located on APN 051-350-017 does not have a situs address, but was previously recorded as part of 1105 Liebert Road. Two additional buildings on the parcel were demolished in 2004. The property was observed from the access roads surrounding the Fig and Westside Main Canals. Historical aerials show two buildings on the parcel, both of which were demolished in ca. 2004. The existing building was constructed prior to 1984 and is in the northeast corner of the parcel. A concrete canal was constructed along the north side of the property, with unofficial writing on the concrete with a date of February 15, 1974 (NETR 2023a).

The only building on the property, an abandoned barn, sits at the southeast corner of the intersection of Liebert Road and Mandrapa Road, north of the Westside Main Canal (Exhibit 6). The wood frame building has a gable-end entry with minimal overhang and dropped secondary roof over a shed room, a wood frame tractor entrance with no door attached, vertical wood board siding, with flat wood board roofing, a louvered wood attic vent, exterior mounted air conditioning vent system on the north elevation that appears to have been a later addition. Located on the main (south) and the north elevations are two offset to the right ventilation windows. (Photograph 1).

*P3b. Resource Attributes: HP4: Ancillary Building

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

The property was previously evaluated in 2011 by ASM and AECOM. In 2012, Chambers Group recommended as not eligible for listing in the NRHP or the CRHR. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that the property was likely constructed in ca. 1940, ca. 1930s, and ca. 1945 based on visual observation and historic aerials.

Brent D. Johnson of Chambers Group most recently determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction, and did not appear to represent the work of a master, or possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Johnson found that the property did not appear eligible under Criterion 3/C. Johnson also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under Criterion 4/D. Johnson did not evaluate the property's historical integrity.

On April 11, 2023, Dudek revisited the residential property at APN 051-350-017 and did not observe any noticeable alterations since the last recordation in 2012. Dudek concurs with the previous finding that the building does not meet any of the criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject residence is not a historical resource for the purposes of CEQA. Dudek has assigned the subject residence a 6Z California Historical Resource status code.

*B10. Significance (continued):

In conclusion, the farm property at APN 051-350-017 lacks sufficient significance to meet any of the criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above before determining whether the resource retains its historic character and can convey its significance. In the specific case of the farm property at APN 051-350-017, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further analysis of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), either individually or as a contributing element to an existing or potential historic district.

*B14. Evaluator: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*Date of Evaluation: August 15, 2023.

Photograph(s):

Photograph 1. View of the existing building on farm property, looking north.



References

NETR (National Environmental Title Agency). 2023a. "Historic Aerial Photographs the Imperial Valley, CA, dating from 1953, 1984, 1985, 1996, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2019, and 2020." Accessed April 27, 2023. https://www.historicaerials.com/viewer.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-012700
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code _____ Reviewer _____ Date _____

 ***Resource Name or #:** (Assigned by recorder) 1105 Liebert Road

P1. Other Identifier: N/A

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

*** a. County** Imperial **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

*** b. USGS 7.5'** Mount Signal **Date** 1957 **T** 16S **R** 12E ; ¼ ¼ of 34 ; SB **B.M.**

c. Address 1105 Liebert Road City El Centro Zip 92243

d. UTM: (Give more than one for large and/or linear resources) Zone 11 , 620418 mE/ 3622274 mN

e. Other Locational Data: (e.g., parcel I, directions to resource, elevation, etc., as appropriate)

1105 Liebert Road consists of two parcels (APN 051-350-012 and APN 051-350-017). The larger main parcel (APN 051-350-012) is 1.03 acres and is located at the northwest corner of Liebert Road and Mandrapa Road. The smaller parcel (APN 051-350-017 is 0.84 acres and is located at the northeast corner of Liebert Road and Mandrapa Road. The two parcels are surrounded by agricultural fields located to the north, east, and west. The West Side Main Canal runs east to west immediately south of the parcels.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The larger main parcel of 1105 Liebert Road contains a two-story house, a two car-garage structure located southwest of the house, and a large storage shed located between the house and the garage. The house has a front-gabled two-story portion and a side-gabled one story wing on the west. The exterior of the house is stucco and the roof appears to be clad with red clay tiles. There is a square stucco chimney located on the rooftop of the one-story wing of the house. A shed roof porch spans the width of the two-story portion of the house, and the front entrance is located on the west side beneath the porch. Windows are generally sliding metal sash of various sizes. The building has been heavily altered by the addition of a second story.

SEE CONTINUATION SHEET 523L (PAGE 3).

***P3b. Resource Attributes:** (List attributes and codes) HP2. Single Family Property

***P4. Resources Present:** ☐ **Building** ☒ **Structure** ☐ **Object** ☐ **Site** ☐ **District** ☐ **Element of District** ☐ **Other** (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (view, date, accession #)
Looking northwest at house and detached garage
March 2010

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
1960 per building permit records

***P7. Owner and Address:**
Private

***P8. Recorded by:** (name, affiliation, and address)
URS Corporation
1615 Murray Canyon Rd., Suite 1000
San Diego, CA 92108

***P9. Date Recorded:** 03/2010

***P10. Survey Type:** (Describe)
Pedestrian Survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")

Mutaw, Robert J. (Ph.D.), Elizabeth B. Roberts, Gordon C. Tucker Jr., Ph.D., Brian Shaw, Terrie Bagwell, Colin O'Hanlon, Rachael Nixon, Gary Fink, Jeremy Hollins, Mark Neal. 2010 Draft Final Class III Confidential Cultural Resources Technical Report for the Imperial Valley Solar (formerly Solar 2), Imperial Valley County. URS Corporation. Technical report prepared for Tessera Solar (Applicant). Submitted to the Bureau of Land Management – El Centro Field Office, El Centro, CA. Copies available from the Bureau of Land Management – El Centro Field Office, El Centro, CA.

***Attachments:** ☐ NONE ☐ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z

 ***Resource Name or #:** (Assigned by recorder) 1105 Liebert Road

B1. Historic Name: N/A
B2. Common Name: N/A
B3. Original Use: Single Family Residence B4. Present Use: Single Family Residence
***B5. Architectural Style:** N/A
***B6. Construction History:** (Construction date, alterations, and date of alterations)
According to building permit records for APN 051-350-012, the house was constructed in 1960. In 1985, the two-car garage was added to the property. Although no date was listed for the storage shed between the house and the garage, the shed appears to have been constructed in or after 1985. Building permit records show that an addition was constructed on the house in 1992. The original house was recorded as a single story; therefore, it can be concluded that a two-story addition may have been constructed in 1992. The single-story storage structure located on APN 051-350-017 was built in 1960 according to building permit records, and recorded as a "sleeping room." In 1970, a metal carport was added to the structure.
***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A
***B6. Related Features:**
None

B9. Architect: N/A b. Builder: Unknown
***B10. Significance: Theme** N/A **Area** Imperial County
Period of Significance N/A **Property Type** Single Family Residence **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).
B11. Additional Resource Attributes: (List attributes and codes) N/A
***B12. References:**
SEE CONTINUATION SHEET 523L (PAGE 6)

B13. Remarks:
None

(Sketch Map with north arrow required)
SEE CONTINUATION SHEET 523L (PAGE 5)

***B14. Evaluator:** Jeremy Hollins
***Date of Evaluation:** 03/2010

(This space reserved for official comments)

P3a. Description (Continued)

The two-car garage structure has a front-facing gable roof clad with asphalt shingles. A basketball hoop is located above the wood garage door. A single window with metal bars is located on the south elevation of the garage. The storage shed appears to be constructed from the same materials as the garage and has a flat roof and a large garage type door. The garage and shed are not historic. A chain link fence surrounds the parcel at the property boundaries.

The smaller parcel contains a small single-story storage-like structure with a front-facing gable roof. The roof is clad with asphalt shingles and there is a large opening on the south elevation, which appears to be missing a door. The structure is surrounded by overgrown weeds and brush, appears to be vacant. A chain link fence surrounds the building.

B10. Significance (Continued)

In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991).

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979).

Imperial Valley began to develop widespread irrigated agriculture only after 1898-1899, when C. R. Rockwood and George Chaffey took an interest in the area (JRP Historical Consulting and Caltrans 2000). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest. By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. In the early 1900s and 1910s, farmers began to settle in Imperial Valley and cultivate cotton in large quantities (Caltrans 2007). The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and by the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The widespread availability of water led to the growth of the agricultural industry and the development of Imperial Valley.

Agricultural development in Imperial Valley was facilitated by the irrigation development, and soon became a major producer in a range of crops. Between 1900 and 1910, farmers raised cotton in Imperial Valley. By 1929, Imperial County led the state in acres of vegetables and the area a few years earlier was a pioneer in Califoria's pomegranate cantaloupe industries (California Department of Transportation 2007).

On the 1957 Mount Signal 7.5-minute USGS Topographic Quadrangle Map, structures are depicted in the same location as the house, garage, and storage structures located at 1105 Liebert Road, but are not labeled. According to building permit records for APN 051-350-012, the house was constructed in 1960. In 1985, the two-car garage was added to the property. Although no date was listed for the storage shed between the house and the garage, the shed appears to have been constructed in or after 1985. Building permit records show that an addition was constructed on the house in 1992. The original house was recorded as a single story; therefore, it can be concluded that a two-story addition may have been constructed in 1992. The single-story storage structure located on APN 051-350-017 was built in 1960 according to building permit records, and recorded as a "sleeping room." In 1970, a metal carport was added to the structure.

B10. Significance (Continued)

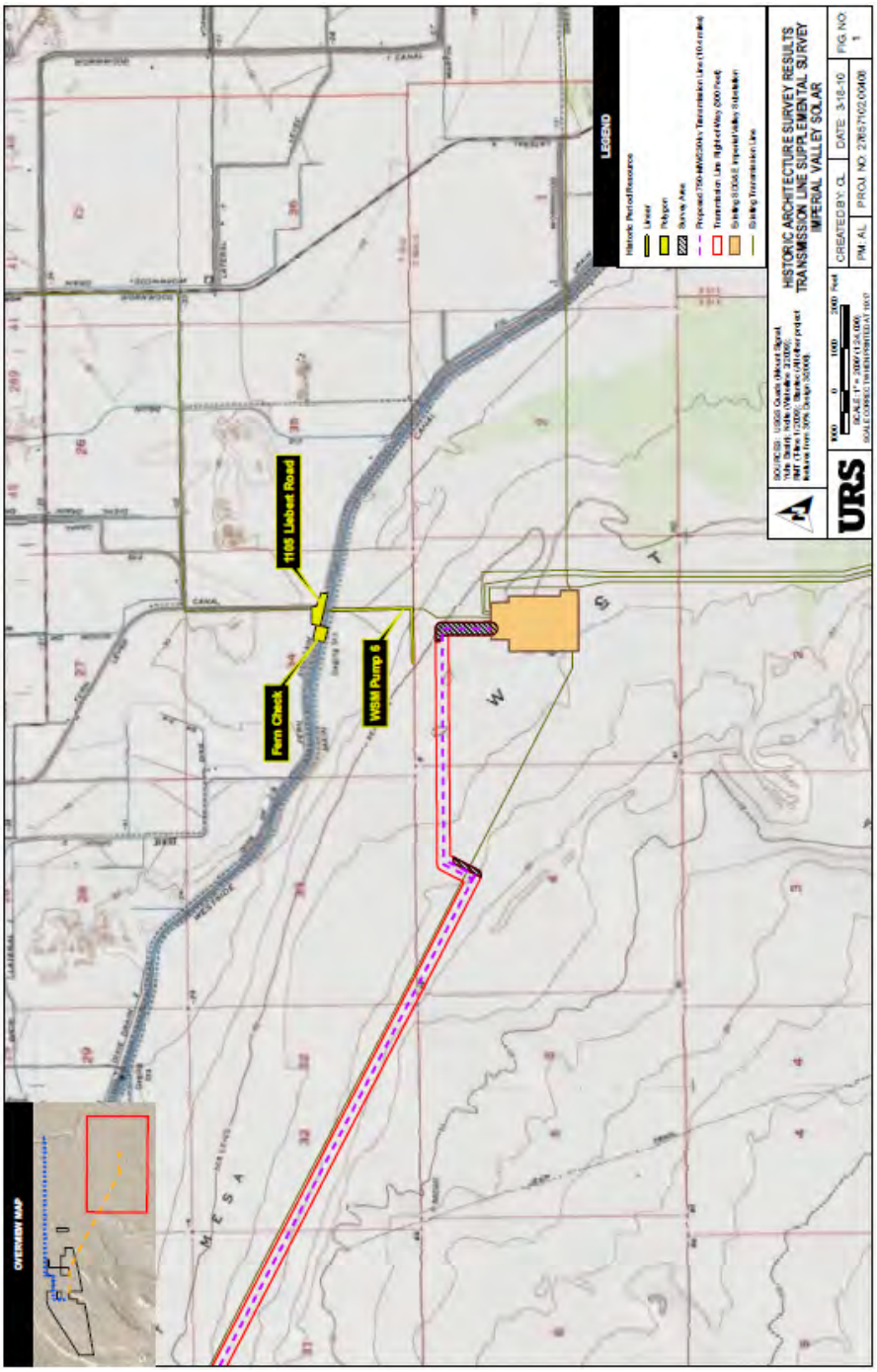
Presently, initial research has indicated 1105 Liebert Road does not appear directly linked with important trends, events, or themes, and due to substantial alterations of the buildings and structures (i.e., second-story addition during the past twenty years) is not unique or representative of its time and place as an agricultural property associated with irrigation agriculture in Imperial Valley. It is a modest example of a historic-period rural property. Recent changes to the property as a whole have erased many of its historic characteristics and have impacted its important scenic qualities. The original form and appearances of the residence is no longer apparent, and the property has a whole has not retained its spatial organization and evidence of an important historic period of development. In conclusion, 1105 Liebert Road does not appear to be associated with significant events, people, design/construction, or have the potential to yield important information.

Further, 1105 Liebert Road does not appear to retain a sufficient amount of its historic integrity. Due to the alterations, the property does not appear to possess sufficient integrity of workmanship, design, materials, setting, feeling, and association (though it still retains sufficient historic location).

In summary, 1105 Liebert Road does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA. .

Sketch Map:

Not to scale



B12. References

A.G. Thurston. 1912. Irrigation District and Road Map – Imperial Valley.

Albert G. Thurston. 1914. Imperial Valley Tract Map.

California Department of Transportation. 2007. A Historical Context and Archaeological Research Design for Agricultural Properties in California http://www.dot.ca.gov/ser/downloads/cultural/agriculture_study.pdf Website last visited March 19, 2010.

Garnholz, Derek Brandon, 1991. The Salton Sea: a narrative and political history. Unpublished Master's Thesis, San Diego State University.

Henderson, Tracey, 1968. Imperial Valley. San Diego: Neyensech Printers.

Hupp, Jill, 1999. CA-IMP-7834 Westside Main Canal. Sacramento: Caltrans Environmental Program

Imperial Irrigation District, 2006. "General History." Located at http://www.iid.com/Sub.php?pid=14. Website last visited on April 2009.

Imperial Irrigation District. September 18, 1996. Southwest Division Map.

JRP Historical Consulting and Caltrans (California Department of Transportation). 2000. Water Conveyance Systems in California. http://ntl.bts.gov/card_view.cfm?docid=24219. Accessed February 2009.

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Smith, Karen J., 1979. The Reclamation of the Imperial Valley, 1849-1916. Unpublished Masters Thesis, San Diego State University.

O.V. Blackburn. 1919, 1929, 1936 & 1955 editions. Blackburn's Map of Imperial County, California.

O.V. Blackburn. 1964 edition. Western Portion of Blackburn's Map of Imperial County, California.

Sperry, Robert L., 1975. When the Imperial Valley Fought for its Life. The Journal of San Diego History, 21(1). Located at: http://www.sandiegohistory.org/journal/75winter/imperial.htm. Website last visited on 27 April 2007.

SWCA Environmental Consultants. 2007. CA-IMP-8821H Fox Glove Canal. South Pasadena, California.

Tout, Otis B., 1932. The First Thirty Years—1901-1931: History of Imperial Valley, Southern California, U.S.A. San Diego: Otis B. Tout.

USDA. 1949 & 1976. Aerial Survey of Imperial County. On file at UCSD Maps and Government Publications.

USGS. 1908. El Centro USGS Quadrangle Map.

USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1940. Brawley 15-minute USGS Quadrangle Map.

USGS. 1940. Plaster City 15-Minute USGS Quadrangle Map.

USGS. 1943, 1944. Plaster City 1 to 62,500 Scale Map.

USGS. 1943, 1957. Painted Gorge 7.5-minute USGS Quadrangle Maps.

USGS. 1957, 1979. Seeley 7.5- minute USGS Quadrangle Map.

USGS. 1957. Brawley 7.5-minute USGS Quadrangle Map.

Additional Photos:



View from Mandrapa Road looking northeast



View from Mandrapa Road looking north

Additional Photos:



View from Liebert Road looking northeast at storage structure on APN 051-350-017

UPDATE

P-13-012700

SUBSUMES

P-13-014261Σ P-13-014262Σ !b5 tπmoπлmopcт

ALL DOCUMENTS PLACED WITH

P-13-012700

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI # P-13-014261
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 ***Resource Name or #:** Building 2

P1. Other Identifier: Northeast corner of Libert Road and Mandrapa Road intersection

***P2. Location:** ☐ **Not for Publication** ☒ Unrestricted **and**

***a. County:** Imperial

***b. USGS 7.5' Quad:** Mount Signal **Date:** 1981 **T** 5S;**R** 13W; **¼ of ¼ of Sec** 1; San Bernardino B.M.

c. Address: Libert Road and Mandrapa Road (No Address) City: El Centro Zip: 92243

d. UTM: NAD83 Zone: 11N; 620563 mE/ 3622211 mN (G.P.S.)

e. Other Locational Data: Parcel # 051-350-017-000, Elevation: 0 ft.

***P3a. Description:** The resource is an abandoned barn located east of the intersection of Libert Road and Mandrapa Road in the southeast quadrant of what appears to be the 109-acre Childers Farm. The wood frame building has a rectangular plan, a low-pitch front gable roof with a narrow strip of metal coping along the roof ledge, vertical wood siding with corner boards, an off-center louvered attic vent at the roof peak, and a large open bay with no door. There do not appear to be any windows on the building.

***P3b. Resource Attributes:** HP4. Ancillary Building. Barn

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo:
View looking north toward the south elevation of the barn. Photo taken 1/27/2012

***P6. Date Constructed/Age and Sources:**
☒ Historic
☐Prehistoric ☐Both
Date of construction is circa 1940-50.

***P7. Owner and Address:**
The building appears to be located on property owned by the Whitmer Farm.

***P8. Recorded by:** (Name, affiliation, and address)
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***P9. Date Recorded:** 4/24/2012

***P10. Survey Type:** Reconnaissance

***P11. Report Citation:** A Built Environment Survey for the Silverleaf Solar LLC Photovoltaic Solar Project near the city of El Centro, Imperial County, California. March 2012

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☒ Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: Unknown
B2. Common Name: None
B3. Original Use: Agricultural B4. Present Use: Abandoned
***B5. Architectural Style:** gable-front barn

***B6. Construction History:** No history of the barn's construction was discovered.

***B7. Moved?** ☐**No** ☐**Yes** ☒**Unknown** **Date:** **Original Location:**
***B8. Related Features:** N/A
B9a. Architect: N/A b. Builder: N/A
***B10. Significance: Theme:** Agricultural building **Area:** Western El Centro

Period of Significance: 1940-50 **Property Type:** Ancillary Building
Applicable Criteria: N/A
The community is located in the Imperial Valley, approximately 10 miles southwest of El Centro. The construction of a canal system from the Colorado River in 1901 brought water via the Encina Canal (Westside Main Canal) to the area, liberating the productivity of ancient silt deposits and alluvium that comprise the region. Farmers and speculators were soon attracted by the Federal Government's Desert Land Entry program that allowed individuals to file for ownership on 160 acres of desert ground, or 320 acres for married couples. Pioneering settlers to the region lived in simple tents and lean-to's covered with woven tule mats. The typical valley home consisted of a tent house, frame built with a floor, lumber sides three-feet high, and a canvas top with arrow weed built over the canvas. The first "proper" wood frame homes and masonry buildings would not be erected until the middle of the first decade.

B11. Additional Resource Attributes: HP4. Ancillary Building: Barn

***B12. References:**
Ching, Francis D.K., *A Visual Dictionary of Architecture*, John Wiley & Sons, Inc., 1995
Imperial County Historical Society, 1956-1958. *The Valley Imperial, Book I and Book II*. Published by Imperial Valley Pioneers. Revised and Reprinted, June 1991
Howe, Edgar F. and Wilbur Jay Hall, *The Story of the First Decade In Imperial Valley, California*. Edgar F. Howe and Sons, 1910. Reprinted by Imperial County Historical Society, December 1998.
Nuffer, David, *Saga of Imperial Valley*. Self-published. 1990

B13. Remarks: None

***B14. Evaluator:**
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***Date of Evaluation:** 4/24/2012

(This space reserved for official comments.)



***Recorded by:** Brent D. Johnson ***Date:** 4/24/2012 ☒ Continuation ☐ Update

Integrity Statement

In regard to the seven aspects of integrity of location, design, setting, materials, workmanship, feel and association, it is not known whether this building has retained its original location. The building's setting, feel and association appear to have remained intact since its construction. In addition, its original materials, and workmanship have remained largely intact. The integrity level of the property is poor and the condition of the building is poor.

National Register of Historic Places Eligibility Evaluation

The property was assessed under the National Register Criterion A for its potential significance as part of an historic trend that may have made a significant contribution to the broad patterns of history. The subject property cannot be said to represent a significant historic trend or event. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion A.**

The property was considered under Criterion B for its association with the lives of persons significant in our past. No information was discovered that would indicate an association with the lives of persons significant in the past.**Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion B.**

The property was evaluated under Criterion C for embodying the distinctive characteristics of a type, period, or method of Modern construction, or representing the work of a master, or possessing high artistic values, or representing a significant and distinguishable entity whose components lack individual distinction. The building does not represent a significant and distinguishable entity whose components may lack individual distinction. The building does not serve as a significant example of the style to qualify for National Register status. The building does not include significant artistic values and does not represent the work of a master architect or craftsman. No builders or architects associated with the construction of the building could be identified.The building retains its basic integrity in terms of mass and form. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion C.**

The property was considered for Criterion D for the potential to yield, or may be likely to yield, information important to prehistory or history. In order for buildings, structures and objects to be eligible under this criterion, they need to "be, or must have been, the principal source of information." This is not the case with this property. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion D.**

In summary, the property does not appear to qualify for the NRHP under Criterion A, B, C, and/or D. Therefore, the building is not potentially eligible for the NHPA.

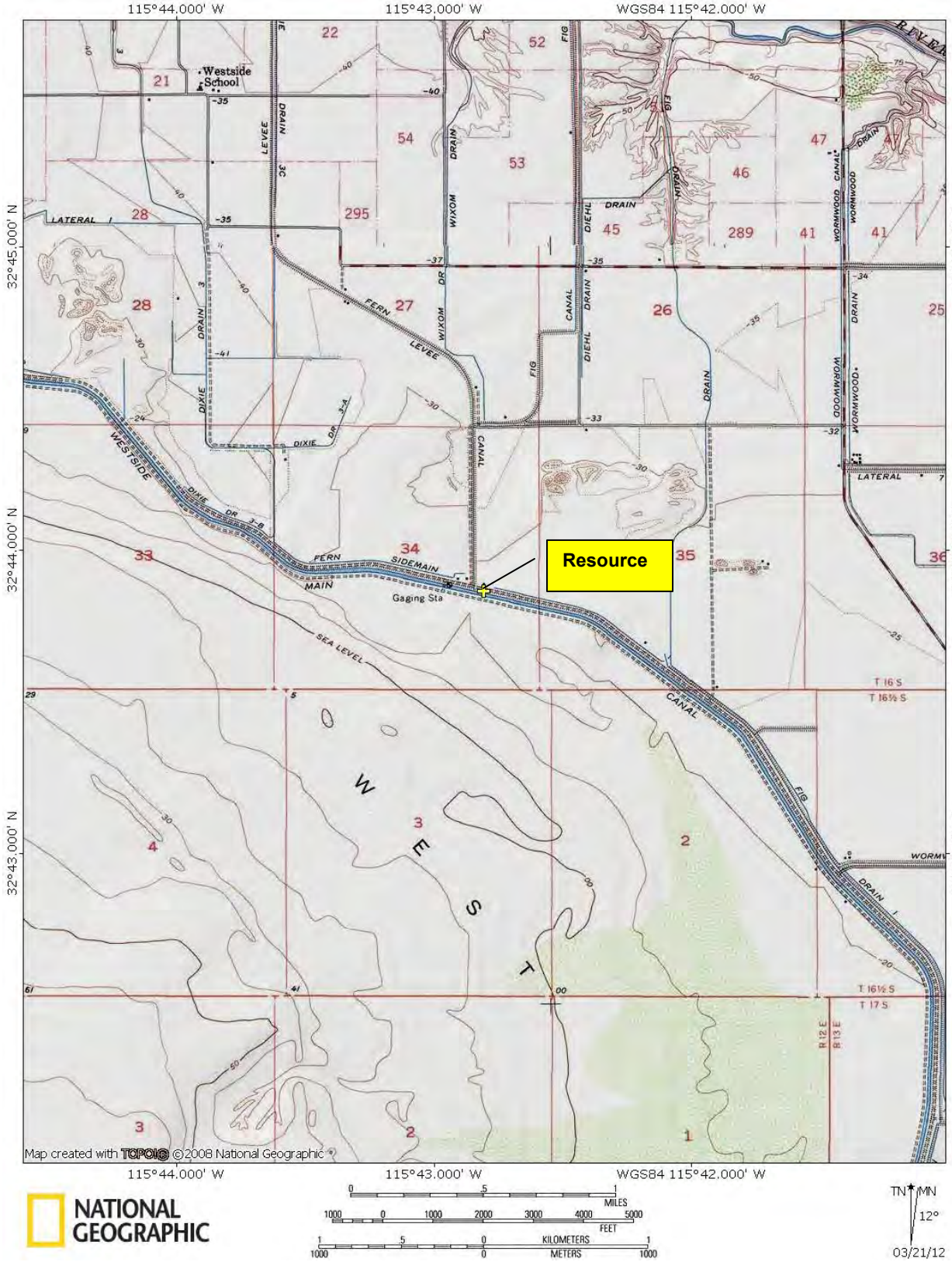
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial P-13-014261

*Resource Name or #: Building 2

***Map Name:** Mount Signal Quadrangle **Scale:** 1:24,000 ***Date of Map:** 1990



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-014262
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 ***Resource Name or #:** Building 3
P1. Other Identifier: Bryant Residence

***P2. Location:** ☐ **Not for Publication** ☒ Unrestricted ***a. County:** Imperial
and
***b. USGS 7.5' Quad:** Mount Signal **Date:** 1981 **T** 5S;**R** 13W; **¼ of ¼ of Sec** 1; San Bernardino B.M.
c. Address: 1105 Libert Road City: El Centro Zip: 92243
d. UTM: NAD83 Zone: 11N; 620484 mE/ 3622271 mN (G.P.S.)
e. Other Locational Data: Parcel # 051-350-012-000, Elevation: 0 ft.

***P3a. Description:** The resource consists of a 4 bed, 3 bath, 2,332 square foot, two-story single family residence and an ancillary building located northwest of the intersection of Libert Road and Mandrapa Road on the north side of the Westwide Main Canal, on approximately 1.03 acres. The primary residence is a Modern split-level residence, circa 1970, with a low-pitch front-gable roof, red Spanish tile, three-quarter length front porch, sliding glass windows with multi-pane glazing, and an attached garage with a shed style roof that appears to be a later addition. The ancillary building is a storage shed with a gabled roof, composite asphalt roofing, and vertical wood cladding on the exterior walls.

***P3b. Resource Attributes:** HP2. Single Family Property

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo:
View looking north toward the south elevation of the residence.
Photo taken 1/27/2012

***P6. Date Constructed/Age and Sources:**
☒ Historic
☐Prehistoric ☐Both
Date of construction is estimated at 1972-1975.

***P7. Owner and Address:**
The Bryant Residence is located on the Whitmer Farm; however, the owner was not identified.

***P8. Recorded by:**
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***P9. Date Recorded:** 4/24/2012

***P10. Survey Type:** Reconnaissance

***P11. Report Citation:** A Built Environment Survey for the Silverleaf Solar LLC Photovoltaic Solar Project near the city of El Centro, Imperial County, California. March 2012

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☒ Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: Unknown
B2. Common Name: Bryant Residence
B3. Original Use: Residential B4. Present Use: Vacant
***B5. Architectural Style:** Modern split-level

***B6. Construction History:** No history of the building's construction was discovered.

***B7. Moved?** ☐**No** ☐**Yes** ☒**Unknown** **Date:** **Original Location:**
***B8. Related Features:** N/A
B9a. Architect: N/A b. Builder: N/A
***B10. Significance: Theme:** Farm House and Ancillary Building **Area:** Western El Centro

Period of Significance: 1970s **Property Type:** Vacant Farm House and Ancillary Building
Applicable Criteria: N/A
The community is located in the Imperial Valley, approximately 10 miles southwest of El Centro. The construction of a canal system from the Colorado River in 1901 brought water via the Encina Canal (Westside Main Canal) to the area, liberating the productivity of ancient silt deposits and alluvium that comprise the region. Farmers and speculators were soon attracted by the Federal Government's Desert Land Entry program that allowed individuals to file for ownership on 160 acres of desert ground, or 320 acres for married couples. Pioneering settlers to the region lived in simple tents and lean-to's covered with woven tule mats. The typical valley home consisted of a tent house, frame built with a floor, lumber sides three-feet high, and a canvas top with arrow weed built over the canvas. The first "proper" wood frame homes and masonry buildings would not be erected until the middle of the first decade.

B11. Additional Resource Attributes: HP2. Single Family Property: Farm House; HP4. Ancillary Building: Barn

***B12. References:**
Ching, Francis D.K., *A Visual Dictionary of Architecture*, John Wiley & Sons, Inc., 1995
Imperial County Historical Society, 1956-1958. *The Valley Imperial, Book I and Book II*. Published by Imperial Valley Pioneers. Revised and Reprinted, June 1991
Howe, Edgar F. and Wilbur Jay Hall, *The Story of the First Decade In Imperial Valley, California*. Edgar F. Howe and Sons, 1910. Reprinted by Imperial County Historical Society, December 1998.
Nuffer, David, *Saga of Imperial Valley*. Self-published. 1990

B13. Remarks: None

***B14. Evaluator:**
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***Date of Evaluation:** 4/24/2012

(This space reserved for official comments.)



***Recorded by:** Brent D. Johnson ***Date:** 4/24/2012 ☒ Continuation ☐ Update

Integrity Statement

In regard to the seven aspects of integrity of location, design, setting, materials, workmanship, feel and association, the building has retained its original location. The building's setting, feel and association appear to have remained intact since its construction. In addition, its original materials, and workmanship have remained largely intact. The integrity level of the property is good and the condition of the building is fair.

National Register of Historic Places Eligibility Evaluation

The property was assessed under the National Register Criterion A for its potential significance as part of an historic trend that may have made a significant contribution to the broad patterns of history. The subject property cannot be said to represent a significant historic trend or event. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion A.**

The property was considered under Criterion B for its association with the lives of persons significant in our past. No information was discovered that would indicate an association with the lives of persons significant in the past.**Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion B.**

The property was evaluated under Criterion C for embodying the distinctive characteristics of a type, period, or method of Modern construction, or representing the work of a master, or possessing high artistic values, or representing a significant and distinguishable entity whose components lack individual distinction. The building does not represent a significant and distinguishable entity whose components may lack individual distinction. The building does not serve as a significant example of the style to qualify for National Register status. The building does not include significant artistic values and does not represent the work of a master architect or craftsman. No builders or architects associated with the construction of the building could be identified.The building retains its basic integrity in terms of mass and form. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion C.**

The property was considered for Criterion D for the potential to yield, or may be likely to yield, information important to prehistory or history. In order for buildings, structures and objects to be eligible under this criterion, they need to "be, or must have been, the principal source of information." This is not the case with this property. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion D.**

In summary, the property does not appear to qualify for the NRHP under Criterion A, B, C, and/or D. Therefore, the building is not potentially eligible for the NHPA.

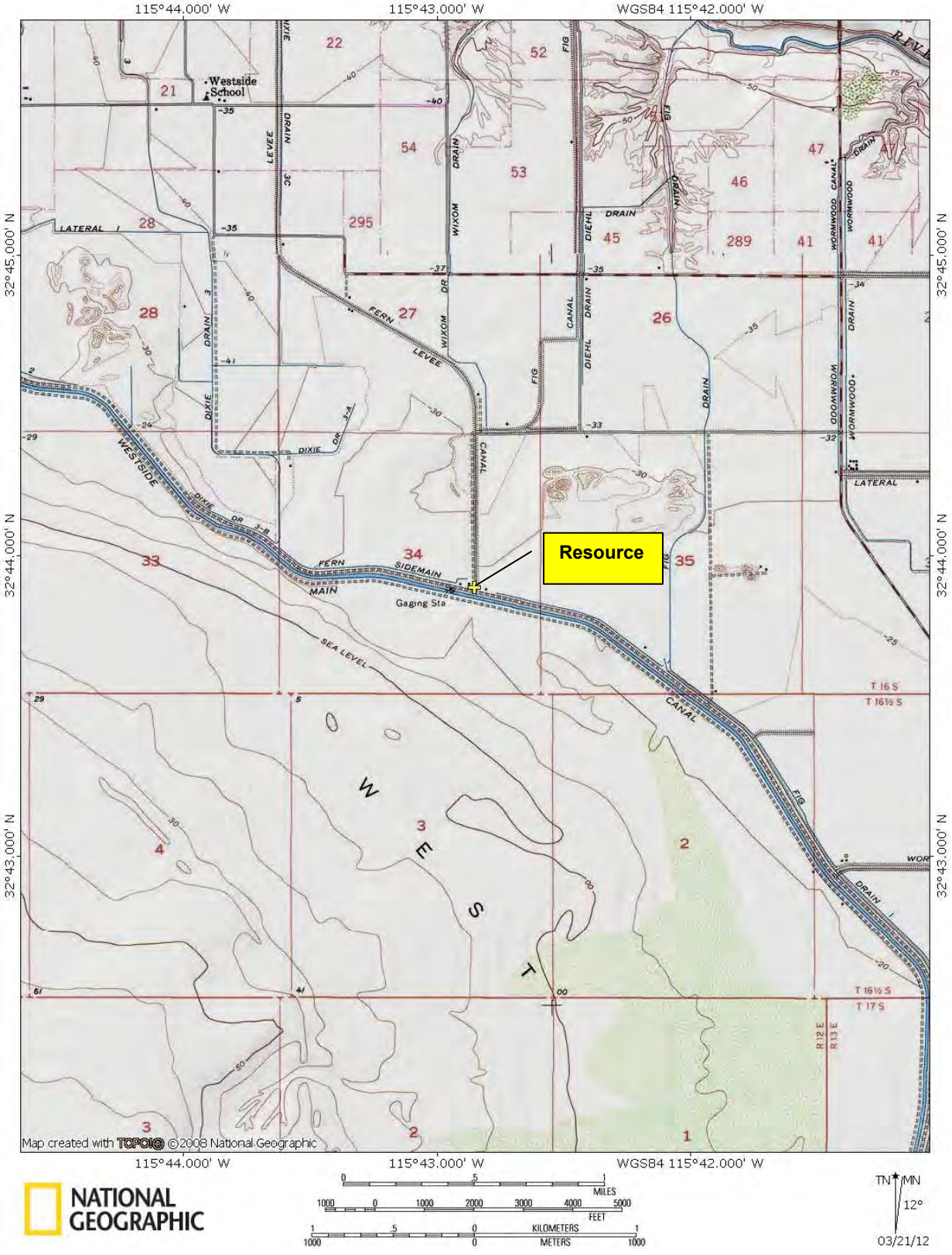
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
P-13-014262
Trinomial

Page 4 of 4 *Resource Name or #: Building 3

***Map Name:** Mount Signal Quadrangle ***Scale:** 1:24,000 ***Date of Map:** 1990



DPR 523J (1/95)

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary # P-13-013567
HRI # _____
Trinomial _____

Page 1 of 1
Recorded by: Joel Lennen
☐ Continuation ■Update

***Resource Name or #** P-13-013567
Date: April 21, 2017

***P3a. Description:** The shed at Liebert Road and Mandrapa Road, P-13-013567, is was previously recorded and recommended not eligible to the NRHP and the CRHR by ASM. It is still present, although in poor condition.

***P8. Recorded by:** (Name, affiliation, and address)
Joel Lennen
ASM Affiliates, Inc.
2034 Corte del Nogal
Carlsbad, CA 92011

***P10. Survey Type: (Describe):**
Intensive Pedestrian

***P11. Report Citation:**
Castells, Shelby and Joel Lennen
2017 *Cultural Resource Inventory for the Vega SES LLC Solar Project, Imperial County, California*. Submitted to Vega SES LLC

UPDATE

P-13-013567

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Page 1 of 1 ***Resource Name or # (Assigned by recorder)** Liebert Road Shed
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

***P2. Location:** ☒ Not for Publication ☐ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad** Mount Signal **Date** 1957 **T** 16S **R** 12E; **¼ of** **1/4** **of Sec** 34;S.B. **B.M.**
c. Address Unknown Number Liebert Road City Imperial Zip 92243
d. UTM: (give more than one for large and/or linear resources) Zone 11S, mE/ 620529.40 mN; 3622237.27
e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) APN: 051-350-017-000

***P3a. Description:** The building on the south corner of Liebert Road and Westside Main Canal was constructed as a shed ca. 1940. The vernacular building is one-and-one-half stories located on the south side of Liebert Road. The shed is wood framed and rectangular in plan with a concrete foundation. The exterior is clad in vertical wood board siding. The roof is a front gable low-pitched roof with wide eaves. There is one entryway on the north elevation. A chain link fence surrounds the building. No other features could be seen from the road at the time of the survey.

***P3b. Resource Attributes:** HP4. Ancillary Building
P5a. Photograph or Drawing:



P5b. Description of Photo:
View looking south at Liebert Road Shed
Photo taken November 2, 2011.

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
Circa 1940, visual observation

***P8. Recorded By:**
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** November 2011
***P10. Survey Type:** Intensive

P11. Report Citation:
INVENTORY, EVALUATION, AND ANALYSIS OF IMPACTS ON HISTORIC RESOURCES ON PRIVATE LANDS WITHIN THE AREA OF POTENTIAL EFFECT OF THE CAMPO VERDE SOLAR PROJECT, IMPERIAL COUNTY, CALIFORNIA, ASM Affiliates, November 2011.

***B10. Significance: Theme:** Agricultural Property **Area:** Imperial Valley

Period of Significance: N/A **Property Type:** Ancillary Shed **Applicable Criteria:** N/A
ASM previously recommended that the Leibert Road Shed was not eligible for listing in the NRHP and the CRHR. We concur with our previous recommendation, and the shed is recommended not eligible for listing in the NRHP or CRHR. Specifically, under Criterion A/1, research failed to tie the shed to events that have made a significant contribution to the broad patterns of local or regional history, or to the cultural heritage of California or the U.S., including agricultural complexes in Imperial Valley. Under Criterion B/2, research failed to link the building with the lives of persons important to local, California, or national history. Under Criterion C/3, the building does not embody significant characteristics of a type, period, region, or method of construction; nor does it represent the work of a master, or possess high artistic values that would qualify it for listing. Finally, because this resource is a common property type it does not have the potential to provide information about history or prehistory that is not available through historic research. Therefore, the 1596 Fisher Road was not evaluated for the NRHP or the CRHR under Criterion D/4.
.

UPDATE

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-13-013567
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

*Resource Name or # IID-051-350-017

P1. Other Identifier: _

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Imperial County
and
***b. USGS 7.5' Quad** Mount Signal **Date** 1976 **T**16_;S **R**; 12E ¼ **of Sec** 34_; SB **B.M.**
c. Address City Zip
d. UTM: Zone 11 620564 mE/ 3622055mN
e. Other Locational Data: APN: 051-350-017
This resource is north of Mandrapa Road and east of Liebert Road.

***P3a. Description:**

A one and a half story shed with a gabled roof is situated on this .8 acre parcel. The garage has a rectangular plan and is roofed and sided in corrugated metal. The south façade has a large opening for farm equipment on the west side. A rectangular vent is centered on the south parapet. Access to this residence was limited to the public right-of-way. The parcel has tall shrubs surrounding the garage and a mature palm tree on the east side.

***P3b. Resource Attributes:** (List attributes and codes) HP 4. Ancillary Building
***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) View facing northeast; T.M.: photo # DSCN 8770; 07/20/2011

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1930s/ visual inspection

***P7. Owner and Address:**
IID

***P8. Recorded by:** (Name, affiliation, address)
AECOM
1420 Kettner Blvd., Suite 500
San Diego, CA 92101

***P9. Date Recorded:** 07/20/2011

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** *BUILT ENVIRONMENT SURVEY REPORT ADDENDUM TO THE CULTURAL RESOURCES INVESITGATIONS CLASS III REPORT FOR THE IID DIXIELAND 230 kV TRANSMISSION LINE AND SUBSTATION EXPANSION PROJECT, IMPERIAL COUNTIES, CALIFORNIA*, AECOM 2012

***Attachments:** NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (list) _____

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary # P-13-013567
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z
*Resource Name or # IID-051-350-017

B1. Historic Name: Unknown
B2. Common Name: Unknown
B3. Original Use: Agricultural B4. Present Use: Vacant
*B5. Architectural Style: Vernacular
*B6. Construction History:
*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: ____ Original Location: ____
*B8. Related Features: ____

B9. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme Area
Period of Significance 1930s Property Type Shed Applicable Criteria N/A

Built in the 1920s-50s, this property appears to have been associated with a now demolished residential structure and the general agricultural development in the desert area of Imperial Valley. Imperial Valley was established at the turn of the 20th Century when the canals and railroads were built, facilitating urban growth and the expansion of the region's agricultural economy. Although the property played a general role in a steady period of rural development in the area, it is not known to be directly associated with events that have made a significant contribution to local, state or national history; therefore, it does not appear to be eligible under NRHP Criterion A or CRHR Criterion 1. The property does not appear to have any associations with important historic persons; consequently, the property does not appear to be eligible under NRHP Criterion B or CRHR Criterion 2. The property is a shed, a popular and ubiquitous style to meet the agricultural needs of farmers, and is not a distinctive example of a type period, or method of construction, and does not exhibit high artistic values or the work of a master architect. The property does not appear to be significant under NRHP Criterion C or CRHR Criterion 3. In does not, nor is likely to, yield important information relating to history or prehistory under NRHP Criterion D or CRHR Criterion 4.

Overall, the property lacks significance and integrity, and it does not appear eligible for the NRHP or CRHR

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: McAlester, Virginia and Lee McAlester. *A Field Guide to American Houses*. Alfred A. Knopf, 2002.

B13. Remarks:

*B14. Evaluator: Jill Gibson and M.K. Meiser, AECOM

*Date of Evaluation: 7/20/2011

(This space reserved for official comments.)



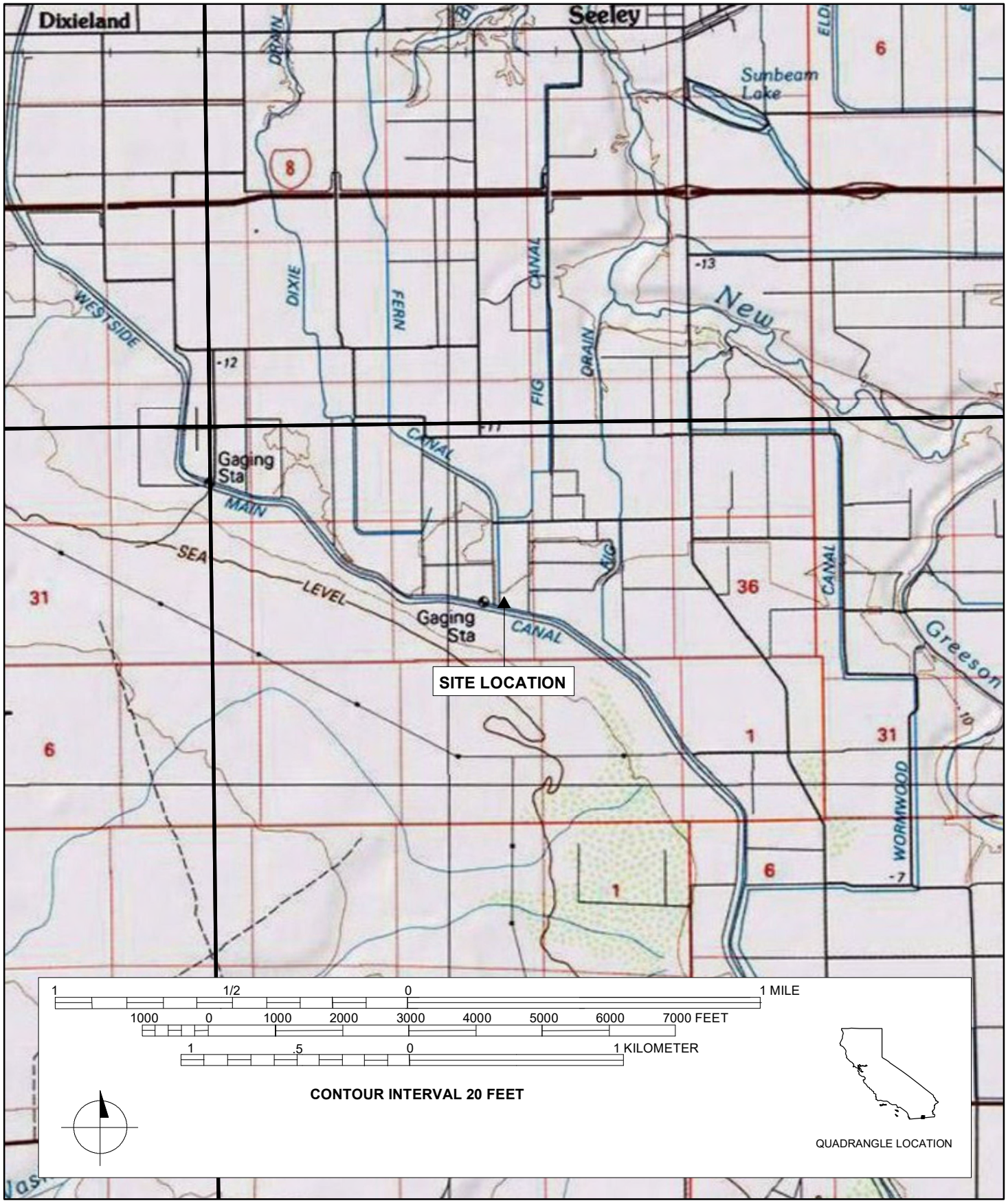
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # ~~P-13-013567~~ UPDATE
HRI #
Trinomial

* Resource Name or # (Assigned by recorder) IID-051-350-017

* Map Name: USGS 7.5' TOPO QUAD MOUNT SIGNAL * Scale: 1:24,000 * Date of Map: 1976



*Required Information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

P-13-013567

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

Page 1 of 2 ***Resource Name or #:** Building 4
P1. Other Identifier:
***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**
***a. County:** Imperial **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Mount Signal **Date** 1957 **T** 16S **R** 12E; **¼ of** **1/4** **of Sec** 34;S.B. **B.M.**
c. Address Unknown Number Liebert Road City Imperial Zip 92243
d. UTM: (give more than one for large and/or linear resources) Zone 11S, mE/ 620529.40 mN; 3622237.27
e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.) APN: 051-350-017-000

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The building on the south corner of Liebert Road and Westside Main Canal was constructed as a shed ca. 1940. The vernacular building is one-and-one-half stories located on the south side of Liebert Road. The shed is wood framed and rectangular in plan with a concrete foundation. The exterior is clad in vertical wood board siding. The roof is a front gable low-pitched roof with wide eaves. There is one entryway on the north elevation. A chain link fence surrounds the building. No other features could be seen from the road at the time of the survey.

(continued on page)

***P3b. Resource Attributes:** (List attributes and codes) HP4. Ancillary Building
***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)
P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession#)
View looking south at the north elevation;
Picture taken March 22, 2011

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
Circa 1940, visual observation

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

***P8. Recorded by:** (Name, affiliation, and address)
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
2034 Corte Del Nogal
Carlsbad, CA 92011

***P9. Date Recorded:** March 2011

***P10. Survey Type:** (Describe) Reconnaissance

***P11. Report Citation:** (cite survey report and sources, or enter "none.") Inventory, Evaluation, and Analysis of Effect on Historic Built Environment Properties within the Area of Potential Effect of the Imperial Solar Energy Center West, Imperial County, California

***Attachments:** ☐ NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #
HRI #

***NRHP Status Code** 6Z
***Resource Name or #** (Assigned by recorder) Building 4

B1. Historic Name: N/A
B2. Common Name: N/A
B3. Original Use: Shed
B4. Present Use: Shed
***B5. Architectural Style:** None
***B6. Construction History:** **(Construction date, alterations, and date of alterations)** Unknown

***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A
***B8. Related Features:** None
B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance: Theme** Agricultural Property **Area:** Imperial, CA

Period of Significance: 1940-1950 **Property Type:** Shed-Agricultural **Applicable Criteria:** None

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Building 4 was constructed as a shed building in circa 1940. It is a vernacular building, void of stylistic elements, and the architect is unknown. No historically significant people or events could be found in association with the property. Although Building 4 has retained integrity, the subject property is recommended not eligible for listing in the National Register of Historic Places as it fails to meet criteria A, B, C or D. It is also recommended not eligible for the California Register of Historic Resources as it fails to meet criteria 1, 2, 3 or 4.

(continued on page)

B11. Additional Resource Attributes: (List attributes and codes) None

***B12. References:** None

B13. Remarks: None

***B14. Evaluator:** Jennifer Krintz, Architectural Historian

***Date of Evaluation:** March 2011

(This space is reserved for official comments)

Sketch Map with north arrow required.



Map courtesy of Google Earth. Red outline indicates the subject property.

Map Reference Number: 7

P1. Other Identifier: 2094 West Wixom Road, El Centro, Imperial County, California. 92243.
e. Other Locational Data: Assessor Parcel Number (APN): 051-330-024-000

*P3a. Description: The subject property, sited at 2094 West Wixom Road, comprises two single-story residences, an ancillary building, and several shade structures. The first single-family residence is a single-story residence with a rectangular plan built in the Minimal Traditional architectural style. The side-gable roof, which features exposed rafter tails, is clad in composite roofing. The building is of brick construction that is clad in stucco, has double-hung windows with multi-pane glazing, louvered attic vents, and a pent roof over the center window on the main (west) elevation. The second single-family residence on the property is a single-story residence with an irregular plan that is clad in stucco. The roof has a medium-pitched, cross-gabled roof that has vented peaks. The second residence has a combination of aluminum-framed and vinyl-framed sliding-sashed windows. This property was originally recorded in 2012 by Chambers Group and there does not appear to be any changes to the resource since its original recordation (Photograph 1; Photograph 2).

*P3b. Resource Attributes: HP3. Multi Family Property; HP4. Ancillary Building

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

The property was previously evaluated in 2012 by Chambers Group and recommended as not eligible for listing in the NRHP or the CRHR. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that the property that encompasses APN 051-330-024 was likely constructed in ca. 1945 (Johnson 2012c: 1–3).

Chambers Group Historian Brent Johnson determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction, and did not appear to represent the work of a master, or possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Johnson found that the property did not appear eligible under Criterion 3/C. Johnson also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under Criterion 4/D. Johnson documented that the property had retained its integrity of location, feeling, association, materials, and workmanship.

On April 11, 2023, Dudek revisited the residential property at 2094 West Wixom Road and did not observe any noticeable alterations since the last recordation in 2012. Dudek concurs with the previous finding that the residence does not meet any of the criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject residence is not a historical resource for the purposes of CEQA. Dudek has assigned the subject residence a 6Z California Historical Resource status code.

*B14. Evaluator: EJ (Erin) Jones, MA, Dudek. 1810 13th Street, Suite 110, Sacramento, CA. 95811.

*Date of Evaluation: August 15, 2023.

Photograph(s):

Photograph 1. Overview of the first single-family residence located at 2094 West Wixom Road, view looking east. Photograph taken on April 11, 2023.



Photograph 2. The main (south) elevation of the second single-family residence located on the property, view looking north. Photograph taken on April 11, 2023.



References

Johnson, B.D. 2012c. "DPR form set for the Multiple Residence Compound at Liebert & Wixom Road." Chambers Group, Inc.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-014265
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

Page 1 **of** 4 ***Resource Name or #:** Building 6

P1. Other Identifier: Multiple residence compound at Libert & Wixom Road

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Imperial
and
***b. USGS 7.5' Quad:** Mount Signal **Date:** 1981 **T** 5S;**R** 13W; **¼ of ¼ of Sec** 1; San Bernardino B.M.
c. Address: 2094 W. Wixom Road City: El Centro Zip: 92243
d. UTM: NAD83 Zone: 11N; 620546 mE/ 3623535 mN (G.P.S.)
e. Other Locational Data: Parcel # 051-330-024-000, Elevation: 0 ft.

***P3a. Description:** The resource consists of two single-story residences, an ancillary building, and some shade structures. The first building is a single-story residence with a rectangular plan built in a Minimal Traditional style with a side-gable roof with composite roofing, exposed rafter tails, brick construction with stucco cladding, double hung windows with multi-pane glazing, louvered attic vents, and a canopy roof extension over the primary window. The second residence on the property is a single-story residence with an irregular plan, built in an English Cottage style and constructed with river rocks clad in a rough daubed stucco. The roof has a medium-pitch and is cross-gabled with vented peaks, and the fenestration appears to be modern aluminum or vinyl replacement sliding sash windows.

***P3b. Resource Attributes:** HP3. Multiple Family Property

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo:
View looking northwest toward the residences from the opposite side of the canal.
Photo taken 1/27/2012

***P6. Date Constructed/Age and Sources:**
☒ Historic
☐Prehistoric ☐Both
Date of construction is circa, 1940-50.

***P7. Owner and Address:**
The residences appears to be located on the Ocher Farm.

***P8. Recorded by:** (Name, affiliation, and address)
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***P9. Date Recorded:** 4/24/2012

***P10. Survey Type:** Reconnaissance

***P11. Report Citation:** A Built Environment Survey for the Silverleaf Solar LLC Photovoltaic Solar Project near the city of El Centro, Imperial County, California. March 2012

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☒ Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: Unknown
B2. Common Name: None
B3. Original Use: Residential/Agricultural B4. Present Use: Same
***B5. Architectural Style:** Minimal Traditional and English Cottage style residences

***B6. Construction History:** No history of the buildings was discovered.

***B7. Moved?** ☐**No** ☐**Yes** ☒**Unknown** **Date:** **Original Location:**
***B8. Related Features:** N/A
B9a. Architect: N/A b. Builder: N/A
***B10. Significance: Theme:** Farm Houses and Ancillary Buildings **Area:** Western El Centro

Period of Significance: circa 1940-1950 **Property Type:** Farm Houses and Ancillary Buildings
Applicable Criteria: N/A
The community is located in the Imperial Valley, approximately 10 miles southwest of El Centro. The construction of a canal system from the Colorado River in 1901 brought water via the Encina Canal (Westside Main Canal) to the area, liberating the productivity of ancient silt deposits and alluvium that comprise the region. Farmers and speculators were soon attracted by the Federal Government's Desert Land Entry program that allowed individuals to file for ownership on 160 acres of desert ground, or 320 acres for married couples. Pioneering settlers to the region lived in simple tents and lean-to's covered with woven tule mats. The typical valley home consisted of a tent house, frame built with a floor, lumber sides three-feet high, and a canvas top with arrow weed built over the canvas. The first "proper" wood frame homes and masonry buildings would not be erected until the middle of the first decade.

B11. Additional Resource Attributes: HP2. Single Family Property: Farm Houses; HP4. Ancillary Building: Sheds

***B12. References:**
Ching, Francis D.K., *A Visual Dictionary of Architecture*, John Wiley & Sons, Inc., 1995
Imperial County Historical Society, 1956-1958. *The Valley Imperial, Book I and Book II*. Published by Imperial Valley Pioneers. Revised and Reprinted, June 1991
Howe, Edgar F. and Wilbur Jay Hall, *The Story of the First Decade In Imperial Valley, California*. Edgar F. Howe and Sons, 1910. Reprinted by Imperial County Historical Society, December 1998.
Nuffer, David, *Saga of Imperial Valley*. Self-published. 1990

B13. Remarks: None

***B14. Evaluator:**
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***Date of Evaluation:** 4/24/2012



(This space reserved for official comments.)

***Recorded by:** Brent D. Johnson ***Date:** 4/24/2012 ☒ Continuation ☐ Update

Integrity Statement

In regard to the seven aspects of integrity of location, design, setting, materials, workmanship, feel and association, it is not known if the buildings have retained their original location. The buildings' setting, feel and association appear to have remained intact since their construction. In addition, their original materials, and workmanship have remained intact. The integrity level of the property is good and the condition of the buildings is fair.

National Register of Historic Places Eligibility Evaluation

The property was assessed under the National Register Criterion A for its potential significance as part of an historic trend that may have made a significant contribution to the broad patterns of history. The subject property cannot be said to represent a significant historic trend or event. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion A.**

The property was considered under Criterion B for its association with the lives of persons significant in our past. No information was discovered that would indicate an association with the lives of persons significant in the past.**Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion B.**

The property was evaluated under Criterion C for embodying the distinctive characteristics of a type, period, or method of Modern construction, or representing the work of a master, or possessing high artistic values, or representing a significant and distinguishable entity whose components lack individual distinction. The building does not represent a significant and distinguishable entity whose components may lack individual distinction. The building does not serve as a significant example of the style to qualify for National Register status. The building does not include significant artistic values and does not represent the work of a master architect or craftsman. No builders or architects associated with the construction of the building could be identified.The building retains its basic integrity in terms of mass and form. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion C.**

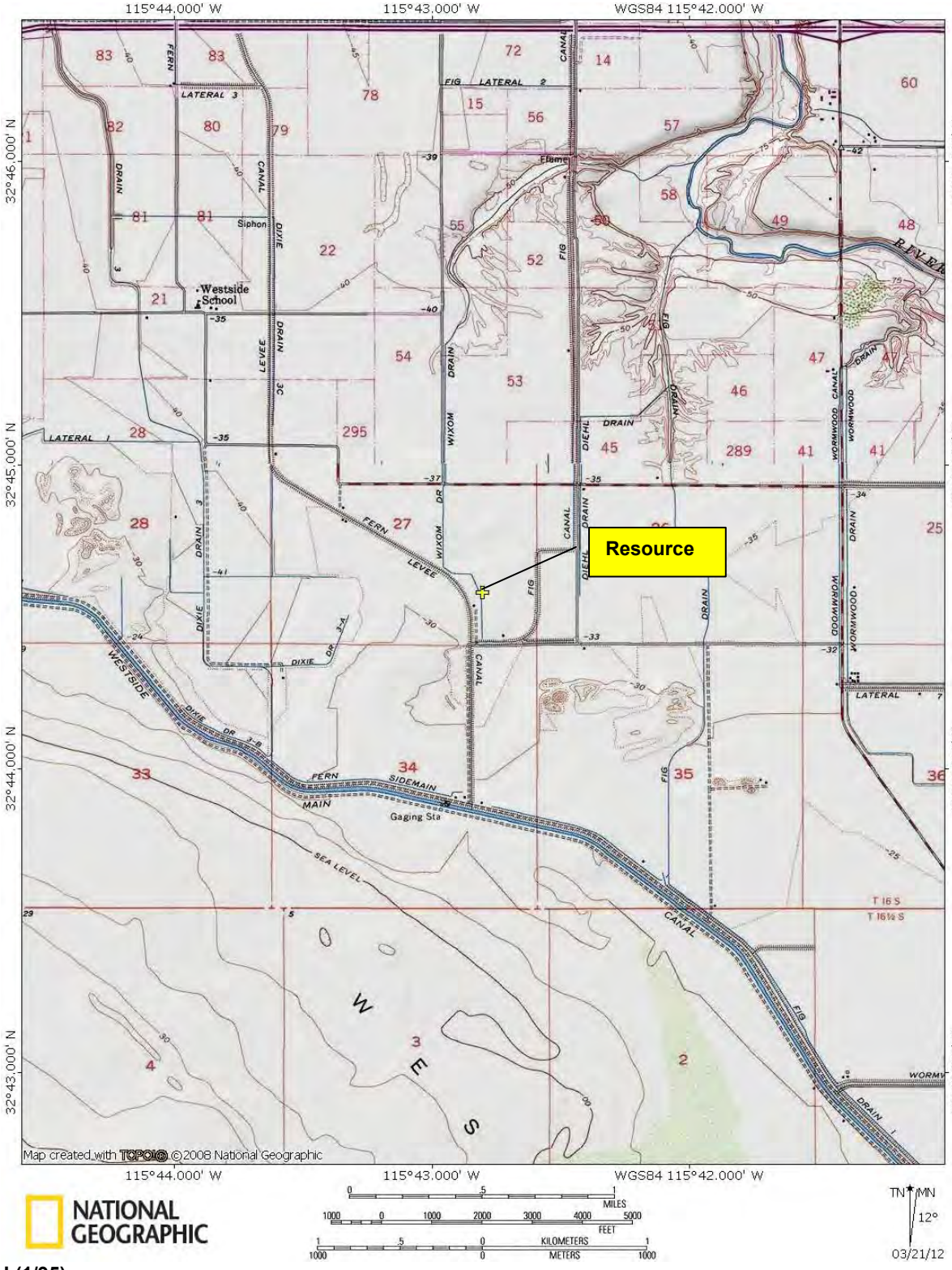
The property was considered for Criterion D for the potential to yield, or may be likely to yield, information important to prehistory or history. In order for buildings, structures and objects to be eligible under this criterion, they need to "be, or must have been, the principal source of information." This is not the case with this property. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion D.**

In summary, the property does not appear to qualify for the NRHP under Criterion A, B, C, and/or D. Therefore, the building is not potentially eligible for the NHPA.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **LOCATION MAP**	Primary # HRI# Trinomial	P-13-014265

Page **4** of **4** *Resource Name or #: Building 6

***Map Name:** Mount Signal Quadrangle ***Scale:** 1:24,000 ***Date of Map:** 1990



DPR 523J (1/95)

*Resource Name or #: Building 7; Black Residence

☐ Continuation X Update

Map Reference Number: 9

P1. Other Identifier: 1905 Wixom Road, El Centro, Imperial County, California. 92243.
e. Other Locational Data: Assessor Parcel Number (APN): 051-360-038-000

*P3a. Description: The subject property, sited at 1905 Wixom Road, consists of a one-story single-family residence with a rectangular plan. The building was designed in the Spanish Colonial architectural style with an arched gallery on the exterior elevations and an interior courtyard with a rectangular pool. The residence also features elements of the French Colonial style including a dual-pitched pavilion roof. The building is constructed from concrete masonry blocks reinforced with steel. A north–south-oriented rectangular building, which appears to be a garage built during the same period as the residence, is located east of the main building. This single-family residence was originally recorded in 2012 by Chambers Group and there does not appear to be any changes to the resource since its original recordation (Photograph 1).

*P3b. Resource Attributes: HP2. Single Family Property; HP4. Ancillary Building

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

The property was previously evaluated in 2012 by Chambers Group and recommended as not eligible for listing in the NRHP or the CRHR. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that the property that encompasses APN 051-360-038 was constructed in ca. 1970 (Johnson 2012a: 1–3).

Chambers Group Historian Brent Johnson determined that the property did not appear to represent a significant historical trend or event and was not likely associated with the lives of persons significant to the community's, state's, or nation's past. As such, the property appeared ineligible for Criteria 1/A and 2/B. The property also appeared to lack the characteristics of a type, period, or method of construction. It did not appear to represent the work of a master, possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Consequently, Johnson found that the property did not appear eligible under Criterion 3/C. Johnson also determined that the property was unlikely to yield information important to prehistory or history and, therefore, was ineligible under Criterion 4/D. Johnson documented that the property had retained its integrity of location, feeling, association, materials, and workmanship.

On April 11, 2023, Dudek revisited the residential property at 1905 Wixom Road and observed no noticeable alterations to the main residence since the last recordation in 2012. A rectangular building, which is complementary and has similar building materials, is located directly east of the main residence. Dudek concurs with the previous finding that the residence does not meet any criteria for listing in the NRHP or CRHR. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject residence is not a historical resource for the purposes of CEQA. Dudek has assigned the subject residence a 6Z California Historical Resource status code.

*B14. Evaluator: EJ (Erin) Jones, MA, Dudek. 1810 13th Street, Suite 110, Sacramento, CA. 95811.

*Date of Evaluation: August 15, 2023.

Photograph(s):

Photograph 1. Overview of the property located at 1905 Wixom Road, view looking northeast. Photograph taken on April 11, 2023.



References

Johnson, B.D. 2012a. "DPR form set for the Black Residence." Chambers Group, Inc.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-014266
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

 ***Resource Name or #:** Building 7

P1. Other Identifier: The Black Residence

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Imperial
and
***b. USGS 7.5' Quad:** Mount Signal **Date:** 1981 **T** 5S;**R** 13W; **¼ of ¼ of Sec** 1; San Bernardino B.M.
c. Address: 1905 Wixom Road City: El Centro Zip: 92243
d. UTM: NAD83 Zone: 11N; 621800 mE/ 3623211 mN (G.P.S.)
e. Other Locational Data: Parcel # 051-360-038-000 Elevation: 0 ft.

***P3a. Description:** The resource is a one-story, single family residence with a rectangular plan located on 1.86 acres. The building was designed in the Spanish Colonial style with an arched gallery on the exterior and an interior courtyard, but has elements of the French Colonial style such as the dual-pitched pavilion roof. The manner of construction includes manufactured concrete blocks reinforced with steel.

***P3b. Resource Attributes:** HP2. Single Family Property.

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo:
View looking south toward the north elevation of the building.
Photo taken 1/27/2012

***P6. Date Constructed/Age and Sources:**
☒ Historic
☐Prehistoric ☐Both
Date of construction is circa 1970.

***P7. Owner and Address:**
The property is located on the Childers Farm.

***P8. Recorded by:**
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***P9. Date Recorded:** 4/24/2012

***P10. Survey Type:** Reconnaissance

***P11. Report Citation:** A Built Environment Survey for the Silverleaf Solar LLC Photovoltaic Solar Project near the city of El Centro, Imperial County, California. March 2012

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☒ Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: Unknown
B2. Common Name: The Black Residence
B3. Original Use: Residential/Agricultural B4. Present Use: Same
***B5. Architectural Style:** Spanish Colonial

***B6. Construction History:** No history of the building was discovered.

***B7. Moved?** ☐**No** ☐**Yes** ☒**Unknown** **Date:** **Original Location:**
***B8. Related Features:** N/A
B9a. Architect: N/A b. Builder: N/A
***B10. Significance: Theme:** Farm House **Area:** Western El Centro

Period of Significance: circa 1970 **Property Type:** Farm House
Applicable Criteria: N/A
The community is located in the Imperial Valley, approximately 10 miles southwest of El Centro. The construction of a canal system from the Colorado River in 1901 brought water via the Encina Canal (Westside Main Canal) to the area, liberating the productivity of ancient silt deposits and alluvium that comprise the region. Farmers and speculators were soon attracted by the Federal Government's Desert Land Entry program that allowed individuals to file for ownership on 160 acres of desert ground, or 320 acres for married couples. Pioneering settlers to the region lived in simple tents and lean-to's covered with woven tule mats. The typical valley home consisted of a tent house, frame built with a floor, lumber sides three-feet high, and a canvas top with arrow weed built over the canvas. The first "proper" wood frame homes and masonry buildings would not be erected until the middle of the first decade.

B11. Additional Resource Attributes: HP2. Single Family Property: Farm House; HP4. Ancillary Building: Mobile home and shed structure

***B12. References:**
Ching, Francis D.K., *A Visual Dictionary of Architecture*, John Wiley & Sons, Inc., 1995
Imperial County Historical Society, 1956-1958. *The Valley Imperial, Book I and Book II*. Published by Imperial Valley Pioneers. Revised and Reprinted, June 1991
Howe, Edgar F. and Wilbur Jay Hall, *The Story of the First Decade In Imperial Valley, California*. Edgar F. Howe and Sons, 1910. Reprinted by Imperial County Historical Society, December 1998.
Nuffer, David, *Saga of Imperial Valley*. Self-published. 1990

B13. Remarks: None

***B14. Evaluator:**
Brent D. Johnson
Chambers Group, Inc.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

***Date of Evaluation:** 4/24/2012

(This space reserved for official comments.)



*Recorded by: Brent D. Johnson *Date: 4/24/2012 ☒ Continuation ☐ Update

Integrity Statement

In regard to the seven aspects of integrity of location, design, setting, materials, workmanship, feel and association, the building has retained its original location. The building's setting, feel and association appear to have remained intact since its construction. In addition, its original materials, and workmanship have remained intact. The integrity level of the property is good and the condition of the building is good.

National Register of Historic Places Eligibility Evaluation

The property was assessed under the National Register Criterion A for its potential significance as part of an historic trend that may have made a significant contribution to the broad patterns of history. The subject property cannot be said to represent a significant historic trend or event. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion A.**

The property was considered under Criterion B for its association with the lives of persons significant in our past. No information was discovered that would indicate an association with the lives of persons significant in the past.**Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion B.**

The property was evaluated under Criterion C for embodying the distinctive characteristics of a type, period, or method of Modern construction, or representing the work of a master, or possessing high artistic values, or representing a significant and distinguishable entity whose components lack individual distinction. The building does not represent a significant and distinguishable entity whose components may lack individual distinction. The building does not serve as a significant example of the style to qualify for National Register status. The building does not include significant artistic values and does not represent the work of a master architect or craftsman. No builders or architects associated with the construction of the building could be identified.The building retains its basic integrity in terms of mass and form. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion C.**

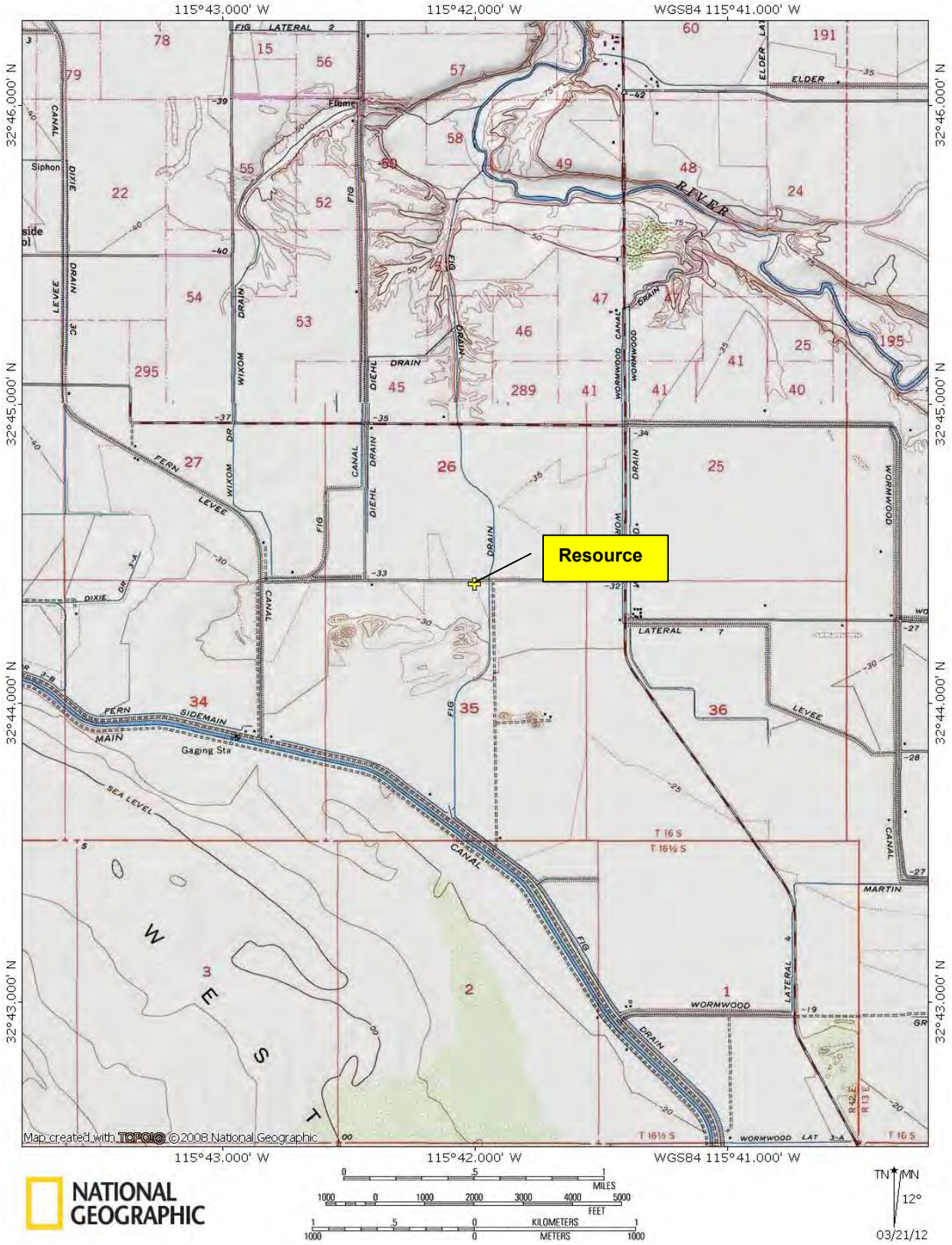
The property was considered for Criterion D for the potential to yield, or may be likely to yield, information important to prehistory or history. In order for buildings, structures and objects to be eligible under this criterion, they need to "be, or must have been, the principal source of information." This is not the case with this property. **Therefore, the property does not appear to qualify for the National Register of Historic Places (NRHP) under Criterion D.**

In summary, the property does not appear to qualify for the NRHP under Criterion A, B, C, and/or D. Therefore, the building is not potentially eligible for the NHPA.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **LOCATION MAP**	Primary # HRI# Trinomial	P-13-014266

Page **4** of **4** *Resource Name or #: Building 7

***Map Name:** Mount Signal Quadrangle ***Scale:** 1:24,000 ***Date of Map:** 1990



DPR 523J (1/95)

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
UPDATE SHEET

Primary # P-13-014975
HRI #
Trinomial
NRHP Status Code(s) 6Z

*Resource Name or #: Wixom Drain

☐ Continuation X Update

Map Reference Number: 10

P1. Other Identifier: N/A
e. Other Locational Data: North Datum: 11s, 620432.36 mE / 3625778.57 mN; Central Datum: 11s, 620289.97 mE / 3624767.05 mN; South Datum: 11s, 620529.20 mE / 3623256.37 mN

*P3a. Description: The Wixom Drain is an earthen-dug irrigation drainage ditch located east of the Westside Main Canal and flows north to the New River from the Fig Canal at Liebert Road and West Wixom Road. The 2-mile drainage ditch is approximately 10–20 feet wide and about 10–15 feet deep. Concrete weirs are located intermittently along the drain to control water flow. Wixom Drain was originally recorded in 2011 by ASM and there does not appear to be any changes to the resource since its original recordation (Photograph 1).

*P3b. Resource Attributes: HP20. Canal/Aquaduct

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

Wixom Drain was previously evaluated in 2011 by ASM and recommended as not eligible for listing in the NRHP or the CRHR. The property was assigned a status code of 6Z: found ineligible for the NRHP, CRHR, or local designation through survey evaluation. The previous recordation noted that Wixom Drain was constructed between 1922 and 1949 and assigned a construction date of ca. 1940 (Krintz 2011b: 1).

ASM Architectural Historian Jennifer Krintz determined that the Wixom Drain was a late, and modest, example of irrigation systems in Imperial Valley, California. The drain does not appear to be a significant representation of a significant historical trend or event and was recommended ineligible for Criteria 1/A. Krintz did not evaluate Wixom Drain for significance under Criteria 2/B, 3/C, or 4/D (Krintz 2011b: 1–3).

On April 11, 2023, Dudek revisited Wixom Drain and observed no noticeable alterations since the last recordation in 2011. Dudek concurs with the previous finding that the drain appears ineligible for Criteria 1/A. However, the drain is unlikely to be associated with the lives of persons significant to the community's, state's, or nation's past. As such, the drain appears ineligible for Criterion 2/B. The property also lacks the characteristics of a type, period, or construction method and does not appear to represent the work of a master, possess high artistic value, or represent a significant or distinguishable entity whose components lack individual distinction. Accordingly, the property does not appear eligible under Criterion 3/C. Wixom Drain is unlikely to yield information important to prehistory or history and, therefore, is recommended ineligible under Criterion 4/D. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code (Krintz 2011b: 1–3).

*B14. Evaluator: EJ (Erin) Jones, MA, Dudek. 1810 13th Street, Suite 110, Sacramento, CA. 95811.

*Date of Evaluation: August 15, 2023.

Photograph(s):

Photograph 1. North section of Wixom Drain, view looking south. Photograph taken on April 11, 2023.



References

Krintz, J. 2011b. "DPR 523 Form set for the Wixom Drain." ASM Affiliates, Inc.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-13-014975
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

Page 1 of 3 ***Resource Name or #:** Wixom Drain
P1. Other Identifier:
***P2. Location:** ☒ **Not for Publication** ☐ **Unrestricted**
***a. County:** Imperial **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Seeley **Date** 1957; 1976 **T** 16S **R** 13E; **¼ of** **of Sec** 54; S.B. **B.M.**
c. Address Vaughn and Jessup Roads City El Centro Zip 92243
d. UTM: (give more than one for large and/or linear resources) Zone 11S, 620299.60 mE/ 3624195.84 mN;
e. Other Locational Data: (e.g. parcel#, directions to resource, elevation, etc.)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Wixom Drain is an earthen-dug irrigation drainage ditch constructed after 1922 and before 1949, possibly ca. 1940. It is located east of the Westside Main Canal and flows north to the New River from the Fig Canal at Liebert Road and West Wixcom Road in the Imperial Valley in Imperial County, CA. The two-mile drainage ditch is approximately 10-20 feet wide and about 10-15 feet deep.

(continued on page)

***P3b. Resource Attributes:** (List attributes and codes) HP20. Canal/Aqueduct
***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)
P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession#)
View of Wixom Drain looking south.
Photo taken November 2, 2011.

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1940

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

***P8. Recorded by:** (Name, affiliation, and address)
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
2034 Corte Del Nogal
Carlsbad, CA 92011

***P9. Date Recorded:** November 2011

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** (cite survey report and sources, or enter "none.")
Inventory, Evaluation, and Analysis of Impacts on Historic Resources On Private Lands within the Area of Potential Effect of the Campo Verde Solar Project, Imperial County, California, ASM Affiliates, November 2011.

***Attachments:** ☐ NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

P-13-014975

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #
HRI #

Page 2 of 3

***NRHP Status Code** 6Z
***Resource Name or #** (Assigned by recorder) Wixom Drain

B1. Historic Name: Wixom Drain
B2. Common Name: Wixom Drain
B3. Original Use: Water Conveyance for Irrigation
B4. Present Use: Water Conveyance for Irrigation
***B5. Architectural Style:** None
***B6. Construction History:** **(Construction date, alterations, and date of alterations)**
ca. 1940
***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A
***B8. Related Features:** None
B9a. Architect: None b. Builder: None
***B10. Significance: Theme** Agricultural Water Conveyances **Area:** Imperial Valley
Period of Significance: N/A **Property Type:** Irrigation Canal **Applicable Criteria:** N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Wixom Drain was an early irrigation drain for the agricultural fields of the Imperial Valley. The Wixom Drain was shown on 1949 aerial photos of the region, but was not present among the earliest irrigation systems known to exist by 1909. Drainage ditches were added to the Imperial Valley irrigation systems beginning in the 1920s to alleviate silt and build-up within the agricultural fields. Although the drainage ditch is associated with the early irrigation system of the Imperial Valley, and the important local theme of agricultural development, this particular drain does not convey that theme as well as other similar resources such as the Westside Main and the All-American canals. Therefore, the Diehl Drain is recommended not eligible for the National Register of Historic Places nor the California Register of Historic Resources.

(continued on page)

B11. Additional Resource Attributes: (List attributes and codes) None

***B12. References:** None

B13. Remarks: None

***B14. Evaluator:** Jennifer Krintz

***Date of Evaluation:** November 2011

Sketch Map with north arrow required.

See Location Map on Next Page

(This space is reserved for official comments)

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # _____
HRI # _____
Trinomial _____

Page 3 of 3 ***Resource Name or # (Assigned by recorder)** Wixom Drain
***Map Name:** Location of Wixom Drain ***Scale:** 1:24,000 ***Date of Map:** November 15, 2011



Map Reference Number: 11

P1. Other Identifier: Fig Canal (portion), Fig Heading
e. Other Locational Data: East-west section- Datum A (west): 11s 620468.25 mE / 3623227.73 mN; Datum B (east) 11S 620796.90 mE / 3623236.10 mN. North-south section- Datum C (north): 11s 621096.18 mE / 3624595.66 mN; Datum D (south): 11s 621121.77 mE / 3623786.70 mN.

*P3a. Description: This portion of the Fig Canal is a trapezoidal concrete-lined channel with various widths and depths as it meanders and follows along the boundaries of several agricultural fields along Derrick Road and Wixom Road before terminating at the Westside Main Canal. The Fig Canal spans more than 4 miles and is predominantly 10 feet wide and approximately 6 feet deep. Sections of the canal vary in width as it traces along the boundaries of nearby agricultural fields. The Fig Heading, comprising two concrete-lined winged wall culverts and two metal gate structures, is associated with the canal (Photograph 1).

*P3b. Resource Attributes: HP20: Aqueduct/Canal

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:
Five previous historical studies document the subject portion of the Fig Canal. In the 1983 draft report Lake Cahuilla (East Mesa Segment) Management Plan and Environmental Assessment, BLM recommended that the All-American Canal be found eligible for the NRHP as part of a district under Criteria A and C. BLM communicated with SHPO and addressed comments on boundaries, significance criteria, setting, and national versus local levels of significance. After the comments were addressed, SHPO elected not to comment on the undertaking. BLM presumed SHPO concurrence in accordance with a Programmatic Agreement between the two agencies (BLM 1983; Schaefer and O'Neil 2001: v).

In 2001, IID employed ASM to complete an inventory and evaluation report for the entire All-American Canal system. ASM employees Jerry Schaefer and Collin O'Neill conducted an inventory system composed of 148 miles of main canals, 1,438 miles of laterals, and 1,406 irrigation and drainage ditches. ASM concurred that the entire All-American Canal system (trinomial CA-IMP-7130H), including components under 50 years old, was eligible for the NRHP for its historical and engineering significance. ASM conducted preliminary research for "any future efforts to actually nominate the AAC [All-American Canal] to the National Register of Historical Places, possibly as part of a larger district that would include the Imperial Dam and distilling plant, the Coachella Canal, and all the mains, laterals, and drains throughout the Imperial Valleys" (Schaefer and O'Neil 2001: 1). ASM concluded that the All-American Canal is eligible for the NRHP, CRHR, and local level as a historic district under Criteria A and C because of its association with a major federal public works project, IID, and Imperial Valley. ASM recommended that although "all of the elements of the canal evaluated here [are] significant contributing elements of a district, even if they are less than 50 years old, additional research is required to determine if all the elements are contributory prior to any NR nomination submittals" (Schaefer and O'Neil 2001: 71).

In 2009, URS evaluated (but did not survey) a portion of the Fig Canal, a component of the All-American Canal irrigation system. URS documented that the subject portion of the 4-mile-long Fig Canal, constructed in ca. 1912 was altered over time through dredging and widening. Date stamps indicate that the concrete on the canal was updated in the mid-1950s. URS concluded that the subject portion of the Fig Canal appeared ineligible for the NRHP due to a lack of significant historical associations and historic integrity. URS stated that the canal was constructed several years after the All-American Canal opened, but substantial

*B10. Significance(continued):

improvements and reconstruction do not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials).

In summary, in 2009, URS recommended that the portion of the Fig Canal near Evan Hewes Highway did not appear to be individually eligible for listing in the NRHP, CRHR, or considered a historical resource for purposes of CEQA. In 2011, ASM Architectural Historian Jennifer Krintz concurred with URS's recommendation that the canal be found ineligible for a lack of historical associations and integrity. In the same year, a subsequent study conducted by Chambers Group also concurred with URS's earlier recommendation (URS 2009a: 1-3; Krintz 2011d: 2; Johnson et al. 2011a: 1, 4).

On April 11, 2023, Dudek revisited the subject portion of the Fig Canal and did not observe any noticeable alterations since the last recordation. Dudek also reviewed all available documentation pertaining to this portion of the Fig Canal and concurs that the aqueduct does not meet any criteria for listing in the NRHP or CRHR. In 1983, BLM recommended that this ancillary canal may be eligible for the NRHP because of its association with the All-American Canal but requested that additional research be conducted to confirm its eligibility. ASM and URS conducted subsequent studies in 2001, 2009, and 2011 and recommended that the canal be found ineligible for recordation due to a lack of integrity. Dudek disagrees that routine maintenance, required to keep the aqueduct operational, disqualifies this portion of the Fig Canal from recordation on the NRHP. This portion of the Fig Canal is an ancillary extension of an extensive water conveyance system designed to irrigate individual, private agricultural ventures. The Fig Canal's mere association with the All-American Canal does not elevate the aqueduct to a level of significance worthy of recordation. This portion of the Fig Canal does not represent any significant historical trends associated with any important persons, architecturally significant, or likely to yield additional information about pre-history or history. As such, this portion of the Fig Canal appears ineligible for the NRHP and CRHR due to a lack of historical significance. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

*B14. Evaluator: EJ (Erin) Jones, MA, Dudek. 1810 13th Street, Suite 110, Sacramento, CA. 95811.

*Date of Evaluation: August 15, 2023.

Photograph(s):

Photograph 1. North section of Fig Canal, view looking south. Photograph taken on April 11, 2023.



References

BLM (Bureau of Land Management). 1983. *Draft Lake Cahuilla (Est) Mesa Segment) Management Plan and Environmental Assessment.*

Johnson, B.D., C. Bodmer, et al. 2011. "DPR Form set for the Fig Canal." Chambers Group, Inc.

Krintz, J. 2011. "DPR Form set for the Fig Canal and Drain Update." ASM Affiliates, Inc.

Schaefer, J., and O'Neil, C. 2001. *The All-American Canal: An Historic Properties Inventory and Evaluation.* Completed by ASM Affiliates for the Imperial Irrigation District (IID). On file at the San Joaquin Valley Information Center

URS Corporation. 2009. "DPR Form set for the portion of Fig Canal."

State of California — The Resources Agency **Primary #** 13-012693 Update
DEPARTMENT OF PARKS AND RECREATION **HRI #**

PRIMARY RECORD

Trinomial
NRHP Status Code

Other Listings
Review Code **Reviewer** **Date**

 ***Resource Name or #:** Portion of Fig Canal

P1. Other Identifier: N/A
***P2. Location:** ☒ **Not for Publication** ☐ **Unrestricted** ***a. County:** Imperial
***b. USGS 7.5' Quad:** Mount Signal **Date:** 2010 **T** 16S; **R** 12E; SE ¼ **of Sec** 27; S.B.B.M.
c. Address: N/A City: N/A Zip: N/A
d. UTM: Zone: 11N; 620471mE/ 3623231mN (G.P.S.) NAD 83
e. Other Locational Data: Elevation: -9 m below sea level

The Fig Canal is located approximately ten miles south west from the town of El Centro. Approximately seven miles west of El Centro along Hwy 8 is the intersection of Drew Road. When traveling west on Hwy 8 towards this intersection, take exit 107 for Drew Road toward Seeley. Merge onto Drew Road heading south bound. Continue along Drew Road for 2.3 miles to reach W Wixom Road. Turn west onto W Wixom Road and continue on this road for 1.4 miles. Find a place to park at the intersection of W Wixom Road and Liebert Road. The Fig Canal is located in the north east corner of this intersection.

***P3a. Description:** Site 13-12693 is a portion of the Fig Canal, (ca. 1912?) that is a concrete-lined channel with various widths and depths as it meanders and follows along the boundaries of several agricultural fields along Derrick Road and Wixom Road within the APE before terminating at the Westside Main Canal. This structure was previously recorded in May of 2009 by USR Corporation. The Fig Canal spans over four miles with its termination points to the north at Fern Canal and to the south at the Westside Main Canal. The chanel is concrete lined with changing widths and depths tracing the boundaries of the nearby agricultural fields. Incorporated in a portion of the canal are two concrete lined winged wall culverts and two metal gate structures. A date stamp of 1954 was embossed on the south end of the concrete foundation. The condition of the site remains similar to the description provided by URS Corp previous site update.

***P3b. Resource Attributes:** HP20 Canal/Aqueduct

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☒Other (Isolates, etc.)

P5a. Photo



P5b. Description of Photo: Photo# 113845, Fig Canal, facing east

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Boulevard
Imperial, CA 92251

***P8. Recorded by:**
C.Bodmer, B. Bartram, B. Johnson
T. Murphy, S. Wintergerst
Chambers Group Inc.,
5 Hutton Centre Drive, Ste. 750,
Santa Ana, CA 92707

***P9. Date Recorded:** 11/19/2011

***P10. Survey Type:**
Pedestrian survey (15 meter transect intervals)

***P11. Report Citation:** A Class III Cultural Resources Inventory For The Agile Energy, Inc. Silverleaf Photovoltaic Solar Project Near The City Of El Centro Imperial County, California

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**

***Resource Name or #** (Assigned by recorder) Fig Canal

B1. Historic Name: Fig Canal
B2. Common Name: Fig Canal
B3. Original Use: Irrigation Ditch
B4. Present Use: Irrigation Ditch

***B5. Architectural Style:** N/A

***B6. Construction History:** The construction date of Fig Canal is unknown at present;however, the canal is shown on maps as early as 1912. In the 1912 A.G. Thurston Irrigation District and Road Map, the Fig Canal follows the same general alignment as it does today. Review of the 1940 Brawley 15-minute USGS quadrangle map, 1949 USDA Aerial Photograph Collection, the 1957 Brawley and Seeley 7.5-Minute USGS quadrangle maps and the September 18, 1996 Imperial Irrigation District Southwest Division Map show that the general course of the canal has remained consistent for most of its history.

***B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** N/A **Original Location:** N/A

***B8. Related Features:** None

B9a. Architect: N/A
b. Builder: Imperial Irrigation District

***B10. Significance: Theme:** N/A **Area:** West El Centro, Imperial County
Period of Significance: N/A **Property Type:** Irrigation Ditch **Applicable Criteria:** N/A

In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).

B11. Additional Resource Attributes: (List attributes and codes) N/A

***B12. References:**
See Continuation Sheet 523L (Page 6)

B13. Remarks:

(Sketch Map with north arrow required.)

See Continuation Sheet 523L (Page 5)

***B14. Evaluator:** Jeremy Hollins

***Date of Evaluation:** 5/19/2009

(This space reserved for official comments.)

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999). The extension of the Westside Canal into the United States in approximately 1906 was intended to alleviate irrigation problems and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the Dixieland area of Imperial County. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the Dixieland area of Imperial County was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

By 1907, the Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigaci_n y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley. The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

The Fig Canal, as a whole, is associated with the Westside Main Canal system and reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. Based on an earlier assessment prepared by the Bureau of Reclamation and Office of Historic Preservation, the All-American Canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in Imperial County west of the New River. By extension, the Westside Main Canal and the Fig Canal (which is a related feature to the larger Westside Main Canal and All-American Canal), appears to be NRHP- and CRHR-eligible. It does not appear to be associated with the lives of significant people or likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR.

Overall, the Fig Canal as a whole does not appear to retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire drain has not occurred. The portion of Fig Canal at the crossing of Evan Hewes Highway also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). Based upon historical documentation, regular dredging and widening of canals and drains were necessary and often performed to alleviate problems of silt and build-up. There are numerous improvements from outside of the period of significance, 1941 to 1950, evidenced by the date stamped culverts. Due to these and other improvements over time, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance. Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear All-American or Westside Main Canal systems or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA.

In summary, the portion of the Fig Canal does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed Solar Farm within the APE of the existing Fig Canal would not create a new adverse effect or significant impact to the portion of the historic period property.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

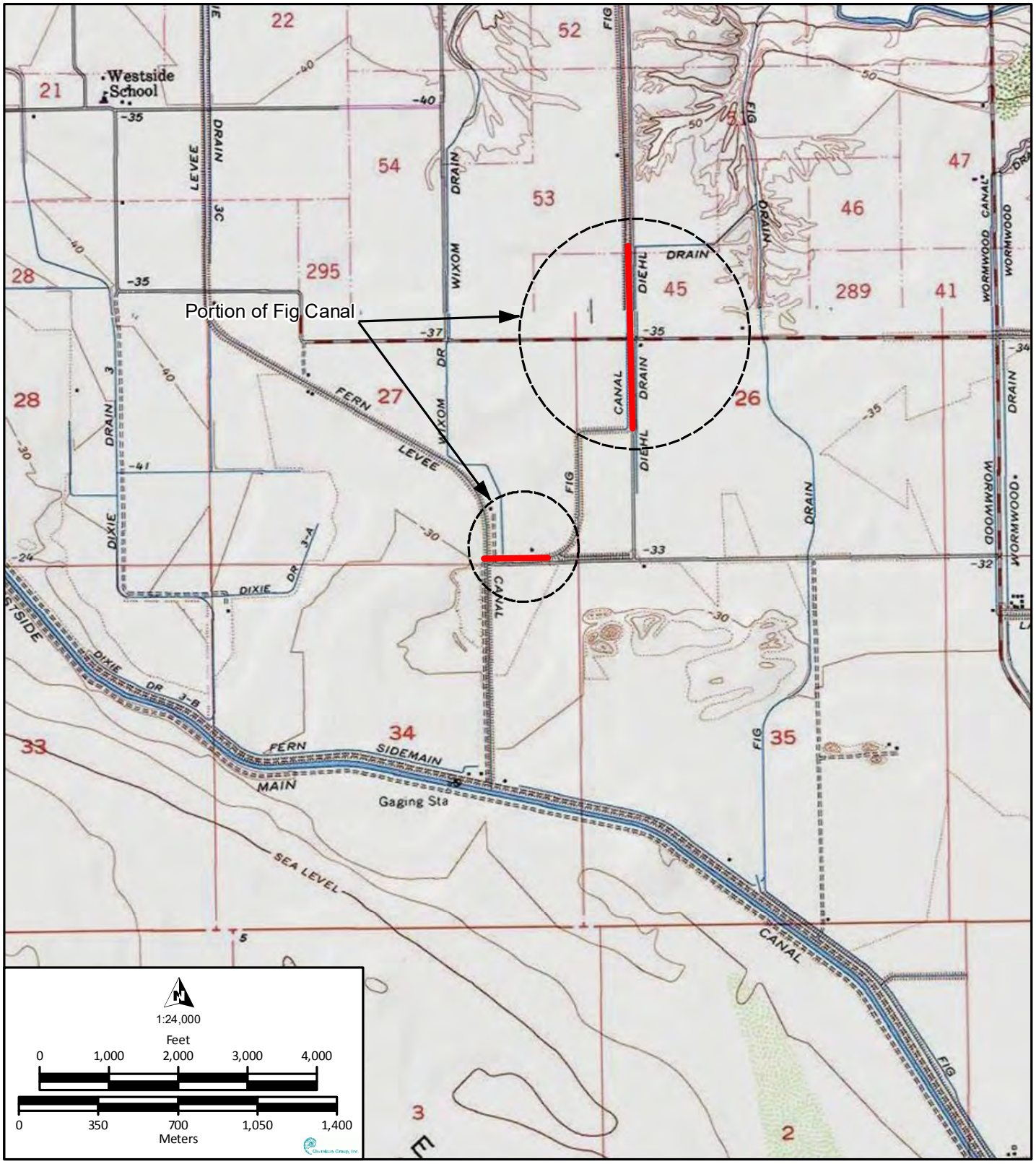
Primary # 13-12693
HRI#
Trinomial

***Resource Name or #:** Portion of Fig Canal

***Map Name:** Mount Signal

***Scale:** 1:24,000

***Date of Map:** 2010



B12. References

A.G. Thurston. 1912. Irrigation District and Road Map – Imperial Valley.

Albert G. Thurston. 1914. Imperial Valley Tract Map.

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USGS. 1908. El Centro USGS Quadrangle Map.

USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1943, 1957. Painted Gorge 7.5-minute USGS Quadrangle Maps.

USGS. 1940. Plaster City 15-Minute USGS Quadrangle Map.

USGS. 1943, 1944. Plaster City 1 to 62,500 Scale Map.

USGS. 1940. Brawley 15-minute USGS Quadrangle Map.

USGS. 1957. Brawley 7.5-minute USGS Quadrangle Map.

USGS. 1957, 1979. Seeley 7.5- minute USGS Quadrangle Map.

P-33-012693 is an irrigation feature, Fig Canal. In May of 2009, URS recorded a portion of this canal. The site was described as follows:

The portion of Fig Canal near Evan Hewes Highway is a concrete lined channel with varying widths and depths that range from approximately 5 to 15 feet wide , and 3 to 8 feet deep, respectively. The northern portion of the Fig Canal meanders and follows the boundaries of the nearby agricultural fields and unpaved roads adjacent to the canal. The canal appears to be trapezoidal and features concrete and earthen banks with very little vegetation. This portion of the canal also features two concrete winged wall culverts and two metal gate structures to control the flow of water. A 1951 date stamp appears on the wall of one of the culverts. The Fig Canal generally runs perpendicular to and beneath Evan Hewes Highway through a winged wall culvert. A short metal guardrail frames the highway crossing. The portion of Fig Canal south of the highway features a turnout with a wood and metal gate structure. A 1959 date stamp appears on the winged wall of the culvert south of the highway.

During a recent survey conducted by kp environmental (KPE), an additional segment of this canal as well as additional features related to this resource were documented. These consist of Fig Heading and a 1264' segment of Fig Canal and Levee. Fig Heading is situated at the intersection of Liebert Road and Wixom Road. The heading receives water from Fern Check/Canal adjacent to the west. As the water level rises, it is released into the lateral canal (Fig Canal) to the east and flows through several delvery gates (Gate 3) to be used for irrigation of crops located in fields to the north.



IMG_2777 View to West.
Fig Heading

Fig Heading and Fig Canal, as a whole, are associated with the Westside Main Canal system and reflect the development associated with the construction and operation of the All-American Canal between 1941 and 1950.

An assessment prepared by the Bureau of Reclamation and Office of Historic Preservation, found that the All-American Canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in Imperial County west of the New River. According to the BLM website, the All American Canal is eligible for State inclusion on the NRHP. By extension, the Westside Main Canal and the Fig Heading and Canal, both of which appear to retain sufficient historic integrity aspects of location and materials, appear to be NRHP- and CRHR- eligible.

URS Corporation however, entered a NRHP status code of 6Z. Meaning that the resource had been found ineligible for listing in the National Register through an evaluation process other than a determination by the Keeper of the National Register or through a consensus determination of a federal agency and the State Historic Preservation Officer. The reason stated on the site form is as follows:

"Overall, the Fig Canal as a whole does not appear to retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire drain has not occurred. The portion of Fig Canal at the crossing of Evan Hewes Highway also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). Based upon historical documentation, regular dredging and widening of canals and drains were necessary and often performed to alleviate problems of silt and build-up. There are numerous improvements from outside of the period of significance, 1941 to 1950, evidenced by the date stamped culverts. Due to these and other improvements over time, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance. Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear All-American or Westside Main Canal systems or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA".

This resource has not been surveyed in its entirety; however, Shannon Davis (ASM Affiliates, Inc.) did evaluate the segments within the Campo Verde Solar Project APE and recommended the Fig Canal not eligible for the NRHP and CRHR. Although the Fig Canal is associated with the early irrigation system of the Imperial Valley, and the important local theme of agricultural development, it does not convey that theme as well as other similar resources such as the Westside Main and the All-American canals, in part due to their loss of integrity (Davis et al. 2011; Mitchell 2011).

A Sketch map and Location map have been generated reflecting these additions.

Davis, Shannon, Jennifer Krintz, Sarah Stringer-Bowsher, and Sinéad Ní Ghabhláin. 2011. Impacts on Historic Resources on Private Lands, Campo Verde Solar Project, Imperial County, California.

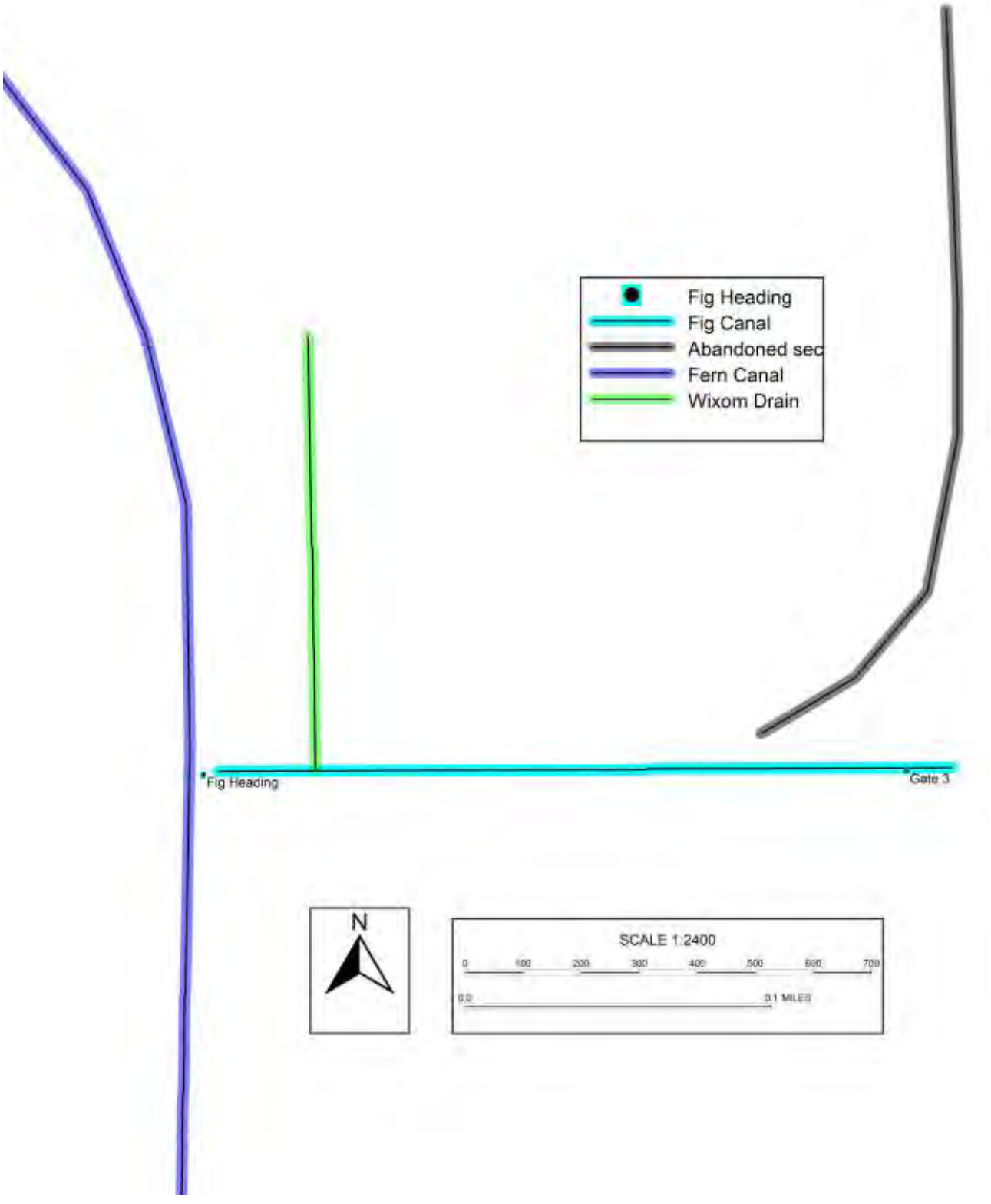
Mitchell, Patricia T. 2011. Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project, Imperial County, California.

State of California — The Resources Agency **Primary #** P-13- 012693 UPDATE
DEPARTMENT OF PARKS AND RECREATION **HRI#**
PHOTOGRAPH RECORD **Trinomial**

Page 3 **of** 5 **Resource Name or #:** Fig Canal (portion), Fig Heading **Year** 2011

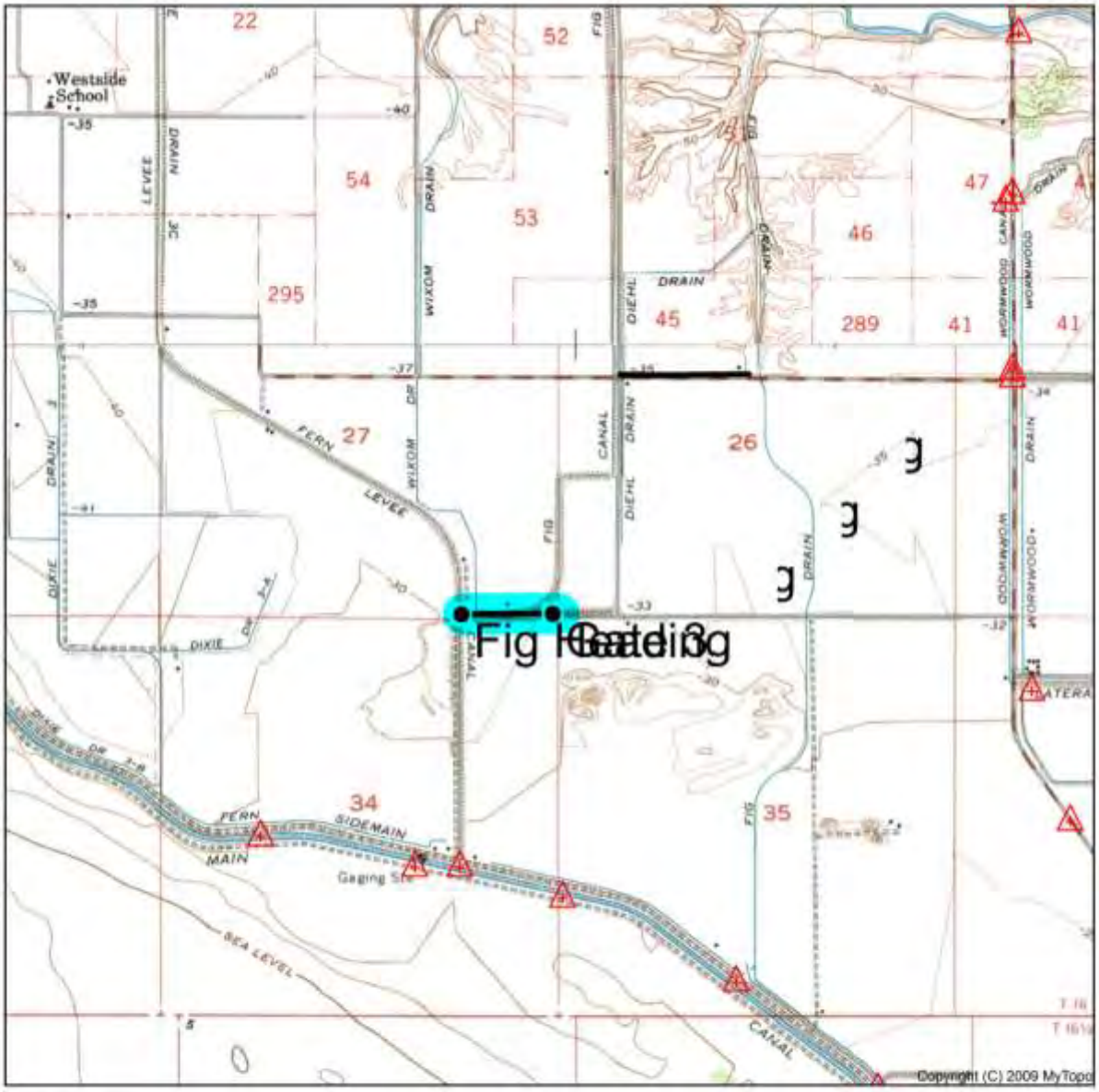
Camera Format: Digital – Canon Powershot SD1300 IS Digital ELPH 12.1 megapixel
Negatives Kept at: kp environmental, LLC. 2387 Montgomery Ave, Cardiff By The Sea, CA 92007

Mo.	Day	Frame	Subject/Description	View Toward	
11	03	2774	Fern check	N	
11	03	2775	1974 date stamp	D/N	
11	03	2776	Fern canal south side of Wixom	D/S	
11	03	2777	Fig Heading	W	
11	03	2778	Bridge to residence	W	
11	03	2779	Bridge to residence north of Wixom	N	
11	03	2780	Wixom drain	NW	
11	03	2781	Irrigation drain north of Wixom	W	
11	03	2782	Irrigation gate	N	
11	03	2783	Modern trash	D	
11	03	2784	Fig Canal looking towards heading	W	
11	03	2785	Concrete pillar WSM 11	NW	
11	03	2786	Siphon	N	
11	03	2787	Turnout 3 on Fig has drop gate		
11	03	2788	Culvert culvert feeds fields from turnout 3	N	
11	03	2789	Turnot at west end of concrete ditc	N	
11	03	2790	Memorial on south side of Diehl	S	
11	03	2791			


Fig Heading
Fig Canal
Abandoned sec
Fern Canal
Wixom Drain
Fig Heading
Gate 3
N
SCALE 1:2400
0
100
200
300
400
500
600
700
0.0
0.1 MILES

State of California — The Resources Agency **Primary #** P-13-012693 update
DEPARTMENT OF PARKS AND RECREATION **HRI#**
LOCATION MAP **Trinomial**
Page 5 **of** 5 ***Resource Name or #:** Fig Canal (portion), Fig Heading

***Map Name:** Mt. Signal, Calif ***Scale:** 1:24,000 ***Date of Map:** 1957



Declination
GN MN
GN 0.69° E
MN 11.94° E

SCALE 1:24000
0 1000 2000 3000 4000 5000
FEET
0 1000
METERS
0 1
MILE

MT SIGNAL, CA
1957

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial P-13-012693 (Fig Canal)
NRHP Status Code: 6Z

Page 1 of 3 ***Resource Name or # (Assigned by recorder)** Fig Canal and Drain
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

P1. Other Identifier:
***P2. Location:** ☒ Not for Publication ☐ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Seeley **Date:** 1957; **T** 16 S; **R** 12 E; **of Sec.** 26; S.B. **B.M**
c. Address: N/A **City:** Imperial **Zip:** N/A
d. UTM: Zone 11S; 621098.38**mE /** 3623261.99**mN**;
***P3a. Description:** The Fig Canal is an irrigation canal constructed circa 1909. It is located east of the Westside Main Canal and flows north from the Fern Canal at Leibert Rd. and West Wixom Rd. to the Fig Spill around Evan Hewes Hwy. (Old Hwy. 80) near Seeley in the Imperial Valley in Imperial County, CA. The canal is approximately 10 feet wide and about 6 feet deep. The canal is lined with concrete. Modifications were added to the canal in the 1970s.

The Fig Canal system also includes drains that remove the salinity from agricultural lands. The Fig Drain is an earthen dug irrigation drainage ditch located between Drew and Derrick roads and flows north to the New River. The drain is approximately 10 ft. wide and about 6 ft. deep. It was originally constructed after 1922 and before 1949, possibly ca. 1940. The entire drain is approximately 4 miles long.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct
P5a. Photograph or Drawing:



P5b. Description of Photo:
View looking north at Fig Canal.
Photo taken November 2, 2011.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Page 2 of 3 ***Resource Name or # (Assigned by recorder)** Fig Canal and Drain
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

P5a. Photograph or Drawing:



P5b. Description of Photo:
View looking south at Fig Drain.
Photo taken November 2, 2011.

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
Fig Canal c. 1909, Fig Drain c. 1940
1909 El Centro 15-minute US Army Corps Topo map
1949 Imperial County Aerials, US Dept of Agriculture
1991 *The Use of Tile Drainage in the Reclamation of the Imperial Valley*. Master's Thesis. University of San Diego.
Date stamps in canal cement indicates modifications in 1970s

***P7. Owner and Address:**
Imperial Irrigation District
333 East Barioni Blvd.
Imperial, CA 92251

***P8. Recorded By:**
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** November 2011
***P10. Survey Type:** Intensive
P11. Report Citation: Inventory, Evaluation, and Analysis of Impacts on Historic Resources On Private Lands within the Area of Potential Effect of the Campo Verde Solar Project, Imperial County, California, ASM Affiliates, November 2011.

***B10. Significance: Theme:** Irrigation Water Conveyance Systems **Area:** Imperial Valley

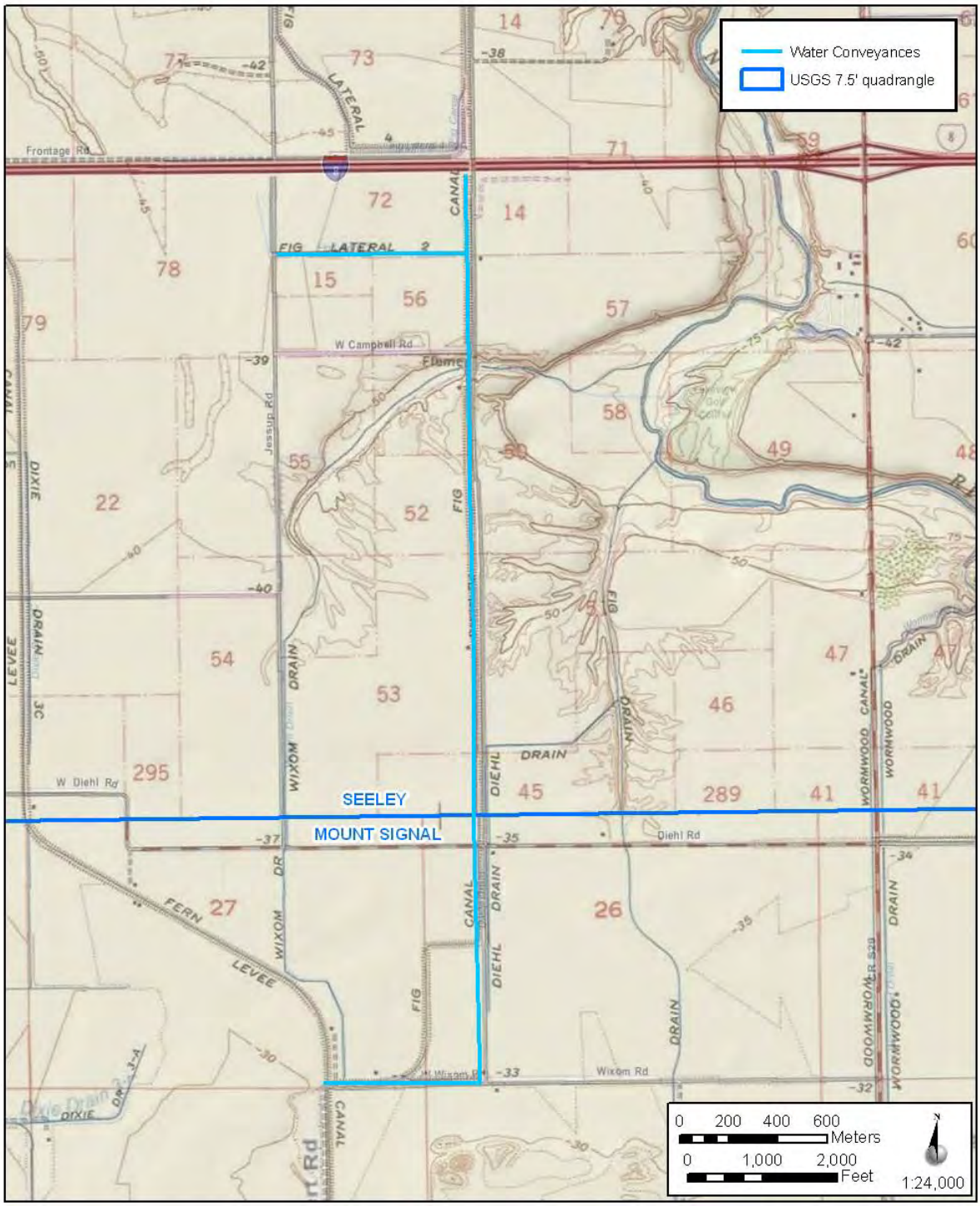
Period of Significance: N/A **Property Type:** Irrigation System **Applicable Criteria:** N/A
Fig Canal was one of the earliest irrigation canals in the Imperial Valley, constructed in 1908 and the associated Fig Drain was constructed ca. 1940. According to a previous evaluation by URS Corporation, the Fig Canal was recommended not eligible for the NRHP or the CRHR for the loss of integrity from regular dredging and widening of the canals and drains over time to alleviate problems of silt and build-up. Although the canal is associated with the early irrigation system of the Imperial Valley, and the important local theme of agricultural development, neither the Fig Canal nor the Fig Drain convey that theme as well as other similar resources such as the Westside Main Canal and the All-American canals—in part due to their loss of integrity. Therefore the Fig Canal is recommended not eligible for the National Register of Historic Places nor the California Register of Historic Resources.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Page 3 of 3 ***Resource Name or # (Assigned by recorder)** Fig Canal and Drain
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

Location Map of the Fig Canal and Fig Drain



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 **of** 8 ***Resource Name or #:** (Assigned by recorder) Portion of Fig Canal

P1. Other Identifier: N/A

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

*** a. County** Imperial **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

*** b. USGS 7.5'** Brawley **Date** 1957 **T** 16S **R** 12E ; ¼ ¼ **of** 11 ; SB **B.M.**

c. Address N/A City N/A Zip N/A

d. UTM: (Give more than one for large and/or linear resources) Zone 11 , 621032 mE/ 3628890 mN

e. Other Locational Data: (e.g., parcel I, directions to resource, elevation, etc., as appropriate)

The portion of the Fig Canal surveyed is a small segment of a larger historic-period linear property that travels generally north to south, perpendicular to Evan Hewes Highway for approximately four miles and is approximately one mile from the townsite of Seeley. The Fig Canal appears to terminate to the north at Fern Canal and to the south at the Westside Main Canal. The canal also possesses two laterals that extend west of the main Fig Canal and are located south of Evan Hewes Highway. The UTMs provided above is the approximate centerpoint of the portion of the canal surveyed.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The portion of Fig Canal near Evan Hewes Highway is a concrete lined channel with varying widths and depths that range from approximately 5 to 15 feet wide , and 3 to 8 feet deep, respectively. The northern portion of the Fig Canal meanders and follows the boundaries of the nearby agricultural fields and unpaved roads adjacent to the canal. The canal appears to be trapezoidal and features concrete and earthen banks with very little vegetation. This portion of the canal also features two concrete winged wall culverts and two metal gate structures to control the flow of water. A 1951 date stamp appears on the wall of one of the culverts. The Fig Canal generally runs perpendicular to and beneath Evan Hewes Highway through a winged wall culvert. A short metal guardrail frames the highway crossing. The portion of Fig Canal south of the highway features a turnout with a wood and metal gate structure. A 1959 date stamp appears on the winged wall of the culvert south of the highway. SEE CONTINUATION SHEET 523L (PAGE 3)

***P3b. Resource Attributes:** (List HP20. Canal/Aqueduct

***P4. Resources Present:** ☐ **Building** ☒ **Structure** ☐ **Object** ☐ **Site** ☐ **District** ☐ **Element of District** ☐ **Other** (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (view, date, accession #)
View of canal north of Evan Hewes Highway looking east, March 2009

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
Approximately 1912 - 1912 A.G.
Thurston Irrigation District & Road Map

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Boulevard
Imperial, CA 92251

***P8. Recorded by:** (name, affiliation, and address)
URS Corporation
1615 Murray Canyon Rd., Suite 1000
San Diego, CA 92108

***P9. Date Recorded:** 05/2009

***P10. Survey Type:** (Describe)
Pedestrian Survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")

Mutaw, Robert J. (Ph.D.), Elizabeth B. Roberts, Gordon C. Tucker Jr., Ph.D., Brian Shaw, Terrie Bagwell, Colin O'Hanlon, Rachael Nixon, Gary Fink, Jeremy Hollins, Mark Neal. 2010 Draft Final Class III Confidential Cultural Resources Technical Report for the Imperial Valley Solar (formerly Solar 2), Imperial Valley County. URS Corporation. Technical report prepared for Tessera Solar (Applicant). Submitted to the Bureau of Land Management – El Centro Field Office, El Centro, CA. Copies available from the Bureau of Land Management – El Centro Field Office, El Centro, CA.

***Attachments:** ☐ NONE ☐ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Are Record ☐ Artifact Record ☐ Photograph Record
☐ Other (List): _____

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BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z

Page 2 of 8 *Resource Name or #: (Assigned by recorder) Portion of Fig Canal

B1. Historic Name: Fig Canal
B2. Common Name: Fig Canal
B3. Original Use: Irrigation Ditch B4. Present Use: Irrigation Ditch
*B5. **Architectural Style:** N/A
*B6. **Construction History:** (Construction date, alterations, and date of alterations)
Actual construction date of the Fig Canal is unknown at present, despite efforts to contact the Imperial Irrigation District for construction date and information. However, the canal is shown on maps as early as 1912. In the 1912 A.G. Thurston Irrigation District and Road Map, the Fig Canal follows the same general alignment as it does today. Review of the 1940 Brawley 15-minute USGS quadrangle map, 1949 USDA Aerial Photograph Collection, the 1957 Brawley and Seeley 7.5-Minute USGS quadrangle maps and the September 18, 1996 Imperial Irrigation District Southwest Division Map show that the general course of the canal has remained consistent for most of its history.
*B7. **Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A
*B6. **Related Features:**
None

B9. Architect: N/A b. Builder: Unknown
*B10. **Significance: Theme** N/A **Area** Seeley, Imperial County
Period of Significance N/A **Property Type** Irrigation Ditch **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).
B11. Additional Resource Attributes: (List attributes and codes) N/A
*B12. **References:**
SEE CONTINUATION SHEET 523L (PAGE 6)

B13. Remarks:
None

(Sketch Map with north arrow required)
SEE CONTINUATION SHEET 523L (PAGE 5)

*B14. **Evaluator:** Jeremy Hollins
***Date of Evaluation:** 05/2009

(This space reserved for official comments)

State of California — The Resources Agency
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Page 3 **of** 8 ***Resource Name or #:** (Assigned by recorder) Portion of Fig Canal
***Recorded by:** URS Corporation ***Date:** 05/2009
☒ Continuation ☐ Update

P3a. Description (Continued)

The Evan Hewes Highway crossing at the Fig Canal shows evidence of chipping, cracking, and spalling due to environmental effects (sun and heat exposure) and travel. Overall, the portion of the Fig Canal that bisects Evan Hewes Highway is in good condition, but has been affected by non-historic period construction and features, including the crossing.

B10. Significance (Continued)

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999). The extension of the Westside Canal into the United States approximately 1906 was intended to alleviate irrigation problems, and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the Dixieland area of Imperial County. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the Dixieland area of Imperial County was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

By 1907, the Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

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***Recorded by:** URS Corporation ***Date:** 05/2009
☒ Continuation ☐ Update

B10. Significance (Continued)

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigación y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley. The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. For example, the Fig Canal features several culverts and other structural improvement s from the 1950s. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

The Fig Canal, as a whole, is associated with the Westside Main Canal system and reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. Based on an earlier assessment prepared by the Bureau of Reclamation and Office of Historic Preservation, the All-American Canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in Imperial County west of the New River. By extension, the Westside Main Canal and the Fig Canal (which is a related feature to the larger Westside Main Canal and All-American Canal), appears to be NRHP- and CRHR- eligible. It does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR.

Overall, the Fig Canal as a whole does not appear to retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire drain has not occurred. The portion of Fig Canal at the crossing of Evan Hewes Highway also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). Based upon historical documentation, regular dredging and widening of canals and drains were necessary and often performed to alleviate problems of silt and build-up. There are numerous improvements from outside of the period of significance, 1941 to 1950, evidenced by the date stamped culverts. Due to these and other improvements over time, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance. Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear All-American or Westside Main Canal systems or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA.

In summary, the portion of the Fig Canal near Evan Hewes Highway does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed water line perpendicular to the existing Fig Canal would not create a new adverse effect or significant impact to the portion of the historic-period property that bisects the Evan Hewes Highway.

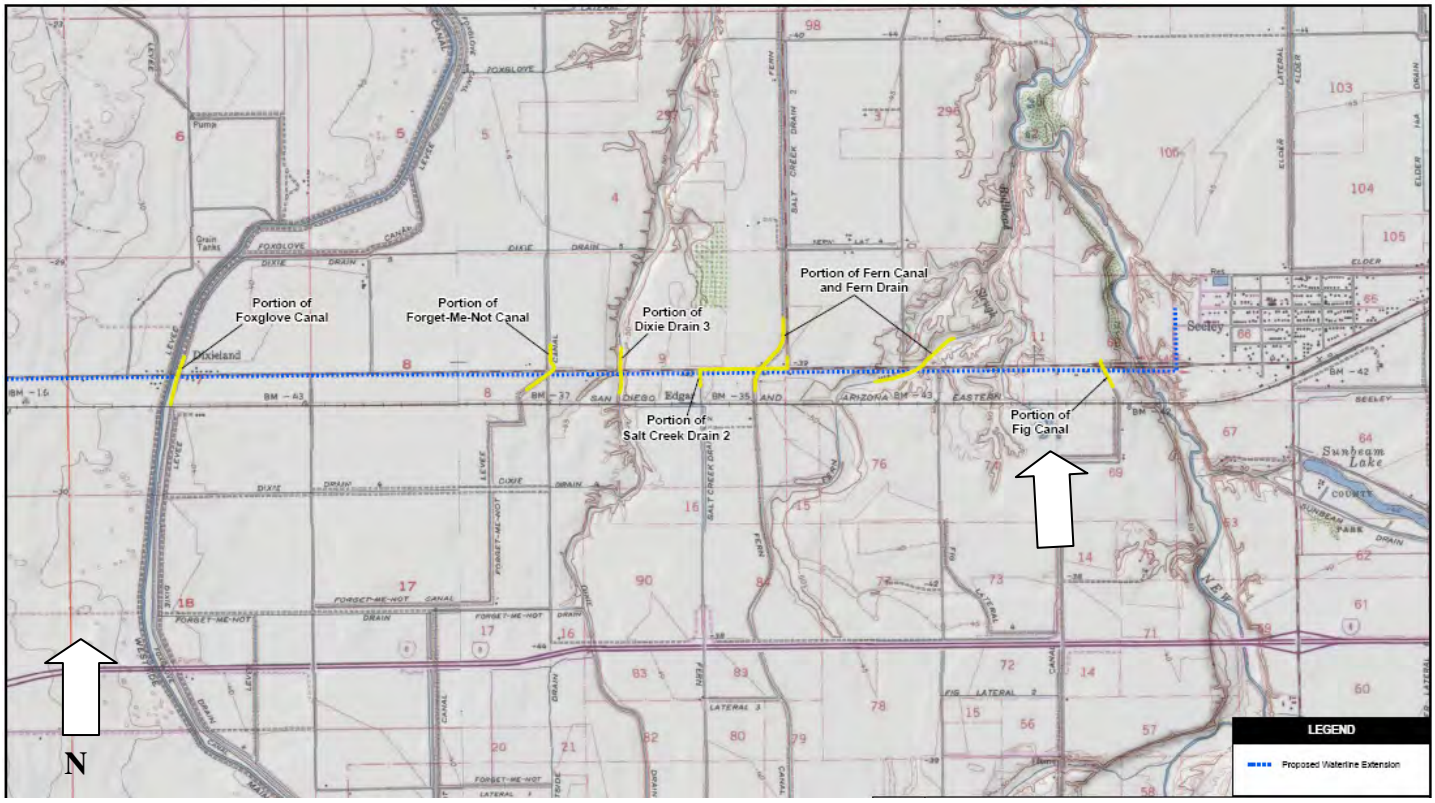
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Sketch Map:

Not to scale



* Required information

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Page 6 **of** 8 ***Resource Name or #:** (Assigned by recorder) Portion of Fig Canal
***Recorded by:** URS Corporation ***Date:** 05/2009
☒ Continuation ☐ Update

B12. References

A.G. Thurston. 1912. Irrigation District and Road Map – Imperial Valley.

Albert G. Thurston. 1914. Imperial Valley Tract Map.

O.V. Blackburn. 1919, 1929, 1936 & 1955 editions. Blackburn's Map of Imperial County, California.

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Hupp, Jill, 1999. CA-IMP-7834 Westside Main Canal. Sacramento: Caltrans Environmental Program

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USGS. 1908. El Centro USGS Quadrangle Map.

USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1943, 1957. Painted Gorge 7.5-minute USGS Quadrangle Maps.

USGS. 1940. Plaster City 15-Minute USGS Quadrangle Map.

USGS. 1943, 1944. Plaster City 1 to 62,500 Scale Map.

USGS. 1940. Brawley 15-minute USGS Quadrangle Map.

USGS. 1957. Brawley 7.5-minute USGS Quadrangle Map.

USGS. 1957, 1979. Seeley 7.5- minute USGS Quadrangle Map.

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***Recorded by:** URS Corporation ***Date:** 05/2009
☒ Continuation ☐ Update

Additional Photos:



View of culverts and gate structures located in portion of canal north of Evan Hewes Highway



View looking south of Evan Hewes Highway

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***Recorded by:** URS Corporation ***Date:** 05/2009
☒ Continuation ☐ Update

Additional Photos:



View of gate structure and turnout in canal south of Evan Hewes Highway

Map Reference Number: 12

P1. Other Identifier: N/A
e. Other Locational Data: 900-foot segment of the northwest-southwest oriented segment directly north of Mandrapa Road. Datum A (north): 11S 620603.22 mE / 3622222.77 mN; Datum B (south): 11S 620862.78 mE / 3622162.48 mN.

*P3a. Description: This portion of the 10-mile-long Fern Canal system is a trapezoidal concrete-lined channel that is approximately 20 feet wide and 10 feet deep. The canal travels beneath Evan Hewes Highway through a concrete-lined winged wall culvert (stamped 1953) while the south portion has a wood and metal control gate constructed across the mouth of the culvert. The canal features a concrete and earthen bank (Photograph 1).

*P3b. Resource Attributes: HP20: Aqueduct/Canal

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

Five previous historical studies document the subject portion of the Fern Canal and Fern Side Main. In the 1983 draft report Lake Cahuilla (Est Mesa Segment) Management Plan and Environmental Assessment, BLM recommended that the All-American Canal be found eligible for the NRHP as part of a district under Criteria A and C. BLM communicated with SHPO and addressed comments on boundaries, significance criteria, setting, and national versus local levels of significance. After the comments were addressed, SHPO elected not to comment on the undertaking. BLM presumed SHPO concurrence in accordance with a Programmatic Agreement between the two agencies (BLM 1983; Schaefer and O'Neil 2001: v).

In 2009, URS reevaluated but did not survey the canal segments and recommended that they be ineligible for the NRHP and CRHR due to a lack of significant historical associations and historic integrity. URS disagreed with the U.S. Bureau of Reclamation (USBR) and OHP's determination that the canal is a contributing element or significant related feature/component to the larger linear All-American Canal. For integrity, URS stated that the canal was originally constructed in ca. 1909, but substantial improvements and reconstruction may have occurred since the 1940s, as evidenced by the date-stamped culverts. Routine dredging and widening of canals and drains were also conducted to alleviate problems of silt and buildup. URS also stated that the Fern Canal crossing at Evan Hewes Highway does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). In summary, In 2009, URS recommended that the portion of the Fern Canal near Evan Hewes Highway did not appear to be individually eligible for listing in the NRHP or CRHR nor considered a historical resource for purposes of CEQA. In 2011, ASM Architectural Historian Jennifer Krintz concurred with URS's recommendation that the canal be ineligible for a lack of historical associations and integrity. In the same year, a subsequent study conducted by Chambers Group also concurred with URS's earlier recommendation (URS 2009b: 1-3; Krintz 2011e: 2; Johnson et al. 2011b: 1, 4).

On April 11, 2023, Dudek revisited this portion of the Fern Canal and did not observe any noticeable alterations since the last recordation in 2011. Dudek also concurs that the aqueduct does not meet any of the criteria for listing in the NRHP or CRHR. In 1983, BLM recommended that this ancillary canal may be eligible for the NRHP because of its association with the All-American Canal. However, it requested that additional research be conducted to confirm its eligibility. URS and ASM conducted subsequent studies in 2009 and 2011 and recommended that the canal be found ineligible for recordation due to a lack of integrity and historical associations. Dudek disagrees that routine maintenance, required to keep the aqueduct operational, disqualifies this portion of the Fern Canal from recordation on the NRHP. This canal, however, is an ancillary extension of an extensive water conveyance system designed to irrigate individual, private agricultural ventures. The Fern Canal's mere association with the All-American Canal does not elevate the aqueduct to a level of significance worthy of recordation. This portion of the Fern Canal and the Fern Side Main does not represent any significant historical trends associated with any

important persons, architecturally significant, or likely to yield additional information about pre-history or history. As such, this portion of the Fern Canal appears ineligible for the NRHP and CRHR due to a lack of historical significance. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

***B14. Evaluator:** EJ (Erin) Jones, MA, Dudek. 1810 13th Street, Suite 110, Sacramento, CA. 95811.

***Date of Evaluation:** August 15, 2023.

Photograph(s):

Photograph 1. North section of Fern Canal, view looking south. Photograph taken on April 11, 2023.



References

BLM (Bureau of Land Management). 1983. *Draft Lake Cahuilla (Est) Mesa Segment) Management Plan and Environmental Assessment.*

URS Corporation. 2009. "DPR Form set for the portion of Fern Canal."

Krintz, J. 2011. "DPR Form set for the Fern Canal and Drain Update." ASM Affiliates, Inc.

Johnson, B.D., C. Bodmer, et al. 2011. "DPR Form set for the Fern Canal." Chambers Group, Inc.

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Primary # P-13-012689
HRI #
Trinomial

***Resource Name or #** Fern Canal and Fern Side Main
Recorded by: Joel Lennon **Date:** April 25, 2017

☐ Continuation ■ Update

P1. **Other Identifier:** Fern Canal and Fern Side Main
***P2.** **Location:** ☐ **Not for Publication** ☒**Unrestricted**
***a. County:** Imperial County
***b.USGS 7.5' Quad** Mount Signal **Date** 1979 **T** 16S; **R** 12E; ¼ **of** ¼ **of Sec** 34 and 35; **B.M.**
c. Address City Zip
d. UTM: Zone 11 S, 613474.85 mE/ 3628580.65 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc. as appropriate)

***P3a.** **Description:**
The Fern Canal was recorded as an irrigation canal, constructed circa 1909, with associated side mains, laterals and drains. It is approximately 10 miles long, 10 feet wide, and about 6 feet deep. It is lined with concrete and underwent modifications in the 1960s. Previously URS, Chambers, and ASM have recommended that portions of the canal were not eligible to the NRHP and the CRHR due to a lack of integrity. During the current survey ASM relocated a portion of the Fern Canal that was previously recorded along the east side of Liebert Road, extending from the southern end of Liebert Road, north for approximately 700 ft. This portion of the canal is in the same condition as the previous recordations. ASM also recorded a section of the Fern Side Main within the Project area, that was not included on the previous site forms, from the eastern side of intersection of Liebert and Mandrapa Road, extending east for approximately 905 ft. It filled with vegetation and approximately 15 feet wide and 10 ft. deep.

***P3b.** **Resource Attributes:** (List attributes and codes) HP. 20 Canal/Aqueduct
***P4.** **Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (view, date, accession #) Camera facing north; Image _3693.
***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
Circa 1909, updates in the 1960s
***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd
Imperial, CA 92251
***P8. Recorded by:**
Joel Lennen
ASM Affiliates, Inc.
2034 Corte del Nogal
Carlsbad, CA 92011
***P10. Survey Type: (Describe):**
Intensive Pedestrian

***P11.** **Report Citation:**
Castells, Shelby and Joel Lennen
2017 *Cultural Resource Inventory for the Vega SES LLC Solar Project, Imperial County, California*. Submitted to Vega SES LLC.

***Attachments:** ☐ NONE ■ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

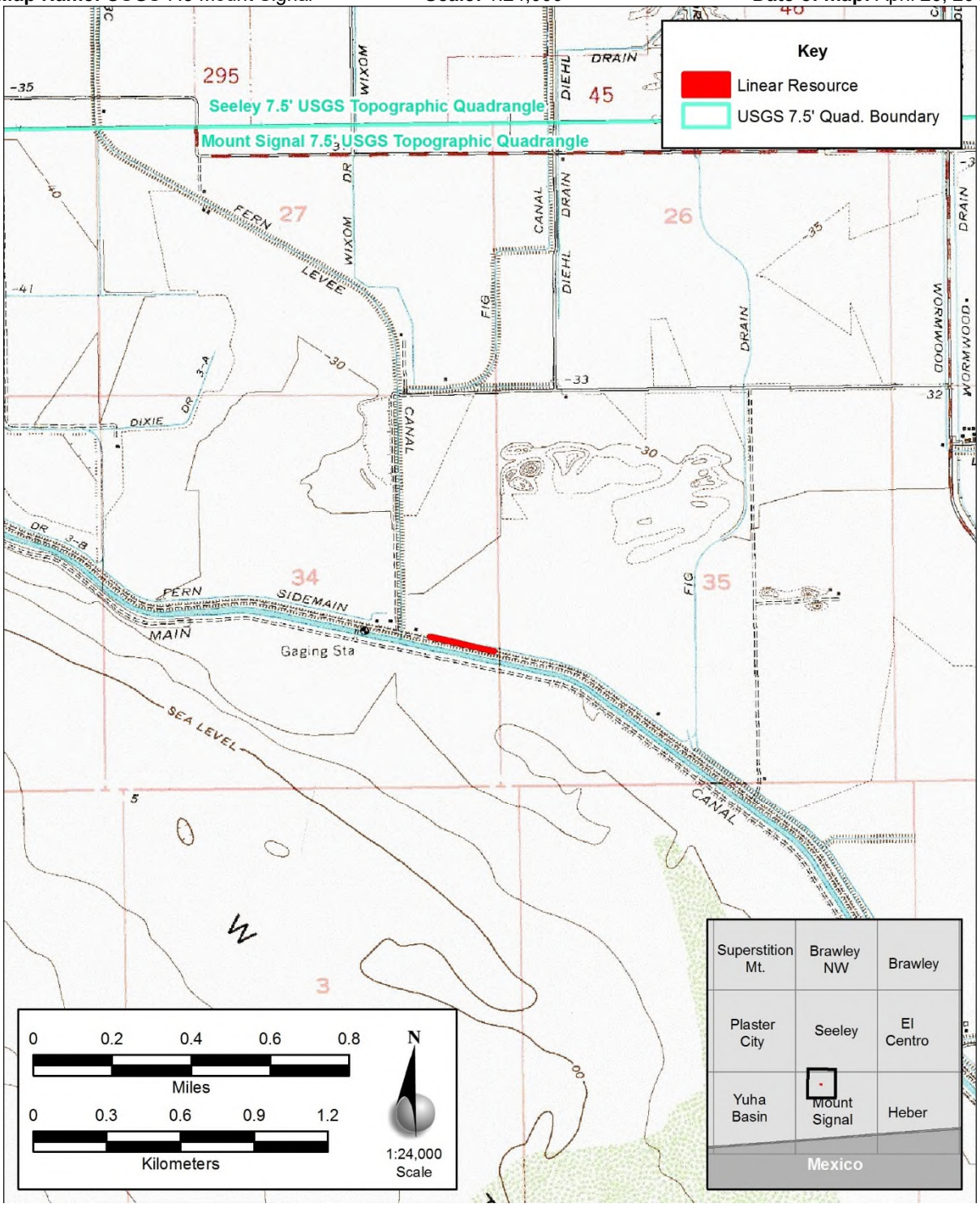
State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary# P-13-012689
HRI#
Trinomial

LOCATION MAP

***Resource Name or #** Fern Canal and Fern Side Main

*** Map Name:** USGS 7.5 Mount Signal ***Scale:** 1:24,000 *** Date of map:** April 26, 2017



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

SKETCH MAP

Primary # P-13-012689
HRI #
Trinomial

***Resource Name or #** Fern Canal and Fern Side Main
*** Drawn by:** Tony Quach, ASM Affiliates, Inc.
***** Date of map: April 26, 2017



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Page 1 of 3 ***Resource Name or # (Assigned by recorder)** Fern Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

P1. Other Identifier:
***P2. Location:** ☒ Not for Publication ☐ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Seeley **Date:** 1957; **T** 16 S; **R** 12 E; **of Sec.** 27; S.B. **B.M**
c. Address: N/A **City:** Imperial **Zip:** N/A
d. UTM: Zone 11S; 620471.52 **mE /** 3623214.57 **mN**;
***P3a. Description:** The Fern Canal is an irrigation canal constructed circa 1909. It is located west of Liebert Road, and flows north from the Westside Main Canal to a point north of the community of Seeley in the Imperial Valley in Imperial County, CA. The canal is approximately 10 feet wide and about 6 feet deep. The canal is lined with concrete. It was originally constructed in 1908 and extended years later. Modifications were made to the canal in the 1960s. The entire canal is approximately 10 miles long.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct
P5a. Photograph or Drawing:



P5b. Description of Photo:
View looking south at Fern Canal.
Photo taken November 2, 2011.

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
Circa 1909
1909 El Centro 15-minute US Army Corps Topo map,

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Page 2 of 3 ***Resource Name or # (Assigned by recorder)** Fern Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

***P8. Recorded By:**
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** November 2011
***P10. Survey Type:** Intensive
P11. Report Citation:
Inventory, Evaluation, and Analysis of Impacts on Historic Resources On Private Lands within the Area of Potential Effect of the Campo Verde Solar Project, Imperial County, California, ASM Affiliates, November 2011.

***B10. Significance: Theme:** Irrigation Water Conveyance Systems **Area:** Imperial Valley

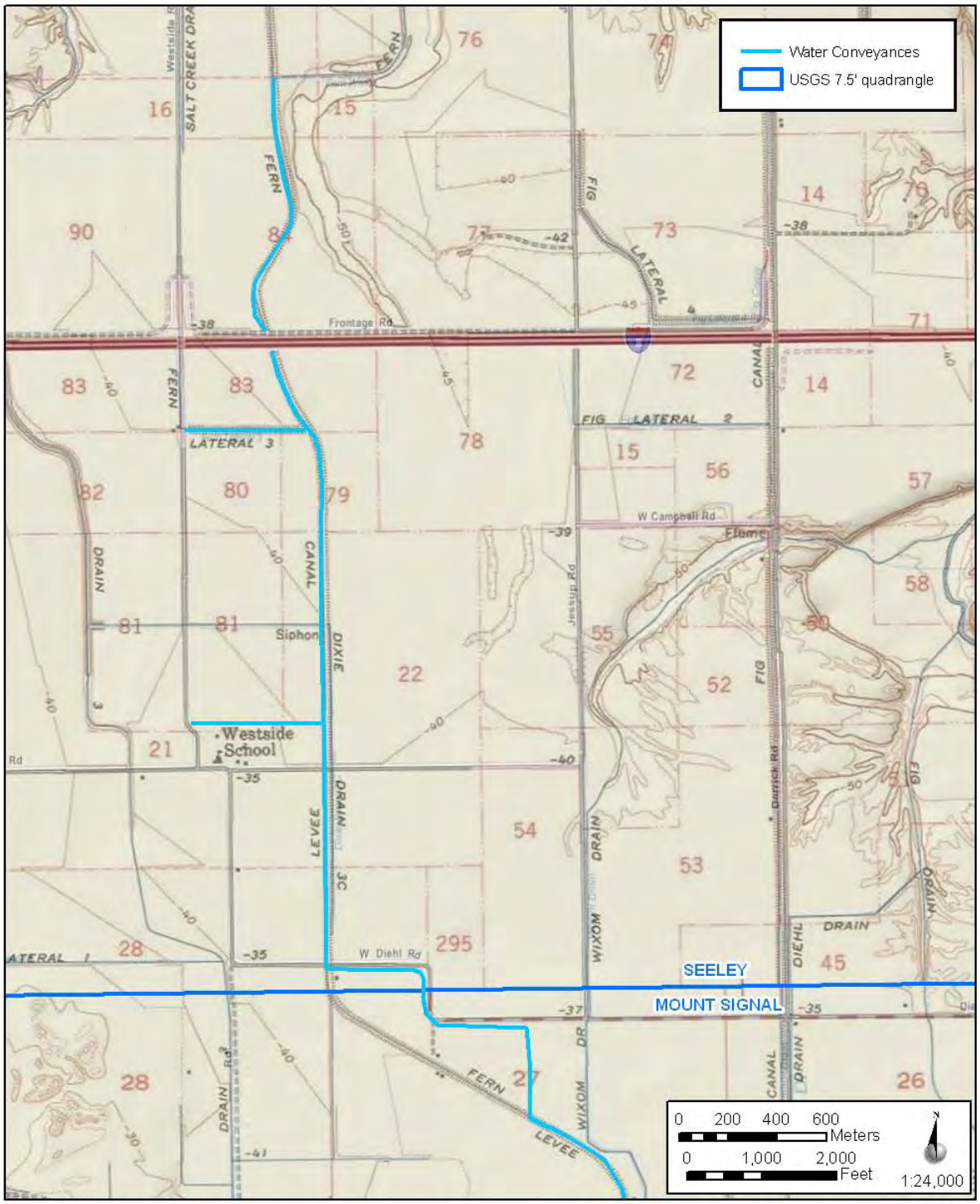
Period of Significance: N/A **Property Type:** Irrigation System **Applicable Criteria:** N/A
The Fern Canal was one of the earliest irrigation canals in the Imperial Valley, constructed in 1909. According to a previous evaluation by URS Corporation, the Fern Canal was recommended not eligible for the NRHP or the CRHR for the loss of integrity from regular dredging and widening of the canals and drains over time to alleviate problems of silt and build-up. Although the canal is associated with the early irrigation system of the Imperial Valley, and the important local theme of agricultural development, this particular canal does not convey that theme as well as other similar resources such as the Westside Main Canal and the All-American canals—in part due to their loss of integrity. Therefore the Fern Canal is recommended not eligible for the National Register of Historic Places nor the California Register of Historic Resources.
.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Page 3 of 3 ***Resource Name or # (Assigned by recorder)** Fern Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

Location Map of the Fern Canal (North)

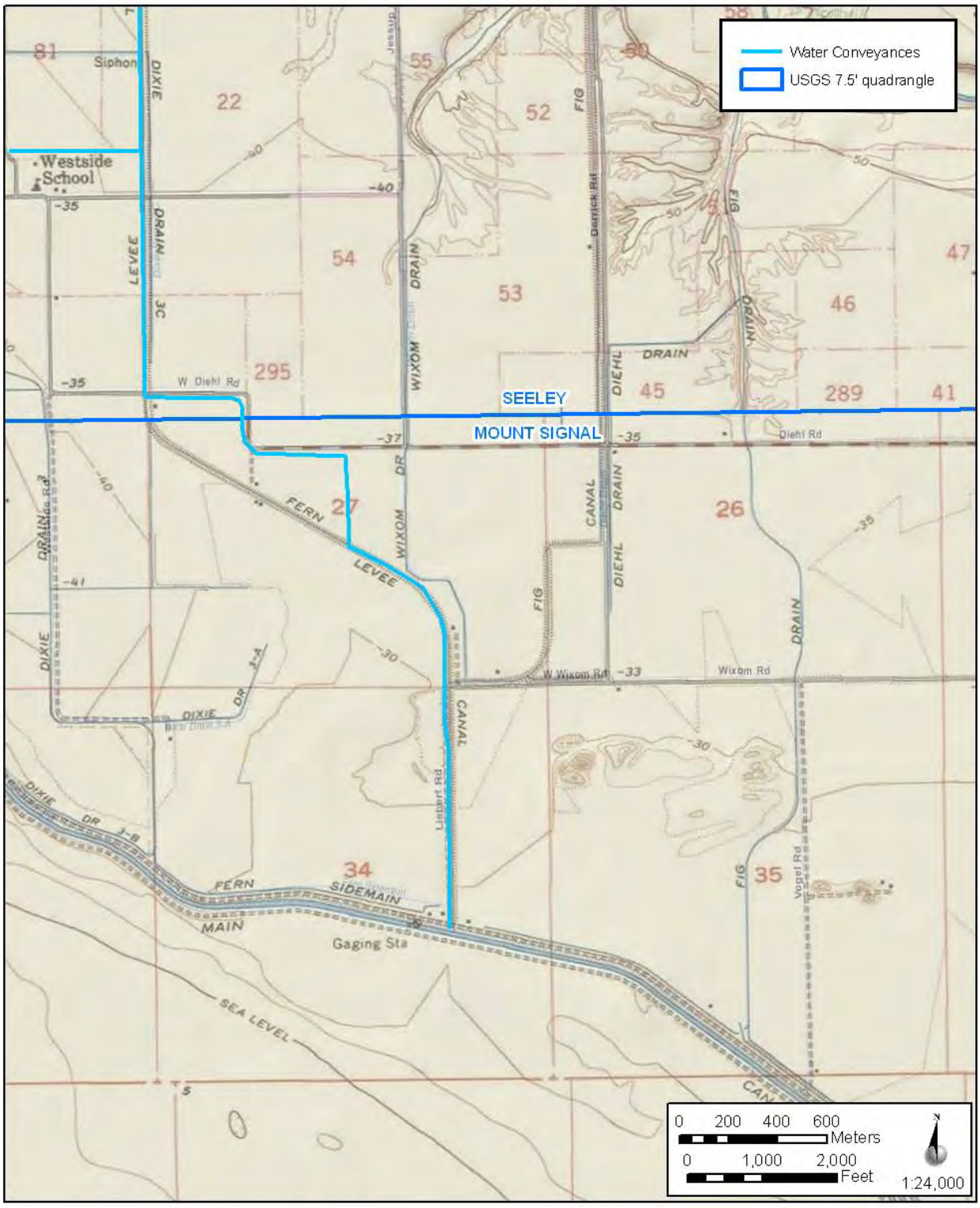


State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Page 3 of 3 ***Resource Name or # (Assigned by recorder)** Fern Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

Location Map of the Fern Canal (South)



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-012689 UPDATE
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code **Reviewer** **Date**

***Resource Name or #:** Portion of Fern Canal and Fern Drain

P1. Other Identifier: N/A

***P2. Location:** ☒ **Not for Publication** ☐ **Unrestricted** ***a. County:** Imperial

***b. USGS 7.5' Quad:** Mount Signal **Date:** 2010 **T** 16S; **R** 12E; SE ¼ **of Sec** 27; S.B.B.M.

c. Address: N/A City: N/A Zip: N/A

d. UTM: Zone: 11N; 620470mE/ 3623225mN (G.P.S.) NAD 83

e. Other Locational Data: Elevation: -9 m below sea level

The Fern Canal is located approximately ten miles south west from the town of El Centro. Approximately seven miles west of El Centro along Hwy 8 is the intersection of Drew Road. When traveling west on Hwy 8 towards this intersection, take exit 107 for Drew Road toward Seeley. Merge onto Drew Road heading south bound. Continue along Drew Road for 2.3 miles to reach W Wixom Road. Turn west onto W Wixom Road and continue on this road for 1.4 miles. Find a place to park at the intersection of W Wixom Road and Liebert Road. The Fern Canal is located in the north east corner of this intersection.

***P3a. Description:** Site 13-12689, represents a portion of the Fern Canal and Drain system, part of the much larger Fern Canal drainage system constructed in the early half of the 1950s. The portion of the canal that passes through the APE is concrete lined and measures approximately ten to twelve feet across. The portion of the Fern Drain surveyed is a small segment of the drain located between Westside Rd. to the west, North Jessup Rd. to the east, and Vaughn Rd. to the north. A portion of Fern Canal and Fern Drain was previously recorded in May of 2009 by URS Corporation. The Canal segment runs North to South within the surveyed project boundary. The condition of the site remains similar to its most recent description by URS.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☒Other (Isolates, etc.)

P5a. Photo



P5b. Description of Photo: Photo # 113254, Fern Canal, facing north east.

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Boulevard
Imperial, CA 92251

***P8. Recorded by:**
C.Bodmer,B.Johnson, B. Bartram, T. Murphy, S. Wintergerst
Chambers Group Inc.,
5 Hutton Centre Drive, Ste. 750,
Santa Ana, CA 92707

***P9. Date Recorded:** 11/19/2011

***P10. Survey Type:**
Pedestrian survey (15 meter transect intervals)

***P11. Report Citation:** A Class III Cultural Resources Inventory For The Agile Energy, Inc. Silverleaf Photovoltaic Solar Project Near The City Of El Centro, Imperial County, California

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**

***Resource Name or #** (Assigned by recorder) Fern Canal and Drain System

B1. Historic Name: Fern Canal and Drain System
B2. Common Name: Fern Canal and Drain System
B3. Original Use: Irrigation Ditch
B4. Present Use: Irrigation Ditch

***B5. Architectural Style:** N/A

***B6. Construction History:** (Construction date, alterations, and date of alterations)

The actual construction date of the Fern Canal and Drain is unknown; however, the Fern Canal appears on maps as early as the 1908 El Centro map. This map shows the canal in the same location and general configuration as today; however, the canal is labeled "Fern Ditch". A review of the 1912 A.G. Thurston Irrigation District and Road Map, the 1940 Brawley 15-minute USGS quadrangle map, the 1949 USDA Aerial Photograph Collection, the 1957 Brawley and Seeley 7.5-minute USGS quadrangle maps, and the September 18, 1996 Imperial Irrigation District Southwest Division Map show that the general course of the drain has remained consistent for most of its history. The outline of the Fern Drain appears on maps as early as 1940 on the 1940 Brawley 15-minute USGS quadrangle map; however the drain is not labeled. In the 1957 Seeley 7.5-minute USGS quadrangle map, the Fern Drain is labeled as "Fern Waste". Thus, from the review of these historic maps, it is difficult to pinpoint an approximate date of construction; however, it can be assumed that a smaller predecessor ditch existed in the general area during the early 20th century (by 1908), and was modified and improved throughout the mid-20th century (evidenced by date stamps from the 1950s to the 1980s) to support the All-American and Westside Main Canal system operations.

***B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** N/A **Original Location:** N/A

***B8. Related Features:** None

B9a. Architect: N/A
b. Builder: Imperial Irrigation District

***B10. Significance: Theme:** N/A **Area:** West El Centro, Imperial County

Period of Significance: N/A **Property Type:** Irrigation Ditch **Applicable Criteria:** N/A

In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).

B11. Additional Resource Attributes: (List attributes and codes) N/A

***B12. References:**

See Continuation Sheet 523L (Page 6)

B13. Remarks:

***B14. Evaluator:** Jeremy Hollins

***Date of Evaluation:** 5/19/2009

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

See Continuation Sheet 523L (Page 5)

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999). The extension of the Westside Canal into the United States in approximately 1906 was intended to alleviate irrigation problems and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the Dixieland area of Imperial County. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the Dixieland area of Imperial County was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

By 1907, the Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigaci_n y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley. The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

The Fern Canal, as a whole, is associated with the Westside Main Canal system and reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. Based on an earlier assessment prepared by the Bureau of Reclamation and Office of Historic Preservation, the All-American Canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in Imperial County west of the New River. By extension, the Westside Main Canal and the Fern Canal (which is a related feature to the larger Westside Main Canal and All-American Canal), appear to be NRHP- and CRHR-eligible. It does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR.

The Fern Drain, although associated with the Westside Main Canal system, does not appear to reflect the development associated with the construction and operation of the All-American Canal between 1941 and 1950. Based on a review of historical maps, it is difficult to determine the construction date of the drain; however, it is likely that the drain may have been constructed outside of the 1941 to 1950 period of significance for the All-American Canal. Thus, it is most likely not associated with the development of irrigated commercial agriculture in Imperial County west of the New River (Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR). In addition, the drain does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history (Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR). Therefore, it does not appear to meet the eligibility criteria of the NRHP and the CRHR.

Overall, the Fern Canal and Drain does not appear to retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire drain has not occurred. The portion of Fern Canal also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (Though, it still retains sufficient historic integrity aspects of location and materials). Based upon historical documentation, regular dredging and widening of canals and drains were necessary and often performed to alleviate problems of silt and build-up. Due to these and other improvements over time, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance. Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA.

In summary, the portions of Fern Canal do not appear to be individually eligible for listing to the NRHP, CRHR, or considered historical resources for purposes of CEQA, and do not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed Solar Farm adjacent or perpendicular to the existing Fern Canal and Drain would not create a new adverse effect or significant impact.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

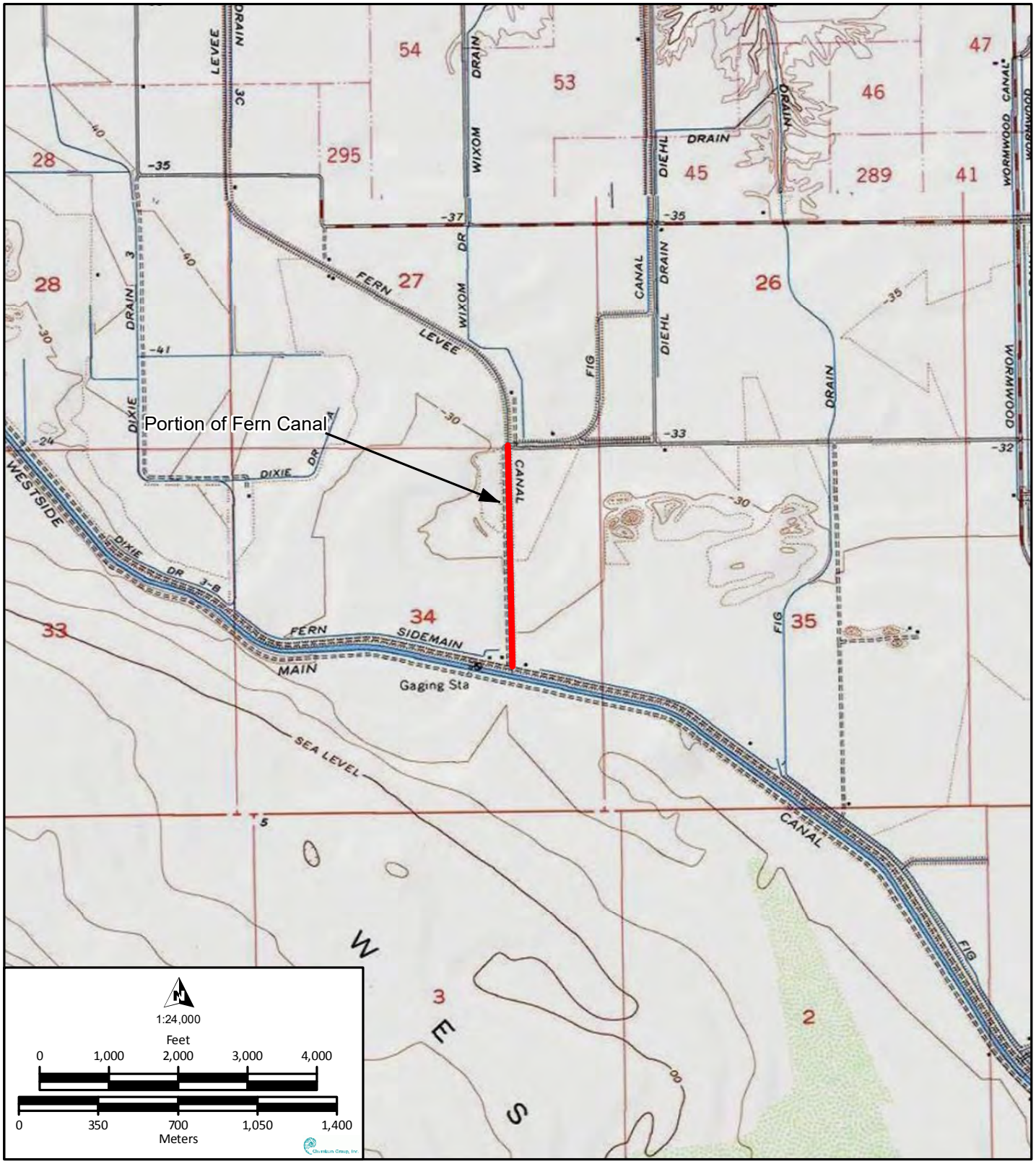
Primary # 13-12689
HRI#
Trinomial

*Resource Name or #: Portion of Fern Canal

*Map Name: Mount Signal

*Scale: 1:24,000

*Date of Map: 2010



B12. References

A.G. Thurston. 1912. Irrigation District and Road Map – Imperial Valley.

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USGS. 1908. El Centro USGS Quadrangle Map.

USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1943, 1957. Painted Gorge 7.5-minute USGS Quadrangle Maps.

USGS. 1940. Plaster City 15-Minute USGS Quadrangle Map.

USGS. 1943, 1944. Plaster City 1 to 62,500 Scale Map.

USGS. 1940. Brawley 15-minute USGS Quadrangle Map.

USGS. 1957. Brawley 7.5-minute USGS Quadrangle Map.

USGS. 1957, 1979. Seeley 7.5- minute USGS Quadrangle Map.

P-33-012689 consists of irrigation features, Fern Canal and Fern Drain. In May of 2009, URS recorded a portion of these drainage features. The site was described as follows:

> *The portion of the Fern Canal that intersects Evan Hewes Highway is a trapezoidal concrete lined channel that appears to be approximately 20 feet wide and 10 feet deep. The canal travels beneath Evan Hewes Highway through concrete winged wall culverts. The culvert on the north portion has a 1953 date stamp while the culvert on the south portion has a wood and metal control gate constructed across the mouth of the culvert. The canal features a concrete and earthen bank with very little vegetation. A concrete winged wall culvert is located on the west bank of the canal north of Evan Hewes Highway with a 1984 date stamp and a metal gate to control water flow to a smaller, ancillary unidentified concrete-lined channel located adjacent to the Fern Canal. A concrete winged wall culvert is also located on the east bank of the canal south of Evan Hewes Highway, and features a 1959 date stamp on its wall and a wood and metal gate.*
>
> *The portion of the Fern Drain that intersects Evan Hewes Highway is an unlined earthen channel approximately 20 feet wide. The canal appears to retain a trapezoidal shape with earthen levees. The drain north of Evan Hewes Highway is approximately 10 feet deep. The banks of this north portion of the drain are littered with rock and portions of the channel bottom are overgrown with native vegetation. South of Evan Hewes Highway, the drain appears to be approximately 15 feet deep with steeper banks. Although areas of the channel bottom south of Evan Hewes Highway are overgrown with native vegetation, overall, this portion of the drain appears to be better maintained than the portion north of Evan Hewes Highway. The Fern Drain travels beneath Evan Hewes Highway through concrete wing culverts. The wing culvert on the south side of Evan Hewes Highway has a drop structure. The portion of the Fern Canal and Drain that intersect Evan Hewes Highway show evidence of chipping, cracking, and spalling due to environmental effects (sun and heat exposure) and weed growth. Overall, the portion of the Fern Canal that bisects Evan Hewes Highway is in good condition, but has been affected by non-historic period construction and features, including the pipeline and the crossing. The portion of Fern Drain that bisects Evan Hewes Highway appears to be in worse condition than the Fern Canal. (URS 2009)*

During a recent survey conducted by KPE, additional features associated with this system were identified and subsequently documented. One of these features is a segment of concrete canal, Fern Lateral 3. This 961' segment is located just south of I-10 and runs parallel to Westside Drive on the west side of the road. At the northern end within the project area is gate 26 which opens to the north and gate 27 which is a turnout for irrigation water for a small irrigation canal to the west, used to irrigate adjacent fields. In front of the residence located at 1651 Westside Rd., are a check with two turnout gates and gate 25 that allows water to pass under the road and turns the canal to the east and out of the project area.

There is a stamp in the concrete near gates 26 and 27 which indicate 1966 as the year of manufacture for this particular segment.



IMG_1874; view to SE
Gates 26 and 27 with concrete irrigation canal to the right (west).

Another feature, Fern check was identified at the intersection of Liebert Rd. and Wixom Road. A date stamp of 1974 was found stamped in the concrete, indicating that this feature has been modified within the last 35 years and is not historic.



IMG_2774; view to North.
Fern Heading at Wixom and Liebert.



IMG_1965; view to W
View of check and Gate 23

A sketch map and location map have been generated reflecting this new information can be found attached.

URS Corporation entered a NRHP status code of 6Z. This code means that the resource had been found ineligible for listing in the National Register through an evaluation process other than a determination by the Keeper of the National Register or through a consensus determination of a federal agency and the State Historic Preservation Officer.

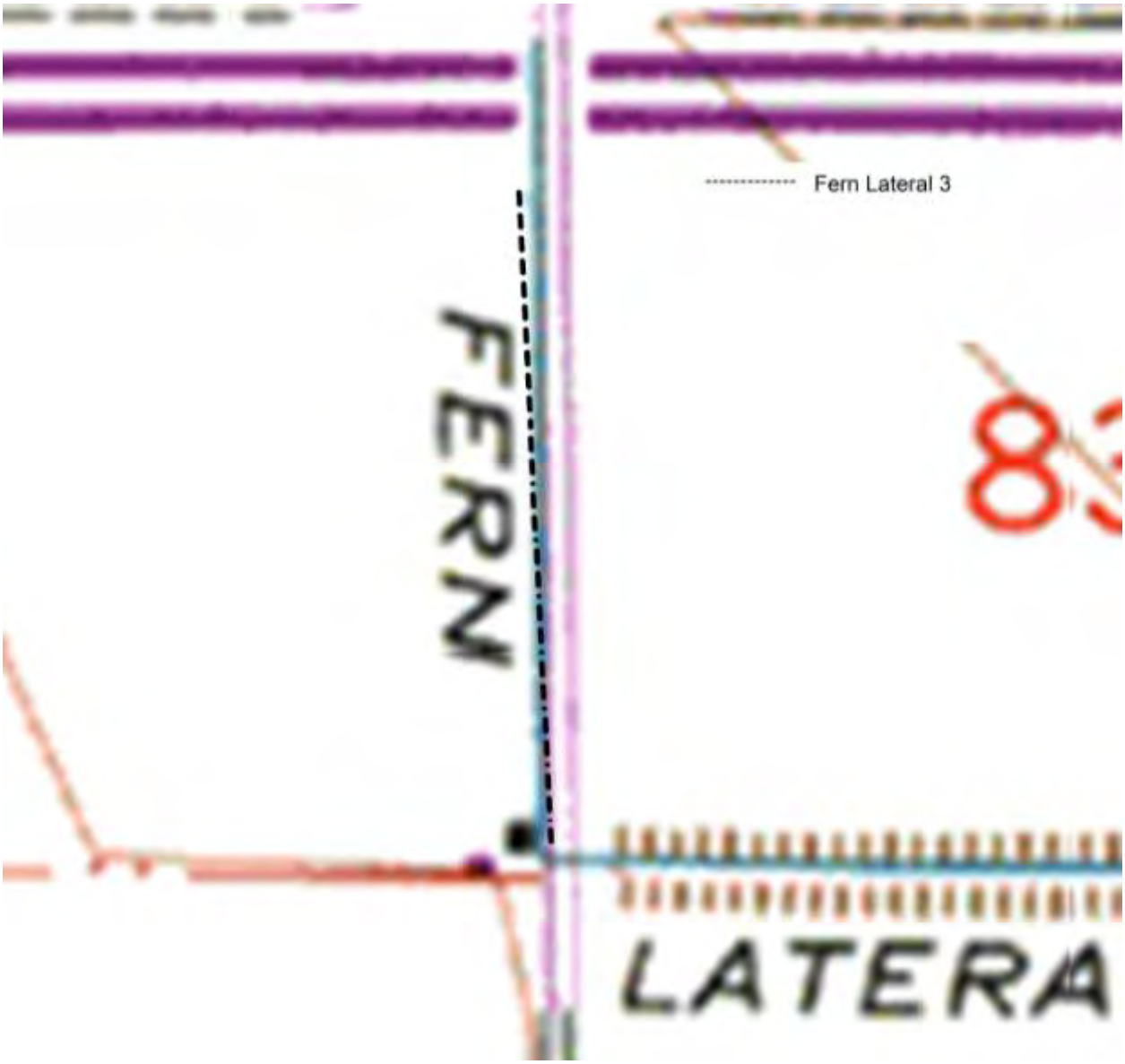
This resource has not been surveyed in its entirety; however, Shannon Davis (ASM Affiliates, Inc.) did evaluate the segments within the Campo Verde Solar Project APE and recommended the Fern Canal not eligible for the NRHP and CRHR. Although the Fern Canal is associated with the early irrigation system of the Imperial Valley, and the important local theme of agricultural development, it does not convey that theme as well as other similar resources such as the Westside Main and the All-American canals, in part due to their loss of integrity (Davis et al. 2011; Mitchell 2011).

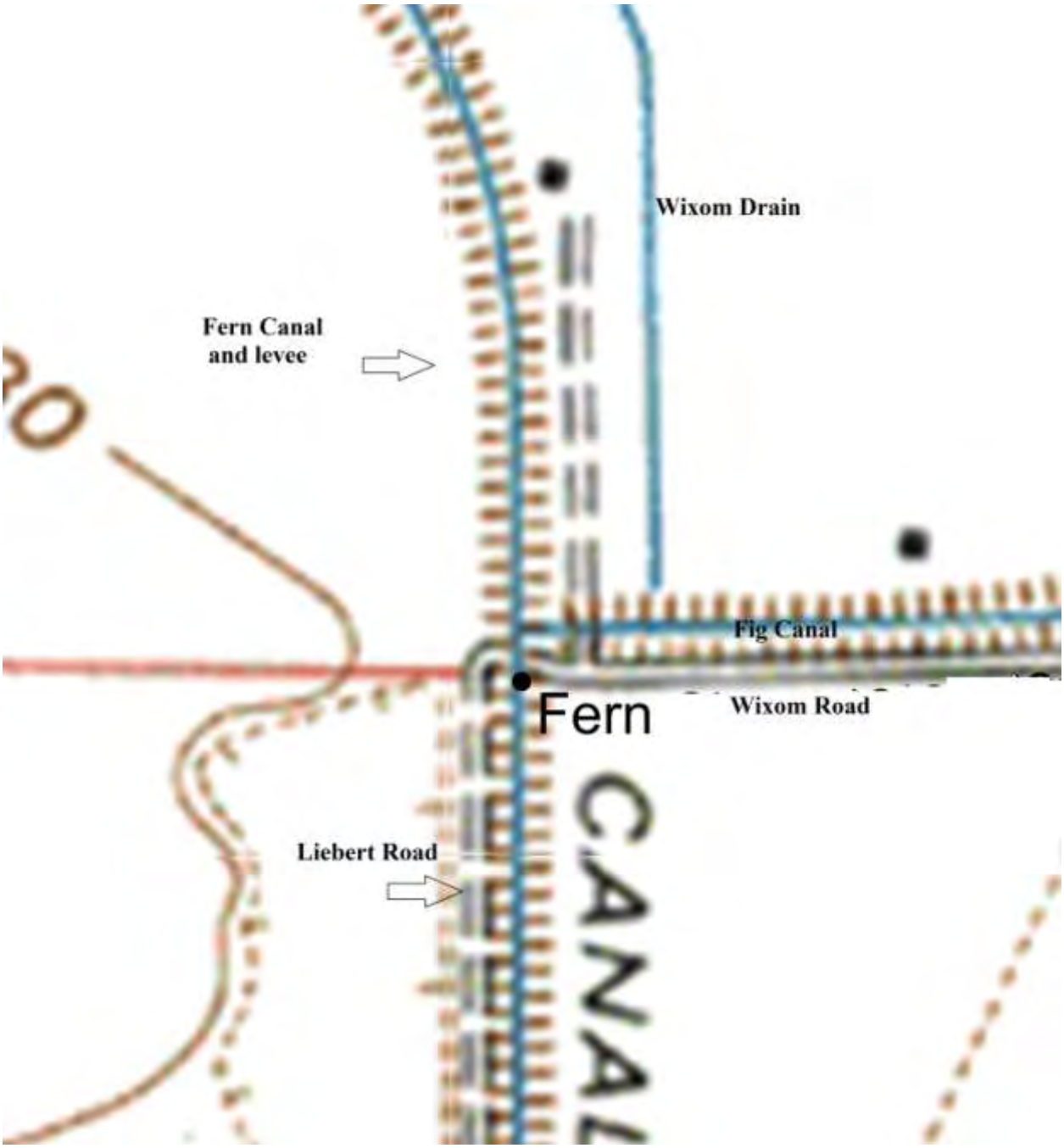
Davis, Shannon, Jennifer Krintz, Sarah Stringer-Bowsher, and Sinéad Ní Ghabhláin. 2011. Impacts on Historic Resources on Private Lands, Campo Verde Solar Project, Imperial County, California.

Mitchell, Patricia T. 2011. Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project, Imperial County, California.

Camera Format: Digital – Canon Powershot SD1300 IS Digital ELPH 12.1 megapixel
Negatives kept at: kp environmental, LLC. 2387 Montgomery Ave, Cardiff By The Sea, CA 92007

Mo.	Day	Frame	Subject/Description	View Toward
07	15	1851	Smaller concrete canal west of wormwood	N
07	15	1852	Fig Drain at Diehl south side	NW
07	15	1853	Fig Drain at Diehl south side	SE
07	15	1854	Shoe cemetery	
07	15	1855	Fig drain field crossing north side	W
07	15	1856	Fig drain south side	NW
07	15	1857	North middle corner siphon and turnout	SW
07	15	1858	North end of canal next to wormwood	
07	15	1859	Fig drain at southern end of western area	SE
07	15	1860	Same as above with tile line sign	
07	15	1861	East-west lateral at Derrick Drive & Wixom concrete ditch, check is out of project area on other side of road.	
07	15	1863	owl	
07	16	1873	Rykerson 1966	E
07	16	1874	Overview at NE corner of west area turnouts 26 & 27	ESE
07	16	1875	Turnout 27	W
11	03	2774	Fern check	N
11	03	2775	1974 date stamp	D/N
11	03	2776	Fern canal south side of Wixom	D/S


Fern Lateral 3
FERN
LATERA


Wixom Drain
Fern Canal
and levee
Fig Canal
Wixom Road
Fern
Liebert Road
CANAL

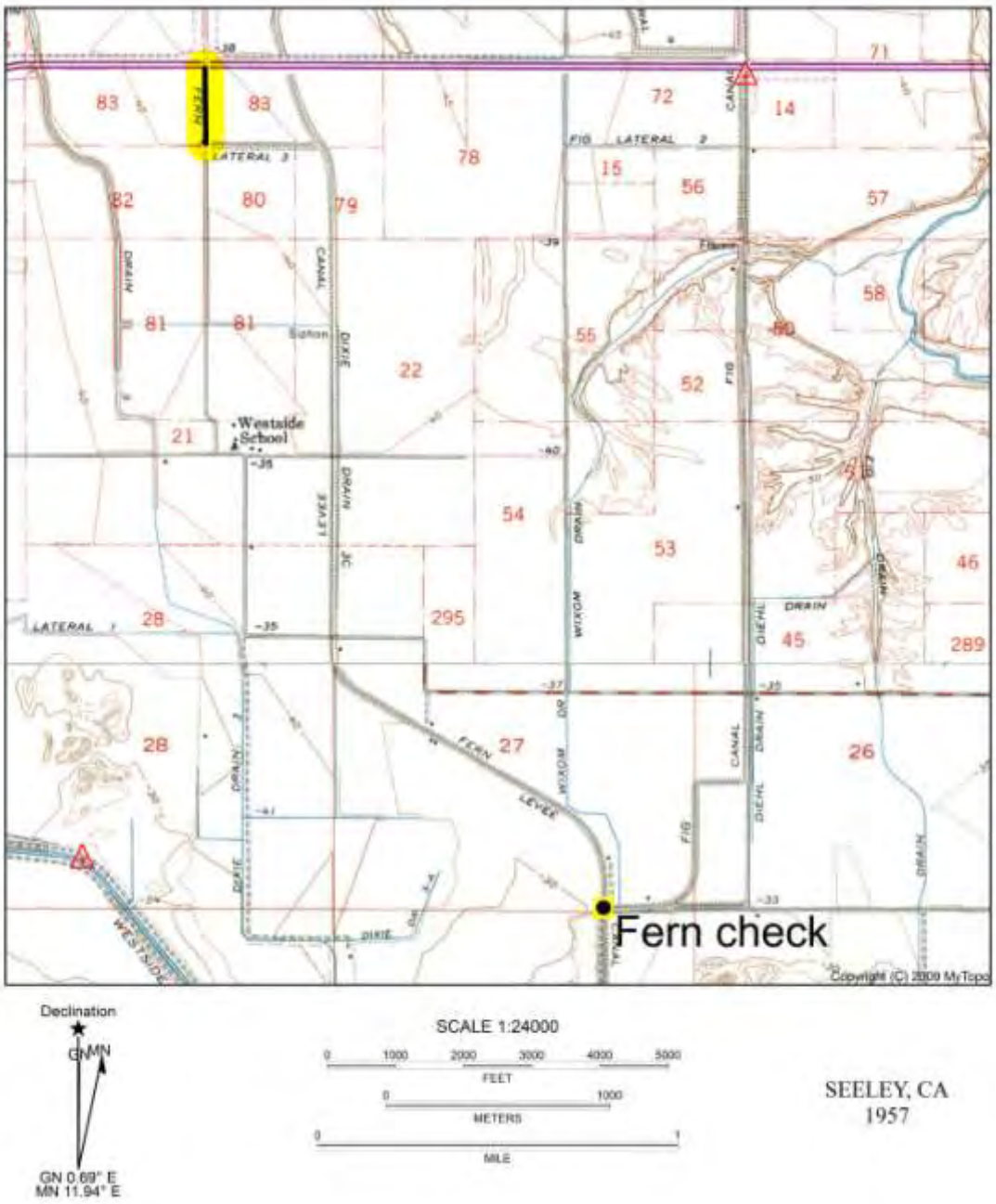
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Page 6 of 6

Primary # P-13-012689 update
HRI#
Trinomial
***Resource Name or #:** Fern Canal System (portion)

***Map Name:** Seeley, Calif.
***Scale:** 1:24,000
***Date of Map:** 1957



Declination
GN
MN
GN 0.69° E
MN 11.94° E

SCALE 1:24000
0 1000 2000 3000 4000 5000
FEET
0 1000
METERS
0 1
MILE

SEELEY, CA
1957

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-012689
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code Reviewer Date

Page 1 **of** 10 ***Resource Name or #:** (Assigned by recorder) Portion of Fern Canal and Fern Drain

P1. Other Identifier: N/A

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

* **a. County** Imperial **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

* **b. USGS 7.5'** Brawley **Date** 1957 **T** 16S **R** 12E ; ¼ ¼ **of** 10 ; SB **B.M.**

c. Address N/A City N/A Zip N/A

d. UTM: (Give more than one for large and/or linear resources) Zone 11 , 619035 mE/ 3628855 mN

e. Other Locational Data: (e.g., parcel I, directions to resource, elevation, etc., as appropriate)

The Fern Canal and Drain are part of the larger Fern Canal drainage system. The portion of the Fern Canal surveyed is a small segment of a larger historic-period linear property that travels north to south, perpendicular to Evan Hewes Highway for approximately eight miles. The portion of the Fern Drain surveyed is a small segment of the drain that travels northeast from Fern Canal and intersects Evan Hewes Highway approximately 1,500 feet from Fern Canal. The TRS and UTM provided above is the approximate centerpoint of the portion of the canal surveyed.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The portion of the Fern Canal that intersects Evan Hewes Highway is a trapezoidal concrete lined channel that appears to be approximately 20 feet wide and 10 feet deep. The canal travels beneath Evan Hewes Highway through concrete winged wall culverts. The culvert on the north portion has a 1953 date stamp while the culvert on the south portion has a wood and metal control gate constructed across the mouth of the culvert. The canal features a concrete and earthen bank with very little vegetation. A concrete winged wall culvert is located on the west bank of the canal north of Evan Hewes Highway with a 1984 date stamp and a metal gate to control water flow to a smaller, ancillary unidentified concrete-lined channel located adjacent to the Fern Canal. A concrete winged wall culvert is also located on the east bank of the canal south of Evan Hewes Highway, and features a 1959 date stamp on its wall and a wood and metal gate.

SEE CONTINUATION SHEET 523L (PAGE 3).

***P3b. Resource Attributes:** (List attributes and codes) HP20. Canal/Aqueduct

***P4. Resources Present:** ☐ **Building** ☒ **Structure** ☐ **Object** ☐ **Site** ☐ **District** ☐ **Element of District** ☐ **Other** (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (view, date, accession #)
View of canal north of Evan Hewes Highway, March 2009

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
Approximately 1908
1908 El Centro USGS Quadrangle

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Boulevard
Imperial, CA 92251

***P8. Recorded by:** (name, affiliation, and address)
URS Corporation
1615 Murray Canyon Rd., Suite 1000
San Diego, CA 92108

***P9. Date Recorded:** 05/2009

***P10. Survey Type:** (Describe)
Pedestrian Survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")

Mutaw, Robert J. (Ph.D.), Elizabeth B. Roberts, Gordon C. Tucker Jr., Ph.D., Brian Shaw, Terrie Bagwell, Colin O'Hanlon, Rachael Nixon, Gary Fink, Jeremy Hollins, Mark Neal. 2010 Draft Final Class III Confidential Cultural Resources Technical Report for the Imperial Valley Solar (formerly Solar 2), Imperial Valley County. URS Corporation. Technical report prepared for Tessera Solar (Applicant). Submitted to the Bureau of Land Management – El Centro Field Office, El Centro, CA. Copies available from the Bureau of Land Management – El Centro Field Office, El Centro, CA.

***Attachments:** ☐ NONE ☐ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z

 ***Resource Name or #:** (Assigned by recorder) Portion of Fern Canal and Fern Drain

B1. Historic Name: Fern Canal and Fern Drain
B2. Common Name: Fern Canal and Fern Drain
B3. Original Use: Irrigation Ditch B4. Present Use: Irrigation Ditch
***B5. Architectural Style:** N/A
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Actual construction date of the Fern Canal and Drain is unknown at present, despite efforts to contact the Imperial Irrigation District for construction date and information. However, the Fern Canal appears on maps as early as the 1908 El Centro map. This map shows the canal in the same location and general configuration as today; however, the canal is labeled "Fern Ditch". A review of the 1912 A.G. Thurston Irrigation District and Road Map, the 1940 Brawley 15-minute USGS quadrangle map, the 1949 USDA Aerial Photograph Collection, the 1957 Brawley and Seeley 7.5-minute USGS quadrangle maps, and the September 18, 1996 Imperial Irrigation District Southwest Division Map show that the general course of the drain has remained consistent for most of its history. The outline of the Fern Drain appears on maps as early as 1940 on the 1940 Brawley 15-minute USGS quadrangle map; however the drain is not labeled. In the 1957 Seeley 7.5-minute USGS quadrangle map, the Fern Drain is labeled as "Fern Waste". Thus, from the review of these historic maps, it is difficult to pinpoint an approximate date of construction; however, it can be assumed that a smaller predecessor ditch existed in the general area during the early 20th century (by 1908), and was modified and improved throughout the mid-20th century (evidenced by date stamps from the 1950s to the 1980s) to support the All-American and Westside Main Canal system operations.
***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A
***B6. Related Features:**
None

B9. Architect: N/A b. Builder: Unknown
***B10. Significance: Theme** N/A **Area** Imperial County
Period of Significance N/A **Property Type** Irrigation Ditch **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).
B11. Additional Resource Attributes: (List attributes and codes) N/A
***B12. References:**
SEE CONTINUATION SHEET 523L (PAGE 6)

B13. Remarks:
None

(Sketch Map with north arrow required)
SEE CONTINUATION SHEET 523L (PAGE 5)

***B14. Evaluator:** Jeremy Hollins
***Date of Evaluation:** 05/2009

(This space reserved for official comments)

P3a. Description (Continued)

Immediately south of the Evan Hewes Highway crossing is a non-historic period high-pressure gas pipeline approximately one-foot in diameter, which bisects the canal.

The portion of the Fern Drain that intersects Evan Hewes Highway is an unlined earthen channel approximately 20 feet wide. The canal appears to retain a trapezoidal shape with earthen levees. The drain north of Evan Hewes Highway is approximately 10 feet deep. The banks of this north portion of the drain are littered with rock and portions of the channel bottom are overgrown with native vegetation. South of Evan Hewes Highway, the drain appears to be approximately 15 feet deep with steeper banks. Although areas of the channel bottom south of Evan Hewes Highway are overgrown with native vegetation, overall, this portion of the drain appears to be better maintained than the portion north of Evan Hewes Highway. The Fern Drain travels beneath Evan Hewes Highway through concrete wing culverts. The wing culvert on the south side of Evan Hewes Highway has a drop structure.

The portion of the Fern Canal and Drain that intersect Evan Hewes Highway show evidence of chipping, cracking, and spalling due to environmental effects (sun and heat exposure) and weed growth. Overall, the portion of the Fern Canal that bisects Evan Hewes Highway is in good condition, but has been affected by non-historic period construction and features, including the pipeline and the crossing. The portion of Fern Drain that bisects Evan Hewes Highway appears to be in worse condition than the Fern Canal.

B10. Significance (Continued)

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999). The extension of the Westside Canal into the United States approximately 1906 was intended to alleviate irrigation problems, and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the Dixieland area of Imperial County. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the Dixieland area of Imperial County was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

B10. Significance (Continued)

By 1907, the Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigación y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley. The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. For example, the Fern Canal features several culverts and other structural improvement s from the 1950s through the 1980s. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

The Fern Canal, as a whole, is associated with the Westside Main Canal system and reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. Based on an earlier assessment prepared by the Bureau of Reclamation and Office of Historic Preservation, the All-American Canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in Imperial County west of the New River. By extension, the Westside Main Canal and the Fern Canal (which is a related feature to the larger Westside Main Canal and All-American Canal), appear to be NRHP- and CRHR- eligible. It does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR.

The Fern Drain, although associated with the Westside Main Canal system, does not appear to reflect the development associated with the construction and operation of the All-American Canal between 1941 and 1950. Based on a review of historical maps, it is difficult to determine the construction date of the drain; however, it is likely that the drain may have been constructed outside of the 1941 to 1950 period of significance for the All-American Canal. Thus, it is most likely not associated with the development of irrigated commercial agriculture in Imperial County west of the New River (Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR). In addition, the drain does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history (Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR). Therefore, it does not appear to meet the eligibility criteria of the NRHP and the CRHR.

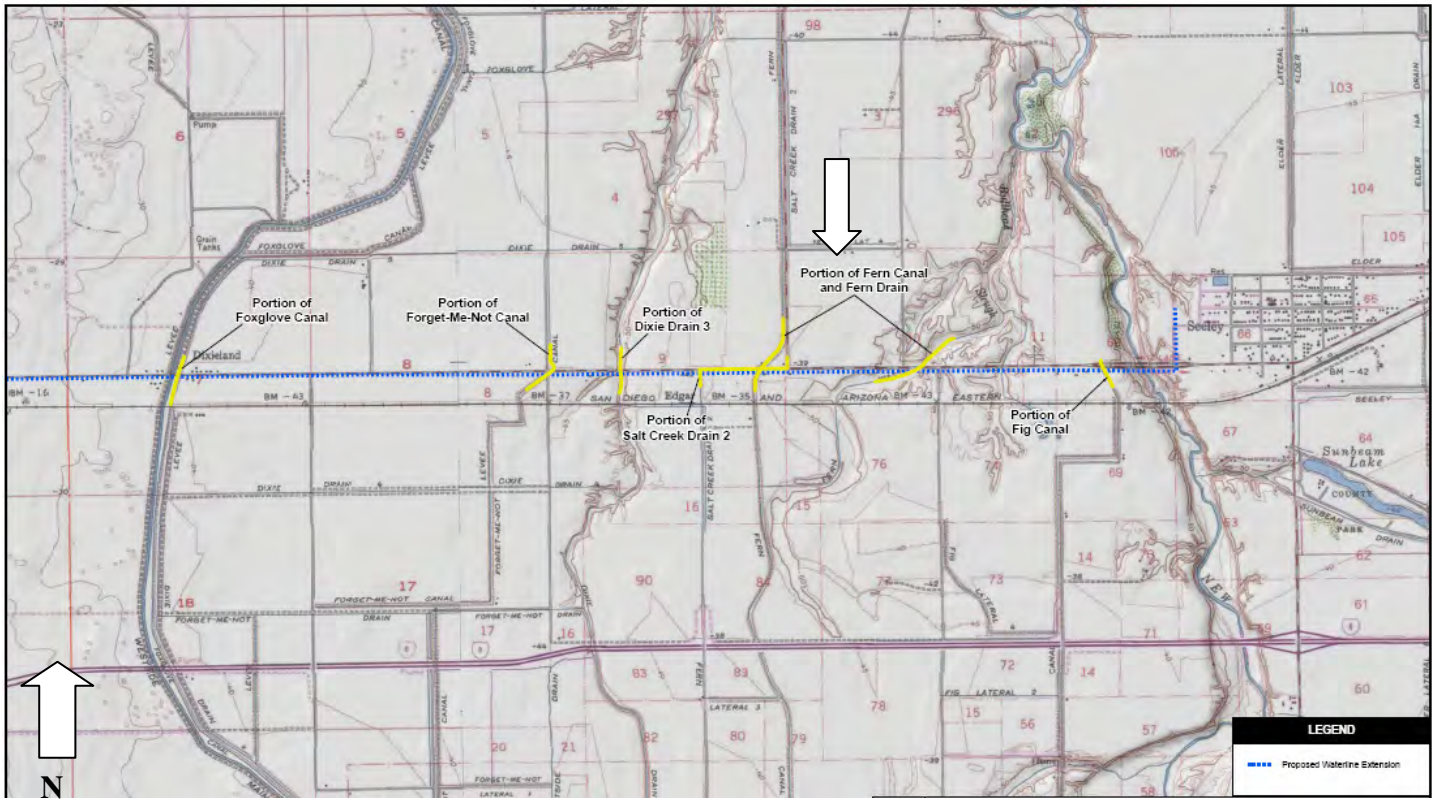
Overall, the Fern Canal and Drain does not appear to retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire drain has not occurred. The portion of Fern Canal and Drain at Evan Hewes Highway also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (Though, it still retains sufficient historic integrity aspects of location and materials). Based upon historical documentation, regular dredging and widening of canals and drains were necessary and often performed to alleviate problems of silt and build-up. Due to these and other improvements over time, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance. Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA.

In summary, the portions of Fern Canal and Drain at Evan Hewes Highway do not appear to be individually eligible for listing to the NRHP, CRHR, or considered historical resources for purposes of CEQA, and do not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed water line adjacent or perpendicular to the existing Fern Canal and Drain would not create a new adverse effect or significant impact to the portion of the historic-period property that bisects the Evan Hewes Highway.

Page 5 **of** 10 ***Resource Name or #:** (Assigned by recorder) Portion of Fern Canal and Fern Drain
***Recorded by:** URS Corporation ***Date:** 05/2009
☒ Continuation ☐ Update

Sketch Map:

Not to scale



* Required information

B12. References

A.G. Thurston. 1912. Irrigation District and Road Map – Imperial Valley.

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USGS. 1908. El Centro USGS Quadrangle Map.

USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1943, 1957. Painted Gorge 7.5-minute USGS Quadrangle Maps.

USGS. 1940. Plaster City 15-Minute USGS Quadrangle Map.

USGS. 1943, 1944. Plaster City 1 to 62,500 Scale Map.

USGS. 1940. Brawley 15-minute USGS Quadrangle Map.

USGS. 1957. Brawley 7.5-minute USGS Quadrangle Map.

USGS. 1957, 1979. Seeley 7.5- minute USGS Quadrangle Map.

Additional Photos:



View of north culvert at Evan Hewes Crossing



Wing culvert and gate structure on the west bank north of Evan Hewes Highway

Additional Photos:



View of gas pipeline south of Evan Hewes Highway



View of south culvert at Evan Hewes Crossing

Additional Photos:



View of culvert and gate structure on the east bank south of Evan Hewes Highway



View looking north of Evan Hewes Highway

Additional Photos:



View looking south of Evan Hewes Highway



View of south culvert with drop structure

Map Reference Number: 13

P1. Other Identifier: Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and Dixie Lateral
e. Other Locational Data: Located approximately ten miles southwest of El Centro, Imperial County, California. Segment begins north of Highway eight and terminates into the Westside Canal.

*P3a. Description: The subject property is a system of drains and laterals that bisect the API along portions northeast of the Westside Main Canal. Dixie Drains 2, 3, 3A, 3B, and 3C and Lateral 1 are part of a larger drainage system that runs parallel to Mandrapa Road, Westside Road, and north-to-south perpendicular to West Vaughn Road. The Dixie Drain system is a series of earthen-dug canals that are approximately 10 feet wide and 6 feet deep and were built in 1911 and modified in ca. 1940. Dixie Lateral 1 is a concrete irrigation canal that extends east from the Westside Main Canal west of Hyde Road and south of West Vaughn Road. It is connected to Dixie Drain 3 at Diehl Road and Westside Road (Photograph 1 and 2).

*P3b. Resource Attributes: HP20: Aqueduct/Canal

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

Five previous historical studies document Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral. In the 1983 draft report Lake Cahuilla (East Mesa Segment) Management Plan and Environmental Assessment, BLM recommended that all elements associated with the All-American Canal be found eligible for the NRHP as part of a district under Criteria A and C. BLM communicated with SHPO and addressed comments on boundaries, significance criteria, setting, and national versus local levels of significance. After the comments were addressed, SHPO elected not to comment on the undertaking. BLM presumed SHPO concurrence in accordance with a Programmatic Agreement between the two agencies (BLM 1983; Schaefer and O'Neil 2001: v).

In 2009, URS reevaluated, but did not survey, the canal segments and recommended that they be found ineligible for the NRHP and CRHR due to a lack of significant historical associations and historic integrity. URS disagreed with USBR and OHP's determination that the canal is a contributing element or significant related feature/component to the larger linear All-American Canal. For integrity, URS stated that the canal system has undergone significant improvements and that reconstruction may have occurred since the mid-twentieth century, as evidenced by the date-stamped culverts. Routine dredging and widening of the canals and lateral were also conducted to alleviate problems of silt and buildup. In summary, In 2009, URS recommended that the Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and Dixie Lateral did not appear to be individually eligible for listing in the NRHP or CRHR, nor considered a historical resource for purposes of CEQA. In 2011, ASM Architectural Historian Jennifer Krintz concurred with URS's recommendation that the canal be found ineligible for a lack of historical associations and integrity. In the same year, a subsequent study conducted by Chambers Group also concurred with URS's earlier recommendation (URS 2009c: 1-3; Krintz 2011c: 2; Johnson et al. 2011b: 1, 4).

On April 11, 2023, Dudek revisited Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral and did not observe any noticeable alterations since the last recordation in 2011. Dudek also concurs that the aqueduct does not meet any criteria for listing in the NRHP or CRHR. In 1983, BLM recommended that these ancillary canals may be eligible for the NRHP because of their association with the All-American Canal. However, it requested that additional research be conducted to confirm their eligibility. URS and ASM conducted subsequent studies in 2009 and 2011 and recommended that the drains and lateral

be found ineligible for recordation due to a lack of integrity and historical associations. Dudek disagrees that routine maintenance, required to keep the aqueduct operational, disqualifies Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral from recordation on the NRHP. These canals, however, are ancillary extensions of a large water conveyance system designed to irrigate individual, private agricultural ventures. Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral's mere association with the All-American Canal does not elevate the aqueduct to a level of significance worthy of recordation. Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral are not representative of any significant historical trends, associated with any important persons, architecturally significant, or likely to yield additional information about pre-history or history. As such, Dixie Drain 1, Dixie Drain 2, Dixie Drain 3, Dixie Drain 4, and the Dixie Lateral appear to be ineligible for the NRHP and CRHR due to a lack of historical significance. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

***B14. Evaluator:** EJ (Erin) Jones, MA, Dudek. 1810 13th Street, Suite 110, Sacramento, CA. 95811.

***Date of Evaluation:** August 15, 2023.

Photograph(s):

Photograph 1. West side of Dixie Lateral Drain 1, view looking east. Photograph taken on April 11, 2023.



Photograph 2. North side of Dixie Lateral Drain 3, view looking south. Photograph taken on April 11, 2023.



References

Adame, M., and Thomson, H. 2011. "P-13-012688 UPDATE."

URS Corporation. 2009. "DPR Form set for the Portion of Dixie Drain 3."

Krintz, J. 2011. "DPR Form set for the Dixie Drains and Lateral 1 UPDATE." ASM Affiliates, Inc.

Johnson, B.D., C. Bodmer, et al. 2011. "DPR Form set for the Portion of Dixie Drain 3." Chambers Group, Inc.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial P-13-012688 (Dixie Drain 3)
NRHP Status Code: 6Z

Page 1 of 3 ***Resource Name or # (Assigned by recorder)** Dixie Drains and Lateral 1 UPDATE
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

P1. Other Identifier:
***P2. Location:** ☒ Not for Publication ☐ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Seeley **Date:** 1957; **T** 16 S; **R** 12 E; **of Sec.** 28; S.B. **B.M**
c. Address: N/A **City:** Imperial **Zip:** N/A
d. UTM: Zone 11S; 618816.06 **mE /** 3624370.74 **mN**;
***P3a. Description:**
Dixie Drains 2. 3, and 4 and Lateral 1 are part of a larger drainage system that includes Westside Drain, Forget-Me-Not Drain, and Salt Creek Drain in Imperial County, CA. This drainage system empties into the New River, south of Worthington Road. Salt Creek extended through the project area in 1909. Today the creek bed is part of the present-day Dixie Drain 3. The Dixie drains were constructed after 1922 and before 1949, possibly ca. 1940. The earthen dug drainage ditches are approximately 10 feet wide and about 6 feet deep. The Dixie Lateral 1 had been constructed before 1914. Dixie Lateral 1 is an irrigation canal lateral that extends eastward from the Westside Main west of Hyde Road and south of West Vaughn Road. It interconnects with the Dixie Drain 3 at Diehl Road and Westside Road. The earthen dug canal is approximately 10 ft. wide and about 6 ft. deep. Lateral 1 was extended to connect with Dixie Drain 3 in later years.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct
P5a. Photograph or Drawing:

P5b. Description of Photo:



View looking south at Dixie Drain 3.
Photo taken November 2, 2011.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Page 2 of 3 ***Resource Name or # (Assigned by recorder)** Dixie Drains and Lateral 1 UPDATE
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update



P5a. Photograph or Drawing:

P5b. Description of Photo:
View looking south at Dixie Lateral 1.
Photo taken November 2, 2011.

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
Dixie Lateral c. 1914, Dixie Drains c. 1940
1909 El Centro 15-minute US Army Corps Topo map,
1940 Brawley 15-minute USGS quad map,
1949 Imperial County Aerials, US Dept of Agriculture
1957 Seeley 7.5-minute USGS quad map

***P7. Owner and Address:**
Imperial Irrigation District
333 East Barioni Blvd.
Imperial, CA 92251

***P8. Recorded By:**
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** November 2011
***P10. Survey Type:** Intensive
P11. Report Citation: Inventory, Evaluation, and Analysis of Impacts on Historic Resources On Private Lands within the Area of Potential Effect of the Campo Verde Solar Project, Imperial County, California, ASM Affiliates, November 2011.

***B10. Significance: Theme:** Irrigation Water Conveyance Systems **Area:** Imperial Valley

Period of Significance: N/A **Property Type:** Irrigation System **Applicable Criteria:** N/A
Dixie drains and Dixie Lateral 1 are part of the Dixie Canal irrigation system. Dixie Lateral 1 had been constructed before 1914 and the Dixie drains were constructed after 1922 and before 1949, possibly ca. 1940. According to a previous evaluation by URS Corporation, the Dixie Drain 3 was recommended not eligible for the NRHP or the CRHR for the loss of integrity from regular dredging and widening of the canals and drains over time to alleviate problems of silt and build-up. Although the drainage ditch and lateral are associated with the early irrigation system of the Imperial Valley, and the important local theme of agricultural development, these particular waterways do not convey that theme as well as other similar resources such as the Westside Main and the All-American canals—in part due to their loss of integrity. Therefore the Dixie Drain 3 and the Dixie Lateral 1 are recommended not eligible for the National Register of Historic Places and the California Register of Historic Resources.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Page 3 of 3 ***Resource Name or # (Assigned by recorder)** Dixie Drains and Lateral 1 UPDATE
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

Location Map of the Dixie Drain 3



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

Page 3 of 3 ***Resource Name or # (Assigned by recorder)** Dixie Drains and Lateral 1 UPDATE
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

Location Map of the Dixie Drain 2



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

 ***Resource Name or # (Assigned by recorder)** Dixie Drains and Lateral 1 UPDATE
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

Location Map of the Dixie Drain 4



*Required Information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial
NRHP Status Code: 6Z

 ***Resource Name or # (Assigned by recorder)** Dixie Drains and Lateral 1 UPDATE
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

Location Map of the Dixie Lateral 1



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-012688 UPDATE
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code **Reviewer** **Date**

***Resource Name or #:** Portion of Dixie Drain 3

P1. Other Identifier: N/A

***P2. Location:** ☒ **Not for Publication** ☐ **Unrestricted** ***a. County:** Imperial

***b. USGS 7.5' Quad:** Mount Signal **Date:** 2010 **T** 16S; **R** 12E; NE ¼ **of Sec** 28; S.B.B.M.

c. Address: N/A City: N/A Zip:N/A

d. UTM: Zone: 11N; 618816mE/ 3624401mN (G.P.S.) NAD 83

e. Other Locational Data: Elevation: -11 m below sea level

The Dixie Drain 3 is located approximately ten miles south west from the town of El Centro. Approximately seven miles west of El Centro along Hwy 8 is the intersection of Drew Road. When traveling west on Hwy 8 towards this intersection, take exit 107 for Drew Road toward Seeley. Merge onto Drew Road heading south bound. Continue along Drew Road for 1.7 miles to reach the cross road of W Diehl Road. Turn west onto West Diehl Road and continue down this road for 2.3 miles. The Dixie Drain 3 is visible on the south edge of the W Diehl Road, perpendicular to W Diehl Road.

***P3a. Description:** Dixie Drain 3 was previously recorded in May of 2009 by USR Corporation. The feature is a portion of the larger Dixie Canal system, which traces the Dixie area between Westside Main Canal (located to the west) and the Fern Canal (located to the east). Dixie Drain 3 appears to be approximately 10 ft. wide and 8 ft. deep with earthen side walls hosting grass and weed vegetation. The condition of the site is good with evidence of recent construction upgrades. Chambers Group was able to re-locate the resource using the provided locational data. The portion of the Dixie Drain 3 surveyed by Chambers Group is a small segment of the canal situated between North Hyde Rd. to the west, Vaughn Rd. to the north, and Westside Rd. to the east.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☒Other (Isolates, etc.)

P5a. Photo



P5b. Description of Photo: Photo # 1353, Dixie Drain 3, facing south

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Boulevard
Imperial, CA 92251

***P8. Recorded by:**
C.Bodmer,B.Johnson, B. Bartram, T. Murphy, S. Wintergerst
Chambers Group Inc.,
5 Hutton Centre Drive, Ste. 750,
Santa Ana, CA 92707

***P9. Date Recorded:** 11/19/2011

***P10. Survey Type:**
Pedestrian survey (15 meter transect intervals)

***P11. Report Citation:** A Class III Cultural Resources Inventory For The Agile Energy, Inc. Silverleaf Photovoltaic Solar Project Near The City Of El Centro, Imperial County, California

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**

***Resource Name or #** (Assigned by recorder) Dixie Drain 3

B1. Historic Name: Dixie Drain 3
B2. Common Name: Same
B3. Original Use: Irrigation Ditch
B4. Present Use: Irrigation Ditch

***B5. Architectural Style:** N/A

***B6. Construction History:** (Construction date, alterations, and date of alterations)
Actual construction date of the Dixie Drain 3 is unknown;however, the drain is shown on the 1957 Brawley and Seeley 7.5-minute USGS quadrangle maps. Review of the 1940 Plaster City 15-Minute USGS quadrangle map shows the existence of another Dixie Drain 4 (which is located one and half-miles to the west), but the drain does not extend far enough east to the location of Dixie Drain 3. The 1940 Brawley 15-minute USGS quadrangle map shows the general outline of the Dixie Drain 3 but the drain is not labeled. Based on this information, it can be assumed that Dixie Drain 3 was constructed by approximately 1940. A review of the 1949 USDA Aerial Photograph Collection, 1957 Brawley and Seeley 7.5-minute USGS quadrangle maps and the September 18, 1996 Imperial Irrigation District Southwest Division Map show that the general course of the canal has remained consistent for most of its history.

***B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** N/A **Original Location:** N/A

***B8. Related Features:**
Dixie Drain 5

B9a. Architect: N/A
b. Builder: Imperial Irrigation District

***B10. Significance: Theme:** N/A **Area:** West El Centro, Imperial County
Period of Significance: N/A **Property Type:** Irrigation Ditch **Applicable Criteria:** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).

B11. Additional Resource Attributes: (List attributes and codes) N/A

***B12. References:**
See Continuation Sheet 523L (Page 6)

B13. Remarks:

***B14. Evaluator:** Jeremy Hollins

***Date of Evaluation:** 5/19/2009

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

See Continuation Sheet 523L (Page 5)

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999).The extension of the Westside Canal into the United States in approximately 1906 was intended to alleviate irrigation problems and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the Dixieland area of Imperial County. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the Dixieland area of Imperial County was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

By 1907, the Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigaci_n y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley. The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

Dixie Drain 3, as a whole, is associated with the Westside Main Canal system and reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. Based on an earlier assessment prepared by the Bureau of Reclamation and Office of Historic Preservation, the All-American Canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in Imperial County west of the New River. By extension, the Westside Main Canal and the Dixie Drain 3 (which is a related feature to the larger Westside Main Canal and All-American Canal), appears to be NRHP- and CRHR- eligible. It does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR.

Overall, the Dixie Drain 3 does not appear to retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire drain has not occurred. The portion of Dixie Drain 3 at also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (Though, it still retains sufficient historic integrity aspects of location and materials). Based upon historical documentation, regular dredging and widening of canals and drains were necessary and often performed to alleviate problems of silt and build-up. Due to these and other improvements over time, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance. Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA.

In summary, the portion of Dixie Drain 3 does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear All-American or Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed Solar Farm adjacent or perpendicular to the existing Dixie Drain 3 would not create a new adverse effect or significant impact to the portion of the historic-period property.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

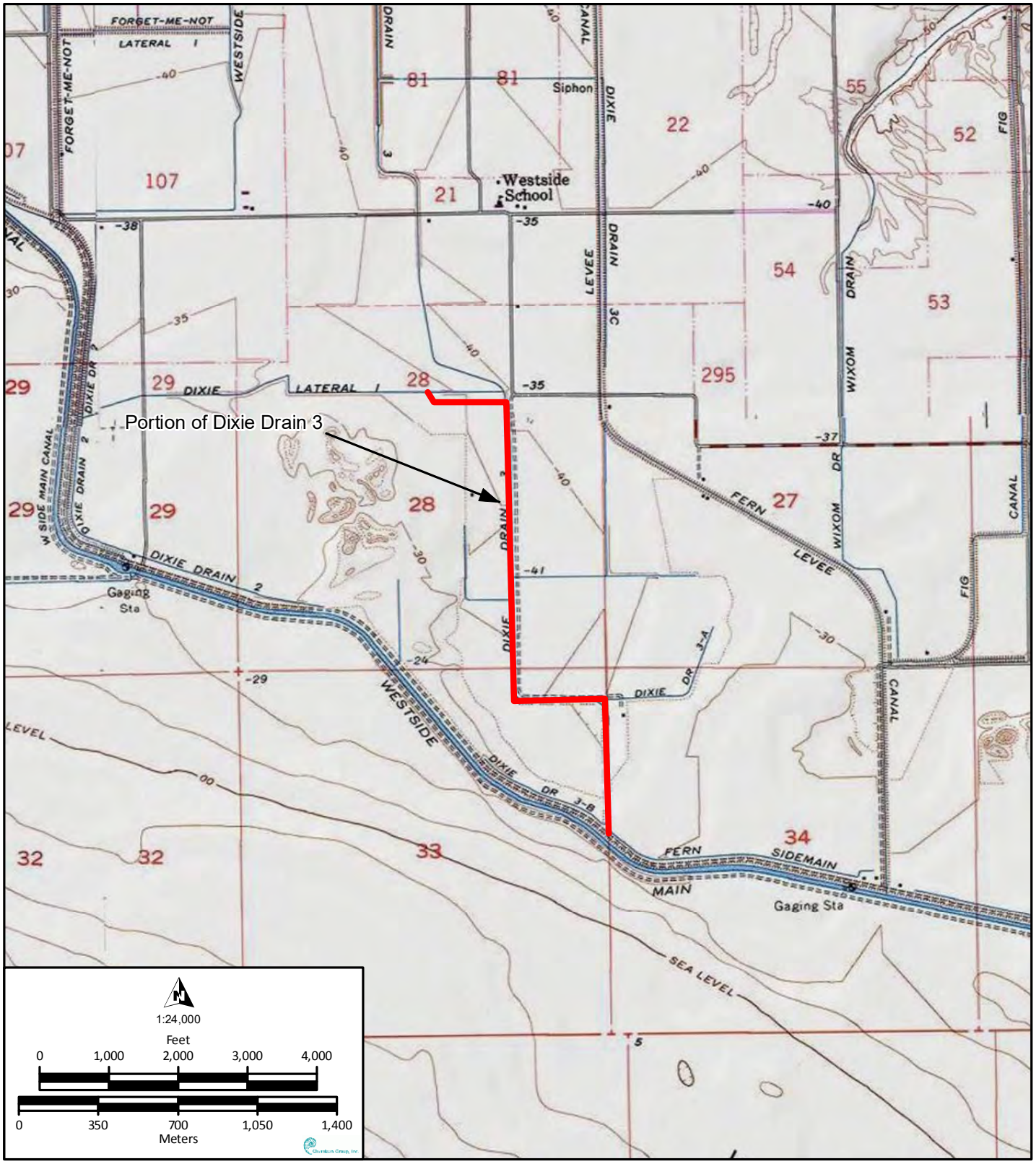
Primary # 13-12688
HRI#
Trinomial

***Resource Name or #:** Portion Dixie Drain 3

***Map Name:** Mount Signal

***Scale:** 1:24,000

***Date of Map:** 2010



B12. References

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USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1943, 1957. Painted Gorge 7.5-minute USGS Quadrangle Maps.

USGS. 1940. Plaster City 15-Minute USGS Quadrangle Map.

USGS. 1943, 1944. Plaster City 1 to 62,500 Scale Map.

USGS. 1940. Brawley 15-minute USGS Quadrangle Map.

USGS. 1957. Brawley 7.5-minute USGS Quadrangle Map.

USGS. 1957, 1979. Seeley 7.5- minute USGS Quadrangle Map.

P-33-012688 is an irrigation feature, the Dixie Drain 3. In May of 2009, URS recorded a portion of this drainage feature. The site was described as follows:

> *"The portion of Dixie Drain 3 north of Evan Hewes Highway is an unlined earthen channel that appears to be approximately ten-feet wide and eight-feet deep with a concrete circle culvert. The drain features earthen levees covered with dense, overgrown vegetation consisting of wild grasses and weeds. Due to the density of the vegetation, the shape of the drain is difficult to discern, but appears to be trapezoidal.*
> *Dixie Drain 3 intersects the Westside Drain, which is located on the west. Approximately one-half mile north of Evan Hewes Highway, Dixie Drain 3 intersects with Dixie Drain 5, a shallow earthen ditch approximately five feet wide, which runs parallel to the highway. South of Evan Hewes Highway, Dixie Drain 3 is a corrugated metal pipe. The pipe runs on the ground surface but is obscured by dense native vegetation. Overall, the portion of the Dixie Drain 3 that bisects Evan Hewes Highway is in good condition, but has been affected by nonhistoric period construction and features, including the crossing".*

When the All American Canal was completed in 1941, improvements were made to existing canal systems, drain ditches in particular. The drain system provides a drainage outlet for each governmental subdivision of approximately 160 acres. Approximately 16 percent of irrigation water delivered to fields is used for the leaching of salts accumulated in the soils. This water percolates to the tile drainage system where it is collected and conveyed to surface drains, which discharge to the Salton Sea either directly or via the New and Alamo Rivers. These drains also collect excess surface flow (tailwater) from agricultural fields, and operational discharge from canals and laterals.

P-33-012688 Dixie Drain 3 is one of these ditches. During a recent survey conducted by kp environmental (KPE), an additional segment of Dixie Drain 3, and sections of related features were documented. These include Dixie Lateral 1, Dixie Drain 2, Dixie Drain 3, and Dixie Drain 4.

Dixie Lateral 1 consists of an unlined dirt channel with an average depth of 7 feet. The portion of Dixie Lateral 1 identified during the survey effort consists of an east/west segment approximately 3983' in length. An approximately 909' section in the western portion has been rerouted sometime after 1979.



IMG_1795
Dixie Lateral 1
Earthen ditch and concrete slab rubble.
View to west.

Dixie Drain 2 is also an unlined dirt channel. Only the very northern end of this feature was located within the survey area.

Dixie Drain 3 is an unlined, dirt channel with an average depth of 8-11 feet. The segment inspected is approximately 1.7 miles in length, beginning just south of Interstate 8 and ending at the point where Dixie Drain 3 and Dixie Lateral 1 meet. West Diehl Road is adjacent to the east at the southern end. Extending out of the project area to the north and south, Dixie Drain 3 is channeled below several roads by way of culverts with concrete winged walls. In addition, there are several marked tailwater and tile lines along the length of the surveyed portion of the drain. An approximately 1123' section of the drain has been rerouted sometime after 1979.



IMG_1774
Dixie Drain 3 south of Interstate 8.
Concrete wing walls and view of concrete slab rubble used to stabilize the bank.
View to northeast.



IMG_1823 - Dixie Drain 3
Tailwater Pipe and Tile Line
View to northwest.

Dixie Drain 4 is another unlined dirt channel. A segment approximately 422' in length is located within the survey area. Vegetation in each of the drains consists of invasive species such as saltgrass, salt bush, Bermuda grass, common reed, and salt cedar.



IMG_2825 - Dixie Drain 4
View to south.

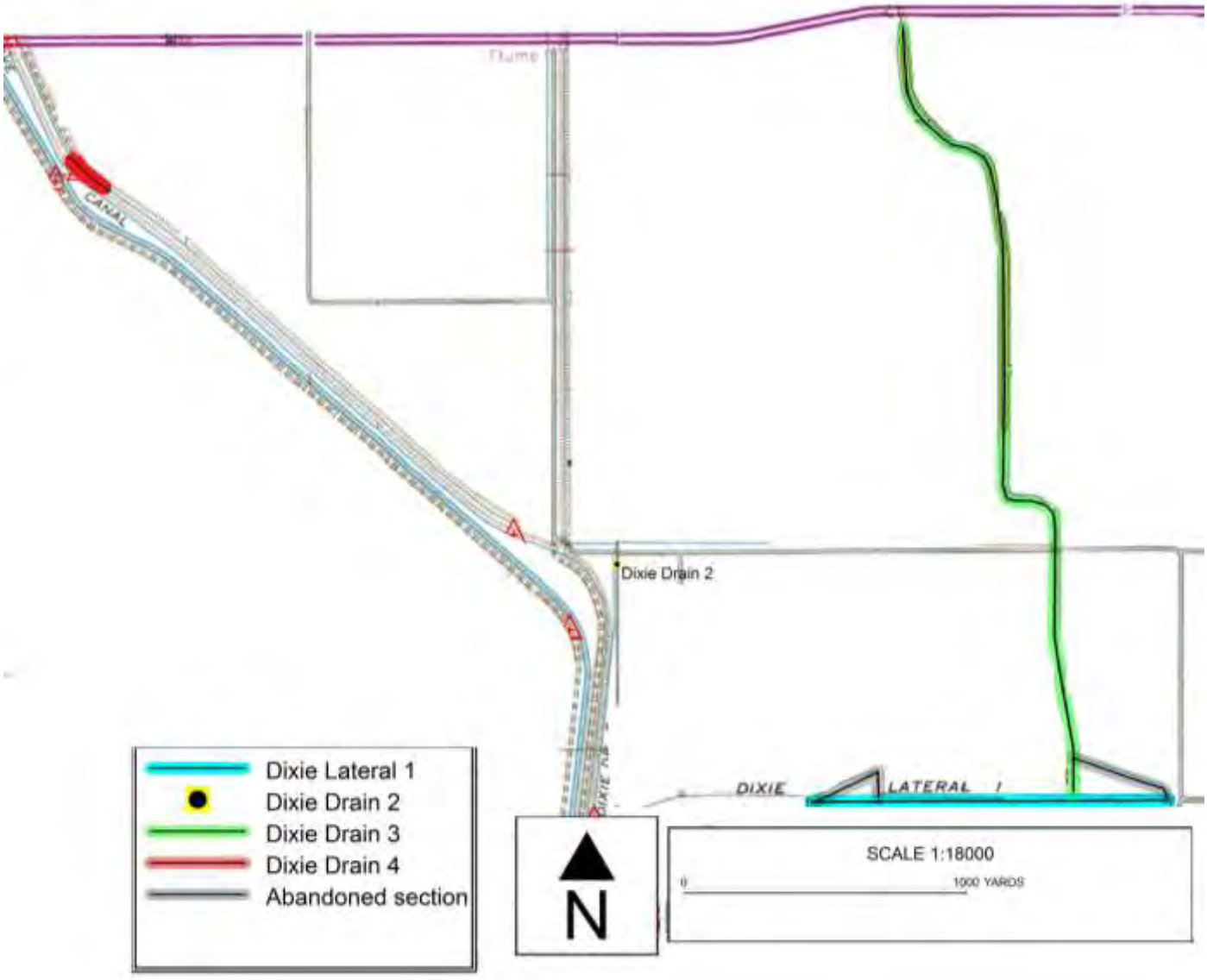
Dixie Drains 2, 3, 4 and Dixie Lateral 1 as a whole, are associated with the Westside Main Canal system and reflect the development associated with the construction and operation of the All-American Canal between 1941 and 1950.

An assessment prepared by the Bureau of Reclamation and Office of Historic Preservation, found that the All-American Canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in Imperial County west of the New River. According to the BLM website, the All American Canal is eligible for State inclusion on the NRHP. By extension, the Westside Main Canal system which includes Dixie Drain 3 and Dixie Lateral 1, both of which retain sufficient historic integrity aspects of location and materials, appear to be NRHP- and CRHR- eligible.

URS Corporation however, entered a NRHP status code of 6Z. Meaning that the resource had been found ineligible for listing in the National Register through an evaluation process other than a determination by the Keeper of the National Register or through a consensus determination of a federal agency and the State Historic Preservation Officer. The reason stated on the site form is as follows:

> *"….Overall, the Dixie Drain 3 does not appear to retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire drain has not occurred. The portion of Dixie Drain 3 at the crossing of Evan Hewes Highway also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (Though, it still retains sufficient historic integrity aspects of location and materials). Based upon historical documentation, regular dredging and widening of canals and drains were necessary and often performed to alleviate problems of silt and build-up. Due to these and other improvements over time, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance. Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA.*

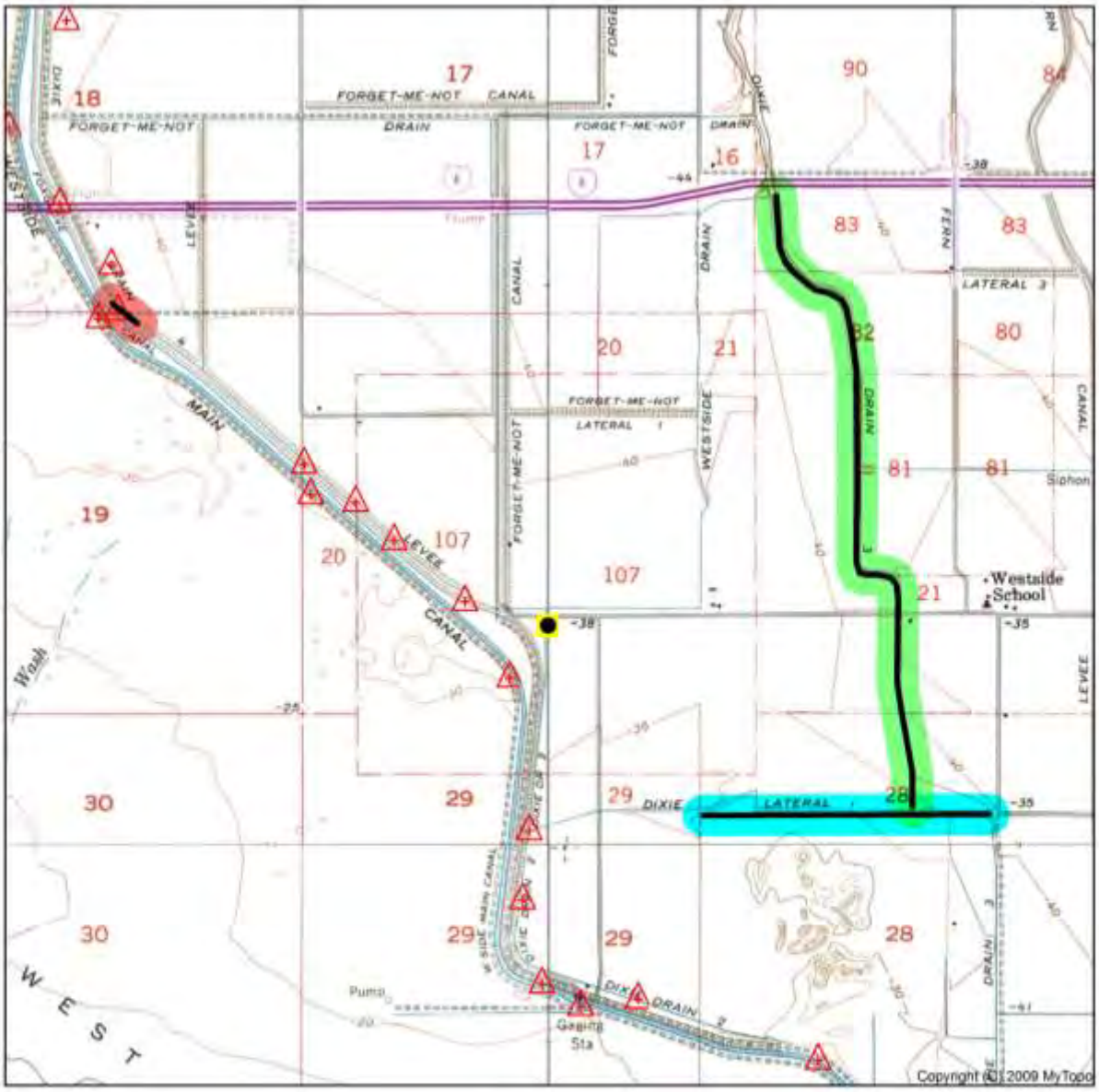
This resource has not been surveyed in its entirety; however, Shannon Davis (ASM Affiliates, Inc.) did evaluate the segments within the Campo Verde Solar Project APE and recommended the Dixie Drains 2, 3, & 4 / Dixie Lateral 1 not eligible for the NRHP and CRHR. Although they are associated with the early irrigation system of the Imperial Valley, and the important local theme of agricultural development, they does not convey that theme as well as other similar resources such as the Westside Main and the All-American canals, in part due to their loss of integrity (Davis et al. 2011; Mitchell 2011).


Flume
CANAL
Dixie Drain 2
DIXIE
LATERAL 1
Dixie Lateral 1
Dixie Drain 2
Dixie Drain 3
Dixie Drain 4
Abandoned section
N
SCALE 1:18000
0
1000 YARDS

LOCATION MAP

 *Resource Name or # (Assigned by recorder) Dixie Drains 2, 3, & 4 / Dixie Lateral 1 (portions)

***Map Name:** Plaster City, Calif ***Scale:** 1:24,000 ***Date of Map:** 1957



Declination
GN
MN
GN 0.67° E
MN 11.95° E

SCALE 1:24000
0 1000 2000 3000 4000 5000
FEET
0 1000
METERS
0 1
MILE

PLASTER CITY, CA
1957

Camera Format: Digital – Canon Powershot SD1300 IS Digital ELPH 12.1 megapixel
Negatives Kept at: kp environmental, LLC. 2387 Montgomery Ave, Cardiff By The Sea, CA 92007

Mo.	Day	Frame	Subject/Description	View Toward
07	08	1772	Dixie Drain east side of area 2	S
07	08	1773	Dixie Drain east side of area2	N
07	08	1774	Culvert going under I-10 at north of project area.	N
07	08	1775	West Side Drain at north end of project area.	W
07	09	1776	Dixie Drain culvert going under W. Vaughn	S
07	09	1777	Dixie 3 Drain south of W. Vaughn.	S
07	09	1778	Dixie 3 Drain culvert	D/N
07	09	1779	Dixie 3 Drain	N
07	11	1796	Junction of Dixie Lateral 1 and West Side Drain	NE
07	11	1797	Fig Lake	E
07	11	1798	Fig Lake	E
07	11	1800	Dixie 3 Drain	S
07	11	1801	Dixie Lateral 1	E
07	12	1823	Dixie 3 Drain Tile Line & Tailwater Pipe	N
11	04	2825	West end west side drain	E

Davis, Shannon, Jennifer Krintz, Sarah Stringer-Bowsher, and Sinéad Ní Ghabhláin. 2011. Impacts on Historic Resources on Private Lands, Campo Verde Solar Project, Imperial County, California.

Mitchell, Patricia T. 2011. Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project, Imperial County, California.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-012688
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code Reviewer Date

Page 1 **of** 8 ***Resource Name or #:** (Assigned by recorder) Portion of Dixie Drain 3

P1. Other Identifier: N/A

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

* **a. County** Imperial
* **b. USGS 7.5'** Brawley **Date** 1957 **T** 16S **R** 12E ; ¼ ¼ of 10 ; SB **B.M.**
c. Address N/A City N/A Zip N/A
d. UTM: (Give more than one for large and/or linear resources) Zone 11 , 618020 mE/ 3628835 mN
e. Other Locational Data: (e.g., parcel I, directions to resource, elevation, etc., as appropriate)

Dixie Drain 3 is part of the larger Dixie Canal system, which traverses the Dixieland area between the Westside Main Canal, located to the west, and the Fern Canal, located to the east. The portion of the Dixie Drain 3 surveyed is a small segment of a larger historic-period linear property that travels north to south, perpendicular to Evan Hewes Highway for approximately eight miles. The Dixie Drain 3 terminates to the north at Dixie Drain 1 and to the south at the Westside Main Canal. The UTMs provided above are the approximate centerpoint of the portion surveyed.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The portion of Dixie Drain 3 north of Evan Hewes Highway is an unlined earthen channel that appears to be approximately ten-feet wide and eight-feet deep with a concrete circle culvert. The drain features earthen levees covered with dense, overgrown vegetation consisting of wild grasses and weeds. Due to the density of the vegetation, the shape of the drain is difficult to discern, but appears to be trapezoidal. Dixie Drain 3 intersects the Westside Drain, which is located on the west. Approximately one-half mile north of Evan Hewes Highway, Dixie Drain 3 intersects with Dixie Drain 5, a shallow earthen ditch approximately five feet wide, which runs parallel to the highway. South of Evan Hewes Highway, Dixie Drain 3 is a corrugated metal pipe. The pipe runs on the ground surface but is obscured by dense native vegetation. Overall, the portion of the Dixie Drain 3 that bisects Evan Hewes Highway is in good condition, but has been affected by non-historic period construction and features, including the crossing.

***P3b. Resource Attributes:** (List attributes and codes) HP20. Canal/Aqueduct

***P4. Resources Present:** ☐ **Building** ☒ **Structure** ☐ **Object** ☐ **Site** ☐ **District** ☐ **Element of District** ☐ **Other** (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (view, date, accession #)
View of circle culvert north of Evan Hewes Highway, March 2009

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
Approximately 1940
1940 Brawley 15-min USGS

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Baroni Boulevard
Imperial, CA 92251

***P8. Recorded by:** (name, affiliation, and address)
URS Corporation
1615 Murray Canyon Rd., Suite 1000
San Diego, CA 92108

***P9. Date Recorded:** 05/2009

***P10. Survey Type:** (Describe)
Pedestrian Survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")

Mutaw, Robert J. (Ph.D.), Elizabeth B. Roberts, Gordon C. Tucker Jr., Ph.D., Brian Shaw, Terrie Bagwell, Colin O'Hanlon, Rachael Nixon, Gary Fink, Jeremy Hollins, Mark Neal. 2010 Draft Final Class III Confidential Cultural Resources Technical Report for the Imperial Valley Solar (formerly Solar 2), Imperial Valley County. URS Corporation. Technical report prepared for Tessera Solar (Applicant). Submitted to the Bureau of Land Management – El Centro Field Office, El Centro, CA. Copies available from the Bureau of Land Management – El Centro Field Office, El Centro, CA.

***Attachments:** ☐ NONE ☐ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # P-13-012688
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z

Page 2 of 8 *Resource Name or #: (Assigned by recorder) Portion of Dixie Drain 3

B1. Historic Name: Dixie Drain 3
B2. Common Name: Dixie Drain 3
B3. Original Use: Irrigation Ditch B4. Present Use: Irrigation Ditch
*B5. **Architectural Style:** N/A
*B6. **Construction History:** (Construction date, alterations, and date of alterations)
Actual construction date of the Dixie Drain 3 is unknown, despite efforts to contact the Imperial Irrigation District for construction date and information. However, the drain is shown on the 1957 Brawley and Seeley 7.5-minute USGS quadrangle maps. Review of the 1940 Plaster City 15-Minute USGS quadrangle map shows the existence of another Dixie Drain 4 (which is located one and half-miles to the west), but the drain does not extend far enough east to the location of Dixie Drain 3. The 1940 Brawley 15-minute USGS quadrangle map shows the general outline of the Dixie Drain 3 but the drain is not labeled. Based on this information, it can be assumed that Dixie Drain 3 was constructed by approximately 1940. A review of the 1949 USDA Aerial Photograph Collection, 1957 Brawley and Seeley 7.5-minute USGS quadrangle maps and the September 18, 1996 Imperial Irrigation District Southwest Division Map show that the general course of the canal has remained consistent for most of its history.
*B7. **Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A
*B6. **Related Features:**
Dixie Drain 5

B9. Architect: N/A b. Builder: Unknown
*B10. **Significance: Theme** N/A **Area** Dixieland, Imperial County
Period of Significance N/A **Property Type** Irrigation Ditch **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).

B11. Additional Resource Attributes: (List attributes and codes) N/A
*B12. **References:**
See Continuation Sheet 523L (Page 6)

B13. Remarks:
None

(Sketch Map with north arrow required)
See Continuation Sheet 523L (Page 5)

*B14. **Evaluator:** Jeremy Hollins
***Date of Evaluation:** 5/19/2009

(This space reserved for official comments)

B10. Significance (Continued)

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999). The extension of the Westside Canal into the United States in approximately 1906 was intended to alleviate irrigation problems and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the Dixieland area of Imperial County. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the Dixieland area of Imperial County was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

By 1907, the Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigación y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley. The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

B10. Significance (Continued)

By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

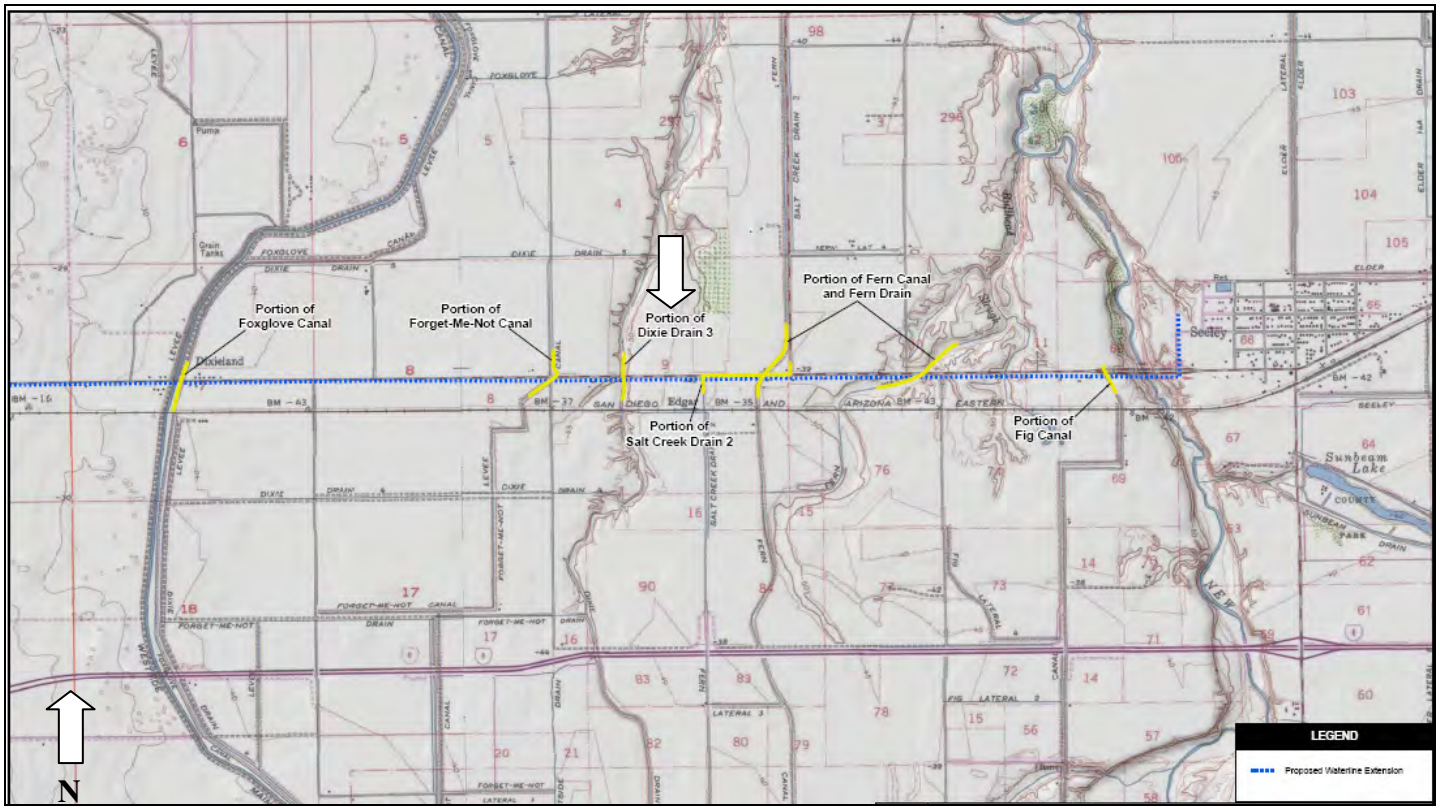
Dixie Drain 3, as a whole, is associated with the Westside Main Canal system and reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. Based on an earlier assessment prepared by the Bureau of Reclamation and Office of Historic Preservation, the All-American Canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in Imperial County west of the New River. By extension, the Westside Main Canal and the Dixie Drain 3 (which is a related feature to the larger Westside Main Canal and All-American Canal), appears to be NRHP- and CRHR- eligible. It does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR.

Overall, the Dixie Drain 3 does not appear to retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire drain has not occurred. The portion of Dixie Drain 3 at the crossing of Evan Hewes Highway also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (Though, it still retains sufficient historic integrity aspects of location and materials). Based upon historical documentation, regular dredging and widening of canals and drains were necessary and often performed to alleviate problems of silt and build-up. Due to these and other improvements over time, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance. Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA.

In summary, the portion of Dixie Drain 3 at the crossing of Evan Hewes Highway does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear All-American or Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed water line adjacent or perpendicular to the existing Dixie Drain 3 would not create a new adverse effect or significant impact to the portion of the historic-period property that bisects the Evan Hewes Highway.

Sketch Map:

Not to Scale



B12. References

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USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1943, 1957. Painted Gorge 7.5-minute USGS Quadrangle Maps.

USGS. 1940. Plaster City 15-Minute USGS Quadrangle Map.

USGS. 1943, 1944. Plaster City 1 to 62,500 Scale Map.

USGS. 1940. Brawley 15-minute USGS Quadrangle Map.

USGS. 1957. Brawley 7.5-minute USGS Quadrangle Map.

USGS. 1957, 1979. Seeley 7.5- minute USGS Quadrangle Map.

Additional Photos:



View of canal north of Evan Hewes Highway



View of pipe south of Evan Hewes Highway

Additional Photos:



View of Dixie Drain 5

Map Reference Number: 14

P1. Other Identifier: Westside Main Canal and Drain
e. Other Locational Data: south of Mandrapa Road, 1,400 feet east of Liebert Road

*P3a. Description: The 4-mile segment of the Westside Main Canal was identified using aerial images and observed from the right-of-way during the survey. The Westside Main Canal was constructed between 1906 and 1908 by the California Development Company and was extended into the API from a canal in Mexico. The earthen canal is approximately 75–80 feet wide and 10 feet deep. In 1941, the Westside Main Canal was incorporated into the All-American Canal system. Features along the Westside Main Canal include the Fern Check Bridge, built in 1947, and another spillway system, built in 1967, near the Fox Glove Canal. The segment observed is the main canal that feeds the Fig and Fern Canals and the Wixom and Dixie Drains (Photograph 1). The Westside Main Canal was constructed and incorporated into the All-American Canal in 1941, and the portions of the canal that were located in Mexico were removed from the IID (URS 2009d: 1–5).

*P3b. Resource Attributes: HP20: Aqueduct/Canal

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

The Westside Main Canal was incorporated into the All-American Canal upon its completion the following year in 1942 (Wlodarski 2006: 3; Johnson 2012e; URS 2009d; IID 2023)

BLM and IID have determined the All-American Canal is eligible for the NRHP as a historic district under Criterion A and Criterion C. According to report from 2001, BLM stated that the All-American Canal was found to be significant on local, state, and national levels due to its association with major federal public works projects, IID, and Imperial Valley. All elements of the canal are evaluated here as significant contributing elements of a district even if they are less than 50 years old. Additional research is required to determine if elements are contributory, prior to any NRHP nomination submittals. The All-American Canal is an ongoing and vital element of Imperial Valley's infrastructure that, since its construction, has required regular maintenance and upgrading (Schaefer and O'Neil 2001: 71).

Individual segments of the Westside Main Canal have been previously evaluated 12 times. The first evaluation in 1999 considered the Westside Main Canal, as a whole, significant under Criteria A and C for its association with the development of irrigated commercial agriculture in the Imperial Valley as a good example of an early large-scale irrigation canal system. However, the report mentioned that the segment within the project area did not possess sufficient integrity (Hupp 1999). One report from 2000 and three from 2007 considered the Westside Main Canal eligible for the NRHP under Criterion A/1 as an extension of the All-American Canal. In 2009 and 2010, URS and the IID Dixieland 203-kilovolt Transmission Line and Substation Expansion Project considered the Westside Main Canal not eligible for the NRHP under the NRHP Status Code 6Z (URS 2009d: 2-4; Bowden-Renna 2010: 1).

In 2011, ASM concurred in two separate updates with the 2007 report from SWCA Environmental Consultants recommending that the segment of the Westside Main Canal was eligible for the NRHP and CRHR under Criterion A/1 as a contributor to the All-American Canal for its association with the irrigation of the Imperial Valley (Davis 2011; Krintz 2011:1). Three additional

reports in 2011 by KP Environmental, Chambers Group, and AECOM evaluated a portion of the Westside Main Canal that included the Pump 6 site location, which was located on the south side of Mandrapa Road. KP Environmental and Chambers Group concluded that the segment of the property was not eligible and does not appear to be a contributing element to the Westside Main Canal system (Johnson et al. 2011; Thomson 2011). AECOM concurred with the 1999 California Department of Transportation report that the 7-mile portion of the canal that crosses under Interstate 8 is not eligible due to lack of integrity. In 2017, ASM did not give an updated evaluation but conducted an intensive-level survey of the canal between Mandrapa and Vogel Roads to Mandrapa and Liebert Roads (Lennen 2017:1)

On April 11, 2023, Dudek revisited a portion of the Westside Main Canal adjacent to the Project APl and observed multiple alterations since the last recordation in 2017. Portions of the surveyed segment of the Westside Main Canal are included in past evaluations: the 2011 IID Dixieland 230-kilovolt Transmission Line and Substation Expansion Project (Thomson 2011); and the Imperial Valley Solar Farm Project, West Imperial County, California (Krintz 2011; URS 2009). A concrete bridge that spans over the Westside Main Canal 830 feet west of the Fern Check is present and leads to the entrance of the Imperial Valley Substation, built ca. 2022.

Dudek concurs with the previous findings that the canal does not meet the criteria for listing in the NRHP or CRHR due to lack of integrity. The 4-mile segment of the Westside Main Canal between West Vaughn Road and Liebert Road does not reflect its original construction through the construction of features outside of its period of significance (1908–1941). Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the segment of the Westside Main Canal is not a historical resource for the purposes of CEQA. Dudek has assigned the segment of the Westside Main Canal a 6Z California Historical Resource status code.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), either individually or as a contributing element to an existing or potential historic district.

***B14. Evaluator:** EJ (Erin) Jones, MA, Dudek. 1810 13th Street, Suite 110, Sacramento, CA. 95811.

***Date of Evaluation:** August 15, 2023.

Photograph(s):

Photograph 1. Photo taken from bridge to substation, looking southeast toward the Fern Check Bridge.



References

Bowden-Renna, Cheryl 2010 Cultural Resources Investigations Class III Report for the IID Dixieland 230 kV Transmission Line and Substation Expansion Project, Imperial County, California. Prepared by AECOM

Davis, S 2011. "Westside Main Canal and Drain." ASM Affiliates.

Hupp, Jill 1999. CA-IMP-7834 Westside Main Canal. Sacramento: Caltrans Environmental Program

IID (Imperial Irrigation District). 2023. "Water History." Imperial County, California. Accessed June 2023. https://www.iid.com/about-iid/mission-vision-statements/iid-history.

Johnson, B. D., C. Bodmer, et al. 2011 "DPR Form set for the Westside Main Canal". Chambers Group Inc.

Johnson, B. D. 2012: DPR form set for Westside Main Canal." Chambers Group Inc.

Krintz, J. 2011. "DPR Form set for the Westside Main Canal." ASM Affiliates, Inc.

Lennen, J. 2017. "DPR 523 Form set for the Westside Main Canal." ASM Affiliates, Inc.

Schaefer, J., and O'Neil, C. 2001. *The All-American Canal: An Historic Properties Inventory and Evaluation.* Completed by ASM Affiliates for the Imperial Irrigation District (IID). On file at the San Joaquin Valley Information Center.

Thomson, H. 2011. "Westside Main Canal (portions)." State of California Department of Parks and Recreation.

Wlodarski, R.J. 2006. "Field Reconnaissance Report Cellular Archaeology Resource Evaluations C.A.R.E."

URS 2009. "DPR Form set for the Westside Main Canal."

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary # P-13-008334
HRI #
Trinomial IMP-7834

Page 1 of 1
Recorded by: Joel Lennen

***Resource Name or #** Westside Main Canal / IMP-7834
Date: April 25, 2017

☐ Continuation ■ Update

P1. **Other Identifier:** Westside Main Canal

***P2.** **Location:** ☐ **Not for Publication** ☒**Unrestricted**
***a. County:** Imperial County
***b.USGS 7.5'** Mount Signal **Quad Date** 1979 **T** 16S; **R** 12E; ¼ **of** ¼ **of Sec** 35; **B.M.**

c. Address City Zip
d. UTM: Zone 11 S, west side 620436.83 mE/ 3622228.39 mN; east side 620882.48 mE/ 3622133.77 mN
e. Other Locational Data: south of Mandrapa Road, from Liebert Road east for approximately 1,400 feet.

***P3a.** **Description:** P-13-008334/IMP-7834, the Westside Main Canal, is located immediately adjacent to the southern boundary of the Project area. Segments of this irrigation canal, which runs for approximately 40 miles through agricultural land in the Imperial Valley section of Imperial County, have been recommended eligible for listing in the NRHP and CRHR under Criterion A/1 for its significance in the development of the Imperial Valley. Although varying segments of the canal have been recommended as not eligible for the NRHP due to lack of integrity.

During the current survey, a small segment of the canal was identified, outside but adjacent to the Project area, beginning at the intersection of Mandrapa and Vogel Roads, heading west, ending at the intersection of Mandrapa and Liebert Roads. The canal is approximately 75 feet wide and is banked by earthen levees of vegetation. Dirt roads run along the levees on both sides of the canal for maintenance and dredging access. The canal was in the same condition as described by the previous recordations.

***P8.** **Recorded by:** (Name, affiliation, and address)
Joel Lennen
ASM Affiliates, Inc.
2034 Corte del Nogal
Carlsbad, CA 92011

***P10.** **Survey Type: (Describe):**
Intensive Pedestrian

***P11.** **Report Citation:**
Castells, Shelby and Joel Lennen
2017 *Cultural Resource Inventory for the Vega SES LLC Solar Project, Imperial County, California*. Submitted to Vega SES LLC.

P1. Other Identifier: East Highline Canal at Bridge No. 58C-0115 and the adjacent delivery system associated with the East Highline Canal (segments of East Highline No. 1 Side Main and East Highline Lateral No. 1)
***P2. Location:** ☐ Not for Publication ☒ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Bonds Corner **Date:** 2015; **T** 16S; **R** 16E; **of Sec.** 26 and 35; S.B. **B.M**
c. Address: N/A **City:** Holtville **Zip:** N/A
d. UTM: Zone 11S 660290.84 **mE** / 362204.40 **mE** N
***P3a. Description:**
The East Highline Canal is a linear feature that runs from the Alamo River to just north of Niland. A small portion of the Canal measuring approximately 200 feet is within the project area, where it is crossed by Verde School Road at Kumberg Road. In and near the project area, the Canal varies between 95 and 105 feet in width and is contained within earthen banks capped by dirt access roads. Fairly dense, low vegetation lines the areas of the banks nearest the water. At the middle of the site, a bridge with wood railings spans the Canal. North of the bridge on the western bank of the Canal is a three-sided structure composed of fragments of bricks and mortar sitting on a base of stone and lined with concrete. Large pieces of broken concrete are leaning against the structure and scattered nearby. The East Highline No 1 Side Main parallels the East Highline Canal approximately 130 feet to the west of the western bank of the Canal. The sloping sides of the drain are lined with concrete. At the time of survey, it contained water from approximately 4 feet below ground level to an unknown depth, and the bottom of the waterway thus was not visible. Several feet from the point at which Verde School Road crosses the drain, check dams constructed of metal and concrete are incorporated into the crossing. At an irregularly shaped holding bay to the north of the road are three additional check dams on the east and west sides. To the south of the road three concrete walls channelize the water. At the time of survey, the canal was carrying water and appeared to be in operation. The Canal and associated features retain integrity.

(Continued on page 2)



***P3b. Resource Attributes:** HP20. Canal/Aqueduct
P5a. Photograph or Drawing:
P5b. Description of Photo: View northwest from the east bank of Canal south of bridge. September 22, 2016.

***P6. Date Constructed/Age and Sources:**
☒ Historic; constructed circa 1914
☐ Prehistoric ☐ Both

***P7. Owner and Address:**
Imperial Irrigation District
333 E Barioni Blvd, Imperial, CA 92251

***P8. Recorded By:**
Marilyn Novell, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

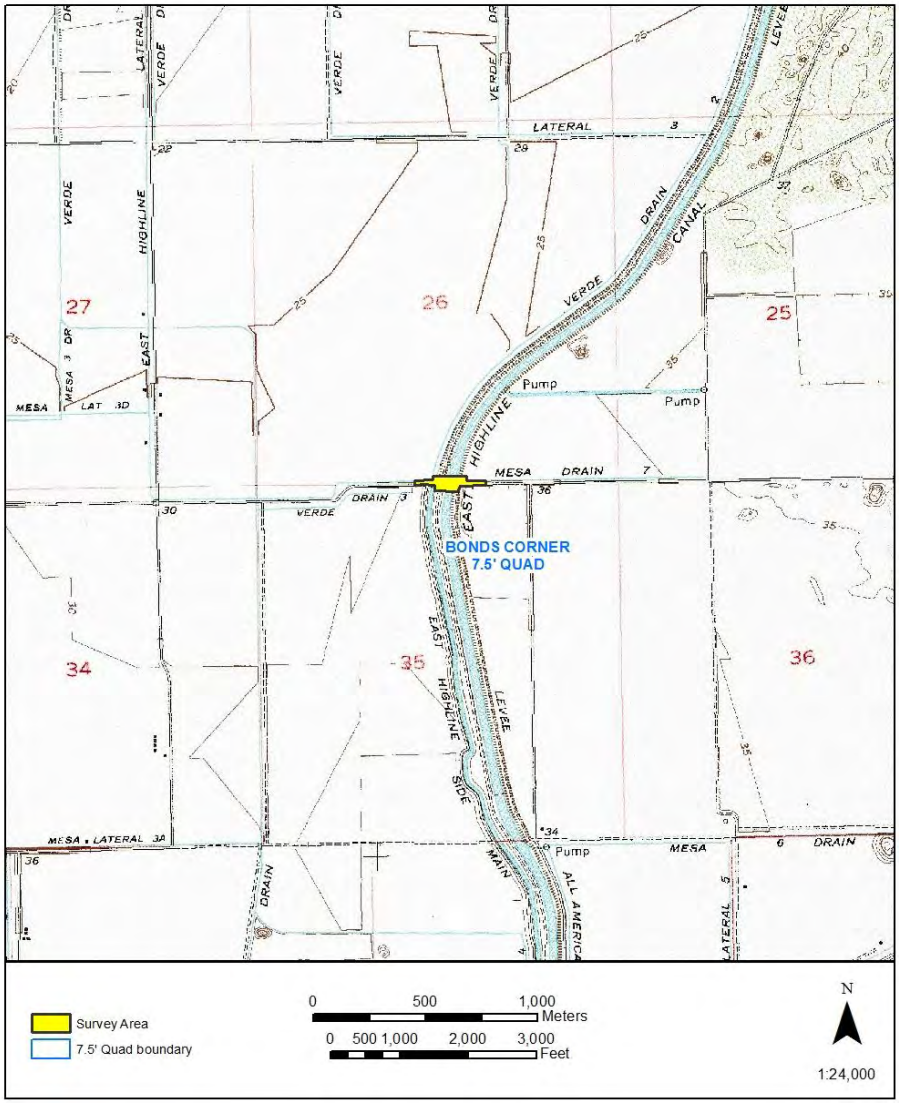
***P9. Date Recorded:** October 31, 2016

***P10. Survey Type:** Reconnaissance

P11. Report Citation: ASM Affiliates. 2017. *Historical Resources Evaluation Report for the Verde School Road Bridge Project, Imperial County, California***.** Prepared for Caltrans District 11a. September 2017.

***B10. Significance: Theme:** Agricultural Canal **Area:** Imperial County, CA
Period of Significance: 1914-1942 **Property Type:** Waterway **Applicable Criteria:** A/1, C/3
As a segment of the previous evaluated East Highline Canal, the East Highline Canal at Bridge No. 58C-0115 and the adjacent delivery system associated with the East Highline Canal (segments of East Highline No. 1 Side Main and East Highline Lateral No. 1) are recommended eligible for the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) under Criterion A/1 for association with the theme of *Development of Irrigated Agriculture in the Imperial Valley, 1900-1942* and under NRHP and CRHR Criterion C/3 as an example of early engineering design of canal systems in Imperial County, at the local level with a period of significance of 1914 (when this canal was constructed) and ending in 1942. The fragment of a former gate structure is a non-contributing element of the canal as it lacks integrity as a built-environment resource, does not contribute to the function of the canal (does not deliver water/irrigate), and does not possess any data potential.

Location Map



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-13-008334 Update
HRI # _____
Trinomial _____
NRHP Status Code _____
Other Listings _____
Review Code _____ **Reviewer** _____ **Date** _____

 ***Resource Name or #** Westside Main Canal

P1. Other Identifier: Westside Main Canal
***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Imperial County
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5'** Plaster City **Quad Date** 1979 **T R**; **¼ of Sec** 7; SB **B.M.**
c. Address City Zip
d. UTM: Zone 11S; 613474.85 mE/ 3628580.65 mN (Northern terminus within the APE)
Zone 11S; 615427.74 mE/ 3628580.65 mN (Southern terminus within the APE)
e. Other Locational Data:

***P3a. Description:**
This site form updates a 7 mile segment of the forty mile Westside Main Canal alignment. The Westside Main Canal is an irrigation canal that runs though agricultural land in the Imperial Valley section of Imperial County. The northern terminus of the recorded segment is located .25 miles east of Centinela State Prison in Imperial, CA (UTMs Zone 11S; 613474.85 mE/ 3628580.65 mN). After the canal passes under Interstate 8 the route orients to the southeast. The remainder of the route curves and the southern terminus of the recorded segment ends .25 miles east of the intersection at Mandrapa and Liebert in Imperial, CA (UTMs Zone 11S; 615427.74 mE/ 3628580.65 mN). The canal is approximately 75 feet wide. It is banked by earthen levees of vegetation and is unlined. Dirt access roads run along the levees on both sides of the canal for maintenance and dredging access.

***P3b. Resource Attributes:** HP. 20 Canal/Aqueduct
***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo:
Camera facing south; 07/20/2011; DSCN_9772

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
c. 1906/*IMP-98 HASR*, 1999.

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd
Imperial, CA 92251

***P8. Recorded by:**
AECOM
1420 Kettner Blvd., Suite 500
San Diego, CA 92101

***P9. Date Recorded:** 07/20/2011

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** *BUILT ENVIRONMENT SURVEY REPORT ADDENDUM TO THE CULTURAL RESOURCES INVESITGATIONS CLASS III REPORT FOR THE IID DIXIELAND 230 kV TRANSMISSION LINE AND SUBSTATION EXPANSION PROJECT, IMPERIAL COUNTIES, CALIFORNIA*, AECOM 2012

***Attachments:** NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (list) _____

L1. Historic and/or Common Name: Westside Main Canal

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:**

b. Location of point or segment:

The northern terminus of the recorded segment can be reached from El Centro by taking Interstate 8 west for 7 miles and exit towards Seeley traveling on Drew Road for one mile. Turn left on Drew Road and go west for 4 miles. The northern terminus of the recorded segment begins .25 miles east of Centila State Prison at UTMs Zone 11S; 613474.85 mE/ 3628580.65 mN.

L3. Description:

This site form updates a 7 mile segment of the forty mile Westside Main Canal alignment. The Westside Main Canal is an irrigation canal that runs though agricultural land in the Imperial Valley section of Imperial County. The northern terminus of the recorded segment enters the Area of Potential Effects (APE) .25 miles east of Centinela State Prison in Imperial, CA (UTMs Zone 11S; 613474.85 mE/ 3628580.65 mN). After the canal passes under Interstate 8 the route orients to southeast. The remainder of the route curves and the southern terminus of the recorded segment ends .25 miles east of the intersection at Mandrapa and Liebert in Imperial, CA (UTMs Zone 11S; 615427.74 mE/ 3628580.65 mN). The canal is approximately 75 feet wide running perpendicular to Hwy 80. It is banked by earthen levees of vegetation and is unlined. Dirt access roads run along the levees on both sides of the canal for maintenance and dredging access.

L4e. Sketch of Cross-Section (include scale) Facing:

L4. Dimensions:

a.Top Width 75 feet
b. Bottom Width unknown
c. Height or Depth 10 feet
d. Length of Segment 7 miles

L5. Associated Resources:

The Fox Glove Canal runs parallel to the Westside Main Canal.

L6. Setting:

Located in between Plaster City and Seeley, the canal is surrounded by primarily irrigated agricultural land. A variety of crops grow along this segment, as well as rural vegetation along its banks. Dirt access roads run parallel to the canal along its berms.



L7. Integrity Considerations:

The canal is currently in use and is regularly maintained to keep the banks properly groomed and the quantity of silt minimal.

L8b. Description of Photo, Map, or Drawing: Camera facing south; 07/20/2011; DSCN_8771

L9. Remarks:

L10. Form Prepared by:

AECOM
1420 Kettner Blvd., Suite 500
San Diego, CA 92101

L11. Date:

07/20/2011

This site form updates the 7-mile recorded segment of the larger 40 mile Westside Main Canal. P-13-008334 was recorded by Jill Hupp in 1999. During the current survey effort, the portion of the canal within the project area is earthen lined and is still in use today. While the canal has been recommended eligible for the National Register of Historic Places (NRHP), the portion of the canal within the proposed project area was examined in 1997 and 1998 and was recommended not eligible for the NRHP due to lack of integrity (Hupp 1999). Caltrans also evaluated a portion of the canal as it crosses under I-8. Caltrans determined that, under California Environmental Quality Act (CEQA), the portion of the canal under I-8 is not a historic resource and therefore is not eligible for the NRHP (Hupp 1999).

Bowden-Renna, Cheryl
2010 *Cultural Resources Investigations Class III Report for the IID Dixieland 230 kV Transmission Line and Substation Expansion Project, Imperial County, California*. Prepared by AECOM

Hupp, Jill
1999 P-13-008334 Site Form. Form on file at the South Coastal Information Center.

UPDATE

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #: P-13-008334
HRI# _____
Trinomial CA-IMP-7834

Page 1 **of** 1 ***Resource Name or #:** (Assigned by recorder)

***Recorded by:** C. Bowden-Renna ***Date:** 1/2010 ☐ Continuation ■ Update

Site P-13-008334 was recorded by Jill Hupp in 1999. This site is the Westside Main Canal, which was built about 1906 as a part of the Imperial Irrigation District canal system within Imperial Valley. During the current survey effort, the portion of the canal within the project area is earthen lined and is still in use today. While the canal has been recommended eligible for the National Register of Historic Places (NRHP), the portion of the canal within the proposed project area was examined in 1997 and 1998 and was recommended not eligible for the NRHP due to lack of integrity (Hupp 1999). Caltrans also evaluated a portion of the canal as it crosses under I-8. Caltrans determined that, under California Environmental Quality Act (CEQA), the portion of the canal under I-8 is not a historic resource and therefore is not eligible for the NRHP (Hupp 1999).

Bowden-Renna, Cheryl
2010 *Cultural Resources Investigations Class III Report for the IID Dixieland 230 kV Transmission Line and Substation Expansion Project, Imperial County, California.* Prepared by AECOM.

Hupp, Jill
1999 P-13-008334 Site Form. Form on file at the South Coastal Information Center.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-008334 Update
HRI #
Trinomial CA-IMP-7834 Update
NRHP Status Code

Other Listings
Review Code **Reviewer** **Date**

 ***Resource Name or #:** Westside Main Canal

P1. Other Identifier: Westside Main Canal
***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Imperial
***b. USGS 7.5' Quad:** Mount Signal **Date:** 2010 **T** 17S;**R** 12E/13E; of **Sec** 3, 2, 11, 12, 13, 24, 19, 20, 17, 21, **;S.B.B.M.**
c. Address: N/A City: N/A Zip: N/A
d. UTM: Zone: 11N; North end:620445mE/ 625496mN; South end: 625496mE/3613610mN (G.P.S.) NAD 83
e. Other Locational Data: Elevation: -7 m below sea level
Approximately seven miles west of El Centro along Hwy 8 is the intersection of Drew Road. When traveling west on Hwy 8 towards this intersection, take exit 107 for Drew Road toward Seeley. Merge onto Drew Road heading south bound. Continue along Drew Road for 2.3 miles to reach W Wixom Road. Turn west onto W Wixom Road and continue on this road for 1.4 miles to reach Liebert Road. Turn south onto Liebert Road and continue for 0.6 miles to reach Mandrapa Road. Turn west on Mandrapa Road; the Westside Main Canal flows adjacent to Mandrapa Road.

***P3a. Description:** Constructed in 1907, Site 13-8334 the Westside Main Canal, is part of the earliest irrigation system in the Imperial Valley, and was later integrated into the All-American Canal during the late 1930s. The All-American canal runs in an east-west direction just north of the international border with the U.S. and Mexico. The portion of the Westside Main canal as it passes through the APE is approximately 8 feet deep and 40 feet wide and is earthen lined. The portion of the Westside Main Canal that was surveyed includes a segment along the south side of Mandrapa Rd., between North Hyde Rd. to the west and Drew Rd. to the east. The Westside Main Canal was updated by Jennifer Krintz of ASM Affiliates in April 2011. The condition of the canal has not changed since its update by ASm Affiliates in April 2011.

***P3b. Resource Attributes:** HP20 Canal/Aqueduct

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☒Other (Isolates, etc.)

P5a. Photo



P5b. Description of Photo:
Westside Main Canal Facing east

***P6. Date Constructed/Age and Sources:** ☒Historic
☐Prehistoric ☐Both

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Boulevard
Imperial, CA 92251

***P8. Recorded by:**
C.Bodmer, B. Bartram, B. Johnson
T. Murphy, S. Wintergerst
Chambers Group Inc.,
5 Hutton Centre Drive, Ste. 750,
Santa Ana, CA 92707

***P9. Date Recorded:** 11/19/2011

***P10. Survey Type:** Pedestrian survey(15 meter transect intervals)

***P11. Report Citation:** A Class III Cultural Resources Inventory For The Agile Energy, Inc. Silverleaf Photovoltaic Solar Project Near The City Of El Centro, Imperial County, California

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**

***Resource Name or #** (Assigned by recorder) Westside Main Canal

B1. Historic Name: Westside Main Canal
B2. Common Name: Westside Main Canal
B3. Original Use: Irrigation Ditch
B4. Present Use: Irrigation Ditch

***B5. Architectural Style:** N/A

***B6. Construction History:** The Westside Main Canal was constructed in 1908 as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of this portion of the Westside Main Canal was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

***B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** N/A **Original Location:** N/A

***B8. Related Features:** None

B9a. Architect: N/A
b. Builder: Imperial Irrigation District

***B10. Significance: Theme:** N/A **Area:** West El Centro, Imperial County

Period of Significance: N/A **Property Type:** Irrigation Ditch **Applicable Criteria:** N/A

In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).

B11. Additional Resource Attributes: (List attributes and codes) N/A

***B12. References:**

See Continuation Sheet 523L (Page 6)

B13. Remarks:

(Sketch Map with north arrow required.)

See Continuation Sheet 523L (Page 5)

***B14. Evaluator:** Jeremy Hollins

***Date of Evaluation:** 04/2011

(This space reserved for official comments.)

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999). The extension of the Westside Canal into the United States in approximately 1906 was intended to alleviate irrigation problems and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the Dixieland area of Imperial County. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the Dixieland area of Imperial County was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

By 1907, the Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigacion y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley. The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

The Westside Main Canal system distributes irrigation water throughout Imperial County using a large network of smaller canals and drains. By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

Based on Caltrans' earlier 1999 assessment, the Westside Main Canal, as a whole, reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. The canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in the Imperial County west of the New River and as a good example of an early large-scale irrigation canal system. It does not appear to be associated with the lives of significant people or likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR. The canal was associated only for a short period with the CDC, from 1905 to 1911, nearly ten years after the company was established. Additionally, the canal was already in operation upon the forming of the IID, and does not reflect or convey the contributions of the IID to Imperial County.

Overall though, research conducted as part of Caltrans' 1999 assessment of the system found that the canal as a whole (while significant) does not retain a sufficient amount of its historic integrity to convey its significance due to regular dredging, grading, widening, and reconstruction that has occurred since the 1950s, though, an intensive survey of the entire canal has not occurred. The portion of the Westside Main Canal within the historic architecture APE also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA. While still earthen, extensive dredging and grading since the 1960s has changed the basic configuration of the canal, which has impacted its design, setting, and feeling. The canal currently has a U-shaped profile, whereas historically it was trapezoidal.

The addition of a non-historic period pipeline, and highway and railroad crossings over the canal in the historic architecture APE disrupt the property's integrity aspects of setting and feeling, since these elements are outside of the property's period of significance, 1941 to 1950. Accordingly, due to these alterations, the workmanship and association of the historic-period property in the APE has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance, and the property is not sufficiently intact to convey the direct link between significant events and the canal.

In summary, the portion of the Westside Main Canal within the historic architecture APE does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed Solar Farm adjacent or perpendicular to the existing structure would not create a new adverse effect or significant impact.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

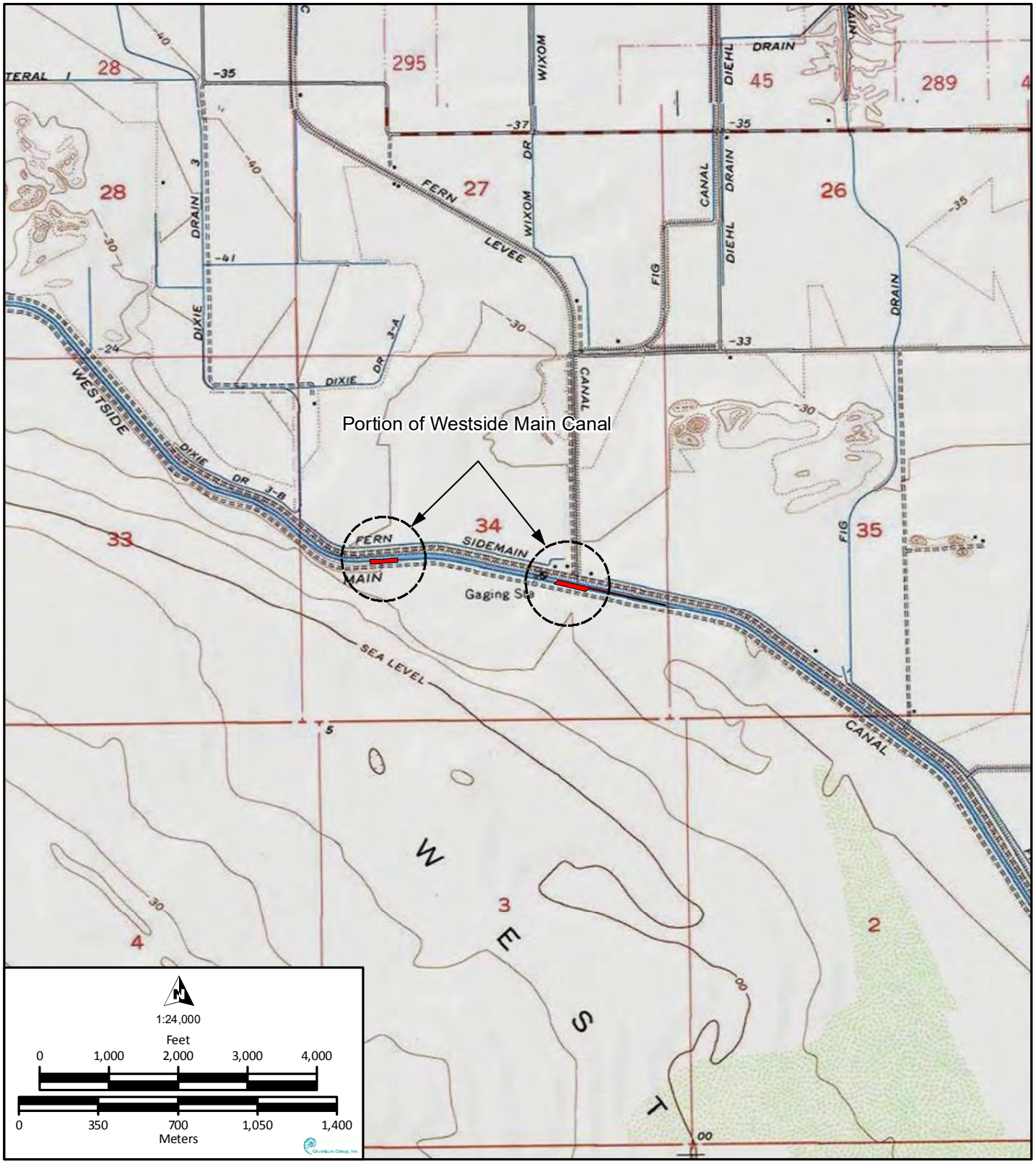
Primary # 13-8334
HRI#
Trinomial CA-IMP-7834

***Resource Name or #:** Westside Main Canal

***Map Name:** Mount Signal

***Scale:** 1:24,000

***Date of Map:** 2010



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USGS. 1940. Plaster City 15-Minute USGS Quadrangle Map.

USGS. 1943, 1944. Plaster City 1 to 62,500 Scale Map.

USGS. 1940. Brawley 15-minute USGS Quadrangle Map.

USGS. 1957. Brawley 7.5-minute USGS Quadrangle Map.

USGS. 1957, 1979. Seeley 7.5- minute USGS Quadrangle Map.

*Recorded by: Trish Mitchell, Erica Maier, and Heather Thomson: kp environmental, LLC and Alan Hatcher: Native American Monitor, Cocopah *Date: 01/24/2012 ☒ Continuation ☒ Update

CA-IMP-7834 was first recorded in 1999 by Jill Hupp who conducted extensive background research documenting the history of the Westside Main Canal. This resource has been recorded, evaluated, re-recorded, updated and re-evaluated nine times since it was first recorded in 1999. Each time only the portion of the canal within the project right-of-way was documented and ultimately evaluated for significance. As of 2011 (Davis et al. 2011; Mitchell 2011) the segments of the Westside Main Canal within the Campo Verde Solar Facility APE is determined eligible for listing in the NRHP and CRHR under Criterion A/1 for its significance in the development of the Imperial Valley. In 2001 the Bureau of Reclamation and the California SHPO concurred that the All-American canal is eligible for the NRHP under Criterion A and by extension the Westside Main Canal is as well (Hunt 2008). Davis concurred with this determination for the Campo Verde Solar Facility APE (Davis et al. 2011; Mitchell 2011). The Pump 6 segment of the Westside Main Canal that is recorded in the current survey area was not a part of Davis' 2011 evaluation. Chambers Group (2011) relocated the Pump 6 portion of the site during their November 2011 survey as previously recorded. KPE updated the Pump 6 site location to include a segment on the western end of the canal where the canal turns northwest and extends for another 900 feet.

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IMG 3385: Canal corner where it turns NW for 900 feet, View to E.



IMG 3387: Westside Main Canal Pump 6, View down.

State of California —The Resources Agency **Primary #** P-13-008334 UPDATE
DEPARTMENT OF PARKS AND RECREATION **HRI#**

PHOTOGRAPH RECORD

Trinomial CA-IMP-7834

Page 3 of 5 **Resource Name or #:** Westside Main Canal – Pump 6
Year 2011

Camera Format: Digital – Canon Powershot SD1300 IS Digital ELPH 12.1 megapixel
Negatives Kept at: kp environmental, LLC. 2387 Montgomery Ave, Cardiff By The Sea, CA 92007

Mo.	Day	Frame	Subject/Description	View
1	23	3385	Canal corner where it turns NW for 900 feet.	E
1	23	3387	Westside Main Pump 6	D
1	23	3388	Westside Main Pump 6	S
1	23	3392	Siphon	E
1	23	3393	Siphon	W

SKETCH MAP

Page 4 of 5 *Resource Name or # (Assigned by recorder) Westside Main Canal - Pump 6

*Drawn By: Trish Mitchell *Date: 1/24/2012



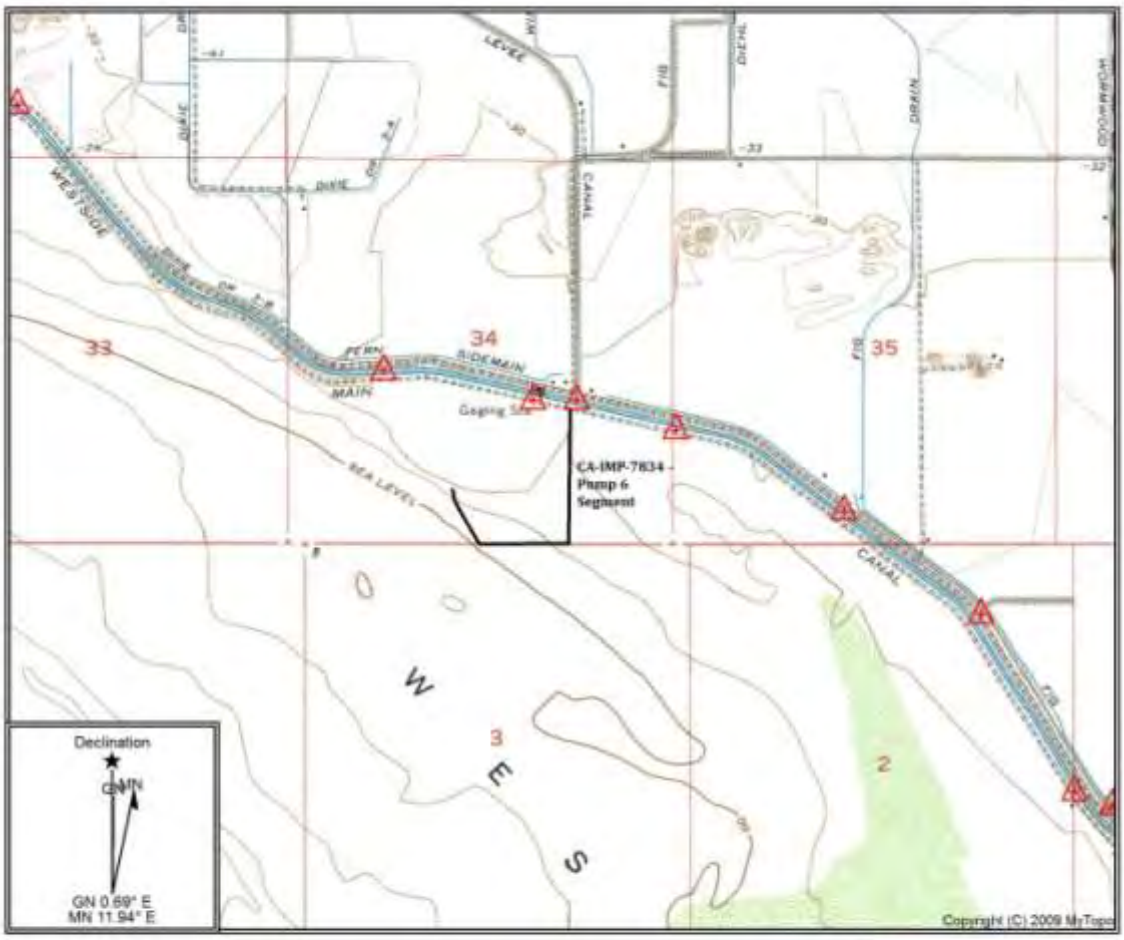
State of California —The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # P-13-008334 UPDATE
HRI#

LOCATION MAP

Trinomial CA-IMP-7834

***Map Name:** Mount Signal, Calif. ***Scale:** 1: 24,000 ***Date of Map:** 1957 (1976)



P-13-08334 (CA-IMP-7834) is the West Side Main Canal, an irrigation feature. The canal was first recorded in 1999 by Jill Hupp who conducted extensive background research documenting the history of the Westside Main Canal. Later site updates have basically regurgitated this information, tailoring it to fit the project. As part of a historical context study focusing on Water Conveyance Systems in California, JRP and Caltrans nicely sums up the Imperial Valley canal history as follows:

> *"…..The newly named Imperial Valley begins to develop widespread irrigated agriculture after 1898-1899, when C. R. Rockwood and George Chaffey took an interest in the area.Even Chaffey's efforts in the Imperial Valley did not succeed totally until the federal Reclamation Service became involved. Chaffey and Rockwood's California Development Company built a canal to serve the Imperial Valley in 1900-1902. Because of unstable sandy soil west of the Colorado River, part of the canal alignment had to be constructed south of the border, and it ran through Mexican land before turning north into the Imperial Valley. Farmers irrigated 25,000 acres the first season, and 100,000 acres by the next.*
>
> *In an effort to avoid water rights issues raised by a hostile federal Reclamation Service, and to get around large accumulations of silt at the out-take on the Colorado River, on the American side of the border, the California Development Company cut a wide outlet with no head gate in the riverbank inside Mexico. Unusually high flood waters tore open this outlet in the winter of 1905, overwhelming the main canal.*
>
> *On and off for the next two years, the Colorado River flowed through the main canal, flooding large areas of the Imperial Valley, destroying many farms and parts of some communities, and ultimately filling the Salton Sink, creating the Salton Sea.*
>
> *As work developing the valley went ahead, the company organized smaller mutual water companies to build ditch systems drawing off the main canals. By 1906, over 130,000 acres were under irrigation, growing to 180,000 acres in 1910, but Chaffey and Rockwood's company had gone into receivership in 1909. As demand for an irrigation district grew among remaining settlers, the Imperial Irrigation District was created in 1911. It encompassed more than 600,000 acres, by far the largest in the state. The Southern Pacific railroad purchased the California Development Company's works in February 1916, and then sold them in turn to the Imperial Irrigation District in June. By 1919, total irrigated acreage in the valley reached 400,000 acres, dropping to 300,000 at the beginning of the Great Depression, and in 1960 climbed to 565,000 acres.*
>
> *The massive works of the Imperial Irrigation District encompass an elaborate 75-gate heading on the Colorado River, a main canal running through to Calexico, and a web of over 2,400 miles of canals and laterals, with attendant gates, checks, drops, and miscellaneous structures. In the 1920s, the canals were unlined. Until most of the district's canals and laterals were straightened and lined with concrete beginning in the 1950s, they were plagued by silting problems. For example, in 1927, the district cleaned sand and silt from 3,274 miles of canals and surface drains.*
>
> *Among the reasons for the USBR's involvement in irrigation development in the Imperial Valley was the constant danger of the canal system's being washed out during high water stages in the Colorado River. In addition, the canal alignment located partly in Mexico left the system vulnerable to international disputes. During the late 1930s the USBR headed the All-American Canal project to construct a new canal north of the border. When completed, the All-American Canal brought water to the Imperial Valley south of the Salton Sea, and a branch called the Coachella Canal irrigated the Coachella Valley north of the Salton Sea…."*

Previous Site Records

This resource has been recorded, evaluated, re-recorded, updated and re-evaluated seven times since it was first recorded in 1999. Each time only the portion of the canal within the project right-of-way was documented and ultimately evaluated for significance. A summary of past recordation's follows.

May 24, 1999
Jill Hupp, Caltrans Environmental Program
The project APE was the area where State Route 98 crosses the Westside Canal. The site record shows a NRHP status code of 6. The significance statement is as follows:

> *…West side Main canal today, like the IID irrigation system overall, reflects the development that occurred as a result of the construction of the All American Canal in 1941, after which the system was considerably expanded and modernized. The Westside Main Canal appears to possess significance under criteria A and C for its association with the development of irrigated commercial agriculture in the Imperial Valley west of New River in the early 1900's and as a good example of an early large scale irrigation canal system. However, research to date appears to indicate that the canal as a whole, while significant, would not possess the requisite degree of integrity due to reconstruction and dredging activities since the 1950's, but no survey of the canal in its entirety has yet been undertaken. Caltrans architectural historian Frank Lortie, after an extensive study of the IID system in 1997, concluded that the elements in the IID that retain integrity for the period 1941-1950 could be contributors to a potentially eligible National Register historic district. The segment within the project vicinity does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association to represent the canals significance in itself or as a contributor to a larger property. While sill earthen, extensive dredging since the 1960's has changed the basic configuration of the canal, because modern dredging equipment created a different ditch profile, more U-shaped and with steeper sides. The canal was extended and widened over time as the IID attempted to keep up with its ever-expanding service area. Because of these alterations it reflects neither the period of significance outlined by Lortie (1941-1950) nor the earlier period of the canal systems history (1901-1907)…."*

June 2000
N. Harris and Michael Oberndorgf; HDR Engineering
The project APE was located approximately 1300' south of Dixieland at the ROW of the San Diego and Eastern Railroad. The site form states as follows:

> *"…As part of the All American Canal System, this canal is eligible for NRHP inclusion….The canal is part of the historic system of canals that make up the extensive hydraulic irrigation system in the Imperial Valley. These canals profoundly influenced the Euro-American land use, settlement patterns, economy, and the cultural landscape of southern California and continues to do so today."*

February 28, 2007
Jeanette A. McKenna
McKenna updated the site record at this time stating that the canal was considered a significant resource and as part of the All American Canal System, was recommended eligible for inclusion on the National Register of Historic Places. She recommended that monitoring be required during construction of the proposed pipeline and that the project be designed to avoid impacts to the resource during construction as well as maintenance activities.

April 19, 2007
SWCA Environmental Consultants
SWCA examined a 300-foot long segment of the canal during survey activities conducted for alternatives related to the Sunrise Powerlink Project. The SWCA update for this resource states as follows:

> *"The Westside Main Canal has not been altered or modified since its last update 1999 (Jill Hupp), when it was found not eligible for listing in the National Register (NHRP) as a separate property or as a contributor to a district. However in 2001 the Bureau of Reclamation and California State Historic Preservation Officer concurred that the All American Canal is ELIGIBLE for the NRHP; by extension the Westside Main Canal is now recommended ELIGIBLE for NRHP and California Register of Historic Resources (CRHR) under Criterion A/1 for its significance in association of the Imperial Valley".*

In addition, resources associated with the Westmain Canal, the Fox Glove Canal and Dixie Drain were recommended eligible for inclusion as part of the NRHP-eligible All-American Canal System.

December 12, 2007
EPG
Robert A. Rowe evaluated a portion of the canal located within the APE of the Mount Signal Solar Hybrid Plant. Additionally, EPG identified and recorded several features related to the Westside Main canal system. A site record update for P-13-008334 includes: Fig Canal, Fern Canal, Wixom Drain, Diehl Drain, Fern Side Drain, Fig Drain, Dixie Drain 3, Dixie Drain 3A and Dixie Drain 3C. In addition, EPG includes other contributing elements such as concrete laterals and spiles. Regarding significance, EPG determined that the Westside Main canal is eligible under Criterion A, for its potential to provide information about the settlement and economic development in the area and thus the transition of desert lands into irrigated area, thus affecting the local economy and subsistence.

December 2009
URS Corporation
URS Corporation visited the canal during a Class III inventory related to a proposed solar project. Along with fieldwork, URS also examined and compared numerous historic maps of the area, including the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County. It was determined that the general course of the canal has remained consistent for most of its history.
Jeremy Hollins of URS evaluated the resource as follows:

> *"…Based on Caltrans' earlier 1999 assessment, the Westside Main Canal, as a whole, reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. The canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in the Imperial County west of the New River and as a good example of an early large-scale irrigation canal system. It does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR. The canal was associated only for a short period with the CDC, from 1905 to 1911, nearly ten years after the company was established. Additionally, the canal was already in operation upon the forming of the IID, and does not reflect or convey the contributions of the IID to Imperial County.*

Overall though, research conducted as part of Caltrans' 1999 assessment of the system found that the canal as a whole (while significant) does not retain a sufficient amount of its historic integrity to convey its significance due to regular dredging grading, widening, and reconstruction that has occurred since the 1950s, though, an intensive survey of the entire canal has not occurred. The portion of the Westside Main Canal within the historic architecture APE also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA. While still earthen, extensive dredging and grading since the 1960s has changed the basic configuration of the canal, which has impacted its design, setting, and feeling. The canal currently has a U-shaped profile, whereas historically it was trapezoidal. The addition of a non-historic period pipeline and highway and railroad crossings over the canal in the historic architecture APE disrupt the property's integrity aspects of setting and feeling, since these elements are outside of the property's period of significance, 1941 to 1950. Accordingly, due to these alterations, the workmanship and association of the historic-period property in the APE has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance, and the property is not sufficiently intact to convey the direct link between significant events and the canal…"

"…..In summary, the portion of the Westside Main Canal within the historic architecture APE does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system (if it is determined that such a resource exists)."

The significance statement for each of these resources regurgitates the same information found on the form for the Westside Main, inserting the name of the currently discussed resource.
The statement is as follows:

"…Overall, the _____ does not appear to retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire _____has not occurred. The portion of _____ also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (Though, it still retains sufficient historic integrity aspects of location and materials). Based upon historical documentation, regular dredging and widening of canals and drains were necessary and often performed to alleviate problems of silt and build-up. Due to these and other improvements over time, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance. Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA.
In summary, the portion of _____does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear All-American or Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed water line adjacent or perpendicular to the existing _____would not create a new adverse effect or significant impact to the portion of the historic-period property that bisects the Evan Hewes Highway".

January, 2010
C. Bowden-Renna
The canal was once again visited during a survey conducted by AECOM related to the IID Dixieland 230 kV Transmission Line and Substation Expansion Project. The resource was described as follows:

> *"…Site P-13-008334 was recorded by Jill Hupp in 1999. This site is the Westside Main Canal, which was built about 1906 as a part of the Imperial Irrigation District canal system within Imperial Valley. During the current survey effort, the portion of the canal within the project area is earthen lined and is still in use today. While the canal has been recommended eligible for the National Register of Historic Places (NRHP), the portion of the canal within the proposed project area was examined in 1997 and 1998 and was recommended not eligible for the NRHP due to lack of integrity (Hupp 1999). Caltrans also evaluated a portion of the canal as it crosses under I-8. Caltrans determined that, under California Environmental Quality Act (CEQA), the portion of the canal under I-8 is not a historic resource and therefore is not eligible for the NRHP (Hupp 1999").*

November 04, 2011
Heather Thomson
The canal was revisited again in November 2011 during a cultural resource survey related to the Campo Verde Solar Project. An approximately 341' section of the canal falls within the survey area. The section of canal inspected consists of an earthen, unlined canal. In addition, a turnout with concrete wing walls provides water to a large concrete block reservoir, which in turn flows into a lateral canal located west of the Westside Main. This lateral, the reservoir and the remains of an electrical panel and tin shed roof appear abandoned and no longer in use.

The Westside Main Canal joins the All-American Canal near the western edge of the Imperial Valley and serves the western part of the IID water service area. Water is released from the Westside Main canal into the heading of each lateral canal. From the lateral canals, zanjeros measure and divert the required amount of water from the lateral canal through individual customer delivery gates.

The All American Canal is eligible for State inclusion on the NRHP and by extension, the Westside Main Canal as well. The portion of Westside Main Canal inspected during the current survey found the resource appeared to retain sufficient historic integrity aspects of location and materials.

This resource has not been surveyed in its entirety; however, Shannon Davis (ASM Affiliates, Inc.) did evaluate the segments within the Campo Verde Solar Project APE and found that the Westside Main Canal "is eligible for listing in the NRHP and CRHR under Criterion A/1 for its significance in the development of the Imperial Valley. The earthen canal was integral to the development of irrigated commercial agriculture since its construction in the early 1900s. Under the themes of agriculture and economic development, ASM's professional, independent recommendation is that this section of the Westside Main Canal is eligible for the NRHP and CRHR on the local and state levels."

Davis, Shannon, Jennifer Krintz, Sarah Stringer-Bowsher, and Sinéad Ní Ghabhláin. 2011. Impacts on Historic Resources on Private Lands, Campo Verde Solar Project, Imperial County, California.

Mitchell, Patricia T. 2011. Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project, Imperial County, California.

Camera Format: Digital – Canon Powershot SD1300 IS Digital ELPH 12.1 megapixel
Negatives Kept at: kp environmental, LLC. 2387 Montgomery Ave, Cardiff By The Sea, CA 92007

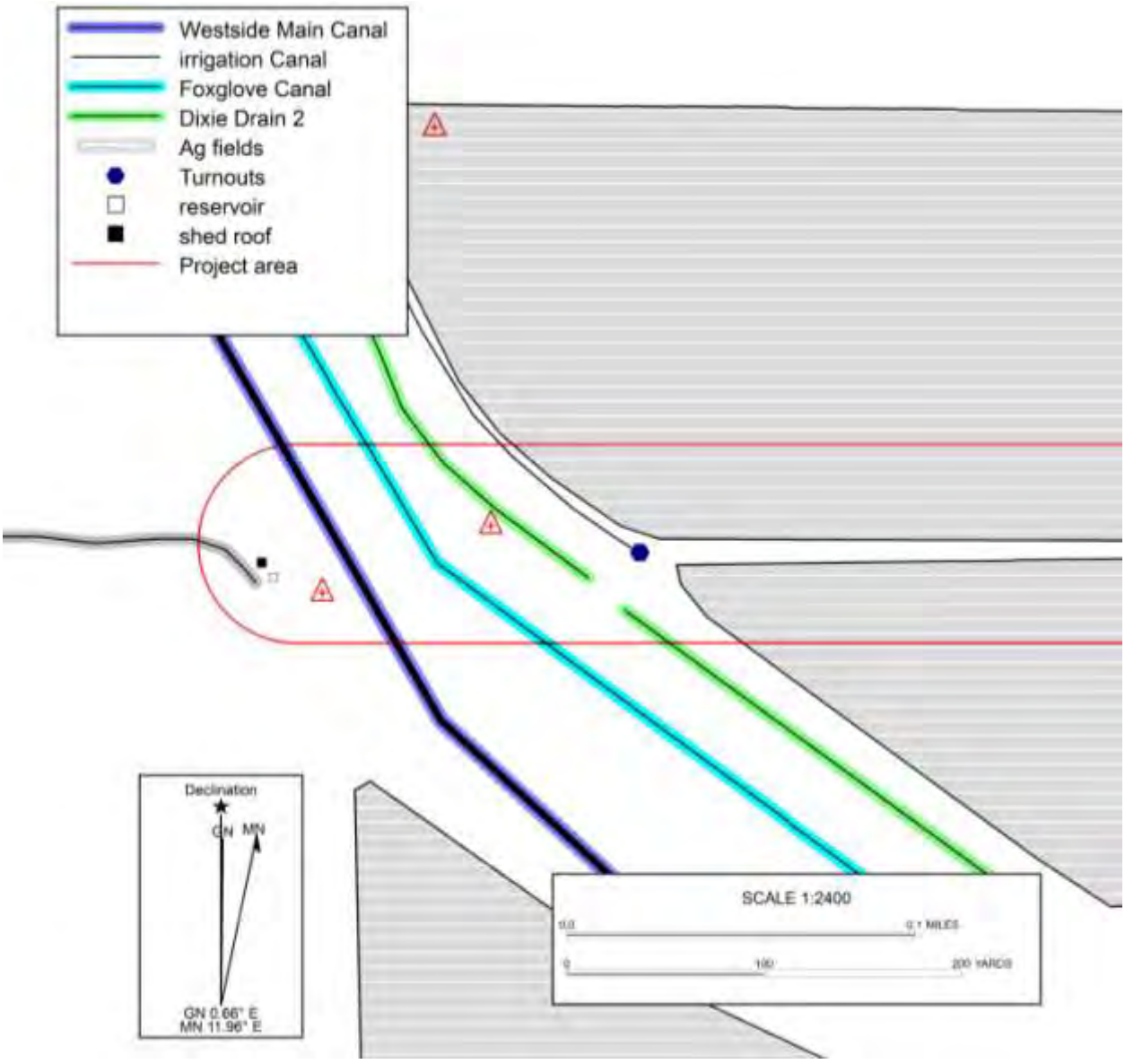
Mo.	Day	Frame	Subject/Description	View
11	04	2820	West bank of Westside drain	
11	04	2821	Isolated white glassware no point	D
11	04	2822	Dr. Pepper bottle in bank of Westside Drain	D/E
11	04	2823	East end of concrete irrigation canal runs e-w	
11	04	2824	Mushrooms for Erica	
11	04	2825	West end west side drain	E
11	04	2826	West end of concrete irrigation canal fed by gate 1 on Forget me not	W
11	04	2827	Forget me not gate 2 feeds east-west concrete irrigation ditch to eat	W
11	04	2827	Irrigation ditch west end	W
11	04	2828/2829	Square box culvert on SW corner of Hyde and Hardy	
11	04	2830/2831	West main east bank	S/W
11	04	2832-2834	West side of west main concrete block reservoir feeds east-west concrete irrigation canal to west. It is no longer in use. Old tin shed roof and electric panel no longer in use	W-S
11	04	2835	Gate on west bank of west main	



IMG_2830 view to south.
Westmain Canal taken from east bank.



IMG_2832 view to west.
Reservoir, shed roof and panel.


Westside Main Canal
irrigation Canal
Foxglove Canal
Dixie Drain 2
Ag fields
Turnouts
reservoir
shed roof
Project area
Declination
GN
MN
GN 0.66° E
MN 11.96° E
SCALE 1:2400
0.0
0.1 MILES
0
100
200 YARDS

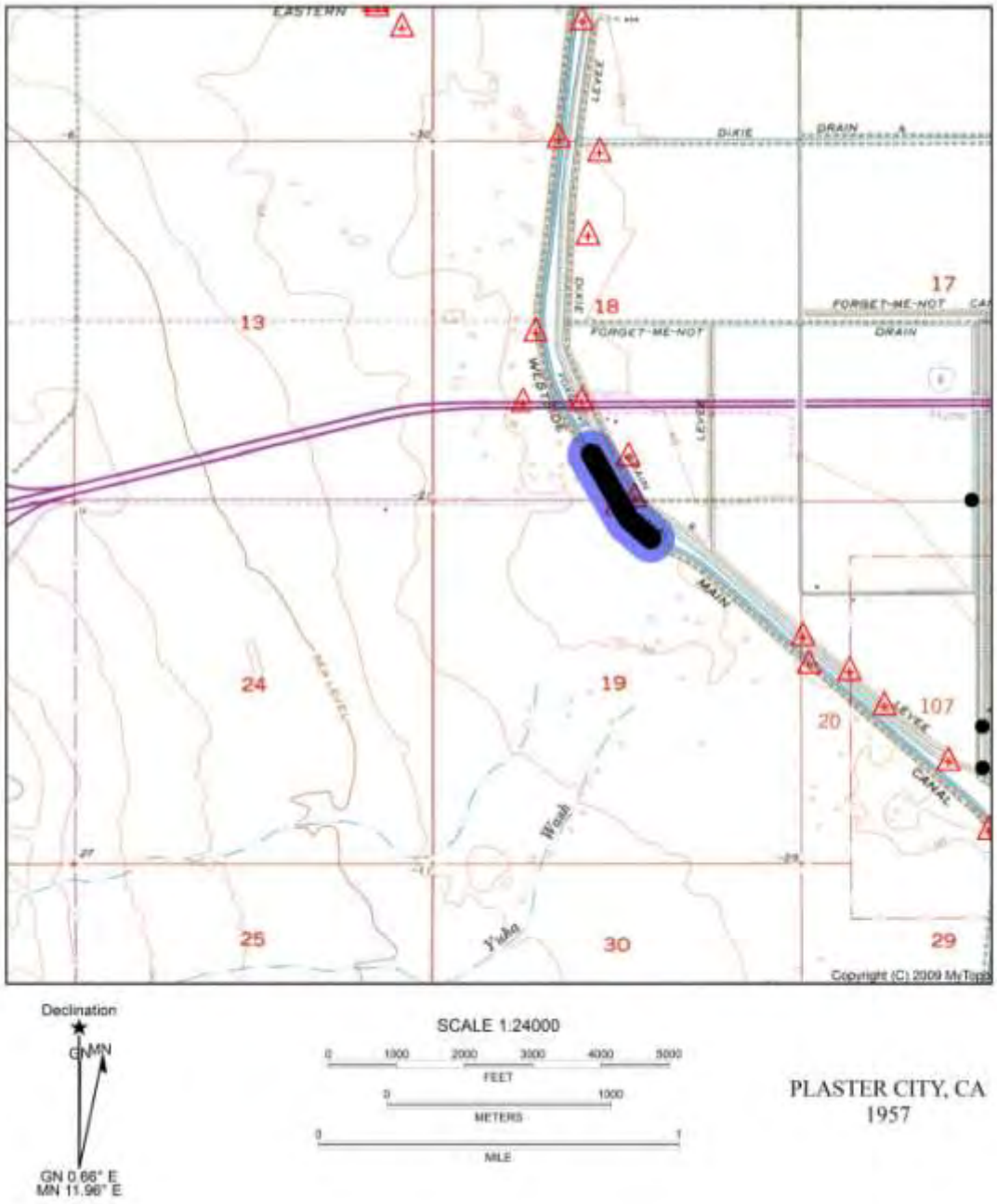
State of California —The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # P-13-008334 UPDATE
HRI#
Trinomial CA-IMP-7834

 *Resource Name or # (Assigned by recorder) Westside Main Canal (portion)

*Drawn By: Heather Thomson *Date: 11/07/2011



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE (Westside Main Canal)
HRI #
Trinomial CA-IMP-7834 UPDATE (Westside Main Canal)
NRHP Status Code: 3D (Westside Main Canal) 6Z (Westside Drain)

Page 1 of 3 ***Resource Name or # (Assigned by recorder)** Westside Main Canal and Drain
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒Update

P1. Other Identifier: *P2. Location: ☐ Not for Publication ☒ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Plaster City, Seeley, Yuha Basin, Mount Signal **Date:** 1957; **T** 16S; **R** 11E; **of Sec.** Plaster City 7, 18, 19, 20, 107; Seeley 107; Yuha Basin 29; Mount Signal 29, 28, 33, 34, 35; S.B. **B.M**
c. Address: N/A **City:** Imperial **Zip:** N/A
d. UTM: Zone 11S; North end: 614961.43 **mE** / 3628012.34 **mN**; South end: 621656.46 **mE** / 3621746.51 **mN**

***P3a. Description:** Westside Main Canal was constructed in circa 1907 as one of four canals constructed for the earliest irrigation system in the Imperial Valley, in Imperial County, California It was later connected to the All-American Canal which extends westward from Yuma, Arizona north of the U.S.-Mexico border and terminates at the Westside Main Canal. The segment of the Westside Main Canal documented is approximately 5.5 mi. long, beginning just north of its intersection with Interstate extending southeast approximately .5 mi. past its intersection with Liebert Road and the Fern Canal in Imperial County, California. The canal is approximately 8 feet deep and approximately 40 feet wide. The integrity is good. The canal system also includes drains that remove the salinity from the agricultural lands the canal and its laterals irrigate.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct



P5a. Photograph or Drawing:

P5b. Description of Photo: View of Westisde Main Canal at Leibert Rd. looking south from northern side of the canal towards the Imperial Valley Substation; Picture taken November 2, 2011

***P6. Date Constructed/Age and Sources:**
Circa 1907, 1909 El Centro 15-minute US Army Corps Topo map,

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

***P8. Recorded By:**
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

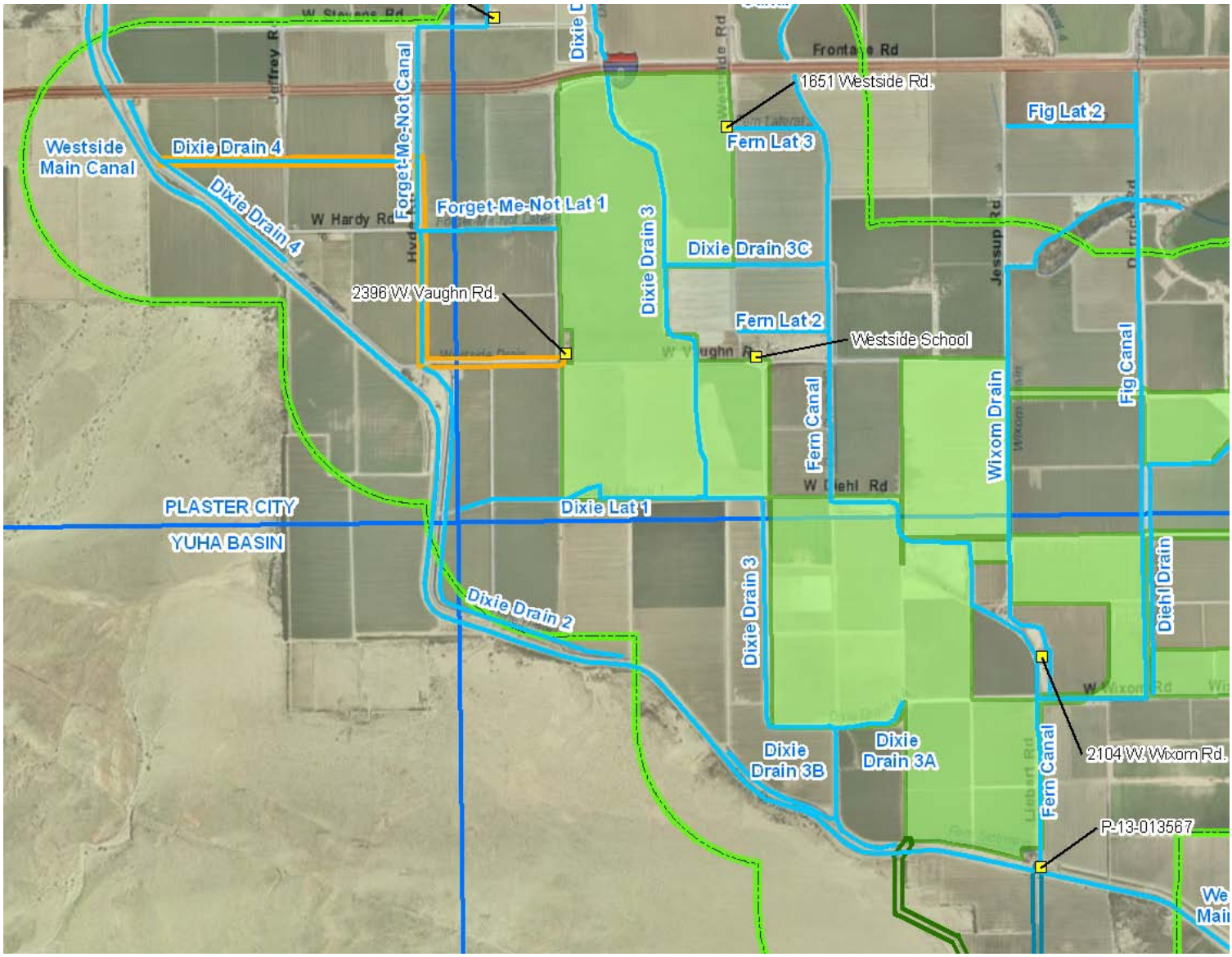
***P9. Date Recorded:** November 2011
***P10. Survey Type:** Intensive
P11. Report Citation: Inventory, Evaluation, and Analysis of Impacts on Historic Resources On Private Lands within the Area of Potential Effect of the Campo Verde Solar Project, Imperial County, California, ASM Affiliates, November 2011.
***B10. Significance: Theme:** Agricultural Canal **Area:** Imperial County, CA
Period of Significance: 1907-1950 **Property Type:** Waterway **Applicable Criteria:** A/1
In 2007, J. Burkard, H. Thompson, and J. Covert of SWCA Environmental Consultants recommended the segment of the Westside Main Canal eligible for the National Register of Historic Places as a contributor to a larger National Historic District to include the All-American Canal. ASM concurs with this finding and recommends the Westside Main Canal eligible for the National Register of Historic Places and the California Register of Historic Resources under criteria A and 1, respectively for its association with the irrigation of the Imperial Valley.



P5a. Photograph or Drawing:

P5b. Description of Photo: View of part of the canal taken looking south from the northern part of the property area; Picture taken March 22, 2011

Location Map of the Westside Main Canal and Drain



UPDATE

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE
NRHP Status Code: 3D

 ***Resource Name or # (Assigned by recorder)** Westside Main Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** April 5, 2011
☐ Continuation ☒ Update

P1. Other Identifier: Westside Main Canal
***P2. Location:** ☐ Not for Publication ☒ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Mount Signal **Date:** 1957; **T** 17S; **R** 12E/13E; **of Sec.** 3, 2, 11, 12, 13, 24, 19, 20, 17, 21; S.B. **B.M**
c. Address: N/A **City:** Imperial **Zip:** N/A
d. UTM: Zone 11S; North end: 620445.09 **mE** / 3622260.40 **mN**; South end: 625496.13 **mE** / 3613610.51 **mN**

***P3a. Description:** Westside Main Canal was constructed ca. 1907 as part of the earliest irrigation system in the Imperial Valley. It was later connected to the All-American Canal which runs east-west north of the international U.S.-Mexican borderline, as one of three main canals that receive water from the All-American Canal. This segment of the Westside Main Canal is approximately 5 miles long, with the northern end point southeast of Liebert Road and the southern end point where the canal intersects with the All-American Canal in Imperial County, California. The canal is approximately 8 feet deep and approximately 40 feet wide. The integrity is good.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct



P5a. Photograph or Drawing:

P5b. Description of Photo: View of part of the canal taken looking south from the northern end of the property area; Picture taken March 22, 2011

***P6. Date Constructed/Age and Sources:**
Circa 1907

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

***P8. Recorded By:**
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** April 5, 2011

***P10. Survey Type:** Reconnaissance

P11. Report Citation: Inventory, Evaluation, and Analysis of Effect on Historic Built Environment Properties within the Area of Potential Effect of the Imperial Solar Energy Center South, Imperial County, California

***B10. Significance: Theme:** Agricultural Canal **Area:** Imperial County, CA
Period of Significance: Property Type: Waterway **Applicable Criteria:** A/1
In 2007, J. Burkard, H. Thompson, and J. Covert of SWCA Environmental Consultants recommended the segment of the Westside Main Canal eligible for the National Register of Historic Places as a contributor to a larger National Historic District to include the All-American Canal. ASM concurs with this finding and recommends the Westside Main Canal eligible for the National Register of Historic Places and the California Register of Historic Resources under criteria A and 1, respectively for its association with the irrigation of the Imperial Valley.

UPDATE

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE
NRHP Status Code: 3D

Page 2 of 2 ***Resource Name or # (Assigned by recorder)** Westside Main Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** April 5, 2011
☐ Continuation ☒ Update

Location Map of Westside Main Canal





Red line indicates subject property
Map courtesy of Google Earth

UPDATE

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE
NRHP Status Code: 3D

Page 1 of 2 ***Resource Name or # (Assigned by recorder)** Westside Main Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** March 28, 2011
☐ Continuation ☒ Update

P1. Other Identifier: Westside Main Canal
***P2. Location:** ☐ Not for Publication ☒ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Plaster City, Seeley, Yuha Basin, Mount Signal **Date:** 1957; **T** 16S; **R** 11E; **of Sec.** Plaster City 7, 18, 19, 20, 107; Seeley 107; Yuha Basin 29; Mount Signal 29, 28, 33, 34, 35; S.B. **B.M**
c. Address: N/A **City:** Imperial **Zip:** N/A
d. UTM: Zone 11S; North end: 614961.43 **mE** / 3628012.34 **mN**; South end: 621656.46 **mE** / 3621746.51 **mN**

***P3a. Description:** Westside Main Canal was constructed in circa 1907 as part of a larger canal system in the Imperial Valley which started with the construction of the All-American Canal which runs east-west north of the international U.S.-Mexican borderline. The segment of the Westside Main Canal is approximately 5 miles long, with the northern end point just south of the community of Dixieland and the southern end point 1 mile southeast of Liebert Road in Imperial County, California. The canal is approximately 8 feet deep and approximately 40 feet wide. The integrity is good.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct



P5a. Photograph or Drawing:

P5b. Description of Photo: View of part of the canal taken looking south from the middle of the property area; Picture taken March 22, 2011

***P6. Date Constructed/Age and Sources:**
Circa 1907

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

***P8. Recorded By:**
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** March 28, 2011

***P10. Survey Type:** Reconnaissance

P11. Report Citation: Assessment of Visual Impacts on the Historic Built Environment Properties within the APE of the Imperial Valley Solar Farm Project West Imperial County, California

***B10. Significance: Theme:** Agricultural Canal **Area:** Imperial County, CA
Period of Significance: Property Type: Waterway **Applicable Criteria:** A/1
In 2007, J. Burkard, H. Thompson, and J. Covert of SWCA Environmental Consultants recommended the segment of the Westside Main Canal eligible for the National Register of Historic Places as a contributor to a larger National Historic District to include the All-American Canal. ASM concurs with this finding and recommends the Westside Main Canal eligible for the National Register of Historic Places and the California Register of Historic Resources under criteria A and 1, respectively for its association with the irrigation of the Imperial Valley.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE
NRHP Status Code: 3D

Page 2 of 2 ***Resource Name or # (Assigned by recorder)** Westside Main Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** March 28, 2011
☐ Continuation ☒ Update

Location Map of Westside Main Canal





Red line indicates subject property
Map courtesy of Google Earth

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary #: P-13-008334
HRI#
Trinomial CA-IMP-7834

Page 1 **of** 1 ***Resource Name or #:** (Assigned by recorder)

***Recorded by:** C. Bowden-Renna ***Date:** 1/2010 ☐ Continuation ■ Update

Site P-13-008334 was recorded by Jill Hupp in 1999. This site is the Westside Main Canal, which was built about 1906 as a part of the Imperial Irrigation District canal system within Imperial Valley. During the current survey effort, the portion of the canal within the project area is earthen lined and is still in use today. While the canal has been recommended eligible for the National Register of Historic Places (NRHP), the portion of the canal within the proposed project area was examined in 1997 and 1998 and was recommended not eligible for the NRHP due to lack of integrity (Hupp 1999). Caltrans also evaluated a portion of the canal as it crosses under I-8. Caltrans determined that, under California Environmental Quality Act (CEQA), the portion of the canal under I-8 is not a historic resource and therefore is not eligible for the NRHP (Hupp 1999).

Bowden-Renna, Cheryl
2010 *Cultural Resources Investigations Class III Report for the IID Dixieland 230 kV Transmission Line and Substation Expansion Project, Imperial County, California.* Prepared by AECOM.

Hupp, Jill
1999 P-13-008334 Site Form. Form on file at the South Coastal Information Center.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial CA-IMP-7834H UPDATE
NRHP Status Code _____
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 **of** 14 ***Resource Name or #:** (Assigned by recorder) Portion of Westside Canal (CA-IMP-7834H)

P1. Other Identifier: N/A

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

*** a. County** Imperial **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

*** b. USGS 7.5'** Plaster City **Date** 1976 **T** 16S **R** 12E ; ¼ ¼ **of** S7 ; SB **B.M.**

c. Address N/A City N/A Zip N/A

d. UTM: (Give more than one for large and/or linear resources) Zone 11 , 615024 mE/ 3628650 mN

e. Other Locational Data: (e.g., parcel l, directions to resource, elevation, etc., as appropriate)

The portion of the Westside Main Canal (CA-IMP-7834H) surveyed is approximately one mile long and runs north-south within the Dixieland area of Imperial County. The TRS and UTM provided above are the approximate centerpoint of the portion of the canal surveyed.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The portion of the Westside Canal in the historic architecture APE is a small portion of a much larger 20-mile historic-period linear property that ultimately travels from the International Border area to the Brawley-Westmoreland area. Accordingly, formal recordation of the entire Westside Canal was considered unnecessary and outside of the project scope, since the project would not directly affect (e.g., alter, remove, change use or physical features, cause deterioration) the entire 20-mile historic-period property. Rather, the portion of the historic-period property within the historic architecture APE was studied within the context of the whole property only.

This portion of the Westside Main Canal is an earthen-bank irrigation canal that is approximately 25 feet wide and 10 feet deep (portions of the canal outside of the APE feature concrete-lining). It primarily has a U-shaped form. SEE CONTINUATION SHEET 523L (PAGE 3).

***P3b. Resource Attributes:** (List attributes and codes) HP20. Canal/Aqueduct

***P4. Resources Present:** ☐ **Building** ☒ **Structure** ☐ **Object** ☐ **Site** ☐ **District** ☐ **Element of District** ☐ **Other** (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (view, date, accession #)
View to northeast, Evan Hewes
Highway Crossing, March 2009

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
Approximately 1908
1908 El Centro map

***P7. Owner and Address:**
Bureau of Reclamation
27708 Jefferson Ave., Ste. 202
Temecula, CA 92590

***P8. Recorded by:** (name, affiliation, and address)
URS Corporation
1615 Murray Canyon Rd., Suite 1000
San Diego, CA 92108

***P9. Date Recorded:** 12/2009

***P10. Survey Type:** (Describe)
Pedestrian Survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")

Mutaw, Robert J. (Ph.D.), Elizabeth B. Roberts, Gordon C. Tucker Jr., Ph.D., Brian Shaw, Terrie Bagwell, Colin O'Hanlon, Rachael Nixon, Gary Fink, Jeremy Hollins, Mark Neal. 2010 Draft Final Class III Confidential Cultural Resources Technical Report for the Imperial Valley Solar (formerly Solar 2), Imperial Valley County. URS Corporation. Technical report prepared for Tessera Solar (Applicant). Submitted to the Bureau of Land Management – El Centro Field Office, El Centro, CA. Copies available from the Bureau of Land Management – El Centro Field Office, El Centro, CA.

***Attachments:** ☐ NONE ☐ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (List): _____

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # _____
HRI # _____
Trinomial CA-IMP-7834H UPDATE

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z

 ***Resource Name or #:** (Assigned by recorder) Portion of Westside Canal (CA-IMP-7834H)

B1. Historic Name: Encina Canal
B2. Common Name: Westside Main Canal
B3. Original Use: Irrigation Ditch B4. Present Use: Irrigation Ditch
***B5. Architectural Style:** N/A
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Actual construction date of this portion of the Westside Canal is unknown at present. However, by 1908, this portion of the Westside Main Canal was constructed. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of this portion of the Westside Main Canal was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.
***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A
***B6. Related Features:**
There is one related feature, the West side Main (WSM) Pump 6. The WSM Pump 6 is located in Township 17 South, Range 12 East, Section 3 and runs north-south from the south side of Mandrapa Road for approximately 0.34 miles, then east-west for approximately 0.25 miles. The WSM Pump 6 appears to be part of the larger West Side Main Canal and Fern Canal systems, which traverse the Dixieland area and converge in El Centro. SEE CONTINUATION SHEET 523L (PAGE 6)
B9. Architect: N/A b. Builder: Unknown
***B10. Significance: Theme** N/A **Area** Imperial County
Period of Significance N/A **Property Type** Irrigation Ditch **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).
B11. Additional Resource Attributes: (List attributes and codes) N/A
***B12. References:**
SEE CONTINUATION SHEET 523L (PAGE 6)

B13. Remarks:
None

(Sketch Map with north arrow required)
SEE CONTINUATION SHEET 523L (PAGE 5)

***B14. Evaluator:** Jeremy Hollins
***Date of Evaluation:** 12/2009

(This space reserved for official comments)

P3a. Description (Continued)

This portion runs perpendicular to Evan Hewes Highway (SH 80) and a San Diego and Arizona Railroad crossing (known as Union Pacific crossing 921-452D).

The banks feature earthen levees of natural vegetation, which have been reshaped and widened by modern dredging and grading activities. This portion is gravity-fed (since no control infrastructure was identified in the vicinity). Of note, immediately south of the Evan Hewes Highway crossing is a non-historic period gas pipeline (approximately one foot in diameter) which bisects the canal.

This pipeline disrupts the feeling, setting, visual narrative, and historic viewshed of this portion of the canal. Additionally, along the west bank are two non-historic period pumps, which are most likely used to divert water to/from nearby agricultural fields. The crossing at Evan Hewes Highway is an example of a non-historic period reinforced concrete girder bridge, characterized by a simple span, five abutments/bents (supported by five cylindrical columns), a metal guardrail, and square piers at the bridge portals. The crossing appears to be 40 years old. The crossing is in poor condition due to environmental effects (sun and heat exposure), exposed rebar, and a minimally-maintained travel surface. The crossing shows evidence of chipping, cracking, and spalling. The San Diego and Arizona Railroad crossing is also a non-historic period reinforced concrete girder bridge, and appears to be constructed within the past 30 years. The grade separation features a simple span, four abutments/bents (supported by three angular cylindrical columns), and cable-wire guardrails. The grade separation shows evidence of chipping and cracking, and shows extensive damage from insect infestation and environmental effects (sun and heat exposure). Overall, the portion of the Westside Main Canal is in good condition, but has been affected by dredging and grading activities and non-historic period construction and features, including the pipeline and the crossings.

B10. Significance (Continued)

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999). The extension of the Westside Canal into the United States approximately 1906 was intended to alleviate irrigation problems, and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the historic architecture APE. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the historic architecture APE was not significantly altered.

The Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink in 1907. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

B10. Significance (Continued)

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigación y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley.

The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. For example, the Fern Canal features several culverts and other structural improvement s from the 1950s through the 1980s. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

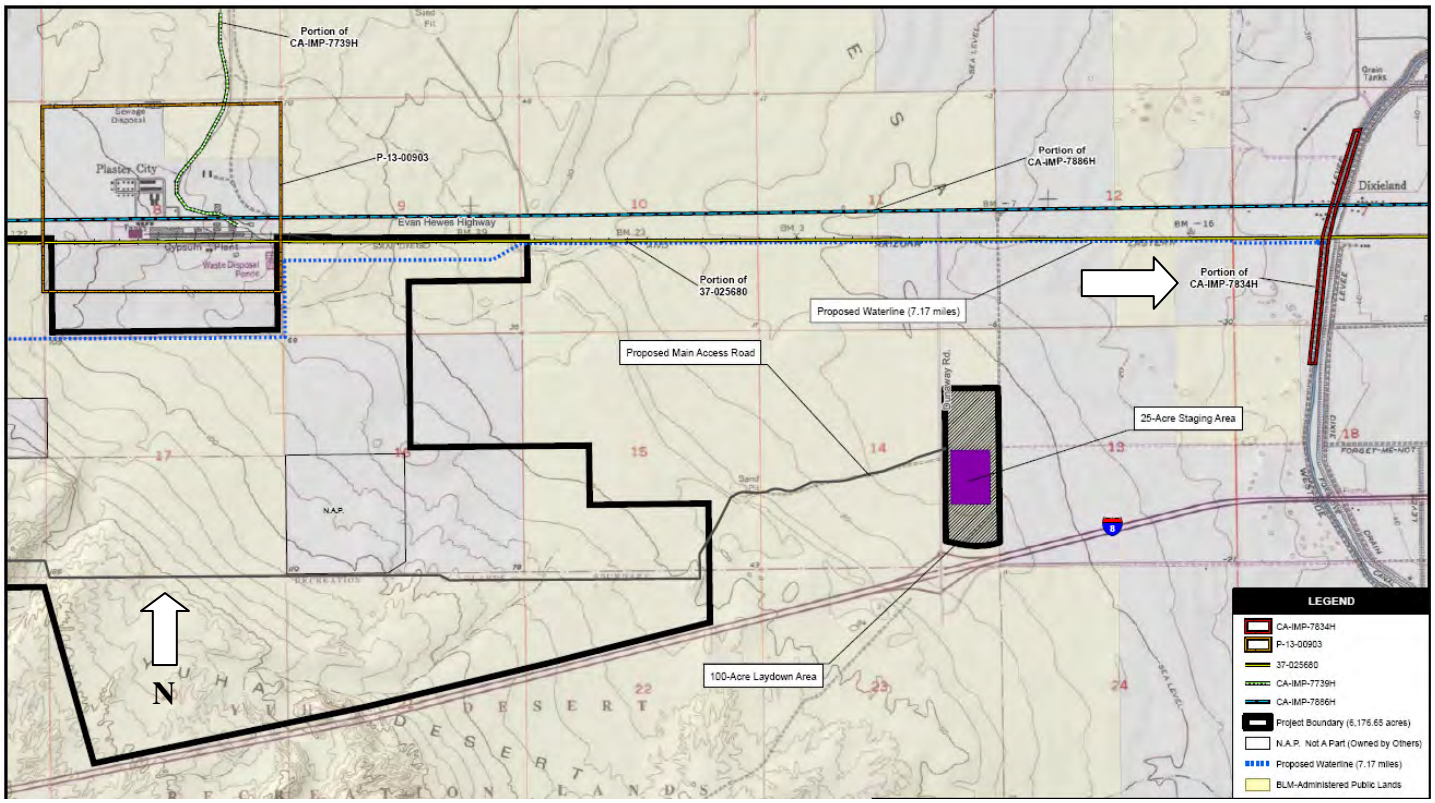
Based on Caltrans' earlier 1999 assessment, the Westside Main Canal, as a whole, reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. The canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in the Imperial County west of the New River and as a good example of an early large-scale irrigation canal system. It does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR. The canal was associated only for a short period with the CDC, from 1905 to 1911, nearly ten years after the company was established. Additionally, the canal was already in operation upon the forming of the IID, and does not reflect or convey the contributions of the IID to Imperial County.

Overall though, research conducted as part of Caltrans' 1999 assessment of the system found that the canal as a whole (while significant) does not retain a sufficient amount of its historic integrity to convey its significance due to regular dredging grading, widening, and reconstruction that has occurred since the 1950s, though, an intensive survey of the entire canal has not occurred. The portion of the Westside Main Canal within the historic architecture APE also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA. While still earthen, extensive dredging and grading since the 1960s has changed the basic configuration of the canal, which has impacted its design, setting, and feeling. The canal currently has a U-shaped profile, whereas historically it was trapezoidal. The addition of a non-historic period pipeline, and highway and railroad crossings over the canal in the historic architecture APE disrupt the property's integrity aspects of setting and feeling, since these elements are outside of the property's period of significance, 1941 to 1950. Accordingly, due to these alterations, the workmanship and association of the historic-period property in the APE has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance, and the property is not sufficiently intact to convey the direct link between significant events and the canal.

In summary, the portion of the Westside Main Canal within the historic architecture APE does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system (if it is determined that such a resource exists).

Sketch Map:

Not to scale



B12. References

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Sperry, Robert L. 1975. When the Imperial Valley Fought for its Life. The Journal of San Diego History, 21(1). Located at: http://www.sandiegohistory.org/journal/75winter/imperial.htm. Website last visited on 27 April 2007.

Thurston, Albert G. 1914. Imperial Valley Tract Map.

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USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1943, 1957. Painted Gorge Plaster City 7.5-minute USGS Quadrangle Maps.

B6. Related Features (Continued)

However, formal recordation of the entire Westside Main Canal and Fern Canal systems was considered unnecessary and outside of the project scope, since the project would not directly affect (e.g., alter, remove, change use or physical features, cause deterioration) the historic-period properties.

The north-south portion of the WSM Pump 6 is a concrete-lined channel that appears to be approximately five-feet wide and three-feet deep with concrete levees and earthen banks. This portion of the WSM Pump 6 is covered with dense, overgrown vegetation consisting of wild grasses and weeds. Due to the density of the vegetation, the shape of the channel is difficult to discern, but appears to be trapezoidal. This north-south channel shows evidence of heavy chipping, cracking, and spalling due to use and environmental effects. The north-south portion of the WSM Pump 6 terminates approximately 0.34 miles south of Mandrapa Road in a concrete ring culvert, which directs the flows westward through an inverted siphon into the east-west portion of the WSM Pump 6 (per conversation with Stephen Castillo from the Imperial Irrigation District on March 16, 2010). A metal drum pumping station is located at this terminus. Similar to the north-south portion, the east-west portion of the WSM Pump 6 is a trapezoidal concrete-lined channel that appears to be approximately five-feet wide and three-feet deep with concrete levees and earthen banks.

A metal check with slide gate is located at the origin of the east-west channel. Immediately west of the metal check, the channel bends slightly to the south then heads west again. This portion of the WSM Pump 6 is also covered with vegetation, although less overgrown than the north-south portion, and is in better condition. To the south of the origin of the east-west portion of the WSM Pump 6, there is a concrete-line structure appears to be a spillway or an intake structure, which has been filled with silt and dense vegetation, and is no longer in use.

The exact construction date of the WSM Pump 6 is unknown. However, the WSM Pump 6 appears on the 1953 aerial maps of the area but not on the 1949 aerial maps. Based on this information, it can be assumed that The WSM Pump 6 was constructed sometime between 1949 and 1953. The Imperial Irrigation District (IID) has records of a request to line the channels with concrete in 1956; thus, it can be assumed that prior to 1956, the WSM Pump 6 was an earthen channel.

In summary, the WSM Pump 6 does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear All-American or Westside Main Canal system (if it is determined that such a resource exists). Further, the WSM Pump 6 is not located within the project APE and would not be affected.

Additional Photos/Images:



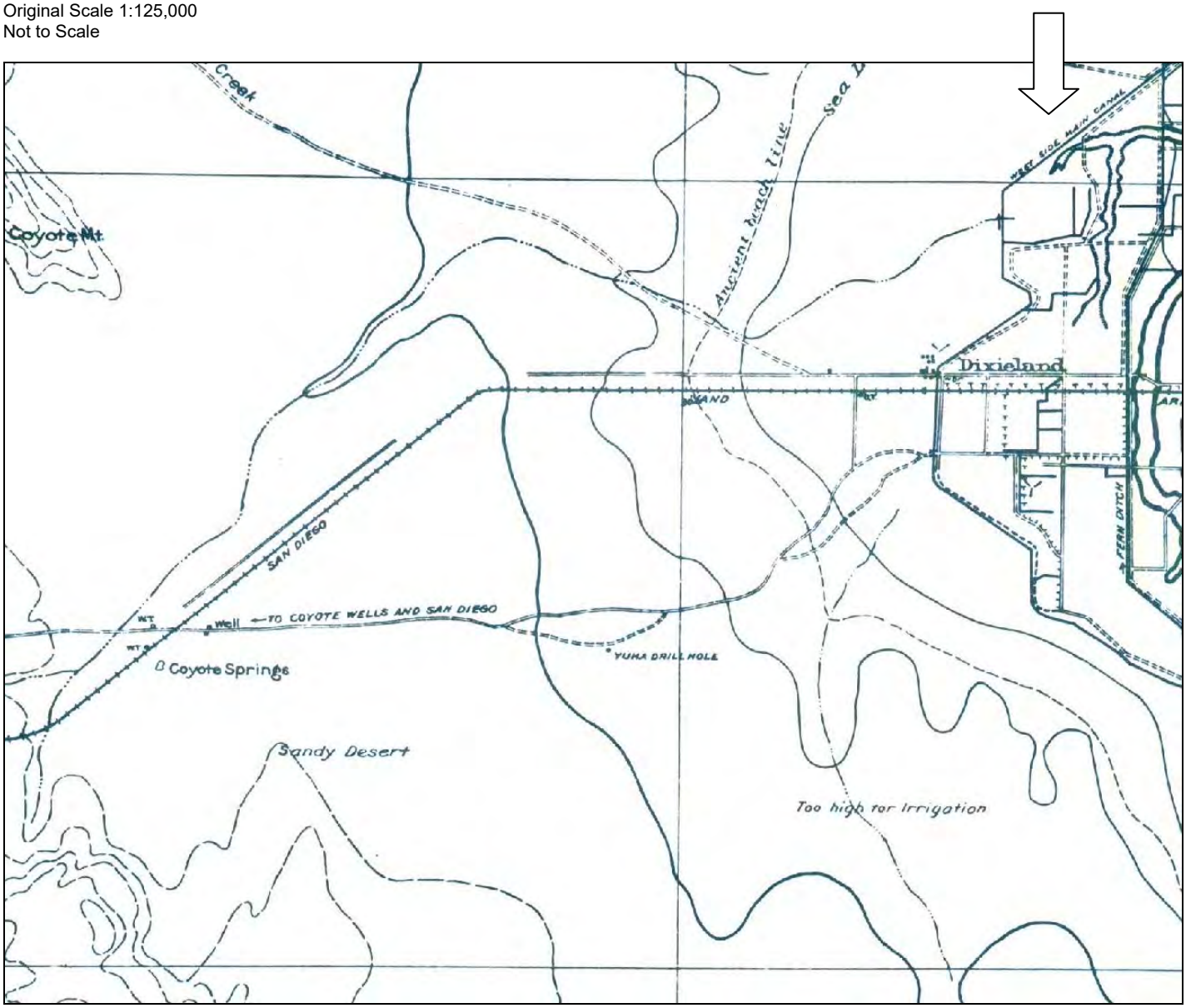
Westside Main Canal, SD-AZ RR Crossing, View to the North



Westside Main Canal, View to the South

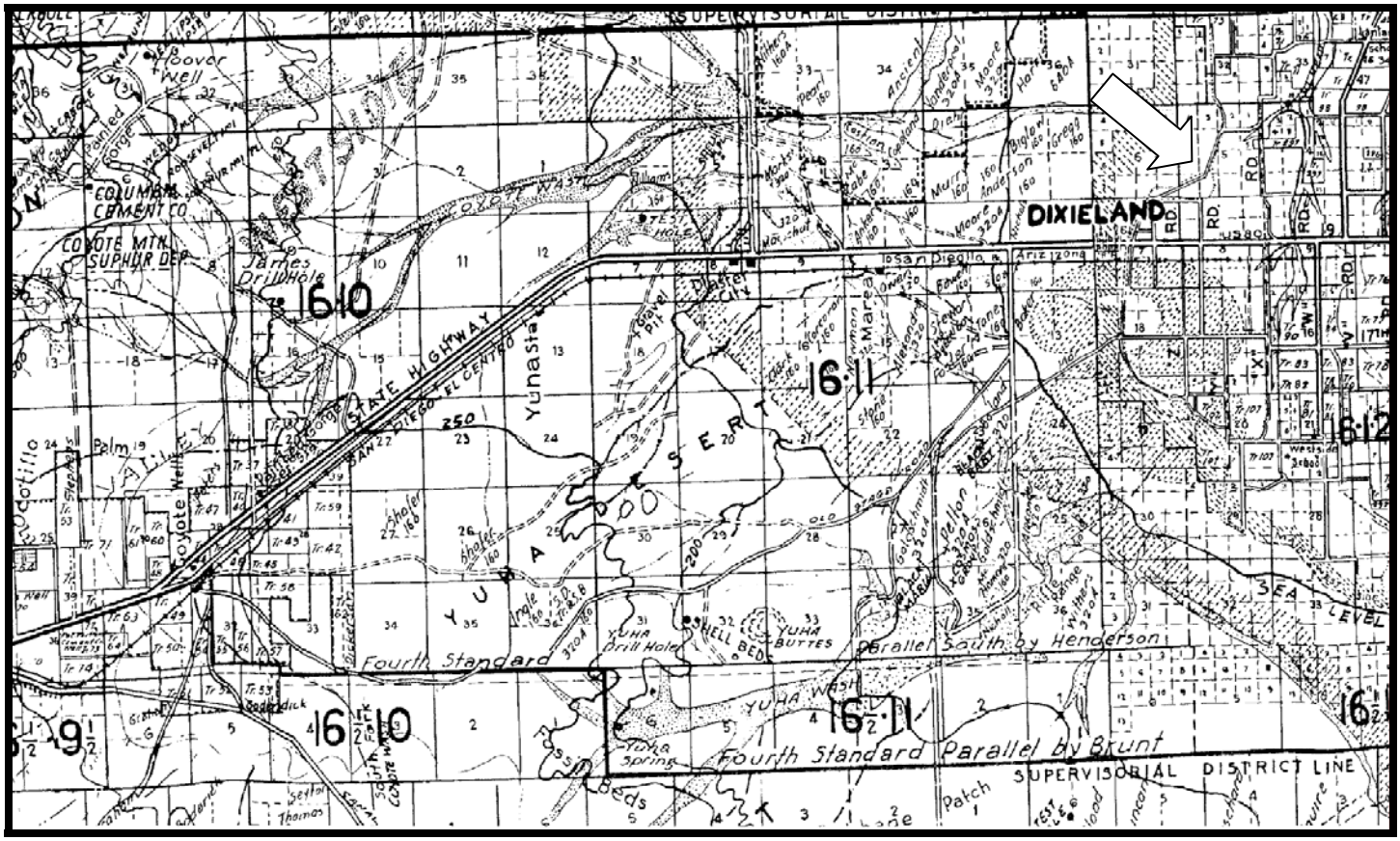
Additional Photos/Images:

El Centro 1908
Original Scale 1:125,000
Not to Scale



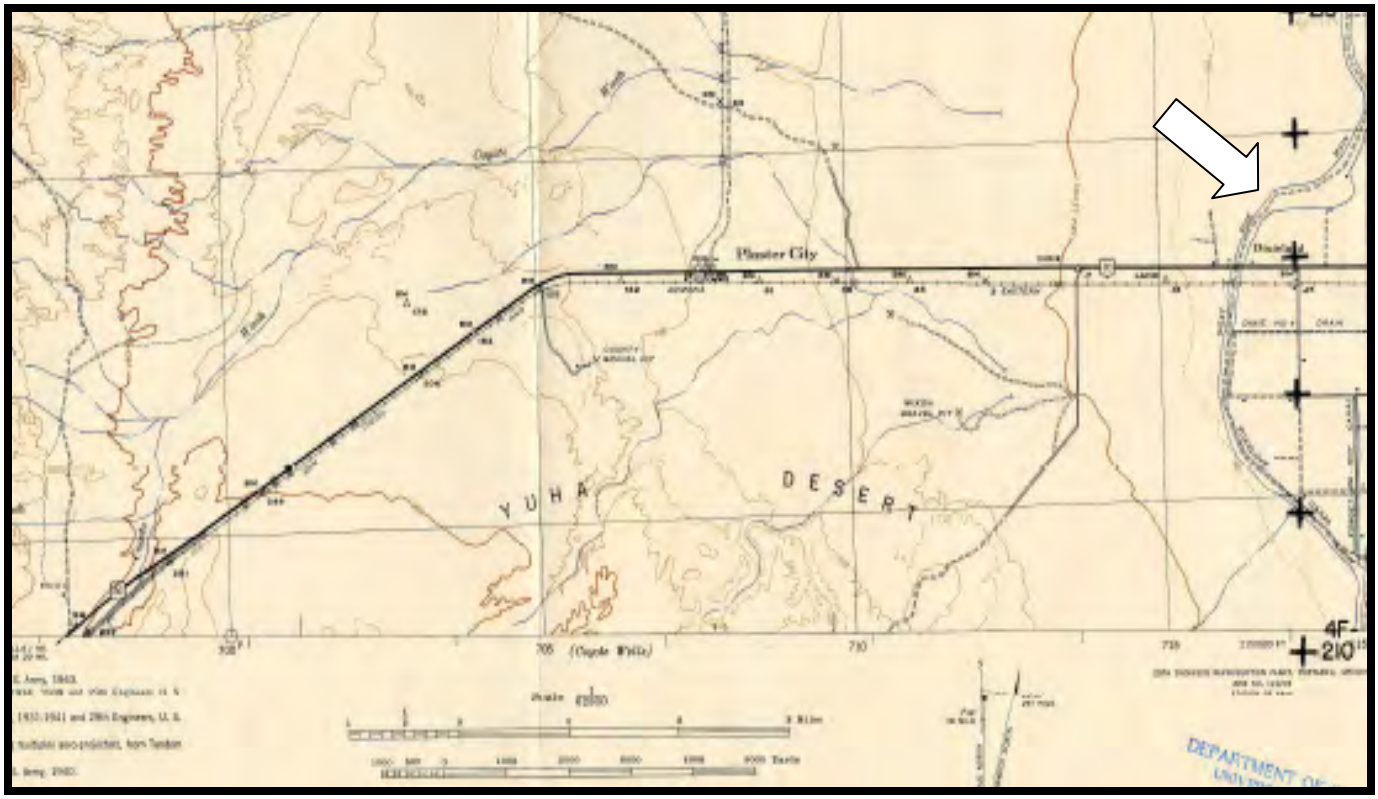
Additional Photos/Images:

Western Portion of Blackburn's Map of Imperial County, 1936
Not to Scale


DIXIELAND
Yuha Desert
Fourth Standard Parallel South by Henderson
Fourth Standard Parallel by Brunt
SUPERVISORIAL DISTRICT LINE
SEA LEVEL
Yuha Buttes
Yuha Spring
Yuha Well
Yuha Drill Hole
Shell Beds
Coyote Mtn.
Coyote Wells
Yuha Basin
Yuha West
Yuha Buttes
Yuha Spring
Yuha Drill Hole
Shell Beds
Yuha Desert

Additional Photos/Images:

Plaster City map, 1943
Original Scale 1:62,500
Not to scale.



Additional Photos/Images:



View from just north of the WSM Pump 6, looking north towards Mandrapa Road



Looking south at the terminus and the north-south portion of WSM Pump 6

Additional Photos/Images:



At the east-west portion of WSM Pump 6, looking west



At the origin of the east-west portion of WSM Pump 6, looking west at the metal check

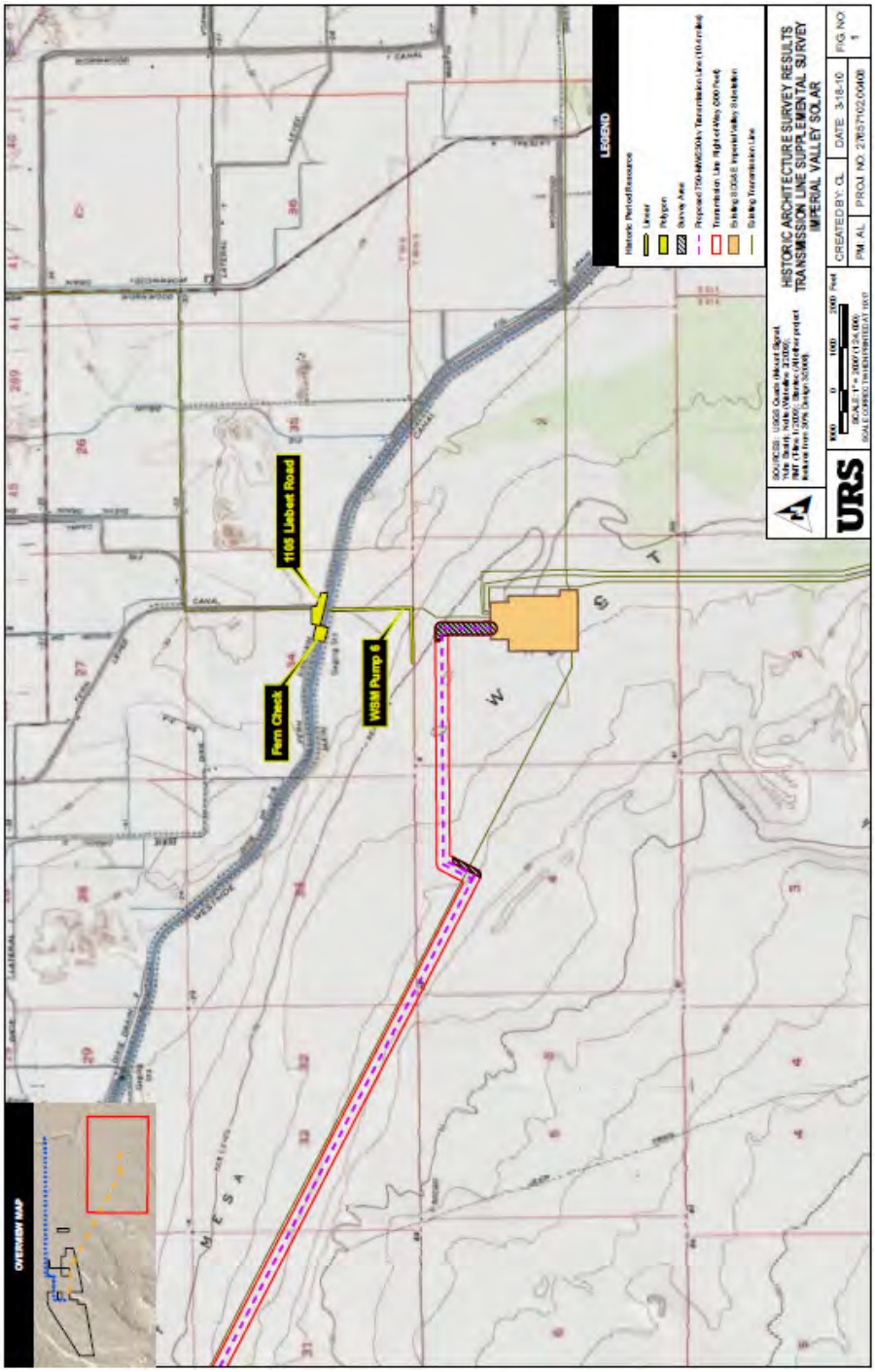
Additional Photos/Images:



At the origin of the east-west portion looking south at concrete-lined structure

Additional Photos/Images:

Sketch map of WSM Pump 6
Not to scale



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE
NRHP Status Code 3D/CD

Other Listings
Review Code | Reviewer | Date

*Resource Name or #: Westside Main Canal

P1. Other Identifier: CA-IMP-7834, P-13-008334, Westside Main Canal

***P2. Location:** ■ **Not for Publication** ☐ **Unrestricted** ***a. County:** Imperial

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Seeley, CA **Date:** 1957 (P. 1979) **T** 16S; **R** 12E; NW ¼ **of** SE ¼ **of Sec** 21; S.B. **B.M.**

c. Address: City: Zip:

d. UTM: Zone: 11S; 618511 mE/ 3635113 mN (G.P.S.) NAD 83

e. Other Locational Data: Starting in the City of El Centro, travel west on Interstate 8 and exit at Drew Road. Travel north on Drew Road for approximately 1.5 miles before turning left onto Evan Hewes Highway (old US 80). Travel west on Even Hewes Highway for approximately 2 miles and make a right turn onto Huff Road. Travel north on Huff Road for approximately 5 miles and make a left turn onto Boley Road. Travel west on Boley Road for approximately 1 mile and park. Proceed on foot, in a northeast direction, along the West Main Canal to where a 1.2 kilometer segment of the canal was surveyed starting at UTM coordinate 618511 mE / 3635113 mN and an ending at 619491 mE / 3635877 mN.

***P3a. Description:** This site form updates a 300-foot-long segment of the Westside Main Canal, part of the larger All-American Canal water conveyance system in Imperial County. Because the current project's survey corridor includes part of this canal, only that length within the survey corridor is documented, described, and evaluated.

The Westside Main Canal was built about 1907 as part of the larger Imperial Valley irrigation system, and later integrated into the All-American Canal system during its construction between 1934 and 1940. The Westside Main Canal has not been altered or modified since its last update in 1999 (Jill Hupp), when it was found not eligible for listing in the National Register (NRHP) as a sparate property or as a contributor to a district. However, in 2001 the Bureau of Reclamation and California State Historic Preservation Officer concurred that the All-American Canal is ELIGIBLE for the NRHP; by extension the Westside Main Canal is now recommended ELIGIBLE for the NRHP and California Register of Historical Resources (CRHR) under Criterion A/1 for its significance in association with development of the Imperial Valley.

***P3b. Resource Attributes:** HP20. Canal/aqueduct

***P4. Resources Present:** ☐Building ■Structure ☐Object ☐Site ☐District ■Element of District ☐Other (Isolates, etc.)



P5b. Description of Photo: Photograph # 1599, Westside Main Canal looking northeast.

***P6. Date Constructed/Age and Sources:** ■Historic ☐Prehistoric ☐Both
Main canal- 1907 with alterations

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd
Imperial, CA 92251

***P8. Recorded by:** J. Burkard, H. Thompson, J. Covert
SWCA Environmental Consultants
625 Fair Oaks Avenue, Suite 190
South Pasadena, California 91030

***P9. Date Recorded:** 4 / 19 / 2007

***P10. Survey Type:** Intensive Survey - 15 meter transects

***P11. Report Citation:** SWCA Environmental Consultants and Applied EarthWorks 2008: Cultural Resources Survey of Alternatives for the Sunrise Powerlink Project, San Diego, Imperial, Riverside, and Orange Counties, California

***Attachments:** ☐NONE ■Location Map ☐Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ■Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ■Photograph Record ☐ Other (List):

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

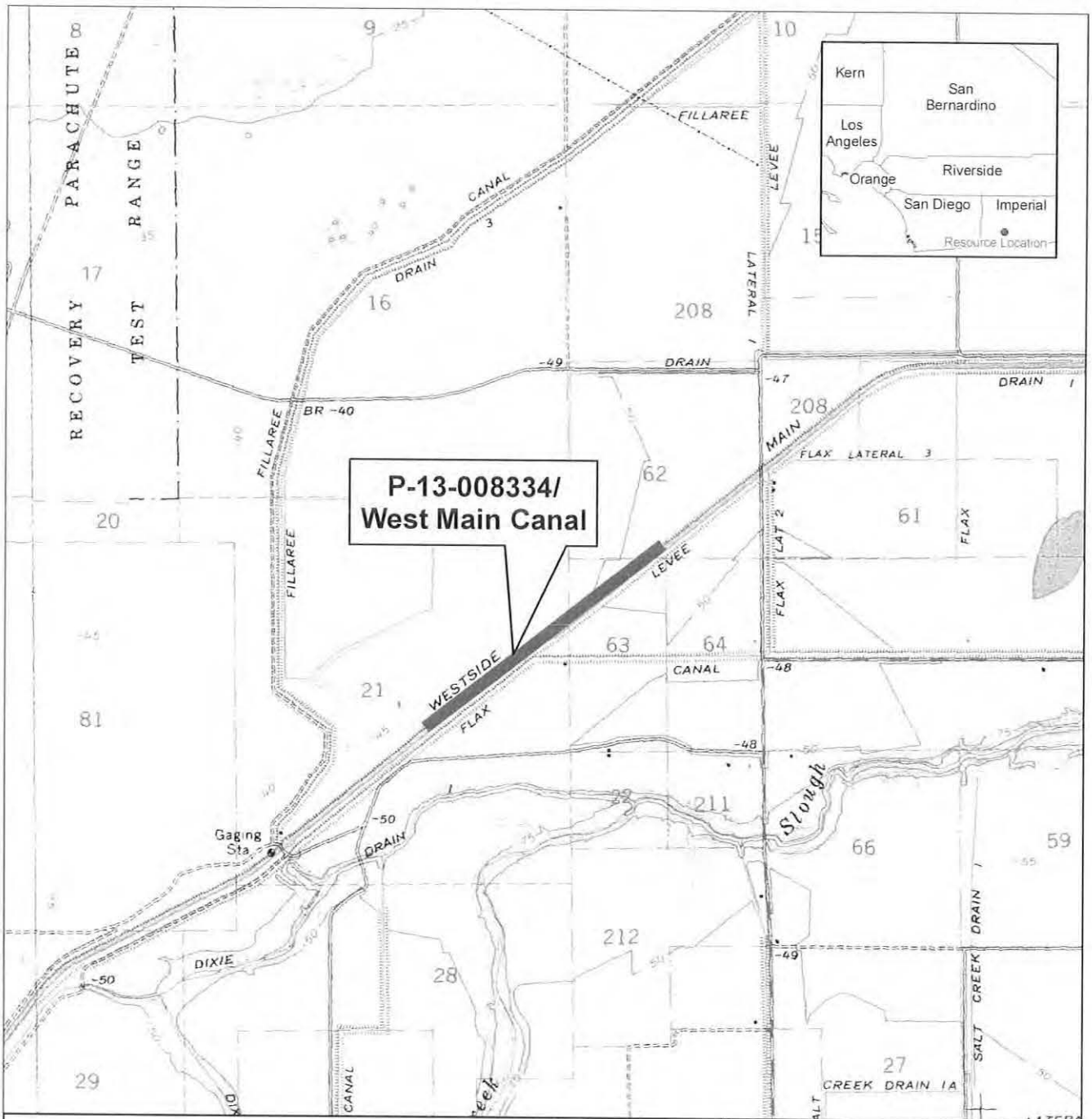
LOCATION MAP

Primary # P-13-008334 UPDATE
HRI#
Trinomial CA-IMP-7834 UPDATE

*Resource Name or #: Westside Main Canal

*Map Name: Seeley, CA

*Scale: 1:24,000 *Date of Map: 1957 (Photorevised 1979)



DPR 523J (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE

 Resource Name or #: Westside Main Canal

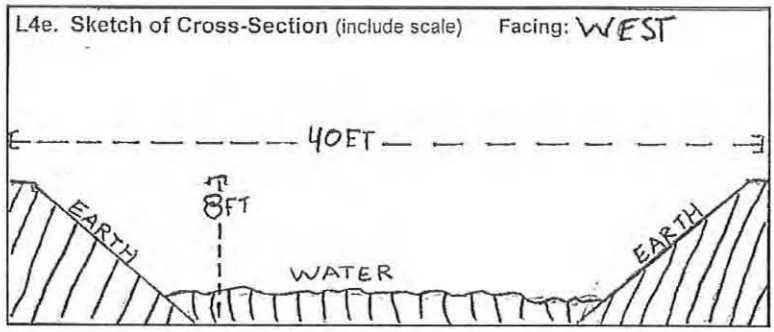
L1. Historic and/or Common Name: CA-IMP-7834, P-13-008334, Westside Main Canal
L2a. Portion Described: ☐ Entire Resource ■ Segment ☐ Point Observation **Designation:** Segment of Westside Main Canal
b. Location of point or segment: Starting in the City of El Centro, travel west on Interstate 8 and exit at Drew Road. Travel north on Drew Road for approximately 1.5 miles before turning left onto Evan Hewes Highway (old US 80). Travel west on Even Hewes Highway for approximately 2 miles and make a right turn onto Huff Road. Travel north on Huff Road for approximately 5 miles and make a left turn onto Boley Road. Travel west on Boley Road for approximately 1 mile and park. Proceed on foot, in a northeast direction, along the West Main Canal to where a 1.2 kilometer segment of the canal was surveyed starting at UTM coordinate 618511 mE / 3635113 mN and an ending at 619491 mE / 3635877 mN.

L3. Description: Westside Main Canal was built about 1907 and is earth-lined in this specific section. It forms part of the larger All-American Canal System, which provides water for irrigation within Imperial County since its completion in 1940.

L4. Dimensions:
- **a. Top Width:** 40 feet
- **b. Bottom Width:** unknown
- **c. Height or Depth:** 8 feet
- **d. Length of Segment:** 3,937 feet

L5. Associated Resources: The Fox Glove Canal and Dixie Drain are both nearby, serving respectively as irrigation delivery and storm drainage for the Westside Main Canal. All three resources are part of the NRHP-eligible All-American Canal system.

L4e. Sketch of Cross-Section (include scale) Facing: WEST



L6. Setting: The canal is surrounded by local agriculture, and has played a significant role in bringing agriculture and people to the desert of Imperial County. A variety of crops grow along this segment, as well as ruderal vegetation along its banks. Dirt access roads run parallel to the canal along its berms.

L7. Integrity Considerations: The surveyed length of the canal is in working order, and appears to have been regularly maintained to keep the banks properly groomed and the quantity of silt minimal.



L8b. Description of Photo, Map, or Drawing: Photograph #1601, West Main Canal, looking southwest

L9. Remarks: The Westside Main Canal was previously recorded in 1999 by Jill Hupp for the Caltrans Environmental Program. Their mailing address is P.O. Box 942874, Sacramento, California 94274.

L10. Form Prepared by:
J. Burkard , G. Connel, J. Covert
SWCA Environmental Consultants
625 Fair Oaks Avenue,Suite 190
South Pasadena, California 91030

L11. Date: 4 / 19 / 07

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PHOTOGRAPH RECORD

Primary # P-13-008334 UPDATE
HRI#
Trinomial CA-IMP-7834 UPDATE

 Resource Name or #: Westside Main Canal UPDATE **Year** 2007

Camera Format: Digital
Film Type and Speed: Digital

Lens Size:
Negatives Kept at: SWCA Environmental Consultants, South Pasadena office

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward	Accession #
4	19	-	1599	Westside Main Canal	Northeast	N/A
4	19	-	1600	Westside Main Canal	Southwest	N/A
4	19	-	1601	Westside Main Canal, facing southwest down survey corridor	Southwest	N/A
4	19	-	1602	Westside Main Canal	Northeast	N/A

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI# _____
Trinomial CA-IMP-7834 (Update)

CA-IMP-7834 was recorded by Harris of HDR in 2000. This site is described as the Westside Main Canal built in the 1920s and incorporated into the All American Canal System (CA-IMP-7130H, built between 1933 and 1938). The Westside Canal is a forty mile canal alignment that, as part of the All American Canal System, has been determined eligible for listing in the National Register of Historic Places and as a California Historic Resource. The proposed pipeline alignment will connect to the Westside Main Canal.

The Westside Canal is a forty mile canal alignment that, as part of the All American Canal System, has been determined eligible for listing in the National Register of Historic Places and as a California Historic Resource. The proposed pipeline alignment will connect to the Westside Main Canal and, therefore, the proposed project has the potential to adversely impact a significant resource. McKenna et al. recommends that the area be monitored during construction and that the design, construction, and maintenance of the proposed pipeline be planned to avoid adverse impacts to the Canal.

Jeanette A. McKenna
February 28, 2007

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #: P-13-008334 UPDATE
HRI #: ___
Trinomial: ___ CA-IMP-7834
NRHP Status Code: ___

Other Listings:
Review Code: ___ ___ Reviewer: ___ Date: ___

 Resource Name or #: (Assigned by recorder). SDY-S-10: Westside Main Canal

P1. Other Identifier: None

P2. **Location:** ■Not for Publication ☐Unrestricted **a. County:** Imperial
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
b. **USGS 7.5' Quad:** Plaster City Date: 1957 photorevised 1979 T 16S ; R 12E ; Section 18; S.B.M.
c. Address: - City: - Zip: -
d. UTM: Zone 11; 615200 mE/ 3625820 mN to 3628400 mN
e. Other Locational Data (e.g., parcel #, directions to resource, elevation, etc., as appropriate): The Westside Main Canal crosses Old Hwy 80 in a northward direction at Dixieland; it intersects the project area approximately 1300' south of Dixieland at the ROW of the San Diego and Eastern Railroad. Elevation here is about 35' above sea level.

P3a. **Description** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): The Westside Main Canal is an older canal, built in the 1920s, that was incorporated into the All American Canal System (CA-IMP-7130H), constructed between 1933 and 1938, and opened in 1940. The Westside Main begins at the western terminus of the All American Canal and extends northward in a general "Z" shape for about forty miles. It ends about 5 miles west of the town of Westmorland. As part of the All American Canal System, this canal is eligible for NRHP inclusion.

P3b. **Resource Attributes** (List attributes and codes): HP20 - Canal

P4. **Resources Present:** ☐Building ■Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photograph or Drawing (Photo required for buildings, structures, and objects)

P6. **Age and Sources:**
■Historic ☐Prehistoric
☐Both

P7. **Owner and Address:**

P8. **Recorded by** (Name, affiliation, and address):
N. Harris, HDR ,9444 Farnham, San Diego ,CA 92123

P9. **Date Recorded:**
June, 2000

P10. **Survey Type** (Describe):
Intensive Surface Inventory

P11. **Report Citation** (Cite survey report and other sources, or enter "none") Cultural Resources Survey for the Level (3) Communications Fiber Optic Network Between City of San Diego, California, and the California/Arizona State Line at the Colorado River, Near Yuma, Arizona; on file with the BLM, Riverside, CA.

Attachments: NONE ■Location Map ☐Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Primary #: P-13-008334 UPDATE
Trinomial: CA-IMP-7834

Resource Name or #: (Assigned by recorder): Westside Main Canal

A1. **Dimensions:** a. Length: ca. 40 miles b. Width: unknown
Method of Measurement: ☐ Paced ☐Taped ☐Visual estimate■ Other: Derived from map
Method of Determination (check any that apply.): ☐ Artifacts ☐Features ☐Soil ☐Vegetation ☐Topography ☐Cut bank ☐Animal burrow ☐Excavation ☐Property boundary ■Other (Explain): Imperial Irrigation District map
Reliability of Determination: ☐High ■Medium ☐Low Explain: Measured off map
Limitations (check any that apply): ☐Restricted access ☐Paved/built over ☐Site limits incompletely defined ☐Disturbances ☐Vegetation ☐Other (Explain):

A2. Depth: ☐None ■Unknown Method of Determination:

A3. **Human Remains:** ☐Present ■Absent ☐Possible ☐Unknown (Explain):

A4. **Features** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.): Canal channel, headgates, drops, etc.

A5. **Cultural Constituents** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.): None noted.

A6. **Were Specimens Collected?** ■No ☐Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)

A7. **Site Condition:** ■Good ☐Fair ☐Poor (Describe disturbances.): Operational canal

A8. **Nearest Water** (Type, distance, and direction.): n/a

A9. **Elevation:** ca. 35 feet above sea level

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): Agricultural properties on the east side, and creosote, ocotillo, cactus, grasses, mesquite, shrubs, forbs on the west side; soils are light brown alluvial sandy silt loams and sand dunes on the western edge of the cultivated portion of the Imperial Valley.

A11. Historical Information: The Westside Main Canal is an older canal, built in the 1920s, that was incorporated into the All American Canal System (CA-IMP-7130H), constructed between 1933 and 1938, and opened in 1940. The Westside Main begins at the western terminus of the All American Canal and extends northward in a general "Z" shape for about forty miles. It ends about 5 miles west of the town of Westmorland. As part of the All American Canal System, this canal is eligible for NRHP inclusion.

A12. **Age:** ☐Prehistoric ☐Protohistoric ☐1542-1769 ☐1769-1848 ☐1848-1880 ☐1880-1914 ■1914-1945 ☐Post 1945 ☐Undetermined (**Describe position in regional prehistoric chronology or factual historic dates if known**):

A13. Interpretations (Discuss data potential, function(s), ethnic affiliation, and other interpretations): The canal is part of the historic system of canals that make up the extensive hydraulic irrigation system in the Imperial Valley. These canals profoundly influenced the Euro-American land use, settlement patterns, economy, and the cultural landscape of southern California, and continues to do so today.

A14. Remarks: None.

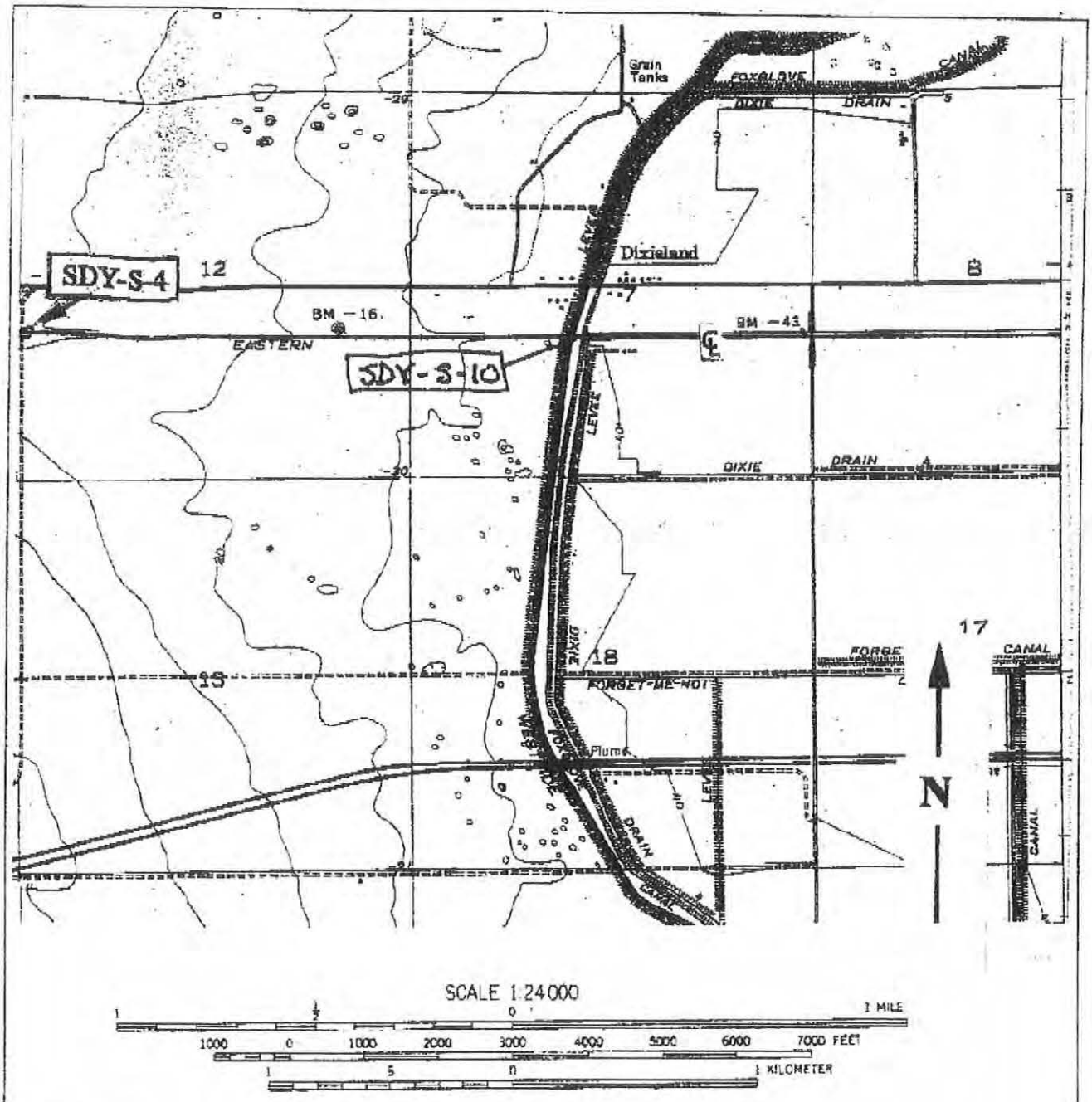
A15. References (Documents, informants, maps, and other references): None.

A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record):
Kept at:

A17. Form Prepared by Michael Oberndorf Date: 12/4/2000
Affiliation and Address: HDR Engineering, Inc.
9444 Farnham Street, Suite 300
San Diego, CA 92123

LOCATION MAP

 Resource Name or #: SDY-S-10



Plaster City, California USGS 7.5' Quadrangle

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-008334
HRI #:
Trinomial: CA-IMP-7834

NRHP Status Code: 6
Other Listings:
Review Code ____ Reviewer ____ Date ____

County/Route/Postmile: 11-IMP-98, P.M. 0.3-30.3/K.P 0.5-48.8 Map Reference No.: 1

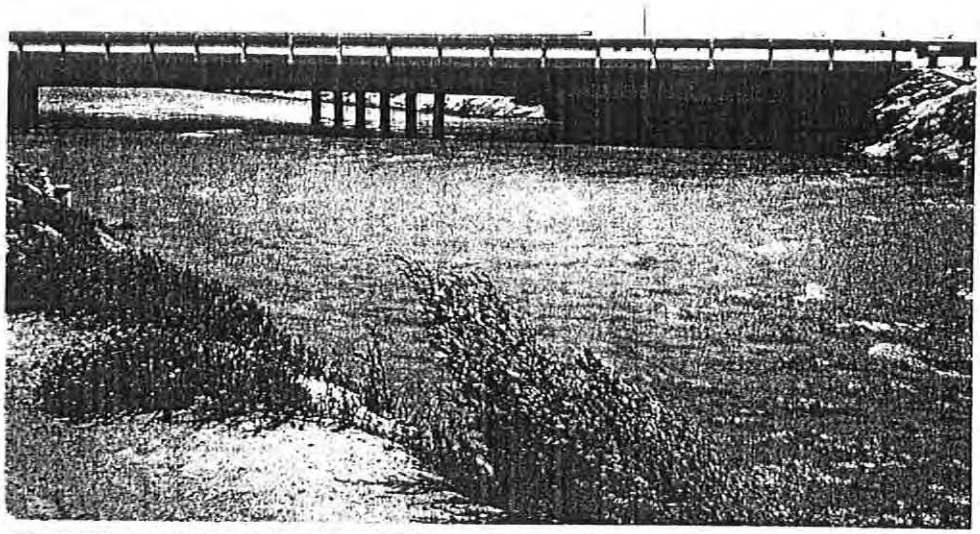
*Resource Name or #: Westside Main Canal
P1. Other Identifier: N/A
*P2. Location: *a. County Imperial
b. Address SR 98 at Postmile 22.02 City Calexico Zip 92231
*c. USGS 7.5 Quad: d. UTM:
*e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
Segment within the APE crosses SR 98 at P.M. 22.02 (K.P. 35.23) just west of Drew Rd.

*P3a. Description:
The Westside Main Canal is a wide irrigation canal that runs through agricultural land in the Imperial Valley section of Imperial County. It enters the current project area where State Route 98 crosses the canal at Postmile 22.02 (K.P. 35.23) west of Drew Road. At this point the canal is approximately 25 feet wide (7.62 m) and about 10 feet deep (3.04 m), running perpendicular to the highway in a northwest-southeast direction. It is banked by earthen levees of natural vegetation and is unlined. Dirt access roads run along the levees on both sides of the canal to precipitate maintenance and dredging operations. The Westside Main Canal as a whole is primarily earthen lined and subject to regular dredging. Rigorous dredging has reshaped the canal's banks and inner surface.

Originating at the All-American Canal along the International Boundary, Westside Canal extends northwest roughly 11 miles (17.8 km), where it becomes the Tamarack Canal. At this point (between Brawley and Westmoreland) Westside branches off to the west, terminating at the Trifolium Canal, which continues northwest a short distance to the boundary of the Imperial Irrigation District, with laterals serving a considerable area lying south of Salton Sea. Bridge #58-274, constructed in 1955, carries SR 98 across the canal. Parallel to Westside Main is a smaller waterway, the concrete-lined Wormwood Canal. The surrounding area consists primarily of irrigated cropland.

*P3b. Resource Attributes: HP20 (Canal/Aqueduct)

P5. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



*P4. Resources Present:
☐ Building ■ Structure ☐Object ☐ Site ☐ District ☐ Element of District

P5b. Description of Photo: 4/28/99. Canal segment N of SR 98 looking S.

*P6. Date Constructed/Age: c.1906; recent modifications
☐ Prehistoric ■ Historic ☐ Both

*P7. Owner and Address:
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

*P8. Recorded by:
Jill Hupp
Caltrans Environmental Program
PO Box 942874
Sacramento, CA 94274-0001
(916) 654-3567

*P9. Date Recorded: 4/28/99

*P10. Type of Survey: ■Intensive ☐ Reconnaissance ☐ Other

*P11. Report Citation: IMP-98 HASR, 11-IMP-98, P.M. 0.3/30.3, EA 173400

*Attachments: ☐ NONE ☐ Map Sheet ☐ Continuation Sheet ■ Building, Structure, and Object Record ☐ Linear Resource Record ☐ Archaeological Record ☐ District Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary # P-13-008334
HRI #/ Trinomial CA-IMP-7834

Resource Name or #: Westside Main Canal

■ Continuation ☐ Update

County/Route/Postmile: 11-IMP-98, P.M. 0.3/30.3

P5b. Description of Photo (continued)



4/28/99. Westside Main Canal segment north of SR 98, looking NW.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # P-13-008334
HRI#/Trinomial CA-IMP-7834

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 6

*Resource Name or #: Westside Main Canal

B1. Historic Name: Westside Main Canal
B2. Common Name: Westside Main Canal
County/Route/Postmile: 11-IMP-98, P.M. 0.3/30.3
B3. Original Use: Irrigation ditch
B4. Present Use: Irrigation ditch
*B5. Architectural Style: N/A
*B6. Construction History: built c. 1906 as part of the Imperial canal system with recent modifications.
*B7. Moved? ■ No ☐ Yes ☐Unknown
Date: N/A
Original Location: N/A
*B8. Related Features: None
B9a. Architect: N/A
B9b. Builder: Calif. Devel. Co., Southern Pacific Co., I.I.D.
*B10. Significance: N/A
Theme: N/A
Area: N/A
Period of Significance: N/A
Property Type: N/A
Applicable Criteria: N/A

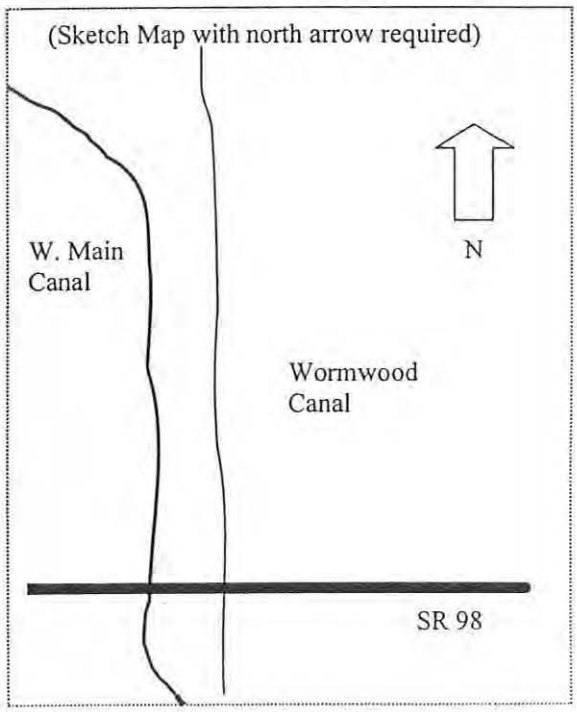
Westside Main Canal was built about 1906 as part of the expansive Imperial irrigation system, which transformed the Colorado Desert into fertile farmland. The movement to reclaim this seemingly inhospitable wasteland for agrarian purposes had originated with Dr. O. M. Wozencraft in the 1850s. Wozencraft was convinced that the area had unlimited agricultural potential, if only a potable water supply could be established; he believed that this could be accomplished by means of a single gravity-flow canal, by which several hundred acres could be irrigated. Despite Wozencraft's best efforts, no progress was made on the project during his lifetime. In 1896 a group of investors formed the California Development Company (CDC), determined to take on the challenge of desert irrigation. Headed by civil engineers Charles Rookwood and George Chaffey, the company began constructing a canal that would divert water from the Colorado River into the dry channels of the Alamo and New rivers, which would in turn carry the water north to the Colorado Desert (now the Imperial Valley). In early 1902, the first irrigation water was delivered. A CDC subsidiary, the Imperial Land Company, promoted colonization of the area and handled land sales. Under Chaffey's direction, several mutual water companies were organized as well, and the CDC built most of the distribution systems, main canals and laterals needed to service these newly developed areas. By 1905, 80 miles of main canals had been built, with more than 100,000 acres under cultivation. Water delivery service was unreliable however, the canals being poorly designed and maintained. The muddy Colorado River had a tendency to deposit heavy loads of silt, which soon blocked the canal's intake, thereby reducing the amount of water reaching Valley crops. In an attempt to combat this, the CDC cut a bypass channel in the riverbank four **(See Continuation Sheet)**

B11. Additional Resource Attributes: N/A
B12. References: Clement 1996: primary record 1;
Lortie, 1997: 6, 8-10, 13-17;
IID website: 1, 6; Tout 1990: 110, 114-115;
Fisher 1998: 11-14.

B13. Remarks: N/A
B14. Evaluator: Jill Hupp
Caltrans Environmental Program
PO Box 942874
Sacramento, CA 94274-0001
(916) 654-3567

*Date of Evaluation: 5/24/99

(This space reserved for official comments)



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334
HRI #/ Trinomial CA-IMP-7834

Resource Name or #: Westside Main Canal ■ Continuation ☐ Update

County/Route/Postmile: 11-IMP-98, P.M. 0.3/30.3

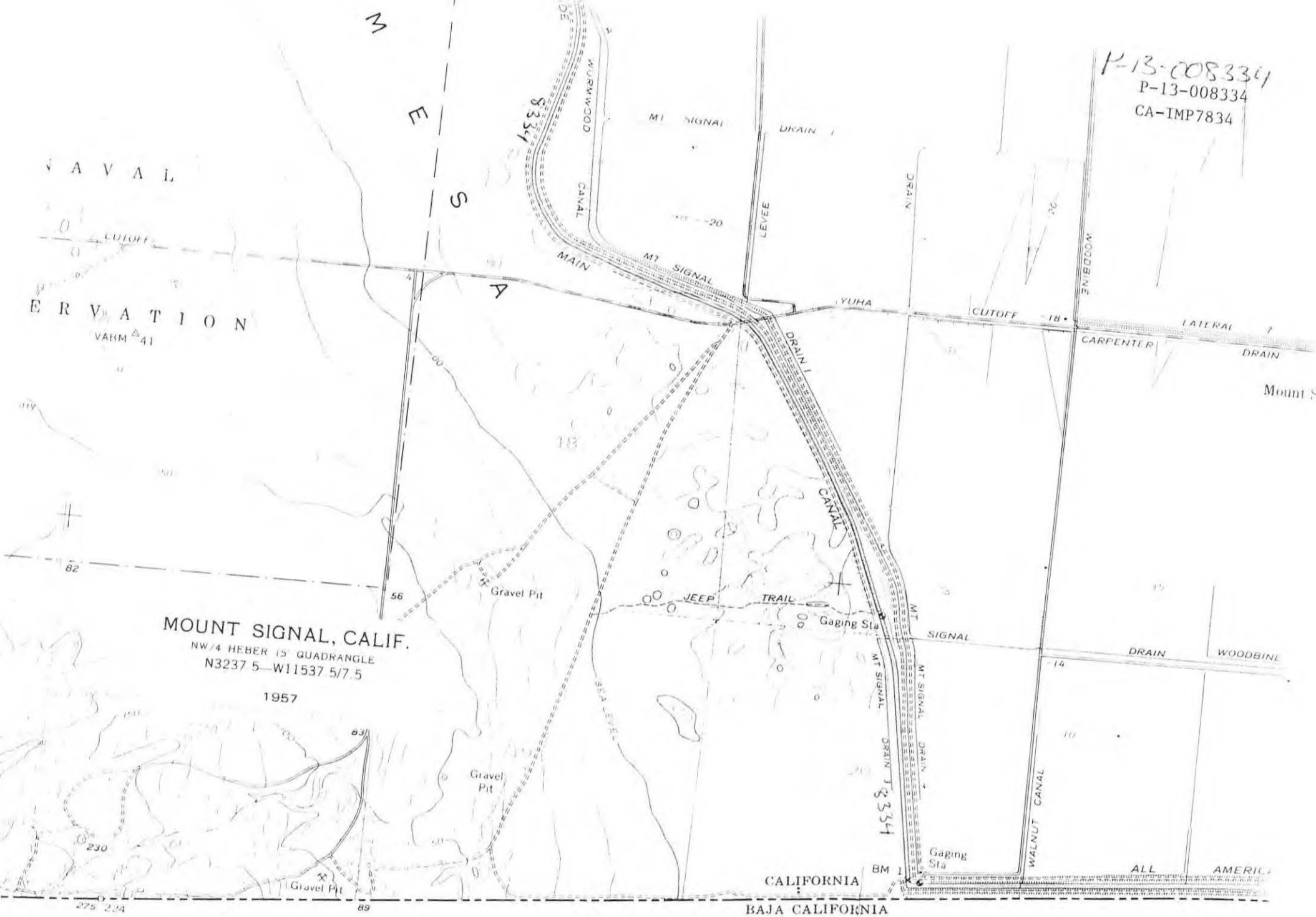
B10. Significance (continued) miles south of the border, without legal authority or adequate gates to control the force of the water. Widespread flooding in the winters of 1905-06 and 1907 as a result of this action caused extensive damage to farmland and railroad property, as well as to the canal system itself. The wooden flume that had carried the Encina (Westside Main) Canal across New River in Mexico was destroyed in the floods, as was a similar flume across New River 20 miles north of the border. It was not deemed practical to rebuild the latter, as the floodwaters had greatly increased the width and depth of the New River Channel at that locale. As an alternative, the CDC decided to enlarge Westside Main Canal (then located primarily within Mexico) and extend it north into the United States. By the end of 1907, a new enlarged wooden flume with a length of some 1,860 feet carried the canal across New River in Mexico. The extended Westside Main Canal was designed to serve all of the area lying west of New River, which had not yet been developed.

Unable to recover from its huge financial losses after the floods, the CDC was forced into bankruptcy. Southern Pacific (as the CDC's main creditor) assumed management of the company, and water delivery service continued without interruption. Between 1912-1916, development work in Imperial Valley in the way of canal extensions and territorial improvements advanced at an accelerated pace. The Imperial Irrigation District (IID) purchased the existing canal system in 1916, and in 1922 the region's smaller mutual water companies were absorbed by the District. By 1930 the district was operating some 1,700 miles of canals and laterals, with a service area of 550,000 acres. As an agricultural center, the Imperial Valley was particularly hard-hit by the Depression; maintenance and expansion work on the canals slowed to a near-standstill as economic conditions worsened. To Valley residents, the completion of Hoover Dam on the lower Colorado River in 1935 seemed an indication of better times to come. This massive Federal undertaking would help reduce the volume of silt carried by the river, and prevent the possibility of another devastating flood in the Imperial Valley. The All-American Canal was finished in 1941 as part of the same project as Hoover Dam, fulfilling the long-held ambition of Valley farmers and IID officials to build a new canal that was entirely within the boundaries of the United States. Improvements were made to the existing canal system as well, particularly the drain ditches, which were widened and fitted with drain tiles to help alleviate the problem of salt build-up in Valley soil.

Beginning in the 1960s, the IID endeavored to line all of its earthen canals with concrete. The section of Westside Main Canal within the project area is earthen, although other segments are now concrete. The canal originally lay primarily within Mexico, but was considerably widened and extended within the United States in 1907, and again between 1912-1916. More extensive improvements were made after the completion of the All-American Canal in 1941, and the sections of Westside Canal located south of the border were no longer part of the IID system. The earthen sections have been subject to regular dredging operations since the 1950s.

Westside Main Canal today, like the IID irrigation system overall, reflects the developments that occurred as a result of the construction of the All-American Canal in 1941, after which the system was considerably expanded and modernized. The Westside Main Canal appears to possess significance under criteria A and C for its association with the development of irrigated commercial agriculture in the Imperial Valley west of New River in the early 1900s and as a good example of an early large-scale irrigation canal system. However, research to date appears to indicate that the canal as a whole, while significant, would not possess the requisite degree of integrity due to reconstruction and dredging activities since the 1950s, but no survey of the canal in its entirety has yet been undertaken. Caltrans architectural historian Frank Lortie, after an extensive study of the IID system in 1997, concluded that the elements in the IID that retain integrity for the period 1941-1950 could be contributors to a potentially eligible National Register historic district. The segment of Westside Main Canal within the project vicinity does not appear to possess sufficient integrity of workmanship, design, feeling and association to represent the canal's significance in itself or as a contributor to a larger property. While still earthen, extensive dredging since the 1960s has changed the basic configuration of the canal, because modern dredging equipment created a different ditch profile, more U-shaped and with steeper sides. The canal was extended and widened over time as the IID attempted to keep up with its ever-expanding service area. Because of these alterations it reflects neither the period of significance outlined by Lortie (1941-1950) or the earlier period of the canal system's history (1901-1907).

In July 1997 and April 1998, segments of several canals within the IID system (including portions of Westside Main) were examined and found ineligible due to loss of integrity. The segment of Westside Main Canal within the current project area also appears to lack integrity to be individually eligible for the National Register of Historic Places or to be a contributing element of the canal as a whole, should the entire canal constitute an eligible property. There is no evidence of a possible historic district or historic landscape which might include this segment of the canal as a contributing element. Likewise, Caltrans has evaluated the canal in accordance with Section 15064.5 (a)(2)-(3) of the CEQA Guidelines, using criteria outlined in Section 5024.1 of the California Public Resources Code, and determined that the canal is not a historical resource for the purposes of CEQA.


P-13-008334
P-13-008334
CA-IMP7834
MESA
NAVAL
RESERVATION
YUMA
MAIN CANAL
MT SIGNAL
LEVEE
DRAIN
WOODBINE
CUTOFF
LATERAL 7
CARPENTER
DRAIN
DRAIN 1
CANAL
JEEP TRAIL
Gaging Sta
Gravel Pit
MT SIGNAL DRAIN
WALNUT CANAL
SEA LEVEL
CALIFORNIA
BAJA CALIFORNIA
MOUNT SIGNAL, CALIF.
NW/4 HEBER 15' QUADRANGLE
N3237.5—W11537.5/7.5
1957

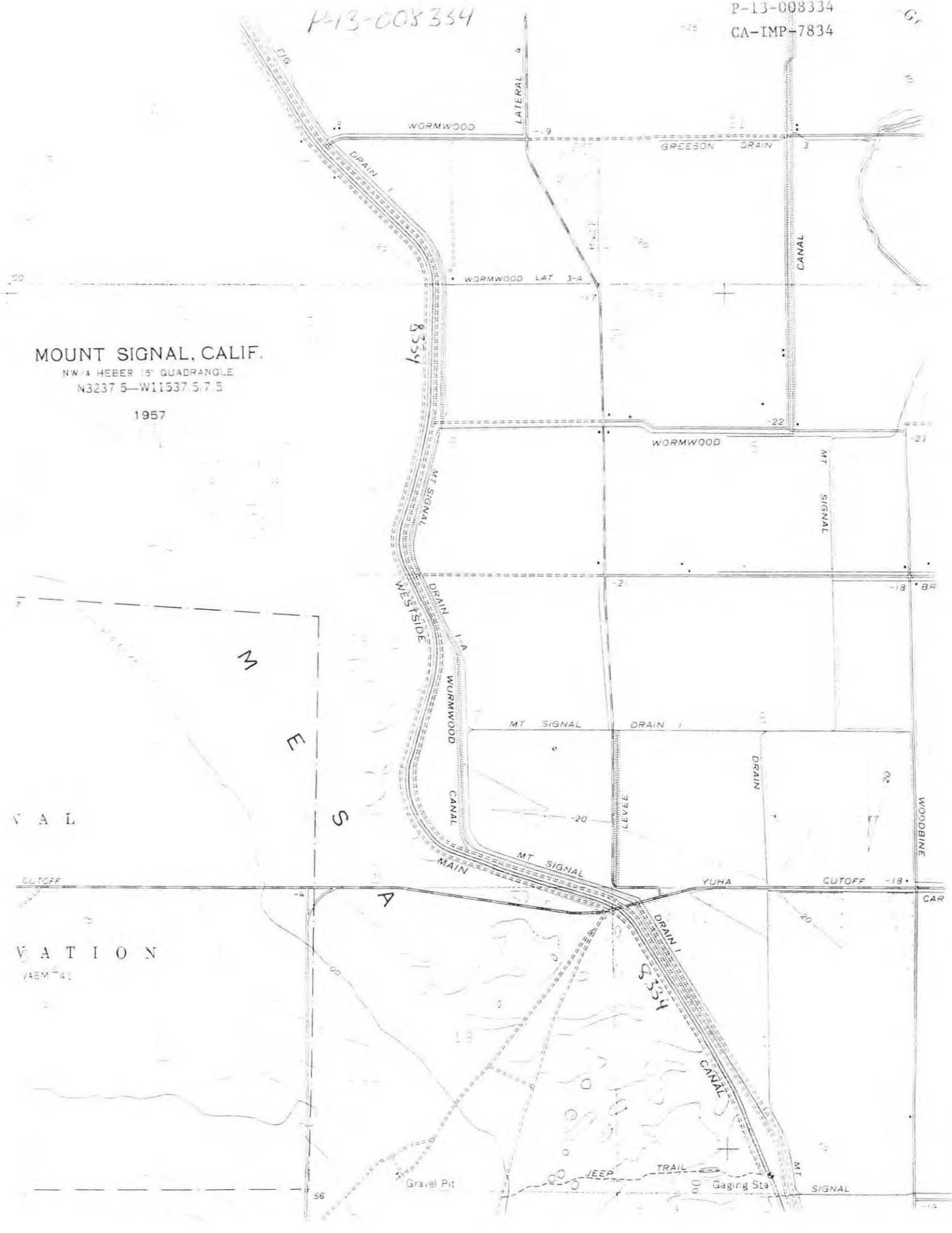
P-13-008334

P-13-008334
CA-IMP-7834

MOUNT SIGNAL, CALIF.

NW/4 HEBER 15' QUADRANGLE
N3237.5—W11537.5/7.5

1957

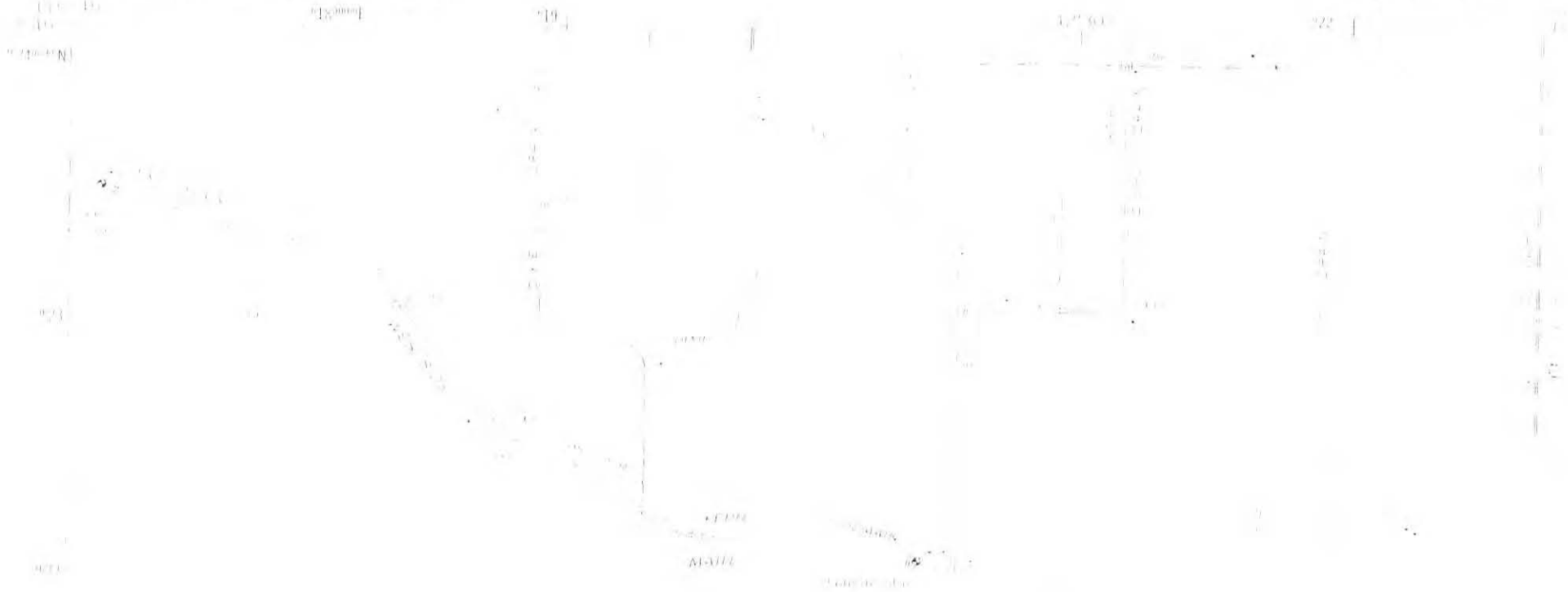


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CA-IMP-7834

STATE OF
DEPARTMENT OF

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



MOUNT SIGNAL, CALIF.

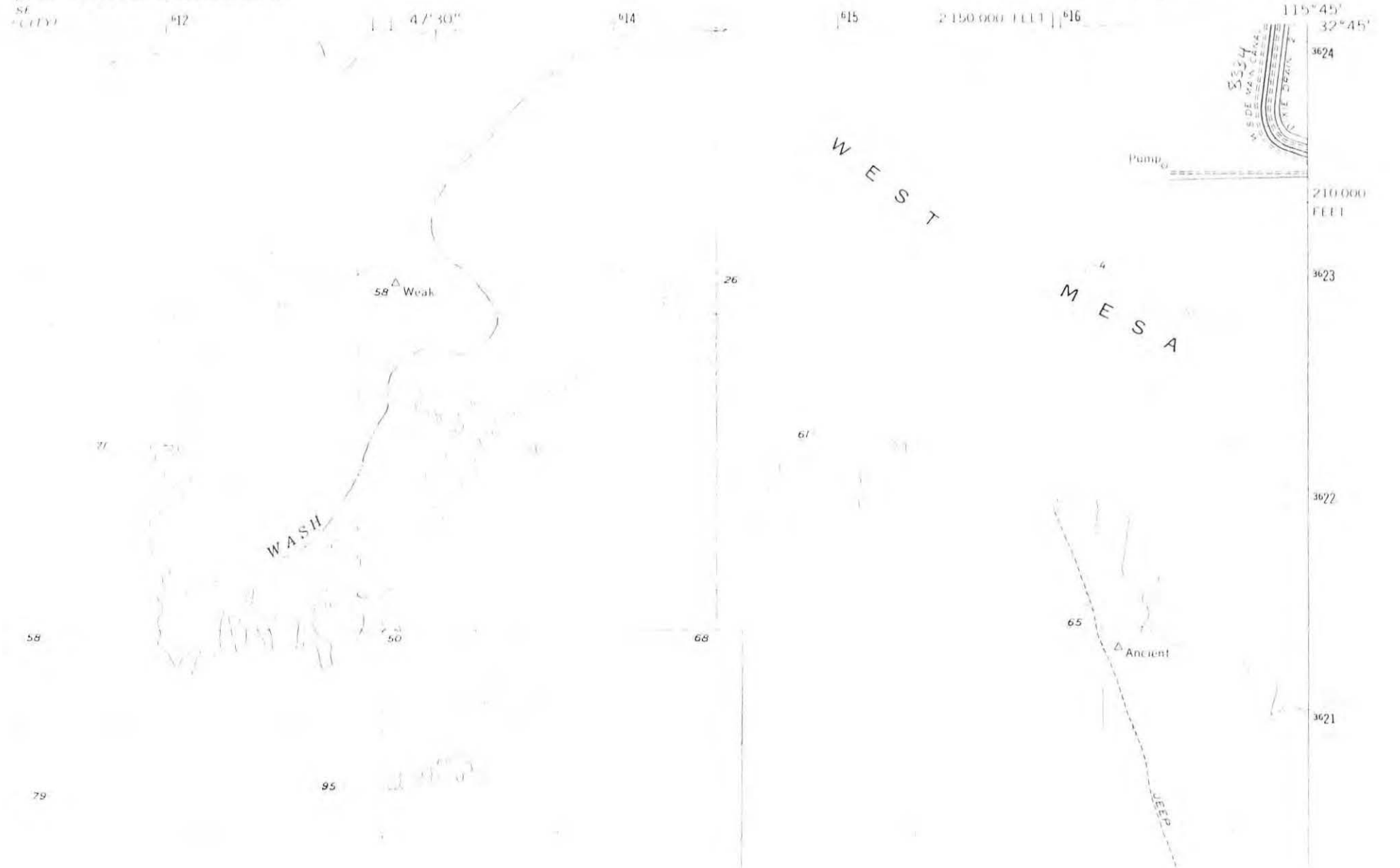
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P-13-008334

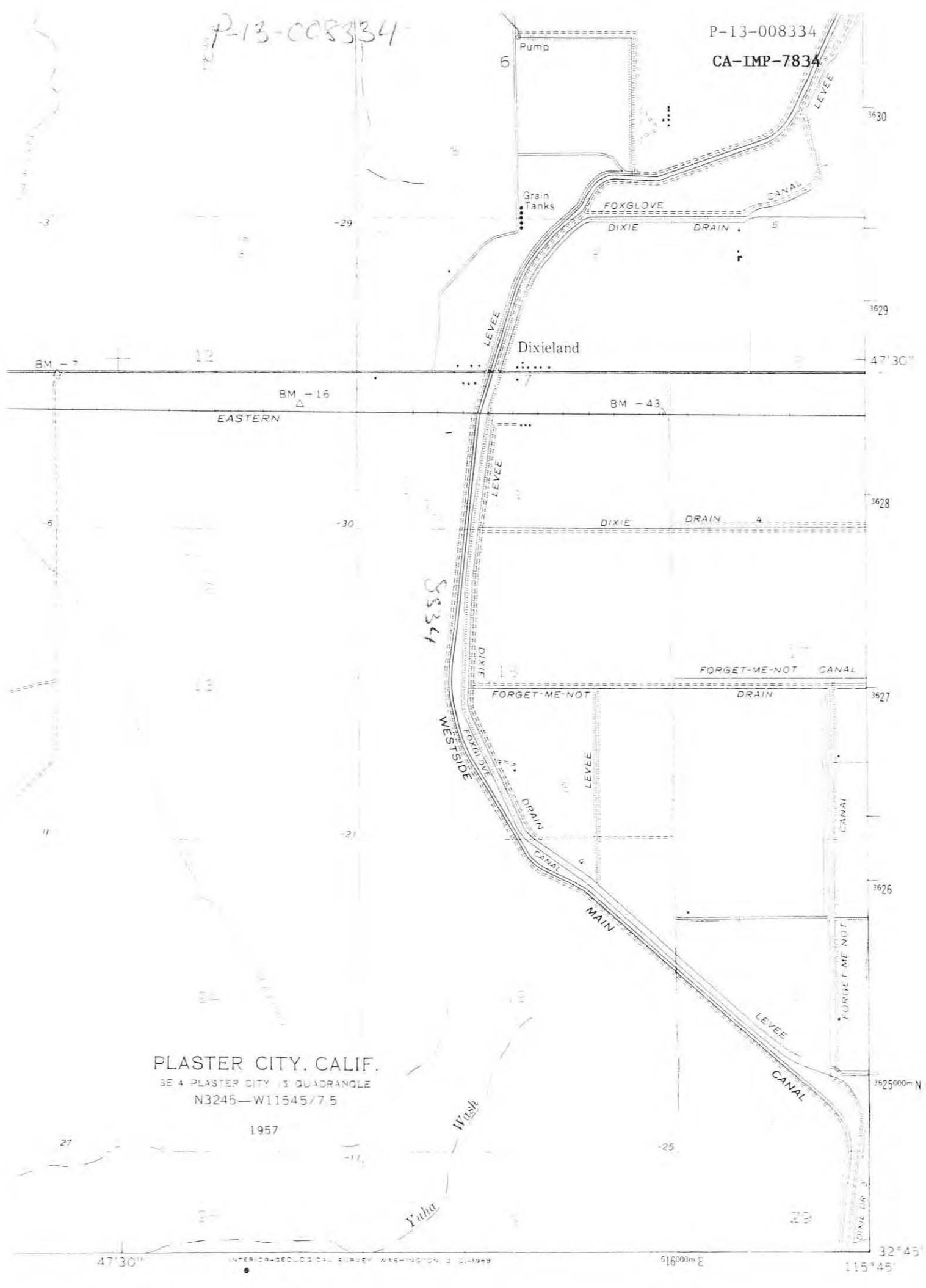
P-13-008334
CA-IMP-7834

ALIFORNIA
HT, GOVERNOR
R OF WATER RESOURCES

YUHA BASIN QUADRANGLE
CALIFORNIA—IMPERIAL CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 COYOTE WELLS 15' QUADRANGLE



P-13-008334
CA-IMP-7834



PLASTER CITY, CALIF.

SE 4 PLASTER CITY 15 QUADRANGLE

N3245—W11545/7.5

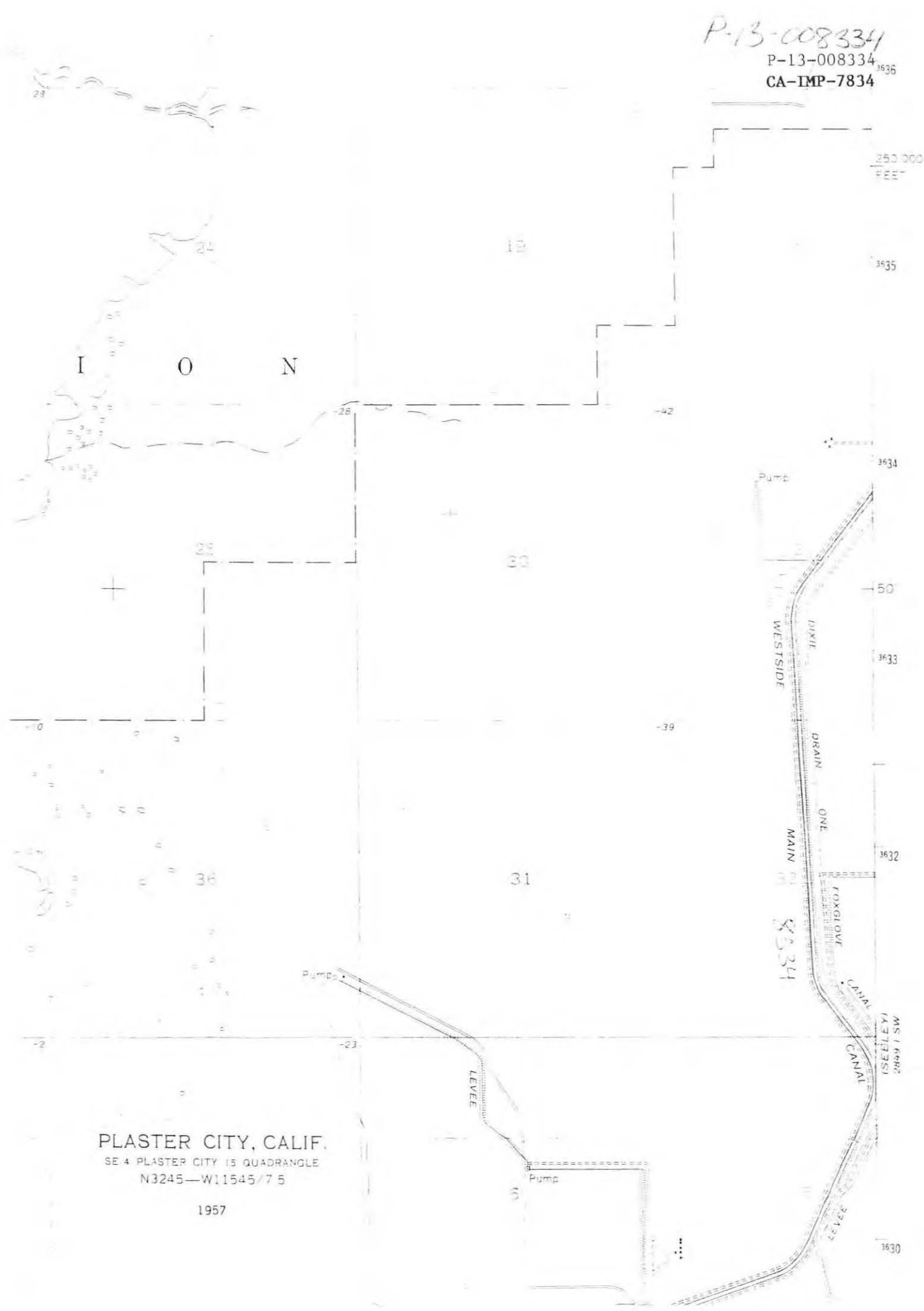
1957

INTERIOR-GEOLOGICAL SURVEY, WASHINGTON, D. C.-1968

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CA-IMP-7834



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P-13-008334

CA-IMP-7834

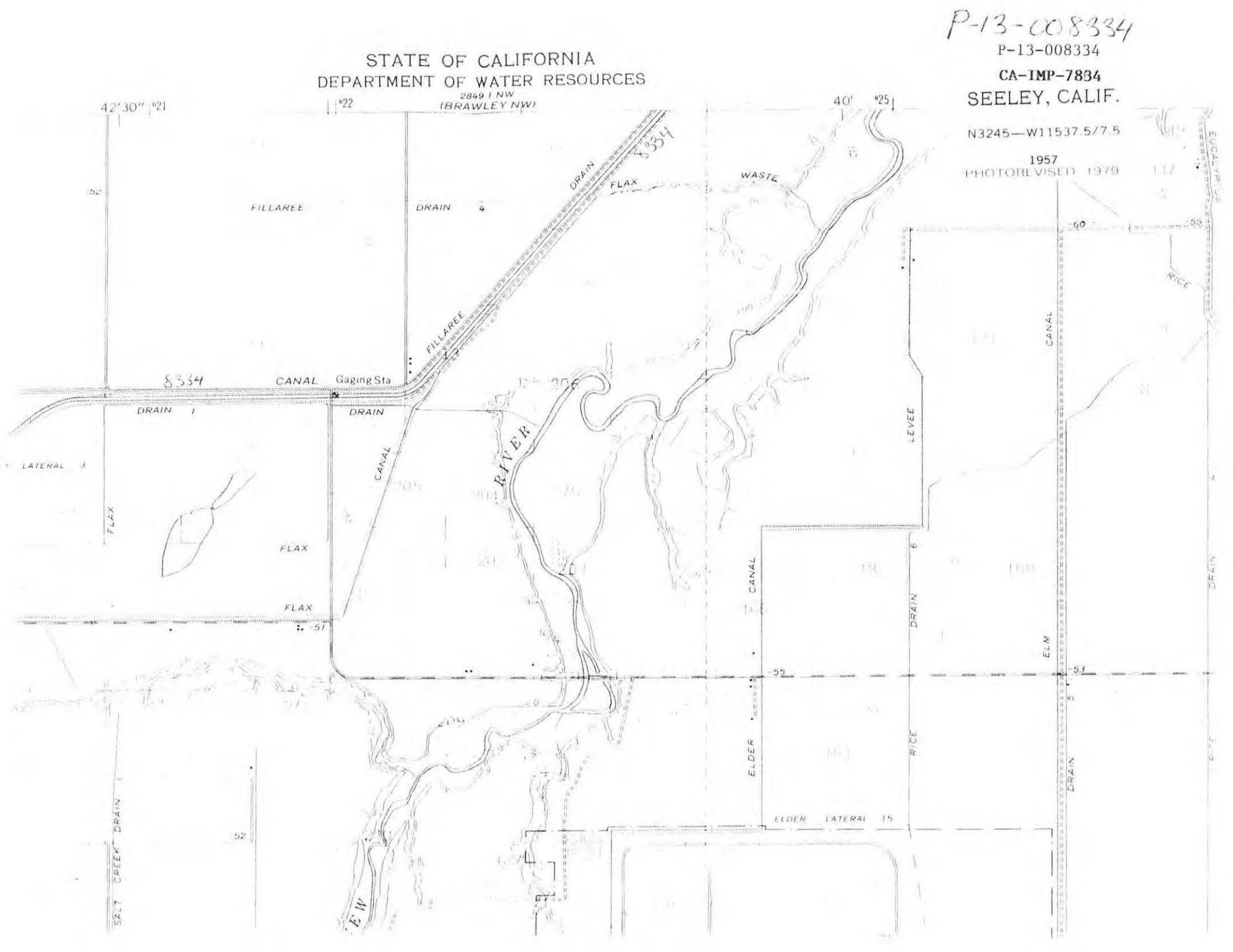
STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

SEELEY, CALIF.

N3245—W11537.5/7.5

1957

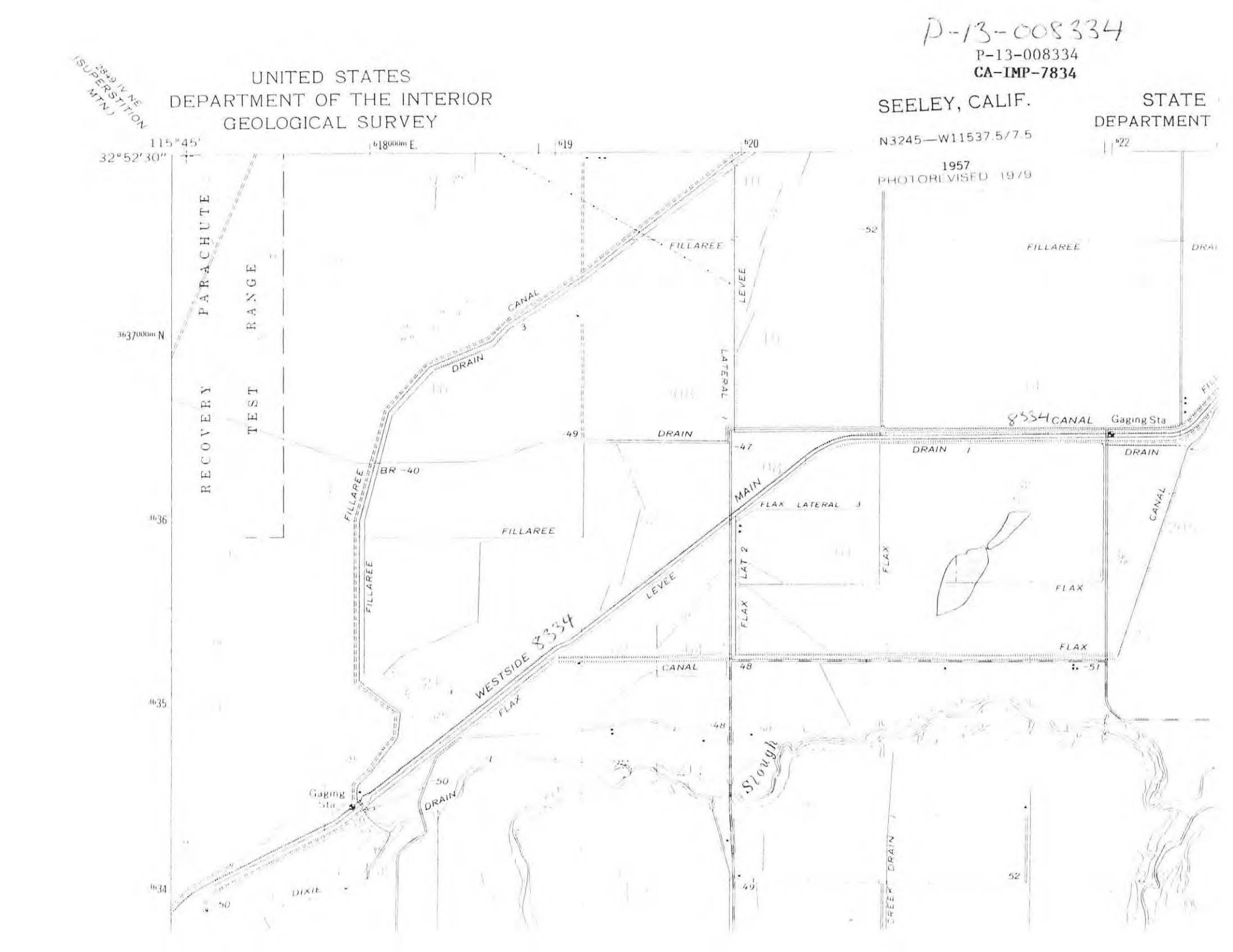
PHOTOREVISED 1979



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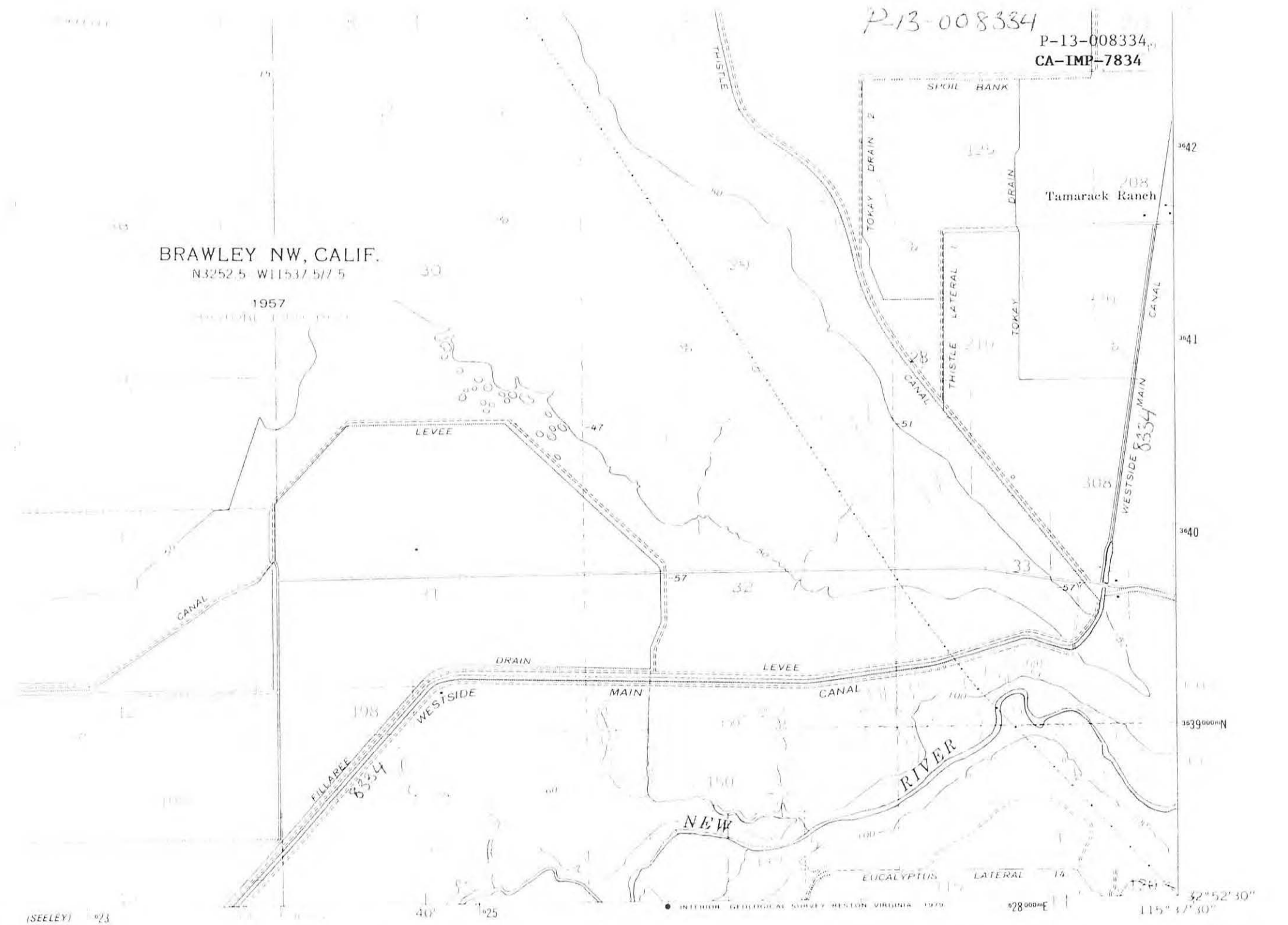
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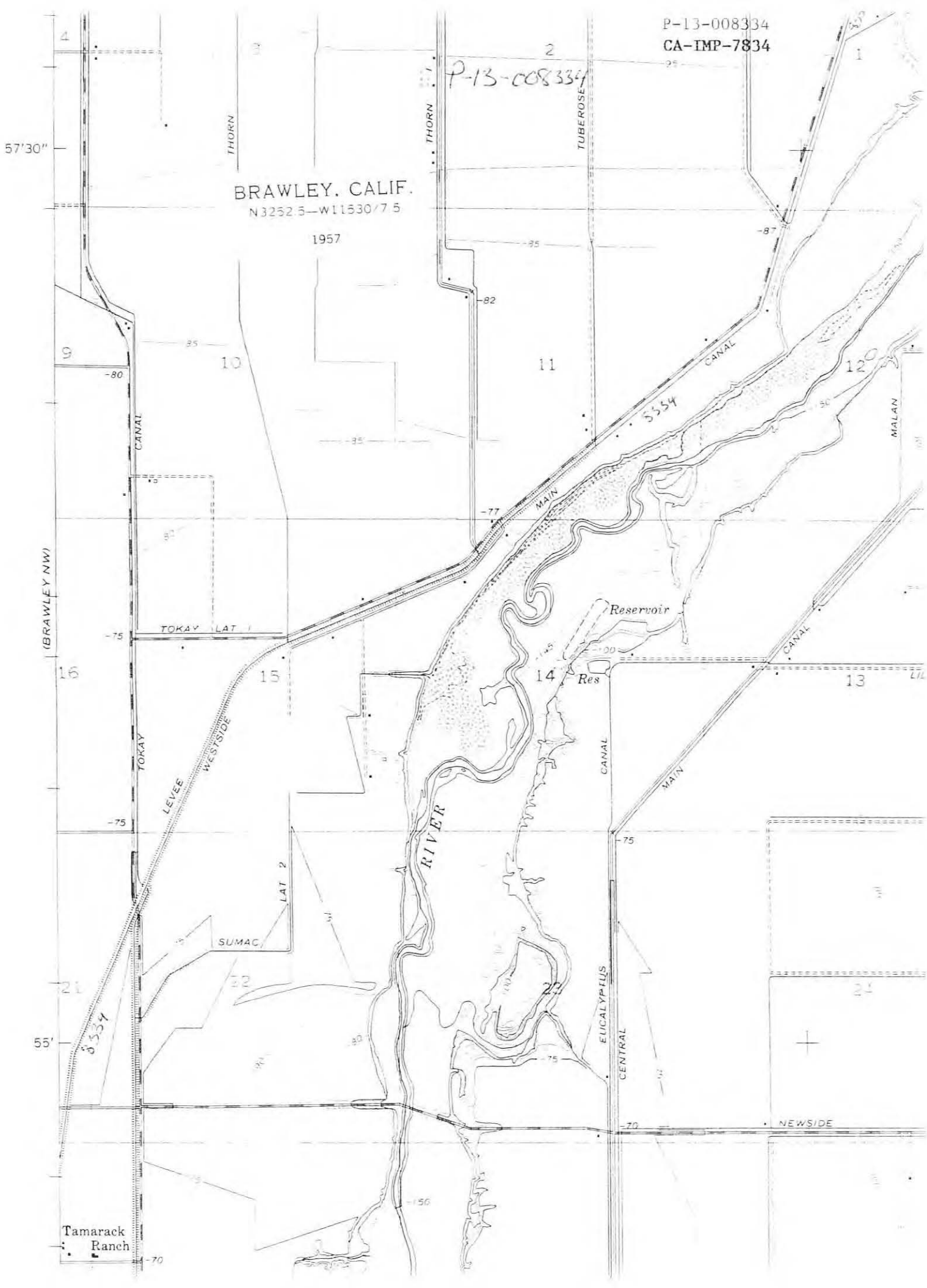
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CA-IMP-7834



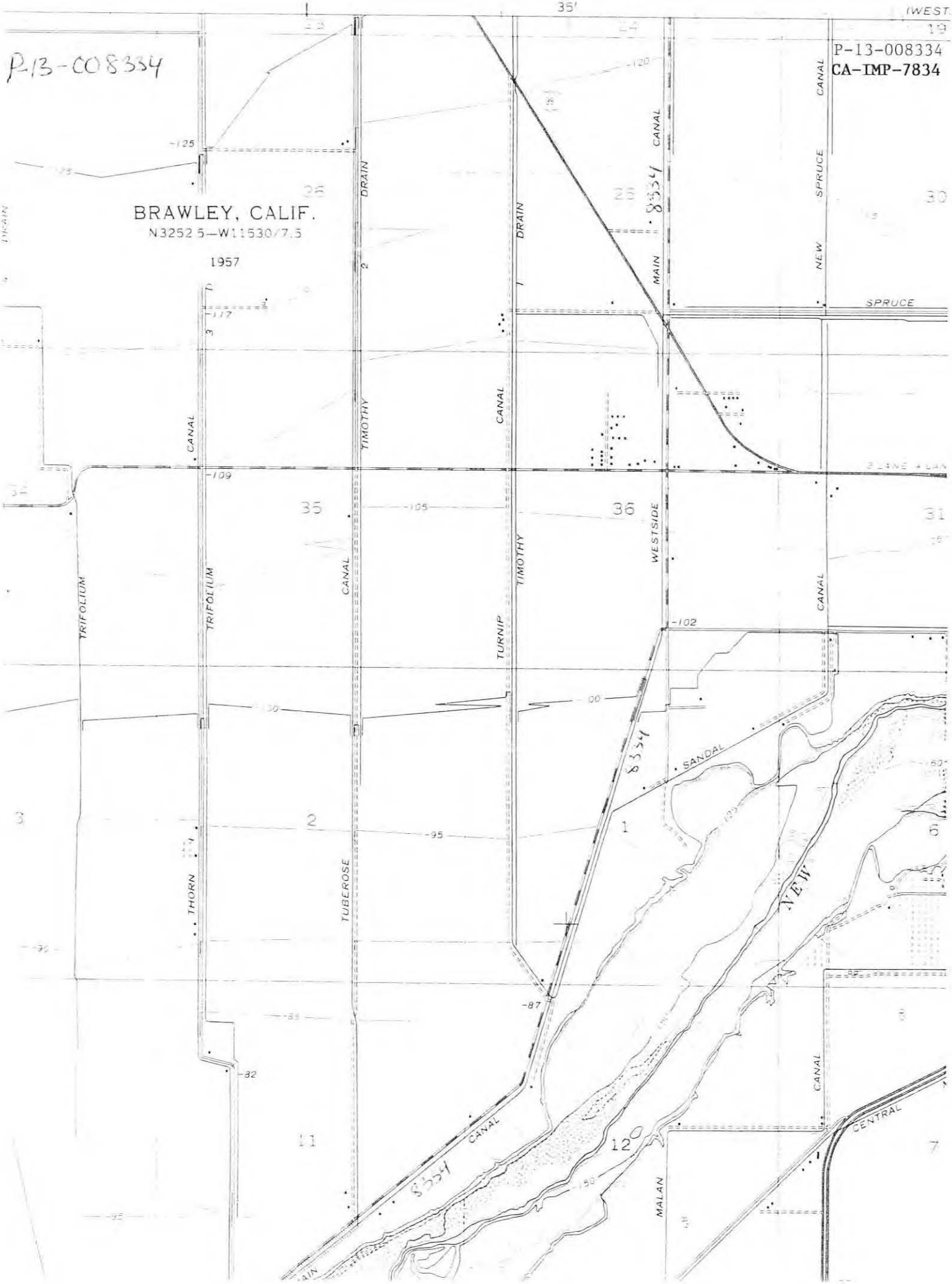

P-13-008334
CA-IMP-7834
P-13-008334
BRAWLEY, CALIF.
N3252.5—W11530/7.5
1957
57'30"
55'
THORN
THORN
TUBEROSE
CANAL
MAIN
MALAN
CANAL
(BRAWLEY NW)
TOKAY LAT 1
TOKAY
LEVEE
WESTSIDE
LAT 2
SUMAC
RIVER
Reservoir
Res
CANAL
MAIN
ELICALYPTUS
CENTRAL
NEWSIDE
Tamarack
Ranch
S334
S334

P-13-008334

P-13-008334
CA-IMP-7834

BRAWLEY, CALIF.
N3252 5—W11530/7.5

1957



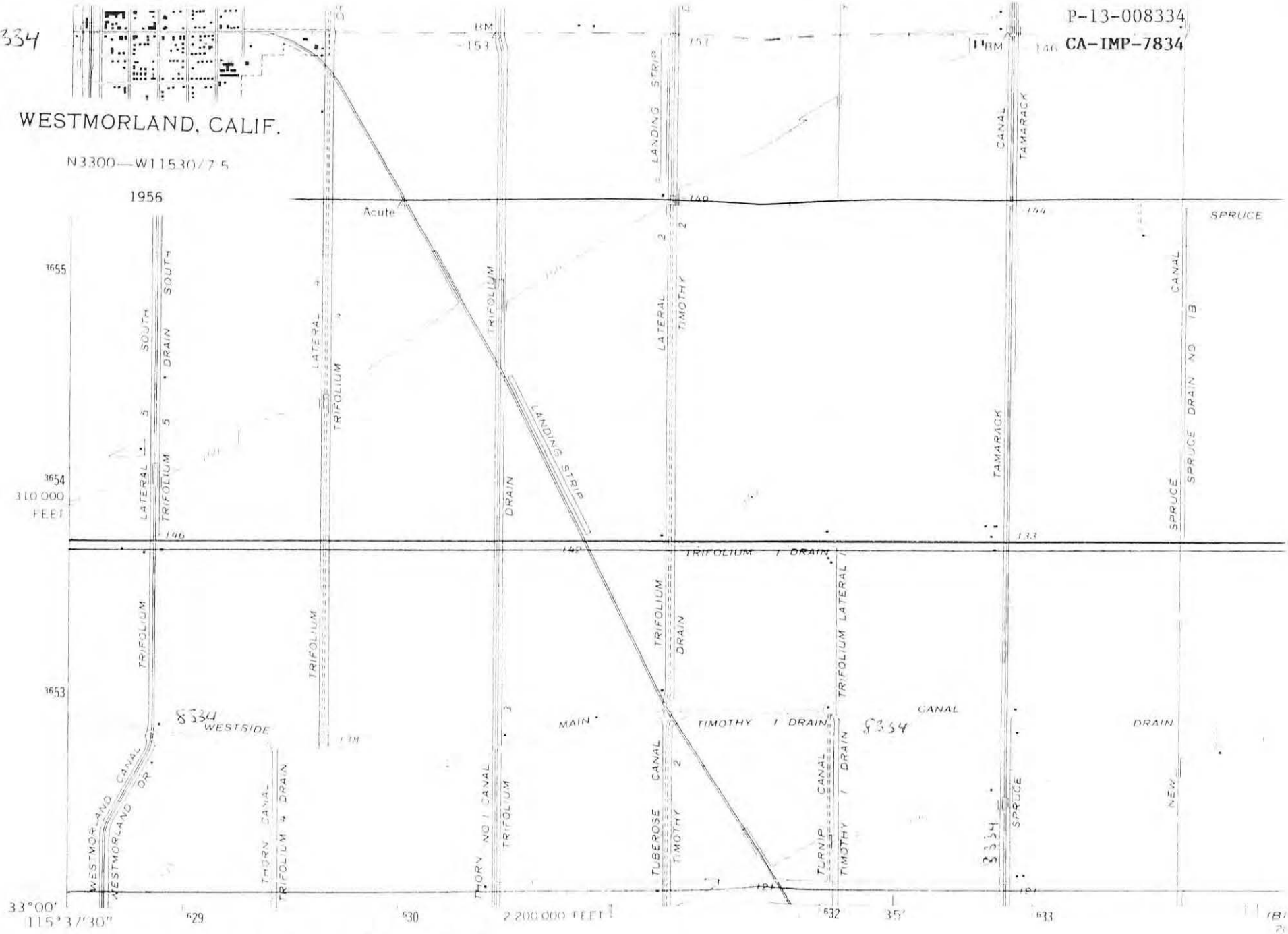
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CA-IMP-7834

WESTMORLAND, CALIF.

N3300—W11530/7.5

1956



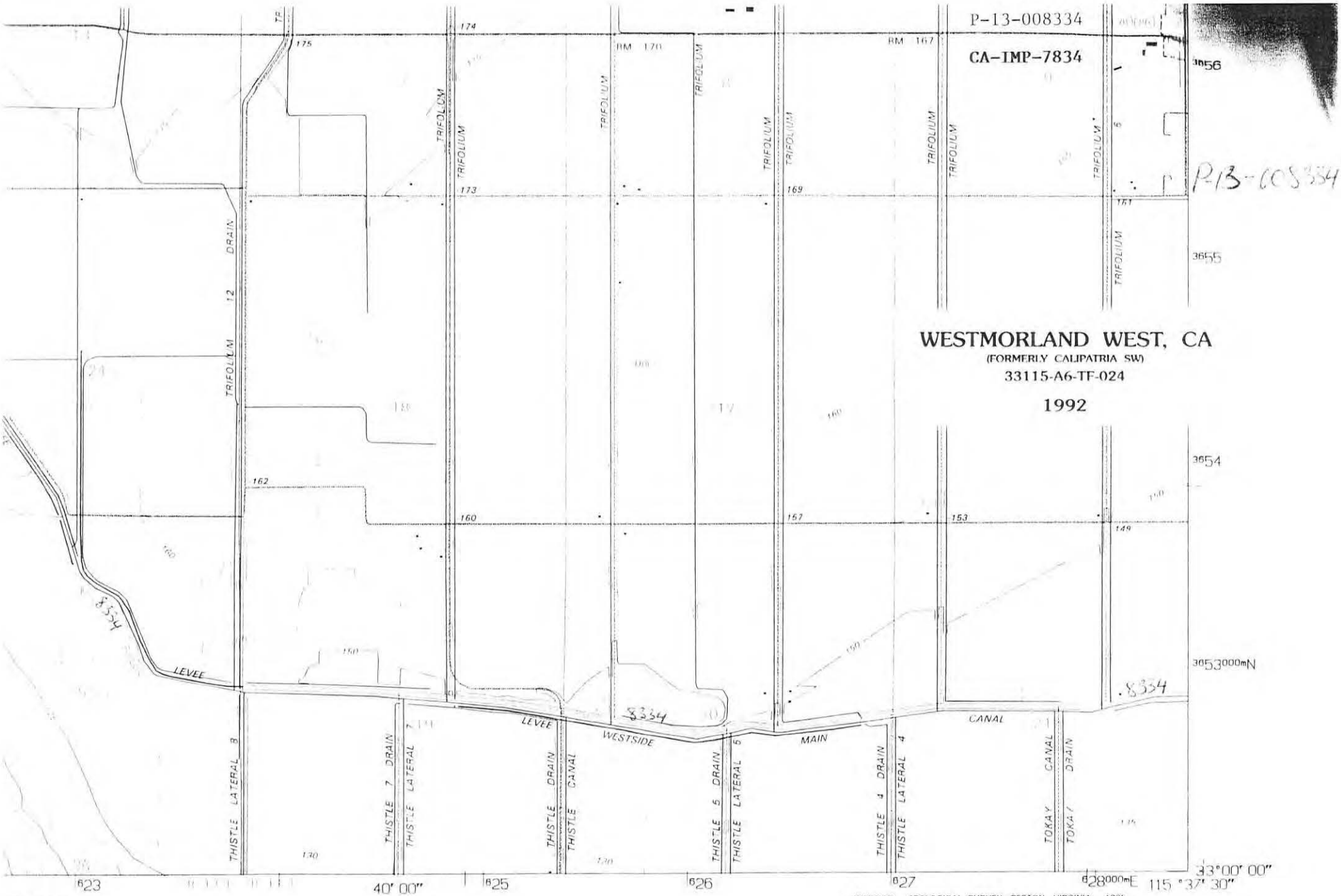
Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and State of California

Culture and drainage compiled from aerial photographs taken 1953. Topography by planetable surveys 1956

Polyconic projection. 1927 North American datum
10,000-foot grid based on California coordinate system,

(BRAWLEY NW)
2849 I NW


P-13-008334
CA-IMP-7834
P-13-008334
WESTMORLAND WEST, CA
(FORMERLY CALIPATRIA SW)
33115-A6-TF-024
1992
TRIFOLIUM
TRIFOLIUM 12 DRAIN
LEVEE
WESTSIDE MAIN CANAL
THISTLE LATERAL B
THISTLE 7 DRAIN
THISTLE LATERAL 7
THISTLE DRAIN
THISTLE CANAL
THISTLE 5 DRAIN
THISTLE LATERAL 5
THISTLE 4 DRAIN
THISTLE LATERAL 4
TOKAY CANAL
TOKAY DRAIN
RM 170
RM 167
3656
3655
3654
3653000mN
623
625
626
627
628000mE
40' 00"
33°00' 00"
115°37' 30"
:24 000
QUADRANGLE LOCATION
CA
INTERIOR - GEOLOGICAL SURVEY, RESTON, VIRGINIA 1995
ROAD CLASSIFICATION
Primary highway hard surface
Secondary highway hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U.S. Route
State Route

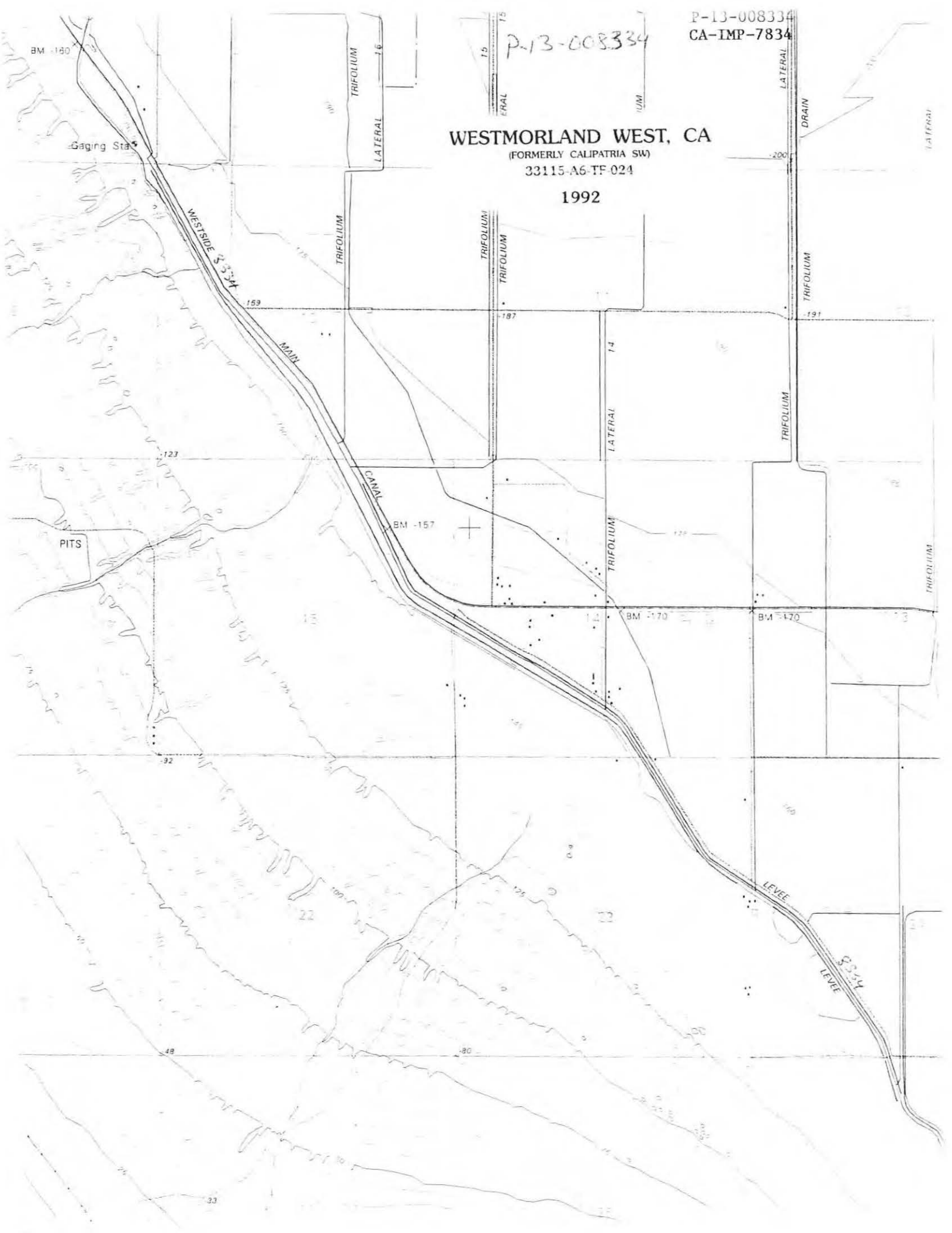
P-13-008334
CA-IMP-7834

WESTMORLAND WEST, CA

(FORMERLY CALIPATRIA SW)

33115-A6-TF-024

1992



P-13-008334
CA-IMP-7834

SALTON SEA

ELEVATION 228 FEET BELOW SEA LEVEL
SEPTEMBER 1992

P-13-008334

WESTMORLAND WEST, CA
(FORMERLY CALIPATRIA SW)
33115-A6-TF-024
1992

SALTON SEA

NATIONAL WILDLIFE REFUGE

LEVEE

LEVEE

ONE DRAIN

Spring

TRIFOLIUM

BM -166

EXTENSION

BM -161

BM -160

Gaging Sta

TRIFOLIUM LATERAL

DRAIN

LATERAL

DRAIN

TRIFOLIUM

Ogilby, Cal., May 14, 1901

A. M. Chaffey, 244 Stowell Block, Los Angeles. --
Water turned through gate at 11 a.m. Everything
all right.

George Chaffey

The first delivery of water in the United States occurred in June, 1901, when delivery was made as far as Calexico through the Boundary Canal. Some 1500 acres was put under crops in the fall of that year.

Additional Mutual Water Companies

As already noted, Imperial Water Company No. 1 was organized in 1900. Later in the same year, Imperial Water Company No. 4 (20,000 acres) was organized, followed in 1901 by Imperial Water Companies No. 5 (100,000 acres) and No. 6 (20,000 acres), and in 1902 by No. 7 (18,000 acres) and No. 8 (45,000 acres). Tri-Party contracts were entered into by each, which in general, except for that of No. 6 Co., were similar to the one heretofore described for No. 1 Company. No. 7 Company bought its water rights from the C. D. Company for a lump sum cash payment of $50,000 and built its own distribution system; the C. D. Company built the distribution systems for the others.

No more water companies were organized until 1908. These are discussed at a later point.

Additional Construction

Canals

The Central Main Canal was continued on from the international boundary line through No. 1 Company to its north limits (No. 4 Heading), a few miles to the southwest of the present city of Brawley, and put into service in March 1902. From this point, water service was furnished to Water Company No. 4. A branch canal from the Central Main, with a crossing by flume of what was then the relatively narrow and shallow channel of New River, was constructed to provide service to Water Company No. 8.

The Encina Canal - now West Side Main - was constructed in Lower California from Sharp's Heading to the south, crossing New River channel in a flume, then swinging to the west and north to the international boundary line at a point about ten miles west of Calexico, for providing service to Water Co. No. 6.

Diverting from the Alamo Canal about 1-½ miles upstream from Sharp's Heading, the East Side Main Canal was constructed north to the international boundary line (Allison Heading) to serve Water Co. No. 7.

For service to Water Co. No. 5, the original plan utilized the old Alamo River channel as a canal from Sharp's Heading to Holtville, where an earthern dam was constructed in the channel to raise the water high enough to make delivery. However, the dam failed within a short time, and No. 5 Company built a main canal from Allison Heading north to its lands; this became known as the Low Line or No. 5 Main Canal.

By January 1, 1905, there had been constructed eighty miles of main canals in the Imperial and Mexicali Valleys belonging to the C. D. Company and the Mexican Company and some seven hundred miles of distribution canals in Imperial Valley.

Structures

In addition to the Chaffey Gate and other structures already mentioned, major structures built during the first years included: head gates for the Central Main and Encina Canals and a waste gate to the Alamo River, all at Sharp's Heading, and the 134 Waste Gate on the Central Main Canal in Mexico about two miles downstream from Sharp's Heading, which discharged into a side channel of New River.

Holton Power Plant

From a point on the No. 5 Main Canal southeast of Holtville known as No. 5 Heading, W. F. Holt, developer of No. 7 Water Company, the town of Holtville, and other enterprises, built a canal to the Alamo River where he installed a small hydroelectric plant in 1903-04 with a head of about 20 feet. This was the start of the Holton Power Company and supplied the first electric service to Holtville and El Centro. Water for the plant was secured from the C. D. Company by a special contract and when available up to 150 second-feet was used for power purposes. The deepening of the Alamo River by flood waters from the river break of 1905-07 increased the available head at the plant about 25 feet, and a second hydro plant was built to utilize the increased head. The two plants had a capacity of about 1500 kilowatts.

Concession from Mexican Government

From the discussion which has been given of the Mexican Company relating to the various contracts in which it became involved, as well as its intended purpose of selling or leasing water to serve lands in Mexico in addition to those it owned, it can be seen that the Company was, in fact, a public utility; but the right to operate as such had not been granted by the Mexican Government. Moreover, as will be referred to at a later point, questions arose as to the right of the C. D. Company to appropriate water from the Colorado River under California State law, since the River was considered navigable and such right had not been recognized by the United States Government; hence it appeared desirable to the C. D. Company to secure the right, if possible, to divert water from the River in Mexico.

These were among the reasons why the C. D. Company, through its subsidiary, the Mexican Company, sought a concession from the Mexican Government to legalize all of the activities of the latter Company.

Such a concession, or contract, was obtained under date of May 17, 1904, being approved by action of the Mexican Congress and the President under date of June 7, 1904.

The concession authorized the Mexican Company to carry through its canal system in Mexico, 284 cubic meters per second (10,000 second-feet) of water to be diverted from the Colorado River in the United States by the C. D. Company and turned over to the Mexican Company at the international boundary line. It also authorized the Mexican Company to divert from the Colorado River in Mexico, 284 cubic meters per second (10,000 second-feet) of water to be carried through its canal system, provided that such diversion did not injure the

completed in March of that year.

Complications With Work in Mexico

One of the complicating factors in connection with all work carried on in Mexico was that neither the C. D. Company nor the Southern Pacific Company, as such, could do any work in Mexico under their own names. At a later date, the U. S. Federal Government ran into a similar complication when it undertook to construct river levees in Mexico. It was therefore necessary that the work in connection with the canal system and the closing of the break be carried on in the name of La Sociedad de Yrrigation y Terrenos de la Baja California, S. A., the Mexican Company, with funds advanced by the C. D. Company or the Southern Pacific Company.

Damages from the Break

Erosion of New and Alamo Rivers

During the break, the large flow of water through the Alamo Canal caused an overflow for many miles and created a very serious situation. The larger part of the water overflowed the south bank and collected in New River channel in Lower California and thence passed down the west side of Imperial Valley to Salton Sea. At the closure of the Break, New River, which had been a rather shallow channel, had become a gorge 40 to 60 feet deep through Imperial Valley and extending for some six or eight miles into Lower California.

It was possible, through the use of the Alamo Wasteway at Sharp's Heading, to control the flow at that point during the River break, so that most of the area in the Valley east of New River received a continuous water supply. However, the large amounts of water which, to maintain control at Sharp's Heading, had to be wasted through the Alamo Wasteway to the Alamo River and thence to Salton Sea widened the River and deepened it as much as 20 to 30 feet in some places; but the resulting channel was small compared to that of New River.

It is estimated that some 13,000 acres of irrigable land, part of which was in crop, was destroyed by the erosion of the Alamo and New Rivers.

Salton Sea

Salton Sea, which had been practically dry, reached an elevation of approximately 195 feet below sea level by the time the break was closed in February, 1907. The surface area of the Sea at that time was about 500 square miles, (285,000 acres) with a length of 50 miles and a width of some 10 to 15 miles.

Flumes Over New River

In addition to the damage caused to the Alamo Canal, the water from the break destroyed the wooden flume which carried the Encina (West Side Main) Canal across New River in Mexico, and a similar flume across New River some 20 miles to the north of the international boundary line which supplied No. 8 Water Company.

Inasmuch as it was not practical to rebuild the No. 8 flume because of the greatly increased width and depth of the New River channel in that locality created by the flood, it was decided to enlarge the West Side Main Canal in Mexico and

same vicinity, to the west into Imperial Valley, was imminent at the time. As a matter of fact, such a natural diversion did occur in 1908-09 about twenty miles downstream at a point in the River about opposite the lower (Arizona - Mexico) international boundary line. The end had come to the peaceful meandering of the River along the east side of its delta in Mexico, which had existed over the previous five hundred years. While the 1905 break was a bitter and costly experience, still the knowledge gained from it and the realization of the need for a levee system, perhaps saved Imperial Valley from a far worse disaster at a later time through the River diverting itself into the Valley.

Permanent Hanlon Heading

Original Structure

The loan of $200,000 made to the C. D. Company by the Southern Pacific Company in the early part of 1905 was primarily for the construction of permanent head works to replace the wooden Chaffey Gate and to construct the Alamo waste gate at Sharp's Heading. Work on the new head gate, known as Hanlon Heading, was started in December 1905 and completed in June 1906. The new structure was constructed on solid rock where a spur of Pilot Knob Mountain extended out near the River channel, the location of the structure being somewhat to the north and a short distance to the west of the Old Chaffey Gate. A new intake canal was excavated from the River to the new structure. Hanlon Heading had 11 gate openings each 12 feet wide and 10 feet high, the flow through them being controlled by radial gates. The designed capacity was 10,000 cubic feet per second at low-flow stages of the River, with the sill of the gate placed at a much lower elevation than that of the Chaffey Gate. There was also a "navigation pass" 10 feet 3 inches wide at the east end of the structure for the purpose of passing small power boats through the structure.

Addition to Hanlon Heading

In 1913, a "Stoney" gate was added to the west side of Hanlon Heading, occupying three of the original gate openings. This gate has a single opening of 25 feet by 14 feet, with the sill 5 feet lower than that of the main structure and was completed in May of that year. The purpose was to improve diversion conditions during low-flow periods of the River.

Repairs and Improvements to Canal System

Following the closure of the break, in addition to the rebuilding of the Encina (West Side Main) flume over New River and extension of that canal in the United States, other work was undertaken.

The banks of the Alamo Canal were repaired and strengthened and the work of straightening and confining the channel was commenced.

At a point on the Alamo River west of Holtville, a large concrete drop structure - known as Rositas Wasteway - was constructed to raise the water in the River for service to the Mesquite Lake area through the Rose Canal, for which a concrete head gate was also installed. In this way, reuse was made of the water discharged from the Holton Power Plant, as well as that which was passed through the Alamo Wasteway at Sharp's Heading in Mexico.

The Rositas Wasteway was designed for a capacity of 2,000 second-feet. The

The appropriation was used to extend the existing levee - C. D. Levee - along the River for a distance of about twenty-five miles in Mexico, which carried it across and for several miles below the break of the old channel into Bee River, the new levee being named Ockerson Levee. The work was completed in May 1911, but floods a short time later breached the new levee at the Bee River break and at many other points. The result was an almost total loss of the work, and the River was again flowing through Bee River into the Volcano Lake area.

United States Government Withdraws

In 1912, a part of the unexpected funds remaining from the 1910 appropriation was used in repairing numerous breaks in the upstream section of the Ockerson Levee, and again the work had to be carried on in the name of the Colorado River Land Company. In 1913, the remainder of the 1910 appropriation was used in repairing a break in the C. D. Levee a few miles below the international boundary line in Mexico, to which cost $30,000 was contributed by Imperial Irrigation District.

By the start of 1915, the general situation as to flood control was chaotic. The C. D. Company and the Mexican Company were bankrupt and in the hands of Receivers with insufficient funds available, and Imperial Irrigation District was not yet in position to take over because of legal complications. In view of these conditions, a further appeal was made to the Congress for assistance, and the sum of $100,000 was appropriated in March of that year, with the provision that Imperial Irrigation District contribute a like amount, which it did. These funds were expended in raising, strengthening, and extending the Volcano Lake Levee about four miles, and in rock revetting the parts of the C. D. Levee then under attack by the River. This was the last expenditure of funds by the United States Government on flood-protection work for Imperial Valley; the people of the Valley were left to their own fate, being faced with a flood menace far more critical than had existed up to that time.

Additions and Betterments to the Canal System

Receiver's Certificates

When the Receiver for the C. D. Company took over in December 1909, he found there were no funds available with which to operate. To secure the necessary funds, he obtained an order from the Court to issue Receiver's Certificates, and to April 1918, $315,000 of such Certificates were sold at par to the Southern Pacific Company. This money, together with subsequent collections for water delivered to the mutual water companies, financed the operations of the Receiver.

Major Structures

Mention has already been made of the Stoney gate attached to Hanlon Heading, which was installed during the receivership. Other important canal structures built during this period included Cudahy Check, Laurence Heading (this was on the Alamo Canal in Mexico at the point of diversion for the new East Highline Canal), and a new head gate for the West Side Main (Encina) Canal at Sharp's Heading.

Due to a washout of the West Side Main Canal at the upstream end of the

a field survey of an All-American Canal.

Cierro Prieto Canal

One of the first improvements undertaken by the District was the construction of the Cierro Prieto Canal diverting from Volcano Lake through a head gate constructed in the Volcano Lake Levee near its lower end at Black Butte. The canal was built to the northwest and then north, a total distance of some sixteen miles, keeping to the south of New River, to a junction with the West Side Main Canal near Wistaria Check.

There were several reasons for building this canal. By diverting water from Volcano Lake, the demand on the Alamo Canal would be reduced. Also, because much of the silt in the River was being deposited in the Volcano Lake region, the silt content of the water diverted would be materially reduced, which would result in a saving to both the District and the landowners in the cost of water service. Moreover, the entire west side of the Valley was dependent upon the flume which carried the West Side Main over New River, and any accident to the flume, such as had occurred in the past, might cause not only great inconvenience to the water users, but severe damage to their crops. The Cierro Prieto Canal would furnish another source of supply, independent of the flume, for the west side of the Valley.

The canal was completed in August 1916 at an initial cost, including the head gate, of about $300,000. Tule Check, on the Cierro Prieto Canal was constructed in the spring of 1917, and the canal enlarged to a capacity of 1,200 second-feet, at a cost of about $125,000.

The water surface of Volcano Lake varied with the amount of flow in the River, and during the periods of lowest flow it was not possible to divert to the Cierro Prieto Canal. For this reason, diversion was made from the Lake to the canal for about twenty days in August, 1916 and intermittently thereafter until September, 1921. The diversion of the River through the Pescadero Cut and out of the Volcano Lake region, made by the District in 1922, dried up the Lake, making further diversion into the canal impossible. After 1917, the canal was served primarily by the Solfatara Canal, discussed at a later point.

Board of Consulting Engineers

In view of conditions on the River and the very serious problem of maintaining an adequate water supply, the District Board of Directors, by resolution of September 26, 1916, appointed a Board of Consulting Engineers to make an investigation and recommend what should be done to cope with the critical situation. The Board consisted of G. G. Anderson and C. E. Grunsky, both of whom were well known for their ability and long experience in connection with Colorado River irrigation matters.

Report No. 1

The Consulting Board issued its Report No. 1 under date of October 25, 1916. This was of a preliminary nature and contained eight recommendations to be carried out immediately. These included a new head gate and intake canal at Andrade, with the use of large suction dredgers for handling heavy silt in the intake canal; improvements to the Alamo canal; and an upstream extension of the Cierro Prieto Canal to a connection with the Alamo Canal.

ed from a point about two miles below its Volcano Lake heading, to the north a distance of sixteen miles to the Alamo Canal at Cudahy Check, the extension being known as the Solfatara Canal. As has been pointed out, diversions to the Cierro Prieto Canal from Volcano Lake could be made only during the higher stages of the flow of the River. So the first purpose of the new canal was to assure a constant supply to the Cierro Prieto, and thus to the west side of Imperial Valley. The upper end of the new canal was located adjacent to and on the westerly side of the Volcano Lake Levee. Excavation from this section was used to raise and strengthen the Volcano Lake Levee. The lower portion of the canal veered away from the Volcano Lake Levee and crossed extensive alkali flats. The area between the canal and the levee was silted in, which not only provided good material for raising the levee, but also gave it backing and increased its stability.

Cudahy Check had been constructed in 1914 with funds provided by the Imperial Development Company, which owned a large tract of land in the vicinity, the check being used for diversion of water for the development of that tract. When the Solfatara Canal was constructed, its heading was located on the Alamo Canal immediately upstream from Cudahy Check, and the District reimbursed the Imperial Development Company in the sum of $43,000 on the cost of the check.

The canal was completed in 1917 at a cost of $171,000.

4. Improvements to the Alamo Canal

Considerable work was done on the Alamo Canal, including the cutting off of bends to improve alignment, widening of certain sections to increase capacity, and channelizing of a number of sections to prevent excessive deposition of heavy silt. On this work, a total of $625,000 was expended.

5. Improvements to Levee System

In accordance with the Consulting Board's recommendation, $500,000 was expended on the protective levee system, principally in extending, raising and revetting the Saiz and Volcano Lake Levees. Conditions which required this work will be discussed at a later point, under the heading of "Pescadero Cut".

6. Other Items of Construction

Among other major items constructed in accordance with the recommendations of the Consulting Board was the replacement of the Alamo Waste Gate at Sharp's Heading. This was a large wooden structure and was the main control not only for the several canals diverting from the Alamo Canal at Sharp's Heading, but also for the regulation of the entire Alamo Canal. It diverted surplus water to the Alamo River and was used in sluicing the lower end of the Alamo Canal. It was originally constructed in 1903, and although the Consulting Board had recommended that it be replaced with a concrete structure, this was not done, the replacement being a similar type of wooden structure costing $86,500.

Also, a concrete wasteway structure was installed on the east side of the West Side Main Canal at Wistaria Heading in Mexico, discharging into a channel leading into New River. The cost of the structure was $45,000.

In addition, there were a number of miscellaneous structures built, such as canal headings, small sluiceways and wasteways, both in Mexico and in the Imperial Valley, which completed the expenditure of funds from the second bond issue.

Construction of Deep Drains

The major portion of the work was carried on with the $2,500,000 made available from the fourth bond issue, and by 1929, when these funds were exhausted, there had been completed a total of 190 miles of deep drain outlets. In addition, General Fund monies had been used in the construction of 44 miles of such drains, making the total 234 miles at the end of 1929.

Soils of Imperial Valley

These main drains were but a start toward solving the drainage problem of Imperial Valley. While such a system of deep drains had to be provided in any event, yet it was found that in most instances their effect did not extend to a very great distance laterally, for reasons which will be explained.

The soils of the delta portion of Imperial Valley - the area then developed are made up of alluvial deposits of fine textured clays, silts, and sands laid down by the Colorado River, the thickness and type of a stratum at any particular location having been determined by the course of the River and the type of silt it was carrying when the deposit occurred. The result is a very greatly stratified soil, made up of lenses or pockets of varying size and type of material, and this condition tends to retard natural drainage. There are no gravel and sand water-bearing strata and hence no "general" underground water table such as is found under many western irrigation projects. In most parts of the Valley, the water table is perched on underlying relatively impervious strata, so that drainage by deep-well pumping, successfully used in many projects, is ruled out.

These conditions made the problem of adequate drainage of the lands in the delta portion of Imperial Valley one of the most difficult of solution of any to be found in the West. Drainage methods which have been successful in areas of homogenous soils are not adapted to the stratified, alluvial and lacustrine soils of Imperial Valley.

Expansion of Drainage System

It became apparent that the answer to the problem was a drainage system that would meet the varying soil conditions on the individual farms. To this end, the District began an expansion of its drainage system, as rapidly as funds would permit, to reach each 160 acres of land throughout the Valley. Such would then provide an outlet for whatever additional drainage facilities as might be required on the individual farm to give it adequate drainage.

The program required the development of a lateral drain system by the deepening of existing surface drains to a depth of 6 or 8 feet and the construction of additional deep drains to serve as outlets. Also as a part of the program, the District adopted a policy of cooperating with the individual landowner in the making of a detailed survey and examination of his land, from which facilities to provide adequate drainage could be designed, and, if the landowner proceeded with the installation, furnishing all the engineering work required, all without expense to the landowner, but the latter was required to pay all other costs of the installation. As further assistance in getting the work underway, the District purchased two tile-laying machines, the use of which it furnished to the landowner at cost.

1929, which provided that the Imperial District would construct all of the works, with the Niland District paying for the excavation and Imperial standing the cost of the necessary structures. Work performed by Imperial in 1929 under this contract included the extension of the East Highline Canal for 2½ miles and the construction of five laterals extending westerly to Salton Sea, totalling 32 miles in length, together with parallel surface drains from the Southern Pacific Railroad to the Sea. In subsequent years, Imperial continued construction until the proposed work was completed.

Miscellaneous Canal System Improvements

The Thistle Canal on the west side of the Valley west of Brawley was enlarged and its laterals extended to make possible the development of several thousand acres of new land. Also, the Trifolium (West Side Main) Canal was extended for several miles to the western boundary of the District, with laterals to the north to serve a considerable area lying south of Salton Sea.

In addition to funds provided by bond issues for work on realigning and controlling the Alamo Canal in Mexico, the District expended a considerable amount from General Funds for this purpose.

Commencing about six miles downstream from Cudahy Check, a section of the Alamo Canal some three or four miles in length, known as Alamo Mocho, gave particular trouble. Bed silt depositing in this section caused a continuous rise of the bottom of the Canal and hence of the water surface, requiring raising of the canal banks. This rise in water surface averaged between one-half and one foot per year.

It was also noted that, year by year, the bed silt was gradually moving farther into the main canals and laterals in the Imperial Valley, necessitating more dredging and, hence, increasing the cost of maintenance to the District. Sluicing of the canals into the Alamo and New Rivers was of benefit in removing bed silt, but still large amounts of this type and most of the suspended silt were carried through to the farms, causing added expense to the water users too.

Silt Problem

As an illustration of the seriousness of the silt problem to the Imperial Valley, conditions in the year 1923 are cited.

From tests made during that year, it was determined that about 25,000 acre-feet of silt passed through Rockwood Heading into the Alamo Canal; this equals 40,000,000 cubic yards but did not include all of the bedload or sand which was carried along the bottom of the canal and out of reach of the silt-sampling apparatus. Of this total quantity of silt, it was estimated, in round figures that 1,000,000 cubic yards was removed from the intake canal by suction dredging; 3,000,000 cubic yards was excavated in cleaning, by various methods, the remainder of the canal system; 10,500 cubic yards were disposed of by sluicing the canals and laterals; and deliveries of water to lands in Mexico carried 5,500,000 cubic yards onto those lands. The total of the foregoing amounts is 20,000,00 cubic yards, or one-half of the total of 40,000,000 cubic yards. This means that the other half, or at least 20,000,000 cubic yards of silt, was carried onto the irrigated lands in Imperial Valley.

Other Events to 1940

Improved Situation

With the Plan of Composition becoming effective, the District's financial position very greatly improved. However, it had been a most difficult decade through which the District and its people had had to operate; but on the bright side, several events had taken place which offered much encouragement.

During the period prior to storage in Lake Mead in 1935, there had been no large river floods; hence expenditures required for flood protection were at a minimum. The silt content of the water, which had been excessive for several years prior to 1931, greatly increasing the cost of canal maintenance, had returned to normal, which assisted in carrying out the retrenchment program.

As had been anticipated, this very severe retrenchment program in the early thirties resulted in a deterioration of the canal and drainage systems, but toward the latter part of the period it was possible to catch up on a considerable part of the delayed work. Also, with the monies made available to the Drainage Fund under the Plan of Composition, drainage construction was going forward at a much increased pace. Moreover, after 1932 the District issued no more registered warrants and had maintained its cash position for current expenditures.

Commencing on February 1, 1935, storage of water in Lake Mead behind Hoover Dam had begun, which removed the major flood danger and assured an ample water supply for the Valley. Construction of the All-American Canal had started in 1934, the head works had been dedicated in 1938, and service to the Valley was to be commenced in a short time. The Canal not only would eliminate the international difficulties and diversion problems which had previously existed, but, together with Hoover Dam, would in time largely eliminate the silt problem. In May, 1936, the District's power system had gone into operation and was rapidly being expanded to cover the entire Valley. Revenue from power sales was increasing rapidly, and an additional source of power would soon be available from plants then under construction by the District on the All-American Canal. Lastly, to all of the foregoing should be added the effect from the rapidly improving market for agricultural products, both as to prices and demand, which had developed in the latter part of the period.

1939 Storm

But mention should be made of two serious events which the District had to meet, one of which occurred in 1939 and the other in 1940.

In September, 1939, a storm resulting from a hurricane off the west coast of Mexico swept up through the trough of the Colorado River Valley, and during one week in which rain fell in Imperial Valley almost continuously, there was nearly 7 inches of precipitation - not only the maximum amount for any one storm but more than the total amount for any one year, in the history of the Valley.

Great damage was done to both the canal and drainage systems. The West Side Main Canal and the north end of the East Highline Canal were broken in many places and canal banks were seriously damaged over a length of many miles.

A large number of lateral headings and drop and delivery structures were destroyed, as well as a number of miles of lateral canal banks. Several major drainage structures were washed out, and other serious damage to the drainage system occurred at many points.

The cost of repairing the damage to the canal and drainage systems amounted to about $110,000. A part of this cost was met with funds from the newly created Emergency Fund provided for by the 1939 Plan of Composition and the balance from the General Fund.

1940 Earthquake

The second disastrous event was the earthquake of May 18, 1940 - the most severe since the development of the Valley commenced. It was caused by a movement of the San Jacinto fault, which passes through the Valley, from the northwest to the southeast, a few miles to the west of Brawley and several miles to the east of El Centro and Calexico. The epicenter was located approximately on the international boundary line, and it was possible to trace the fault for a distance of some forty to fifty miles, commencing in Mexico near Volcano Lake and extending through Lower California and on through Imperial Valley to north of Brawley. The maximum slippage was over 14 feet near the international boundary line.

The principal damage occurred to the canal system in Mexico. For several miles below Tortuoso Drop the Solfatara Canal was completely destroyed. The large flume carrying the West Side Main over New River was completely wrecked and large longitudinal cracks were opened up in many miles of the Alamo and other canals.

In Imperial Valley, the East Highline Canal was cracked in many places, and the Ash Canal and its laterals were severely damaged. Along the fault itself, the shift caused an offset in the canals it crossed, and in several cases structures were destroyed.

The earthquake also caused very extensive damage in most of the cities and towns of the Valley, and several people lost their lives. The remarkable thing is that great numbers were not killed or severely injured.

The entire water supply to the District's canal system had to be cut off for several days until repairs were completed and service re-established to most of the canal system. With the loss of the Solfatara Canal and the New River Flume in Lower California, the entire water supply for the west side of Imperial Valley was cut off. However, the All-American Canal had been completed from the Central Main Canal east of Calexico to the West Side Main Canal and, with water from the Central Main Canal, was put into service to supply the west side of the Valley. Had this not been available, there would have been considerable loss of crops in that area.

The Solfatara Canal was rebuilt and, together with the partial use of the All-American Canal, supplied the west side of the Valley until the balance of the All-American Canal was completed and put into service. As it was known that water would soon be available through the All-American Canal, the New River Flume in Lower California was not rebuilt.

Map Reference Number: 15

P1. Other Identifier: N/A
e. Other Locational Data: UTM: Zone 11S; North Datum: 614879.84 mE / 3627108.30 mN; South Datum: 617030.81 mE / 3623711.71 mN

*P3a. Description: The Fox Glove Canal was constructed in ca. 1912 and modified between 1954 and 1981. It was built parallel to the Westside Main Canal, most likely in the 1940s, and the spillway along the Westside Main Canal was built in 1967. In 1982, the diversion from the Westside Main Canal into the Fox Glove was constructed in concrete (Exhibit 16). The canal is approximately 20 feet wide, made of concrete slab sidings and metal gate structures, and runs for 1.1 miles parallel to the Westside Main Canal and the Dixie Drain 2 on the west portion of the API. The Fox Glove Canal connects to the Westside Main Canal by a spillway gate located southwest of the intersection of Mandrapa Road and Hyde Road, constructed in 1967. At 0.5 miles to the north, Fox Glove Canal connects to Dixie Lateral 1, which bisects multiple farmland segments in the API. The canal runs north to West Vaughn Road and continues northwest, parallel to the Westside Main Canal north of Interstate 8. The canal is approximately 9 miles long (NETR 2023a) (Photograph 1).

*P3b. Resource Attributes: HP20: Aqueduct/Canal

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

The property has been previously evaluated six times. The first evaluation was conducted by USBR and OHP in 2006. USBR and OHP determined that a portion of Fox Glove Canal is associated with the All-American Canal, which appeared to be eligible under Criteria A/1 and C/3. USBR and OHP recommended that the canal be found ineligible under Criteria B/2 and D/4. The IID report from 2001 included the entire IID system with all associated canals and was used as reference in this evaluation by USBR and for further evaluations (Schaefer and O'Neil 2001), In 2008, the Southeastern Information Center confirmed that SHPO considers eligible all components of the All-American Canal system. SWCA Environmental Consultants determined the Fox Glove Canal eligible for the NRHP under Criterion A/1 for its significance in association with the development of the Imperial Valley and under Criterion C/3 as part of "one of the great engineering marvels of the American West" as a contributor to the All-American Canal system, which is a linear historic district (Steely 2008). In 2009, URS considered the portion of the Fox Glove Canal crossing the Evan Hewes Highway as not eligible for listing on the NRHP or CRHR nor considered a historical resource for CEQA purposes (URS 2009e). In 2011, portions of the Fox Glove Canal were evaluated by KP Environmental, ASM, and AECOM. Both KP Environmental and ASM considered portions of the Fox Glove Canal not eligible, while AECOM considered the portion of the canal surveyed as largely unchanged and retained integrity; therefore, it was recommended eligible for the NRHP and CRHR (Davis 2011b; AECOM 2011; Thomson 2011b).

On April 11, 2023, Dudek revisited this portion of the Fox Glove Canal and did not observe any noticeable alterations since the last recordation in 2011. Dudek concurs with the previous findings of ASM and KP Environmental that the Fox Glove Canal does not meet any of the criteria for listing in the NRHP or CRHR. The canal has been altered throughout its development and, most recently, in the 1980s and exhibits a loss of integrity with its restructuring and widening throughout its existence. Although it fits into the Imperial Valley's agricultural development theme, the canal is an ancillary extension of a large water conveyance system designed to irrigate individual, private agrarian ventures. The Fox Glove Canal's mere association with the West Side Main Canal or All-American Canal does not elevate the aqueduct to a level of significance worthy of recordation. The Fox Glove Canal does not represent any significant historical trends associated with any important persons, architecturally significant, or

likely to yield additional information about pre-history or history. Dudek also finds—as a result of the current study, and in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines and the criteria outlined in Section 5024.1 of the PRC—that the subject property is not a historical resource for the purposes of CEQA. Dudek has assigned the subject property a 6Z California Historical Resource status code.

***B14. Evaluator:** Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

***Date of Evaluation:** August 15, 2023.

Photograph(s):

Photograph 1. View of the Fox Glove Canal on the corner of Hyde Road and W Vaughn Road, facing east.



Source: Dudek IMG_3640

References

Davis, S. 2011. "Fox Glove Canal DPR form update." ASM Affiliates.

Krintz, J. 2011. "DPR Form set for the Foxglove Canal." ASM Affiliates, Inc.

NETR (National Environmental Title Agency). 2023. "Historic Aerial Photographs the Imperial Valley, CA, dating from 1953, 1984, 1985, 1996, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2019, and 2020." Accessed April 27, 2023. https://www.historicaerials.com/viewer.

URS Corporation. 2009. "DPR Form set for the Westside Main Canal."

Steely, J.W. 2008. "DPR form set from Fox Glove Canal." SWCA Environmental Consultants.

Thomson, H. 2011. "Fox Glove Canal (Portions)." State of California Department of Parks and Recreation.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial CA-IMP-08821
NRHP Status Code: 6Z

Page 1 of 2 ***Resource Name or # (Assigned by recorder)** Foxglove Canal
Recorded by: Shannon Davis, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

P1. Other Identifier:
***P2. Location:** ☒ Not for Publication ☐ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Plaster City, Yuha Basin, Mount Signal **Date:** 1957; **T** 16 S; **R** 11 E; **of Sec.** Plaster City 18, 19, 20, 29, 107; Yuha Basin 29; Mount Signal 29 S.B. **B.M**
c. Address: N/A **City:** Imperial **Zip:** N/A
d. UTM: Zone 11S; North end: 614879.84 **mE** / 3627108.30 **mN**; South end: 617030.81 **mE** / 3623711.71 **mN**

***P3a. Description:** The Foxglove Canal is an irrigation canal constructed ca. 1912. It is located east of and directly parallel to the Westside Main Canal. The canal begins at a point just west of Hyde Road, and flows north to the canals terminus one mile north of the intersection of Westmoreland and W. Hetzel Rd. The concrete-lined irrigation canal is approximately 12 ft. wide and about 6 ft. deep. Modifications were made to the canal in the 1960s. The entire canal is approximately 9 mi. long.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
Circa 1912
Thurston, Arthur G.
1912a Imperial Valley Tract Map. El Centro.
1914 Imperial Valley Tract Map. El Centro.

***P8. Recorded By:**
Shannon Davis, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** November 2011
***P10. Survey Type:** Intensive
P11. Report Citation:
Inventory, Evaluation, and Analysis of Impacts on Historic Resources On Private Lands within the Area of Potential Effect of the Campo Verde Solar Project, Imperial County, California, ASM Affiliates, November 2011.

***B10. Significance: Theme:** Irrigation Water Conveyance Systems **Area:** Imperial Valley

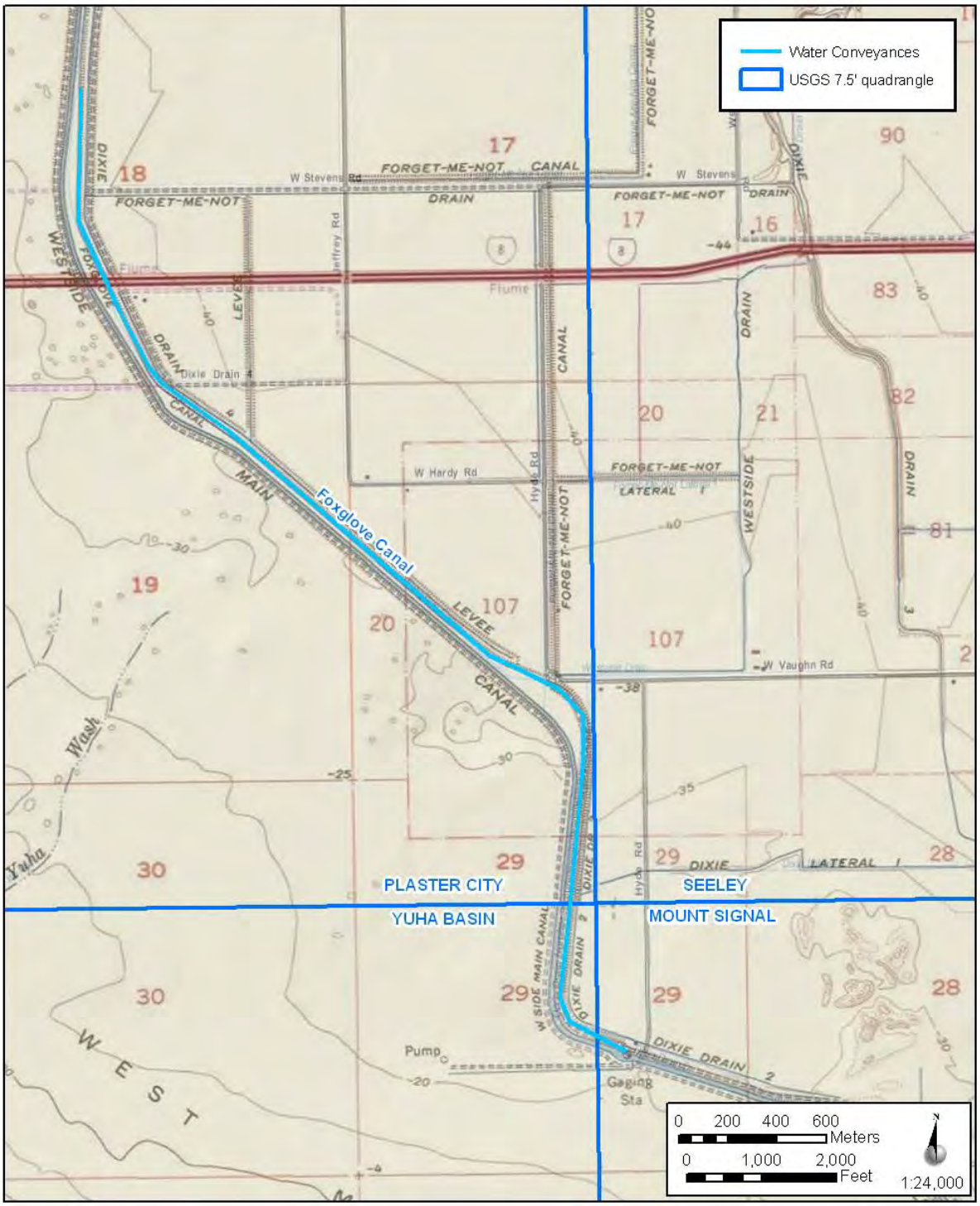
Period of Significance: N/A **Property Type:** Irrigation System **Applicable Criteria:** N/A
The Foxglove Canal was an early irrigation canal in the Imperial Valley, constructed ca. 1912. According to a previous evaluation by URS Corporation, the Foxglove Canal was recommended not eligible for the NRHP or the CRHR for the loss of integrity from regular dredging and widening of the canals and drains over time to alleviate problems of silt and build-up. Although the canal is associated with the early irrigation system of the Imperial Valley, and the important local theme of agricultural development, this particular canal does not convey that theme as well as other similar resources such as the Westside Main Canal and the All-American canals—in part due to its loss of integrity. Therefore the Foxglove Canal is recommended not eligible for the National Register of Historic Places nor the California Register of Historic Resources.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI #
Trinomial CA-IMP-08821
NRHP Status Code: 6Z

 ***Resource Name or # (Assigned by recorder)** Foxglove Canal
Recorded by: Shannon Davis, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

Location Map of the Foxglove Canal



*Required Information

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-13-009880 Update
HRI # _____
Trinomial _____
NRHP Status Code _____
Other Listings _____
Review Code _____ **Reviewer** _____ **Date** _____

 ***Resource Name or #** Fox Glove Canal

P1. Other Identifier: Fox Glove Canal
***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Imperial County
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5'** Plaster City **Quad Date** 1979 **T R**; ¼ **of Sec** 7; SB **B.M.**
c. Address City Zip
d. UTM: Zone 11S; 613474.85 mE/ 3628580.65 mN (Northern terminus within the APE)
Zone 11S; 614643.03 mE/ 3623525.73 mN (Southern terminus within the APE)
e. Other Locational Data:

***P3a. Description:**
This site form updates a 4.75 mile segment of the Fox Glove Canal, which is part of the larger historic Westside Main Canal. The Fox Glove Canal is an irrigation canal that runs though agricultural land in the Imperial Valley section of Imperial County. The northern terminus of the recorded segment enters the Area of Potential Effects (APE) .25 miles east of Centinela State Prison in Imperial, CA (UTMs Zone 11S; 613474.85 mE/ 3628580.65 mN). After the canal passes under Interstate 8 the route orients to southeast. The remainder of the route curves and the southern terminus of the recorded segment ends 100 feet west of the intersection at Mandrapa and Hyde Road in Imperial, CA (UTMs Zone 11S; 614643.03 mE/ 3623525.73 mN). The canal is approximately 12 feet wide. It is a concrete-lined water channel that is fed upstream (south) by the larger Westside Main Canal. Dirt access roads run along the levees on both sides of the canal for maintenance and access.

***P3b. Resource Attributes:** HP20. Canal/aqueduct
***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo:
Camera facing south; 10/18/2009; IMG_0740

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
c. 1930/Cultural Resource Survey, SWCA 2007

***P7. Owner and Address:**
Imperial Irrigation District
333E. Barioni Blvd
Imperial, CA 92251

***P8. Recorded by:**
AECOM
1420 Kettner Blvd., Suite 500
San Diego, CA 92101

***P9. Date Recorded:** 07/20/2011

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** *BUILT ENVIRONMENT SURVEY REPORT ADDENDUM TO THE CULTURAL RESOURCES INVESITGATIONS CLASS III REPORT FOR THE IID DIXIELAND 230 kV TRANSMISSION LINE AND SUBSTATION EXPANSION PROJECT, IMPERIAL COUNTIES, CALIFORNIA*, AECOM 2012 (Cite survey report and other sources, or enter "none.")
***Attachments:** NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

LINEAR FEATURE RECORD

Resource Name or #: (Assigned by recorder) Fox Glove Canal

L1. Historic and/or Common Name: Fox Glove Canal

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:**

b. Location of point or segment: Seeley traveling on Drew Road for one mile. Turn left on Drew Road and go west for 4 miles. The northern terminus of the recorded segment begins .25 miles east of Centila State Prison at UTMs Zone 11S; 613474.85 mE/ 3628580.65 mN.

L3. Description: This site form updates a 4.75 mile segment of the Fox Glove Canal, which is part of the larger historic Westside Main Canal. The Fox Glove Canal is an irrigation canal that runs though agricultural land in the Imperial Valley section of Imperial County. The northern terminus of the recorded segment enters the Area of Potential Effects (APE) .25 miles east of Centinela State Prison in Imperial, CA (UTMs Zone 11S; 613474.85 mE/ 3628580.65 mN). After the canal passes under Interstate 8 the route orients to southeast. The remainder of the route curves and the southern terminus of the recorded segment ends 100 feet west of the intersection at Mandrapa and Hyde Road in Imperial, CA (UTMs Zone 11S; 614643.03 mE/ 3623525.73 mN). The canal is approximately 12 feet wide. It is a concrete-lined water channel that is fed upstream (south) by the larger Westside Main Canal. Dirt access roads run along the levees on both sides of the canal for maintenance and access.

L4e. Sketch of Cross-Section (include scale) Facing:

L4. Dimensions:

a.Top Width 12 feet
b. Bottom Width 4 feet
c. Height or Depth 6 feet
d. Length of Segment 4.75 miles

L5. Associated Resources:
Westside Main Canal parallels the Fox Glove Canal to the west.

L6. Setting:
Located in between Plaster City and Seeley, the Fox Glove Canal is surrounded by agricultural lands within a desert setting. The berm of the canal is level with a dirt road running parallel to the canal. The sediment is sandy with small rocks.

L7. Integrity Considerations:
The canal appears to be in excellent working condition, though the edges of the drain are overgrown with invasive weeds.



L8b. Description of Photo, Map, or Drawing:
Camera facing south; 10/18/2009;
IMG_0744

L9. Remarks:

L10. Form Prepared by:
AECOM
1420 Kettner Blvd., Suite 500
San Diego, CA 92101

L11. Date:

07/20/2011

***Recorded by** AECOM ***Date** 07/20/2011 ☐ Continuation ☒ Update

This site form updates the 4.75 mile recorded segment of the Fox Glove Canal. In 2001, the Bureau of Reclamation and California State Historic Preservation Officer found the All-American Canal eligible for the NRHP. In 2007, Burkard et.al recorded the Fox Glove Canal as part the Westside Main Canal and found that the Fox Glove Canal by extension eligible for the NRHP and California Register of Historical Resources (CRHR) under Criterion A and 1 for its significance in association with the development of the Imperial Valley.

As a part of the Built Environment Survey Report for the IID Dixieland Survey Report, the resource was revisited in September 2011. The Fox Glove Canal is unaltered and has not acquired additional significance since the 2007survey. The condition of its integrity is unchanged and therefore, it is recommended eligible for the NRHP and CRHR.

CA-IMP-8821 was first recorded by SWCA archaeologists in April 2007. The resource consists of the Foxglove Canal and the 300′ section identified was described as follows:

> *"The Foxglove Canal is a concrete-lined water channel that is fed upstream (south) by the larger Westmain Canal, which flows from the southwest to the northeast of the current power line survey corridor. Dimensions of the Foxglove Canal and parallel Dixie Drain are similar. In 2001 the Bureau of Reclamation and California State Historic Preservation Officer concurred that the All American Canal is eligible for the NHRP; by extension the Foxglove Canal as part of the Westside Main Canal system is recommended eligible for the NHRP and California Register of Historic Resources (CRHR) under criterion A/1 for its significance in association with development of the Imperial Valley".*

The resource was the subject of another investigation conducted by URS in May 2009. The current survey conducted by KPE encountered small segments of the Foxglove Canal. This includes: section located south of Interstate 8 that is situated between Dixie Drain 4 and the Westside Main Canal and a check structure and small length of canal located at the western end of Vaughn Road. This is also the heading for the Forget-me-not Canal which is fed by the Foxglove.



IMG_2804; view to SSE
Foxglove Canal check structure with Forget-me-not gate to left.

Although SWCA found the canal to be eligible, URS Corporation entered a NRHP status code of 6Z. This code means that the resource had been found ineligible for listing in the National Register through an evaluation process other than a determination by the Keeper of the National Register or through a consensus determination of a federal agency and the State Historic Preservation Officer.

This resource has not been surveyed in its entirety; however, Shannon Davis (ASM Affiliates, Inc.) did evaluate the segments within the Campo Verde Solar Project APE and recommended the Foxglove Canal not eligible for the NRHP and CRHR. Although the Foxglove Canal is associated with the early irrigation system of the Imperial Valley, and the important local theme of agricultural development, it does not convey that theme as well as other similar resources such as the Westside Main and the All-American canals, in part due to their loss of integrity (Davis et al. 2011; Mitchell 2011).

A sketch and location map has been generated reflecting the portions of the resource within the current project area.

Davis, Shannon, Jennifer Krintz, Sarah Stringer-Bowsher, and Sinéad Ní Ghabhláin. 2011. Impacts on Historic Resources on Private Lands, Campo Verde Solar Project, Imperial County, California.

Mitchell, Patricia T. 2011. Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project, Imperial County, California.

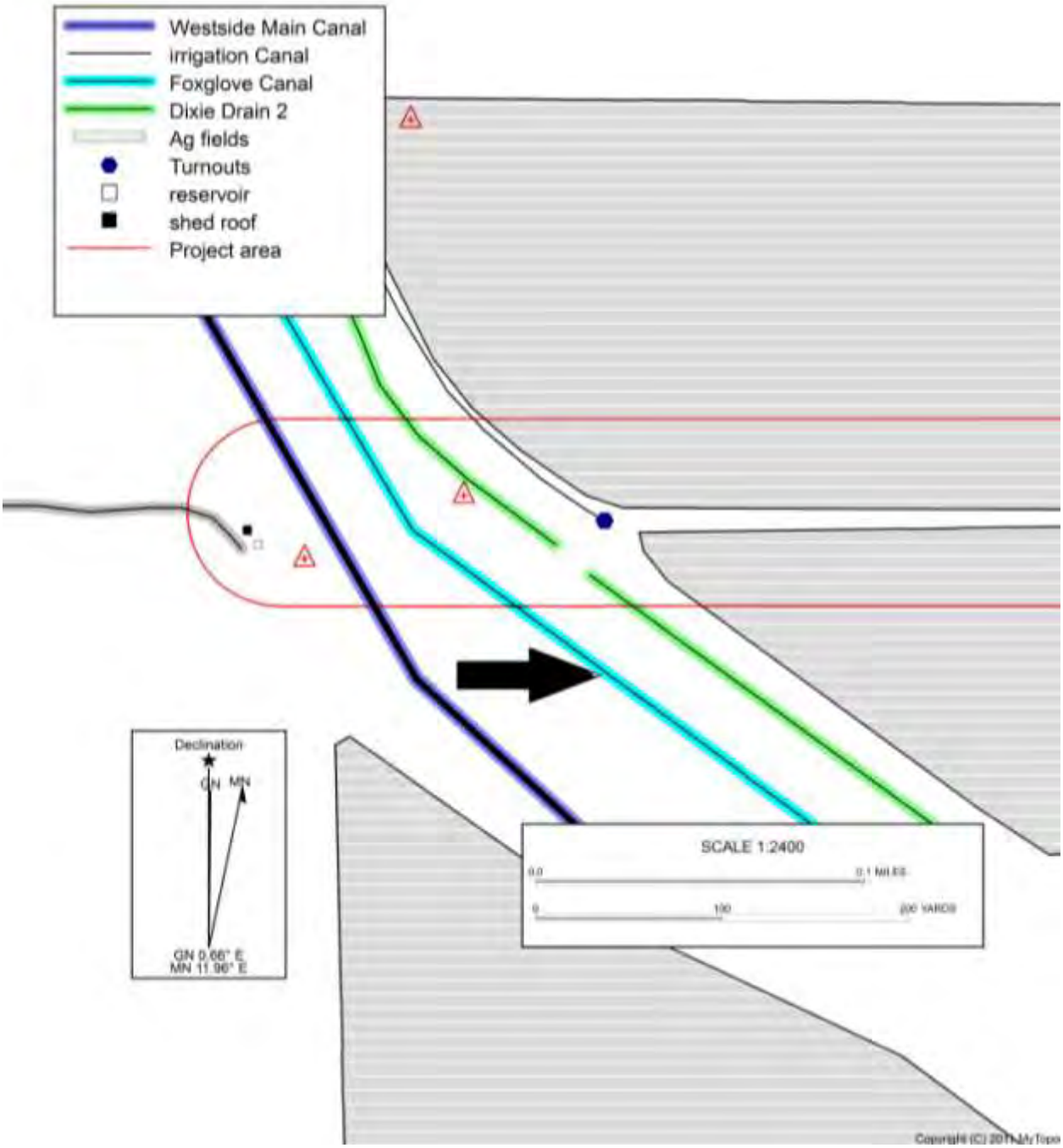
State of California — The Resources Agency **Primary #** P-13-009880 UPDATE
DEPARTMENT OF PARKS AND RECREATION **HRI#**
PHOTOGRAPH RECORD Trinomial CA-IMP-8821

Page 3 **of** 6 **Resource Name or #:** Foxglove Canal **Year** 2011

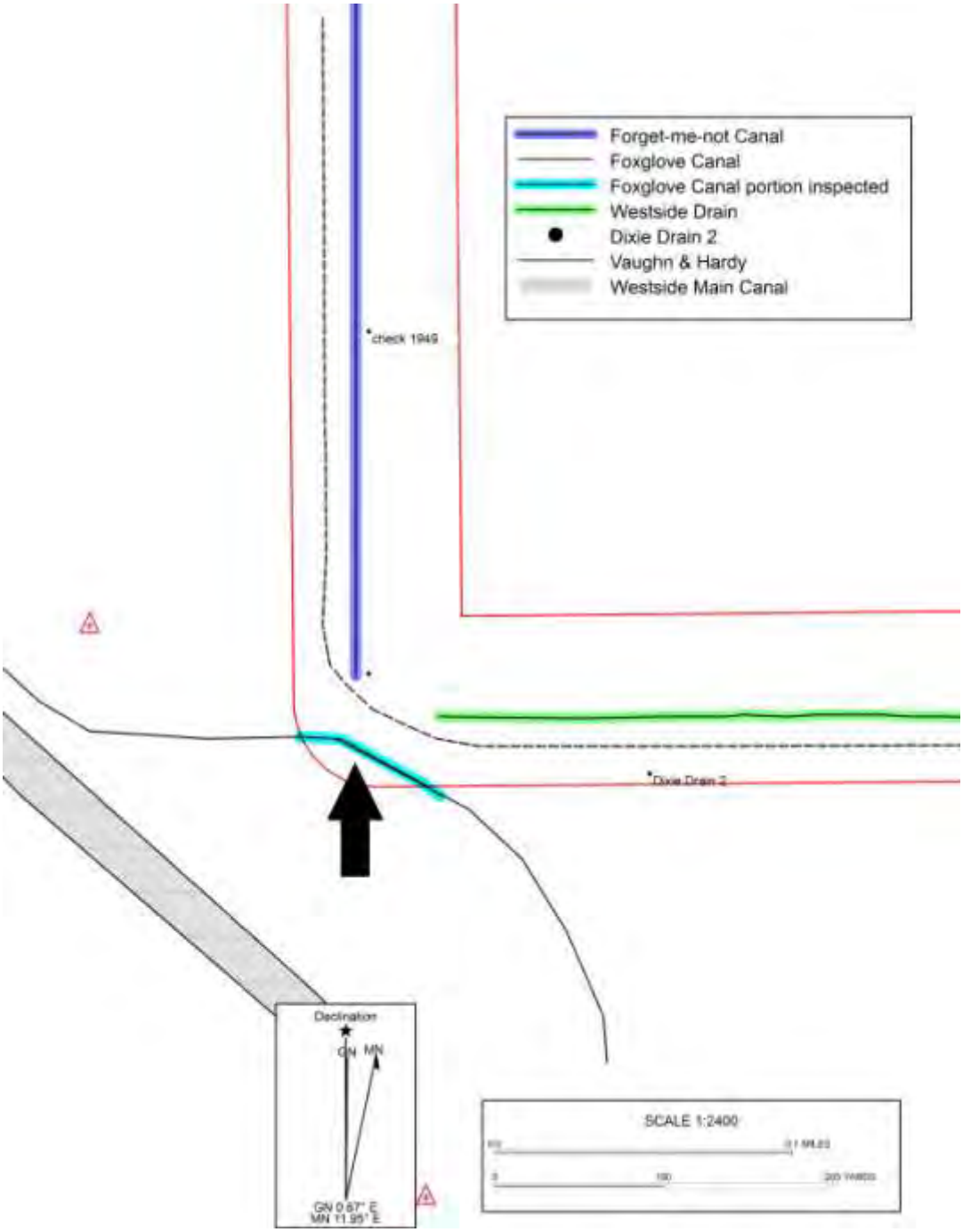
Camera Format: Digital – Canon Powershot SD1300 IS Digital ELPH 12.1 megapixel
Negatives Kept at: kp environmental, LLC. 2387 Montgomery Ave, Cardiff By The Sea, CA 92007

Mo.	Day	Frame	Subject/Description	View Toward
11	**03**	**2804**	**Foxglove Canal and Levee**	**SE**
11	**03**	**2805**	**Purple glass**	**D**

*Drawn By: Heather Thomson



*Drawn By: Heather Thomson



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # P-13-009880 UPDATE
HRI#
Trinomial CA-IMP-8821

Page 6 of 6 *Resource Name or # (Assigned by recorder) Foxglove Canal (portions)

***Map Name:** Plaster City, Calif ***Scale:** 1:24,000 ***Date of Map:** 1957



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code CA-IMP-8821H UPDATE
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 **of** 10 ***Resource Name or #:** (Assigned by recorder) Portion of Foxglove Canal (CA-IMP-8821H)

P1. Other Identifier: N/A

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

* **a. County** Imperial **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

* **b. USGS 7.5'** Brawley **Date** 1957 **T** 16S **R** 12E ; ¼ ¼ **of** 7 ; SB **B.M.**

c. Address N/A City N/A Zip N/A

d. UTM: (Give more than one for large and/or linear resources) Zone 11 , 615025 mE/ 3628810 mN

e. Other Locational Data: (e.g., parcel I, directions to resource, elevation, etc., as appropriate)
The portion of the Foxglove Canal (CA-IMP-8821H) surveyed is a small segment of a larger historic-period linear property within the Dixieland area of Imperial County that travels north to south for approximately ten miles and runs adjacent to the Westside main Canal. The TRS and UTM provided above is the approximate centerpoint of the portion of the canal surveyed.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The Foxglove Canal is a concrete-lined irrigation canal that appears to be approximately 20 feet wide and 10 feet deep with a trapezoidal form. The canal runs perpendicular to Evan Hewes Highway (Highway 80) and parallels the adjacent Westside Main Canal, which is located west of the Foxglove Canal. The canal features concrete levees with vegetated dirt banks. Vegetation includes wild grasses and weeds. Of note, immediately south of the Evan Hewes Highway crossing is a non-historic period gas pipeline (approximately one-foot in diameter) which bisects the canal (partially subsurface). This pipeline disrupts the feeling, setting, visual narrative, and historic viewshed of this portion of the canal. The Foxglove Canal runs perpendicular beneath Evan Hewes Highway through a winged wall concrete culvert. A 1963 date stamp is located on the north headwall of the culvert. The south headwall contains a wood and metal gate structure to control water flow. A date stamp of 1957 is found on the headwall adjacent to the gate. On the east bank of the canal, just south of the gate, is another wood and metal gate structure. This gate is likely used to control water flow into the Dixie Drain 4, which is located adjacent and parallel to the Foxglove Canal. SEE CONTINUATION SHEET 523L (PAGE 3)

***P3b. Resource Attributes:** (List attributes and codes) HP20. Canal/Aqueduct

***P4. Resources Present:** ☐ **Building** ☒ **Structure** ☐ **Object** ☐ **Site** ☐ **District** ☐ **Element of District** ☐ **Other** (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (view, date, accession #)
At Evan Hewes Crossing looking north
March 2009

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
Approximately 1912 - 1912 A.G.
Thurston Irrigation District & Road Map

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Boulevard
Imperial, CA 92251

***P8. Recorded by:** (name, affiliation, and address)
URS Corporation
1615 Murray Canyon Rd., Suite 1000
San Diego, CA 92108

***P9. Date Recorded:** 05/2009

***P10. Survey Type:** (Describe)
Pedestrian Survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")
Mutaw, Robert J. (Ph.D.), Elizabeth B. Roberts, Gordon C. Tucker Jr., Ph.D., Brian Shaw, Terrie Bagwell, Colin O'Hanlon, Rachael Nixon, Gary Fink, Jeremy Hollins, Mark Neal. 2010 Draft Final Class III Confidential Cultural Resources Technical Report for the Imperial Valley Solar (formerly Solar 2), Imperial Valley County. URS Corporation. Technical report prepared for Tessera Solar (Applicant). Submitted to the Bureau of Land Management – El Centro Field Office, El Centro, CA. Copies available from the Bureau of Land Management – El Centro Field Office, El Centro, CA.

***Attachments:** ☐ NONE ☐ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (List): _____

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z

*Resource Name or #: (Assigned by recorder) Portion of Foxglove Canal (CA-IMP-8821H)

B1. Historic Name: Foxglove Canal

B2. Common Name: Foxglove Canal

B3. Original Use: Irrigation Ditch B4. Present Use: Irrigation Ditch

*B5. **Architectural Style:** N/A

*B6. **Construction History:** (Construction date, alterations, and date of alterations)
Actual construction date of the Foxglove Canal is unknown at present, despite efforts to contact the Imperial Irrigation District for construction date and information. However, the canal is shown on maps as early as 1912. In the 1912 A.G. Thurston Irrigation District and Road Map, the Foxglove Canal is unidentified, but follows the same general alignment as it does today. Review of 1940 Plaster City 15-Minute USGS quadrangle map, the 1943 Plaster City 1 to 62,500 scale map, the 1944 Plaster City 1 to 62,500 scale map, 1949 USDA Aerial Photograph Collection, and the September 18, 1996 Imperial Irrigation District Southwest Division Map show that the general course of the canal has remained consistent for most of its history.

*B7. **Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A

*B6. **Related Features:**
None

B9. Architect: N/A b. Builder: Unknown

*B10. **Significance: Theme** N/A **Area** Dixieland
Period of Significance N/A **Property Type** Irrigation Ditch **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).

B11. Additional Resource Attributes: (List attributes and codes) N/A

*B12. **References:**
SEE CONTINUATION SHEET 523L (PAGE 6)

B13. Remarks:
None

(Sketch Map with north arrow required)

SEE CONTINUATION SHEET 523L (PAGE 5)

*B14. **Evaluator:** Jeremy Hollins
***Date of Evaluation:** 05/2009

(This space reserved for official comments)

P3a. Description (Continued)

The portion of the Foxglove Canal in the project area shows evidence of chipping, cracking, and spalling due to environmental effects (sun and heat exposure) and travel. Overall, the portion of the Foxglove Canal that bisects Evan Hewes Highway is in good condition, but has been affected by non-historic period construction and features, including the pipeline and the crossings.

B10. Significance (Continued)

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999). The extension of the Westside Canal into the United States approximately 1906 was intended to alleviate irrigation problems, and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the Dixieland area of Imperial County. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the Dixieland area of Imperial County was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

By 1907, the Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

B10. Significance (Continued)

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigación y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley. The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. For example, the Fern Canal features several culverts and other structural improvement s from the 1950s through the 1980s. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

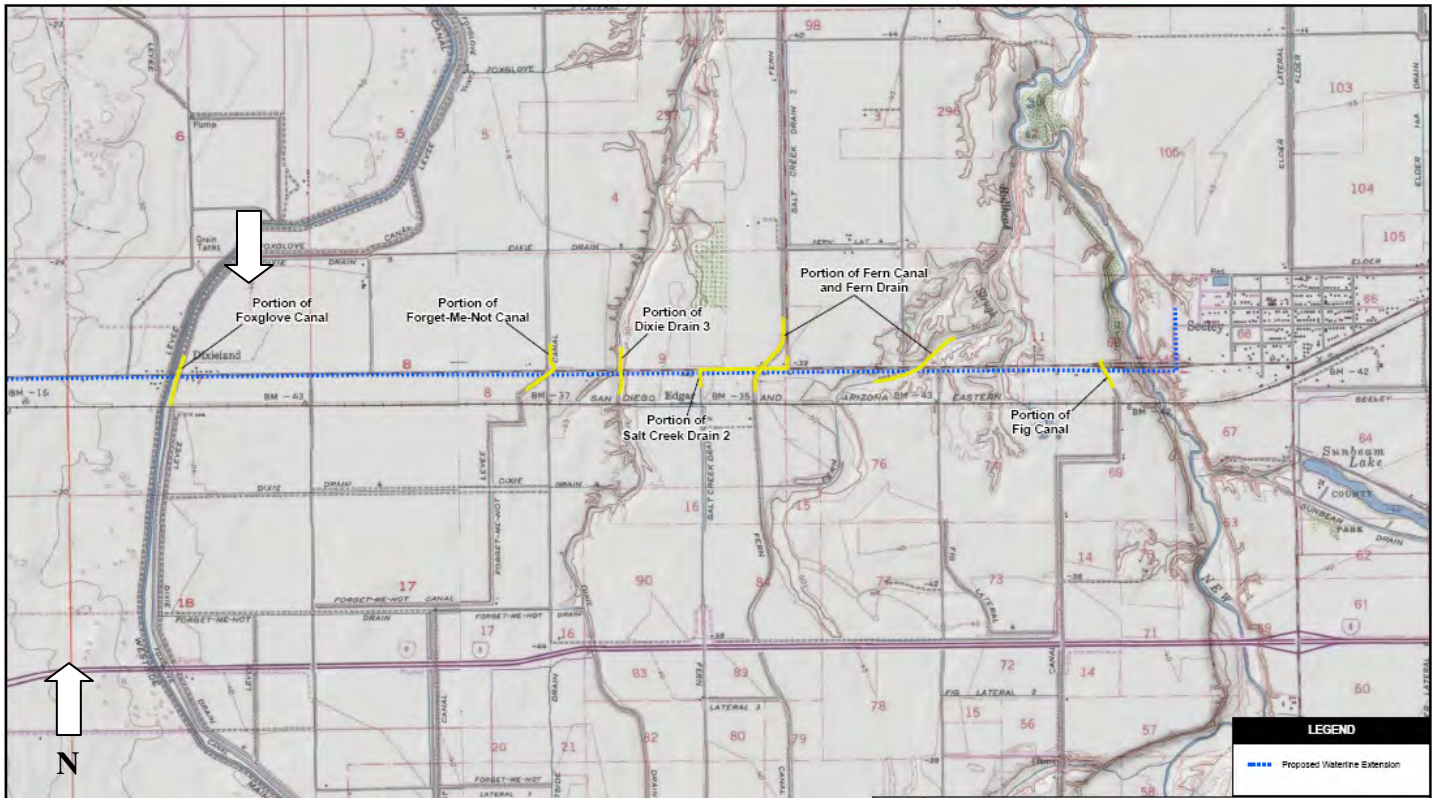
The Foxglove Canal, as a whole, is associated with the Westside Main Canal system and reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. Based on an earlier assessment prepared by the Bureau of Reclamation and Office of Historic Preservation, the All-American Canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in Imperial County west of the New River. By extension, the Westside Main Canal and the Dixie Drain 3 (which is a related feature to the larger Westside Main Canal and All-American Canal), appears to be NRHP- and CRHR- eligible. It does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR.

Overall, the Foxglove Canal as a whole does not retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire canal has not occurred. The portion of the Foxglove Canal at the crossing of Evan Hewes Highway also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (Though, it still retains sufficient historic integrity aspects of location and materials). Accordingly, it does not appear to be contributing element or significant related feature/component to the larger linear All-American Canal and Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA. The addition of 1960s features, a non-historic period pipeline, and improved highway and railroad crossings over the canal disrupts the property's integrity aspects of setting and feeling, since these elements are outside of the property's period of significance, 1941 to 1950. Accordingly, due to these alterations, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance.

In summary, the portion of the Foxglove Canal at the crossing of Evan Hewes Highway does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be contributing element or significant related feature/component to the larger linear Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed water line adjacent or perpendicular to the existing Foxglove Canal would not create a new adverse effect or significant impact to the portion of the historic-period property that bisects the Evan Hewes Highway.

Sketch Map:

Not to scale



B12. References

A.G. Thurston. 1912. Irrigation District and Road Map – Imperial Valley.

Albert G. Thurston. 1914. Imperial Valley Tract Map.

O.V. Blackburn. 1919, 1929, 1936 & 1955 editions. Blackburn's Map of Imperial County, California.

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Smith, Karen J., 1979. The Reclamation of the Imperial Valley, 1849-1916. Unpublished Masters Thesis, San Diego State University.

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SWCA Environmental Consultants. 2007. CA-IMP-8821H Fox Glove Canal. South Pasadena, California.

Tout, Otis B., 1932. The First Thirty Years—1901-1931: History of Imperial Valley, Southern California, U.S.A. San Diego: Otis B. Tout.

USDA. 1949 & 1976. Aerial Survey of Imperial County. On file at UCSD Maps and Government Publications.

USGS. 1908. El Centro USGS Quadrangle Map.

USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1943, 1957. Painted Gorge 7.5-minute USGS Quadrangle Maps.

USGS. 1940. Plaster City 15-Minute USGS Quadrangle Map.

USGS. 1943, 1944. Plaster City 1 to 62,500 Scale Map.

USGS. 1940. Brawley 15-minute USGS Quadrangle Map.

USGS. 1957. Brawley 7.5-minute USGS Quadrangle Map.

USGS. 1957, 1979. Seeley 7.5- minute USGS Quadrangle Map.

Additional Photos:



At Evan Hewes Crossing looking northeast at north culvert with 1963 date stamp.



At Evan Hewes Crossing looking south at SD-AZ RR Crossing

Additional Photos:



At Evan Hewes Crossing looking southeast at south culvert and gate structure.

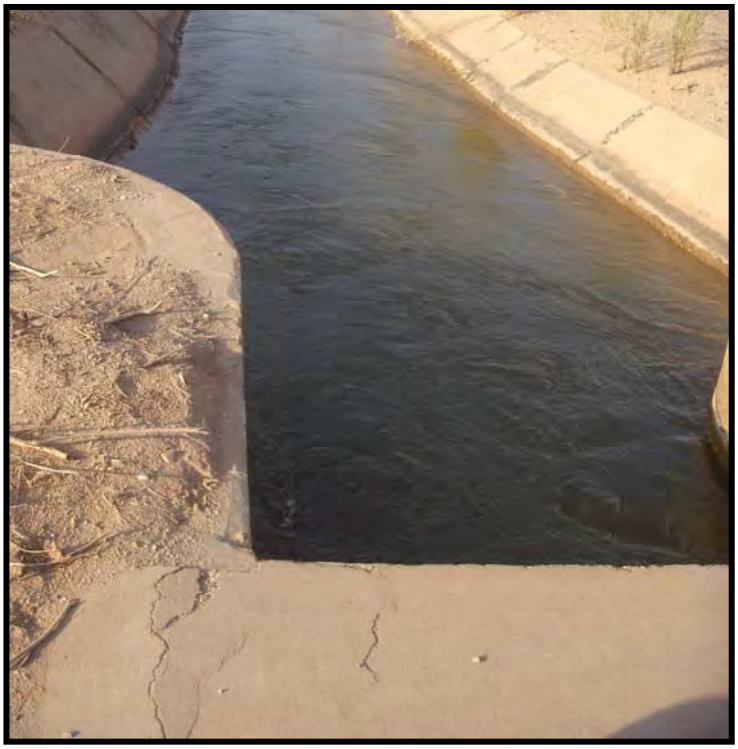


Looking southeast at the gate structure on the east bank

Additional Photos:



Gas pipeline located on the south side of Evan Hewes Highway



Looking south from Evan Hewes Crossing at south culvert

Additional Photos:



Wing wall of north culvert

State of California — The Resources Agency	Primary #	CA-IMP-8821
DEPARTMENT OF PARKS AND RECREATION	HRI #	
PRIMARY RECORD	Trinomial	P-13-009880
	NRHP Status Code	2D2
Other Listings		
Review Code	Reviewer	Date

 ***Resource Name or #:** Fox Glove Canal (Imperial Irrigation District, All-American Canal system)

P1. Other Identifier: None

***P2. Location:** ■ **Not for Publication** ☐ **Unrestricted** ***a. County:** Imperial

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Plaster City, CA **Date:** 1957 (P. 1979) **T** 16 S; **R** 12 E ; SE ¼ **of** SE¼ **of Sec** 5 and 6; S.B. **B.M.**

c. Address: City: Zip:

d. UTM: Zone: 11S; 615960 mE/ 3629613 mN (G.P.S.) NAD 83

e. Other Locational Data: Exit Interstate 8 at Drew Road and travel north for approximately 1.5 miles before turning left onto Evan Hewes Highway (old US 80). Follow Evan Hewes Highway for approximately 4 miles and then turn right (N) on Arizona Road. Arizona Road ends at Dixie Drain. Turn right and travel parallel with the drain for approximately .33 mile and park. Within the current survey corridor the western end of the drain is at UTM coordinate 615960 mE / 3629612 mN and the eastern point at at 616105 mE / 3629612 mN.

***P3a. Description:** This site form records a 300-foot-long segment of the Fox Glove Canal, which is part of the larger historic Westside Main Canal—one of three main canals in Imperial Valley charged by the 1940 All-American Canal. Because the survey corridor includes part of this drain, only that part of the drain within the survey corridor is documented, described, and evaluated.

The Fox Glove Canal is a concrete-lined water channel that is fed upstream (south) by the larger Westside Main Canal, which flows from the southwest to the northeast of the current powerline survey corridor. Dimensions of Fox Glove Canal and parallel Dixie Drain 5 are similar. In 2006 the Bureau of Reclamation and California State Historic Preservation Officer concurred that the All-American Canal —inclusive of all components including Fox Glove Canal — is ELIGIBLE for the NRHP and California Register of Historical Resources (CRHR) under Criterion A/1 for its significance in association with development of the Imperial Valley, and C/3 as part of "one of the great engineering marvels of the American West" (Schaefer 2001), as a Contributing resource of the All-American Canal system (a linear historic district).

***P3b. Resource Attributes:** HP20. Canal/aqueduct

***P4. Resources Present:** ☐Building ■Structure ☐Object ☐Site ☐District ■Element of District ☐Other (Isolates, etc.)



P5b. Description of Photo: Photograph # 49, length of Fox Glove Canal looking west. Photo taken on 4 / 24 / 07.

***P6. Date Constructed/Age and Sources:** ■Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
BoR % Imperial Irrigation District
333 E. Barioni Blvd
Imperial, CA 92251

***P8. Recorded by:** J. Burkard, G. Connell, J. Covert, J.Steely
SWCA Environmental Consultants
625 Fair Oaks Avenue, Suite 190
South Pasadena, California 91030

***P9. Date Recorded:** 4 / 24 / 07

***P10. Survey Type:** Intensive Survey – 15 meter transects

***P11. Report Citation:** SWCA Environmental Consultants and Applied EarthWorks 2008: Cultural Resources Survey of Alternatives for the Sunrise Powerlink Project, San Diego, Imperial, Riverside, and Orange Counties, California.

***Attachments:** ☐NONE ■Location Map ☐Sketch Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ■Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ■Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

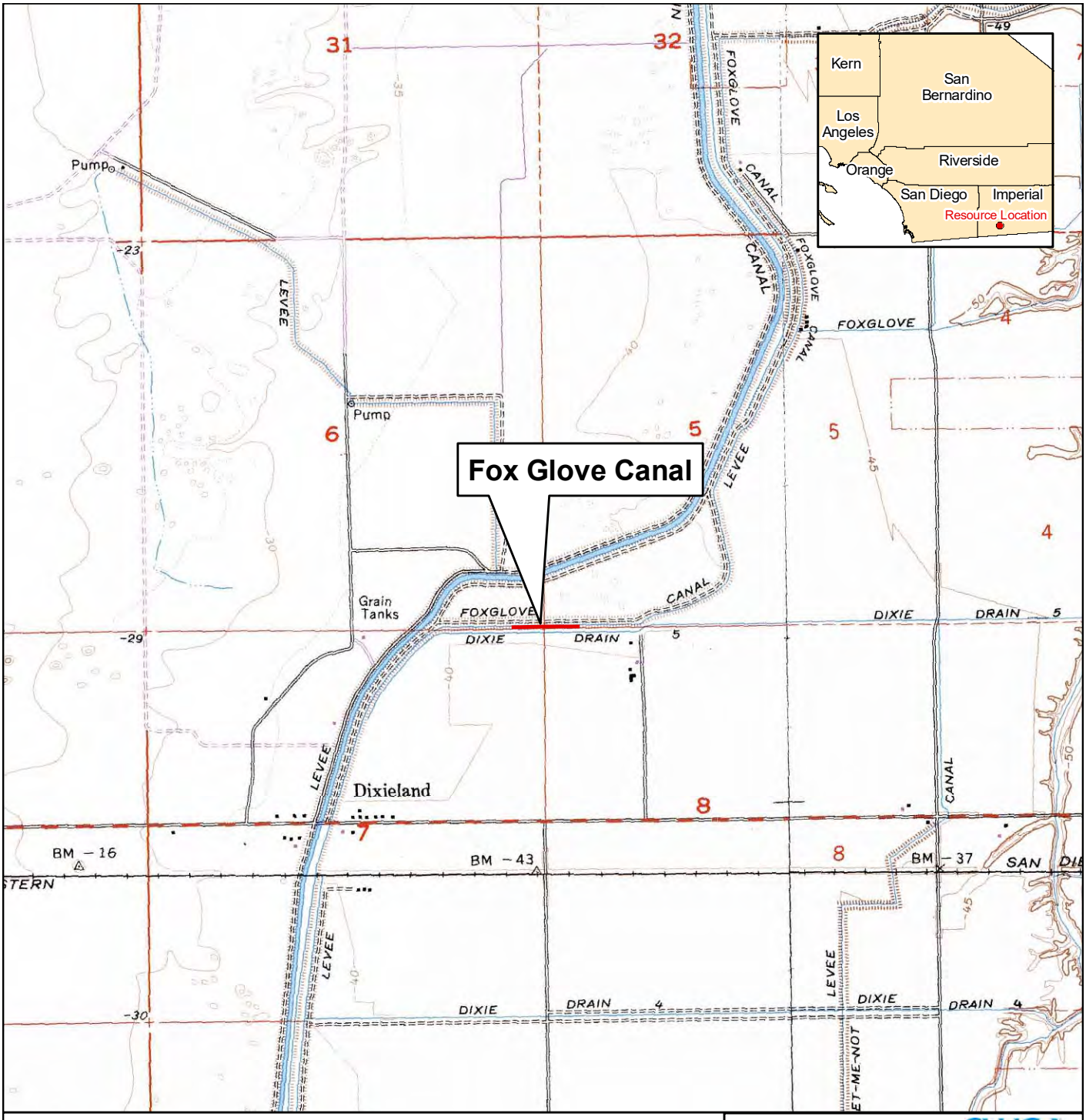
LOCATION MAP

Primary # P-13-009880
HRI#
Trinomial CA-IMP-8821

***Resource Name or #:** Fox Glove Canal (Imperial Irrigation District, All-American Canal system)

***Map Name:** Plaster City, CA

***Scale:** 1:24,000 ***Date of Map:** 1957 (Photorevised 1979)



Cultural Resource

0 250 500 Meters
0 1,000 2,000 Feet

USGS 7.5' Quadrangle
Plaster City, CA 1957 (Photorevised 1979)

1:24,000

SWCA ENVIRONMENTAL CONSULTANTS

Fox Glove Canal

Sunrise Powerlink

***Required information**

Resource Name or #: Fox Glove Canal (Imperial Irrigation District, All-American Canal system)

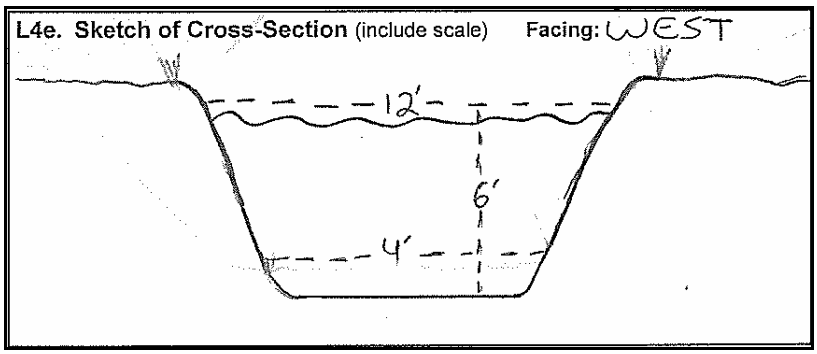
L1. Historic and/or Common Name: Fox Glove Canal

L2a. Portion Described: ☐ Entire Resource ■ Segment ☐ Point Observation **Designation:** A 300 foot segment within the survey corridor

b. Location of point or segment: Exit Interstate 8 at Drew Road and travel north for approximately 1.5 miles before turning left onto Evan Hewes Highway (old US 80). Follow Evan Hewes Highway for approximately 4 miles and then turn right (N) on Arizona Road. Arizona Road ends at Dixie Drain 5. Turn right and travel parallel with the drain for approximately .33 mile and park. Within the current survey corridor the western end of the drain is at UTM coordinate 615960 mE / 3629612 mN and the eastern point at at 616105 mE / 3629612 mN.

L3. Description: The Fox Glove Canal is a concrete-lined water channel that is fed upstream (south) by the larger Westside Main Canal, which flows from the southwest to the northeast of the current powerline survey corridor. The unlined Dixie Drain 5, c. 40 feet to the south of the canal, moves stormwater and any canal overflows away from the earthen structures and associated fields.

L4. Dimensions:
- **a. Top Width:** 12 feet
- **b. Bottom Width:** 4 feet
- **c. Height or Depth:** 6 feet
- **d. Length of Segment:** 300 feet



L5. Associated Resources: Westside Main Canal is west and north, and Dixie Drain 5 is approximately 40 meters directly south and in a parallel (east-west) manner to the Fox Glove Canal.

L6. Setting: Within the survey corridor, the Fox Glove Canal is surrounded by modern agricultural pursuits within a desert setting. The berm of the canal is level with a dirt road running parallel to the canal. The sediment is sandy with small rocks/pebbles. Besides the agricultural fields, the vegetation includes wild grasses and weeds.

L7. Integrity Considerations: The concrete-lined canal transports a large quantity of water for use in irrigating local crops. The canal appears to be in excellent working condition, though the edges of the drain are overgrown with invasive weeds.



L8b. Description of Photo, Map, or Drawing: Photograph # 49, Fox Glove Canal looking west; Dixie Drain 5 is in the line of vegetation to the left (S).

L9. Remarks: In 2006 the Bureau of Reclamation and California SHPO concurred that the All-American Canal is ELIGIBLE for the NRHP —inclusive of all components including Fox Glove Canal —and California Register of Historical Resources (CRHR) under Criterion A/1 for its significance in association with development of the Imperial Valley, and C/3 for its engineering significance.

L10. Form Prepared by:
J.Burkard, G. Connell, J. Covert, J. Steely
SWCA Environmental Consult.
625 Fair Oaks Avenue, Suite 190
South Pasadena, California 91030

L11. Date: 4 / 24 / 07

State of California — The Resources Agency **Primary #** P-13-009880
DEPARTMENT OF PARKS AND RECREATION **HRI#**

PHOTOGRAPH RECORD

Trinomial CA-IMP-8821

Page 4 **of** 6 **Resource Name or #:** Fox Glove Canal (Imperial Irrigation District, All-American Canal system)
Year 2007

Camera Format: Digital Lens Size:
Film Type and Speed: Finepix Negatives Kept at: SWCA Environmental Consultants, South Pasadena office

Mo.	Day	Time	Exp./Frame	Subject/Description	View Toward	Accession #
4	24	-	0049	Fox Glove Canal, overview	Northwest	N/A

***Recorded by:** James W. Steely, SWCA Environmental Consultants ***Date:** 16 September 2008 ■ Update

***P11. Report Citation:** SWCA Environmental Consultants and Applied EarthWorks 2008: *Cultural Resources Survey of Alternatives for the Sunrise Powerlink Project, San Diego, Imperial, Riverside, and Orange Counties, California.*

Context Discussion of Historic Canals and Drains

The Southern Pacific Railroad recognized when it first traversed the Imperial Valley in 1877 that fresh water was required to sustain potential agricultural pursuits, and profitable settlement, in the region. Dr. O.M. Wozencraft, who first passed through the region in 1849 during the Gold Rush, developed proposals over a period of four decades for irrigating the flat and dry, but fertile Imperial Valley. In 1892, engineer C.R. Rockwood investigated diverting water from the Colorado River westward into Mexico and northwestward into California for irrigation. By 1896, Rockwood and A.H. Heber of Chicago formed the California Development Company to raise funds for diverting Colorado River water into this natural drainage, and thence into a potentially vast agricultural irrigation network in Mexico and California (Imperial County 2007).

This activity brought engineer George Chaffey, with extensive experience in Australia, to the endeavor. Chaffey dredged a canal that led west from the Colorado River in 1900, and in May 1901 Chaffey's gates on the Colorado River opened to fill the new Alamo Canal. In six months the California Development Company successfully irrigated 1,500 acres on both sides of the border around its newly platted town of Calexico (Imperial County 2004). Other water companies followed, including "Water Co. No. 6" that served the Encina (aka Trifolium, now Westside Main) Canal (Hupp 1999). During the four years between 1901 and 1905, these companies collectively built 700 miles of distribution canals and 80 miles of main canals. With the ever-increasing reaches of canals, during those four years the amount of agricultural land increased from about 1,500 to 67,000 acres, a 44.7-fold increase (Imperial County 2007).

Sudden formation of the present Salton Sea in 1905 resulted from a dramatic and sustained breach near Chaffey's gates on the Colorado River, as well as the many irrigation canals of the Imperial Valley. The breach was not fixed until 1907. Losses of agricultural land and damage to the railroad were tremendous, eventually leading to the bankruptcy of the California Development Company in 1909. Its private assets were assumed by the public Imperial Irrigation District (IID) in 1911 (Imperial County 2007; Salton Sea Authority 2007).

The Mexican Revolution of the mid-1910s led to border troubles and more distinct international division of lands through the valley. U.S. interests pushed to ensure the valley's water supply independent of the Alamo Canal system passing through Mexico (Schaefer 2001). In 1922, the IID completed acquisition of the 13 independent water companies that had operated in the valley, including Water Co. No. 6 and its Westside Main Canal. In the 1920s with bond issues and fees, IID constructed 234 miles of deep drains, including Dixie Drain, to protect the delivery canals and to drain croplands quickly during and after storms. A major storm in 1939 far exceeded system drainage, however, and the Westside Main along with other canal segments suffered serious damage (Hupp 1999).

In 1928, President Calvin Coolidge signed the bill authorizing construction of Hoover Dam and other Colorado River projects, including the All-American Canal. Construction on the new delivery canal for Imperial Valley began in 1934, and on the new Imperial Dam with its massive de-silting works in 1936. Reclamation finished the dam in 1938 and began water delivery through the All-American Canal to IID service canals in 1940 (Reclamation 2008). The IID's All-American Canal system now consists of the 82-mile trunk canal, 148 miles of mains—including Westside Main—1,438 miles of laterals, and 1,406 miles of drainage ditches—including Dixie Drain (Schafer 2001). The District continues to improve the engineering quality of its canals, delivery laterals, and drainage ditches, annually moving more than 3 million acre-feet of water from the All-American Canal into its delivery systems. Irrigation and agriculture continue to be important themes for the Imperial Valley, with more than 450,000 acres of cropland in production today (Imperial County 2007).

*Recorded by: James W. Steely, SWCA Environmental Consultants *Date: 16 September 2008 ■ Update

Fox Glove Canal (CA-IMP-8821)

In 2006 the Bureau of Reclamation and California State Historic Preservation Officer (SHPO) concurred that the All-American Canal is eligible for the NRHP; the referenced Imperial Irrigation District report (Shaefer 2001) includes the entire IID system with all its delivery canals. Further, SEIC (Collins 2008) confirmed that SHPO considers eligible all components of the All-American Canal system. Fox Glove Canal is therefore determined eligible for the NRHP and CRHR under Criterion A/1 for its significance in association with development of the Imperial Valley and Criterion C/3 as part of "one of the great engineering marvels of the American West" (Schaefer 2001), as a contributor to the All-American Canal system (a linear historic district).

NRHP Status Code: 2D2. Contributor to a district determined eligible for NRHP by consensus through Section 106 process; listed in the CRHR.

*B10. Significance: **Theme:** Water Technology and Utilization **Area:** Imperial Valley, California
Period of Significance: 1901–1978 **Property Type:** Irrigation System, Drain **Applicable Criteria:** A/1, C/3

*B12. References:

Collins, Karen
2008 Personal communication between SHPO and SEIC coordinator Karen Collins, as conveyed to Kevin Hunt, SWCA. 20 August 2008.

Donaldson, Milford Wayne
2006 "Determination of National Register of Historic Place [sic] Eligibility for the All-American Canal (AAC), Imperial Valley, Californian [sic] (LC-CA-02-13 P). Letter from SHPO to USDI Bureau of Reclamation, % Deanna J. Miller, Director, Resources Management Office, Boulder City, NV. April 10, 2006.

Hupp, Jill
1999 "Westside Main Canal" original DPR form. Caltrans Environmental Program. Sacramento. 5/24/99. Attached to this DPR form are a number of historic IID documents that informed this further evaluation of All-American Canal components.

Imperial County
2004 Imperial County History. Electronic document, http://www.calarchives4u.com/history/imperial/index.htm, accessed April 30, 2008.

2007 Imperial County History. Electronic document, http://www.calarchives4u.com/history/imperial/index.htm, accessed April 30, 2008.

Reclamation, U.S. Bureau
2008 Boulder Canyon Project, All American Canal System. Electronic document, http://www.usbr.gov/dataweb/html/allamcanal.html, accessed March 11, 2008.

Salton Sea Authority
2007 Historical Chronology. Electronic document, http://www.saltonsea.ca.gov/histchron.htm, accessed April 30, 2008.

Schaefer, Jerry, and Collin O'Neill.
2001 *The All-American Canal: An Historic Properties Inventory and Evaluation.* Prepared for The Imperial Irrigation District. Imperial. Prepared by ASM Affiliates. Encinitas. July 2001.

*Resource Name or #: Wagon Road From Fort Yuma to Warners Ranch

☐ Continuation X Update

Map Reference Number: 16

P1. Other Identifier: Site No. 46-IMP-(1856)-284
e. Other Locational Data: UTM: Crosses northwest to southeast across Township 16S; Range 12E; Section 16 and Section 15; San Bernardino B.M.

*P3a. Description:

The location of the Wagon Road was noted on the previously completed site record in the API in Township 16 South, Range 12 East in Sections 21 and 22, adjacent to the Fern Canal and north of West Vaughn Road. However, the Wagon Road appears on the GLO maps from 1857 bisecting Sections 15 and 16 running southeast to northwest. This is north of the API, beyond the Kumeyaay Highway. It seems likely that the road was noted incorrectly on the previous study. There is no indication of the road in the location where it was previously recorded. (Photograph 1 and Photograph 2) (GLO 1857: 28916; Imperial Valley College Museum: site No.CA-IMP=3403H).

*P3b. Resource Attributes: HP37: Highway/Trail

*P8. Recorded by: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*P11. Report Citation: Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*B10. Significance:

According to the SCIC records search, the road was recorded as recently as 2009. The associated site form provides limited information and no evaluation was completed at this time. On April 11, 2023, Dudek revisited the site and did not find any indications the road was ever at this location and was likely incorrectly mapped in the API. Dudek concluded that the resource as it was previously mapped is not extant in this location.

*B14. Evaluator: Evan Brisentine, MSHP, Dudek. 605 NE 21st Avenue, Suite 200, Portland, Oregon. 97232.

*Date of Evaluation: September 21, 2023.

Photograph(s):

Photograph 1. Previously Recorded Site form map (P-13-003403).



Photograph 2. Aerial view of a GLO Overlay from 1857 and Google Earth



References

GLO 1857. "Original Survey: 28916." Accessed September 21, 2023. https://glorecords.blm.gov/search/default.aspx#searchTabIndex=1

Imperial Valley College Museum. 2009. "Site No.CA-IMP=3403H." On File with the South San Joaquin Valley Information Center.

3403-H

MAPPED ~~225-H~~

4-IMP ~~2168~~

Imperial Valley College Museum Site No. 46-IMP-(1856)-284

163 7.5 57 ARCHAEOLOGICAL SITE SURVEY RECORD

1. Map SEELEY CALIF 7.5' QUAD 16C-57 2. County IMPERIAL

3. Twp. 16S Range 12E : ___ 1/4 of ___ 1/4 of SW 1/4 of SW 1/4 of Sec. 21

4. Location 92.40 FT. SOUTH OF E¼ COR TRACT 107 SEC. 21

619270E, 3625370 N

5. On contour elevation -40'

6. Previous designations for site 46-IMP-(1856)-284 4-IMP-2168 & 225-H

7. Owner 8. Address

City Zip 10. Phone

11. Present tenant

12. Description and type of site CROSSED WAGON ROAD FROM FORT YUMA TO WARNERS RANCH, COURSE NORTH OF WEST

13. Area 14. Depth 15. Height

16. Vegetation

16a. Animal life

17. Nearest water

18. Soil of site

19. Surrounding soil type

20. Previous excavation

21. Cultivation 22. Erosion

23. Buildings, roads, etc.

24. Possibility of destruction

25. House pits

Site No CA-IMP-3403H

26. Other features

27. Burial or cremation evidence

28. Artifacts

29. Remarks

30. Published references 1856 USGLO SURVEY NOTES BY R.C. MATTHEWSON

31. IVCM Accession No. _____ 32. Sketch Map _____ 33. Photos _____

34. Date _____ 35. Recorded by _____

36. Address _____ 37. Phone _____

CA-IMP-3403H

2.25-H

4-Imp-2460



Appendix D

Newly Recorded Resources/DPR Form Sets

State of California ♉ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial _____
NRHP Status Code 6Z

Other listings
Review Code Reviewer Date

 *Resource Name or #: (Assigned by recorder) 2250 West Vaughn Road
P1. Other Identifier: Mobile Home Complex at 2250 West Vaughn Road

*P2.Location: ☒ Not for Publication ■ Unrestricted *a. County Imperial
and P2b and P2c or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Seeley Quadrangle Date 2023 T 16S; R 12E; of Sec 21; San Bernardino B.M.
c. Address 2250 West Vaughn Road City El Centro Zip 92243
d. UTM: (Give more than one for large and/or linear resources) Zone: 11S; 6188875.52 m E; 3625301.99 m N
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
Assessor's Parcel Number (APN) 051-300-027

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The subject property, addressed at 2250 W Vaughn Road is located on a 13.7-acre parcel (051-300-027). at the intersection of Westside Road and West Vaughn Road (photograph 1). See Continuation Sheet

*P3b. Resource Attributes: (List attributes and codes) HP-3. Multiple Family Property, HP-4. Ancillary building

*P4.Resources Present: ■ Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)
P5b. Description of Photo: Photograph 1. View from the right-of-way of Westside Elementary School at Mobile Home A (central) and Outbuilding 1 (left) looking northeast. (Dudek 2023).

*P6. Date Constructed/Age and Source: ■ Historic ☐Prehistoric ☐ Both circa 1976 (Parcel Quest 2023).

P5a. Photograph 1.



*P7. Owner and Address:
Rosalynne M Young
2961 Wensley Avenue,
El Centro, California 92243

*P8. Recorded by:
Evan Brisentine, Dudek
605 NE 21st Avenue, Ste. 200
Portland, Oregon, 97232

*P9. Date Recorded: 4/11/2023

*P10. Survey Type: (Describe)
Intensive Pedestrian

*P11. Report Citation: (Cite survey report and other sources or enter "none.") Brisentine, E and Jones, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2023.

*Attachments: ☐NONE ■Location Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record

State of California - The Resources Agency Primary # _____
DEPARTMENT OF PARKS AND RECREATION HRI # _____

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) 2250 West Vaughn Road *NRHP Status Code 6Z

B1. Historic Name: None.
B2. Common Name: None.
B3. Original Use: Agricultural B4. Present Use: Residential
*B5. Architectural Style: Residential Mobile/ Manufactured Home type

*B6. Construction History: (Construction date, alterations, and date of alterations)
2250 West Vaughn Road was developed in the 1940s as agricultural farmland and turned residential in the 1970s. no alterations were documented or observed.

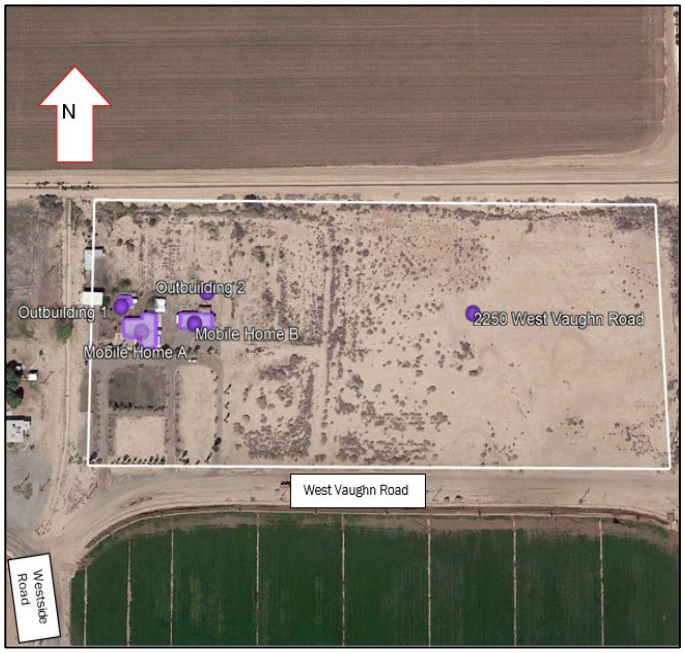
*B7. Moved? ■ No ☐Yes ☐Unknown Date: N/A Original Location: N/A
*B8. Related Features: N/A

B9a. Architect Unknown b. Builder: Unknown
*B10. Significance: Theme Residential Development Area El Centro
Period of Significance circa 1976 Property Type Residential Applicable Criteria N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property, located at 2250 West Vaughn Road does not meet any of the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), either individually or as part of an existing or potential historic district. The property was evaluated in accordance with Section 15064.5(a)(2)-(3) of the California Environmental Quality Act (CEQA) Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code and found not to be a historical resource for the purposes of CEQA.

(See Continuation Sheet)

B11. Additional Resource Attributes: None.
*B12. References: See Continuation Sheet
B13. Remarks: None
*B14. Evaluator: Evan Brisentine, MSHP, Dudek *Date of Evaluation: 09/18/2023



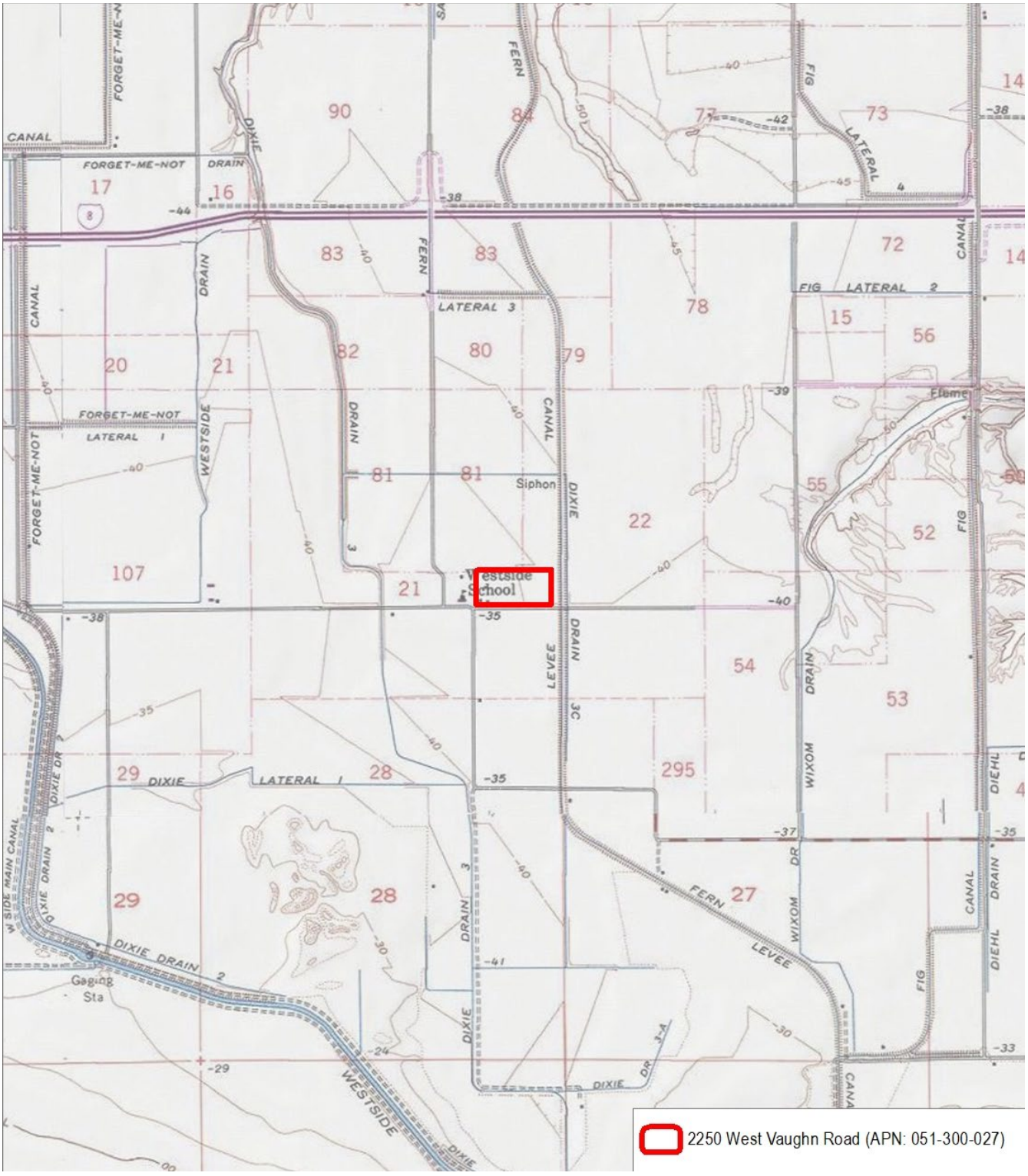
(This space reserved for official comments.)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #_____
HRI # _____
Trinomial_____

 *Resource Name or # (Assigned by recorder) 2250 W Vaughn Road
*Map Name: Seeley Quadrangle *Scale: 1:24,000 *Date of map: 2000



*Required information

*P3a. Description (Continued):

This 13.7-acre, rectangular-shaped parcel (051-300-027) is located adjacent to the APl at the intersection of Westside Road and W Vaughn Road, directly east of APN 051-300-010. Mobile Home A is a single-story mobile home with an irregular-shaped floor plan with a cross-gabled roof. There are metal roof overhangs on the east and south elevations. The roof appears to be made of corrugated metal and the sidings are unknown due to the façade covered by a lattice fence. Features include palm tree landscaping and a front-facing gable porch covered with a red composite material. Mobile Home B is a single-story mobile home with a rectangular-shaped floor plan and a side-gabled roof. The roof appears to be made of corrugated metal, and the siding consists of horizontal and vertical boards along the southern elevation. Additions to the property include metal porch overhangs on the north, east, and west elevations.

Outbuilding 1, located directly 25 feet north of Mobile Home A, is a single-story shed with a rectangular floor plan built in ca. 1976 The subject property has a side-gabled roof made of corrugated metal with a pyramidal cupola on the interior north side of the building (Photograph 1). The entrance to the building appears to be on the west elevation. Alterations to the building include repairs to the roof. Outbuilding 2, located 30 feet north of Mobile Home B, is a single-story shed built in ca. 1976 The subject property has a rectangular-shaped floor plan with a side gabled roof made of corrugated metal. The main elevation is most likely on the west elevation and the material of the siding is unknown. Additions or alterations to the building are unknown (Photograph 2).

Photograph 2. View of Mobile Home A (left) and Mobile Home B (right) from gravel driveway on W Vaughn Road, facing north (Dudek 2023).



*B10. Significance (Continued):

Historic Context

The California Development Company and the Imperial Land Company began building canal systems from Calexico heading north and west to El Centro and Holtville beginning in 1900. During the next 5 years, water companies were formed, and water from the Colorado River was distributed throughout the Imperial Valley, allowing settlers to apply for a desert land entry claim and settle along newly irrigated lands. By 1905, residents in the Imperial Valley numbered 12,000, and irrigated acreage increased from 1,500 to 67,000 acres (Pioneers Museum of the Imperial Valley 2000).

Vaughn Road was likely named after the Vaughn family, who were ranchers around the project API in the early 1910s. John Chester (J.C.) Vaughn Sr. and son J. Chester Vaughn were ranchers in Seeley, California, which was unincorporated lands west of El Centro (Ancestry 1918: 893). In 1911, the Vaughn family purchased land in Township 16 South, Range 12 East, in Sections 21 and 28. Prior to purchasing land in 1911, J.C. Vaughn Sr. (68) lived with his wife Huldah H. (53) and son J. Chester (28) in what was documented as "Road West of Calexico City" (U.S. Census Bureau 1910: 21). By 1920, J. Chester Vaughn was registered as farm manager in Silsbee, California, separate from J.C. Vaughn and Huldah H. Vaughn at their home in Seeley (U.S. Census Bureau 1920: 17). Huldah Vaughn was known for hosting Girls War Work Committee meetings and was the department chairmen for Home Economics, and later Westside Country Club Meetings (IVP 1918a: 2; IVP 1923a: 2). Into the 1920s, the property was used as ranching land for cattle, and dairy sales (IVP 1923b: 3). The Westside Elementary School was also a gathering place for the Seeley-Westside Farm Bureau and the Woman's Christian Temperance Union. In 1931, it was announced that J. Chester Vaughn was building an addition to his ranch home near the Westside Elementary School (IVP 1931: 2); it was also announced that year that several ranchers would organize the Westside Ranchers Association (IVP 1932: 3). In 1938, Rosielee McCoy Vaughn asked for a divorce from J. Chester Vaughn due to irritable behavior and forcing to deed some of their property to her brother (IVP 1938: 8).

Archival research does not conclude that the two buildings located on the property in the 1950s were part of the Vaughn Ranch addition that was announced in 1931. Prior to the construction of the current residential buildings ca. 1978, the property was mostly agricultural lands with two small farm buildings located in the far southwest corner near the corner of West Vaughn Road. By 1984, aerials show the two small farm buildings were demolished, and the two residences are set farther back on the property. There are currently five buildings and two garage structures on the subject parcel. Only one of the existing buildings appears on the 1980 topographic maps. The other four buildings appear on historical aerials from 1984–1985 (Ancestry 1956: 245; NETR 2023a, 2023b).

Significance Evaluation

National Register of Historic Places/California Register of Historical Resources Statement of Significance

Under NRHP Criterion A and CRHR Criterion 1, the property at 2250 West Vaughn Road lacks a direct and important association with any event significant in local, state, or national history. The Mobile Home Complex does not appear to have had a direct involvement in significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. For these reasons, 2250 West Vaughn Road does not appear eligible for listing in the NRHP/CRHR under Criterion A/1.

Under NRHP Criterion B and CRHR Criterion 2, the property at 2250 West Vaughn Road lacks a significant association with the productive life of any person important in local, state, or national history. Archival research does not indicate that the mobile home complex at 2250 West Vaughn Road is connected to any significant individuals or persons at a local, state, or national level. Due to a lack of significant associations with important persons in history, the subject property is not recommended to be eligible under NRHP Criterion B or CRHR Criterion 2.

Under NRHP Criterion C and CRHR Criterion 3, the property at 2250 West Vaughn Road does not include resources that fully embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or creative individual or that possesses high artistic values. The extant buildings located on the subject property were developed ca. 1978. The built environment resources located on the subject property do not possess high artistic value or contribute to the significance of a larger resource. Despite archival research, no information was found about the architect for the original design of the subject property buildings. Therefore, nothing suggests that the property is associated with an expert architect. Due to the pervasive nature of the buildings and structures, a lack of high artistic value, and a lack of evidence to suggest the extant buildings and structures are associated with an expert architect, the subject property buildings are not eligible under NRHP Criterion C or CRHR Criterion 3.

Under NRHP Criterion D and CRHR Criterion 4, the property at 2250 West Vaughn Road is not significant as a source, or likely source, of important information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies. This technology is well understood through contemporary trade journals and scientific monographs. Therefore, the property is not eligible under NRHP/CRHR Criterion D/4.

In conclusion, 2250 West Vaughn Road lacks sufficient significance to meet any criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above before determining whether the resource retains its historic character and can convey its significance. In the specific case of the property at 2250 West Vaughn Road, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further analysis of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), either individually or as a contributing element to an existing or potential historic district.

B12. References

Ancestry. 1956. "California, U.S. Voter Registrations. For Raymond C. Vaughn. Imperial County." Page 295. Accessed August 17, 2023. Ancestry.com.

Farr, F.C. 1918. *The History of Imperial County*. Berkeley, California: Elms and Franks.

Gallegos, D. 1979. *Class II Cultural Resource Inventory of the East Mesa and West Mesa Regions, Imperial Valley, California*. Volume 1. WESTEC Services. Prepared for U.S. Department of Interior.

IVP 1918b. "Doings of Clubs Personals". Imperial Valley Press October 7, 1918.

IVP 1923a. "Imperial Valley Society: Westside Country Club Holds Enjoyable Meeting". Imperial Valley Press. April 28, 1923.

IVP. 1923b. "Dairy Sale". Imperial Valley Press. March 6, 1923.

IVP. 1931. "Doings in and about Seeley" Imperial Valley Press. January 2, 1931

IVP. 1932. "Petitions for Charter to be Given Board." *Imperial Valley Press*. May 2, 1932.

IVP. 1938. "Husband Irritable, Wife Asks Divorce." Imperial Valley Press. November 10, 1938.

NETR (National Environmental Title Agency). 2023a. "Historic Aerial Photographs the Imperial Valley, CA, dating from 1953, 1984, 1985, 1996, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2019, and 2020." Accessed April 27, 2023. https://www.historicaerials.com/viewer.

NETR. 2023b. "Historic Topographic Maps of the Imperial Valley, CA, dating from 1944, 1945, 1955, 1956, 1958, 1960, 1961, 1964, 1968, 1976, 1977, 1979, 1980, 1983, 1985, 1991, 2012, 2015, 2018, and 2021." Accessed April 27, 2023. https://www.historicaerials.com/viewer.

Office of Agricultural Commissioner. 2019. *Imperial County Agricultural Crop & Livestock Report*. Imperial County, California. Accessed May 3, 2023. https://agcom.imperialcounty.org/wp-content/uploads/2020/12/2019-Crop-Report.pdf.

ParcelQuest. 2023. "Parcel Information for APN 051-300-027." Accessed May 9, 2023. https://pqweb.parcelquest.com/#home.

Pioneers Museum of Imperial Valley. 2000. History of the Imperial Valley- California. Accessed June 2, 2023.

Schonfeld, R.R. 1968. "The Early Development of California's Imperial Valley: Part I." *Southern California Quarterly* 50(3): 279–307. https://doi.org/10.2307/41170190.

U.S. Census Bureau. 1910. "Calexico Township, Imperial County, California." United States Government. District 0004. Image 21. Accessed August 17, 2023. Ancestry.com.

U.S. Census Bureau. 1920. "Silsbee Township, Imperial County, California." United States Government. District 0032. Image 4. Accessed August 17, 2023. Ancestry.com.

State of California ◆ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial _____
NRHP Status Code 6Z

Other listings
Review Code Reviewer Date

 *Resource Name or #: (Assigned by recorder) 2104 West Wixom Road
P1. Other Identifier: Property between the Fern Canal and Wixom Drain on West Wixom Road

*P2.Location: ☐ Not for Publication ■ Unrestricted *a. County Imperial
and P2b and P2c or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Mount Signal Quadrangle Date 2023 T 16S; R 12E; of Sec 27; San Bernadino B.M.
c. Address 2104 West Wixom Road City El Centro Zip 9243
d. UTM: (Give more than one for large and/or linear resources) Zone: 11S; 620247.22 m E; 3623737.78 m N
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
Assessor's Parcel Number (APN) 051-330-021

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The subject property at address 2104 West Wixom Road (APN 051-330-021), is bound by West Wixom Road to the south, Diehl Road to the north, and located in between the Fern Canal and the Wixom Drain (*Continuation Sheet*)

See Continuation Sheet

*P3b. Resource Attributes: (List attributes and codes) HP2 Single Family Property; HP4. Ancillary building
*P4.Resources Present: ■ Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5b. Description of Photo: Photograph 1. View from dirt road between Wixom Drain and Fern Canal of residential farmstead, looking northwest.

P5a. Photograph 1.



*P6. Date Constructed/Age and Source:
■ Historic ☐Prehistoric ☐ Both circa 1975 (Parcel Quest 2023)

*P7. Owner and Address:
Paul C & Alice Rodriguez
10362 Vista Del Cerro
Santee, California 92071

*P8. Recorded by:
Evan Brisentine, Dudek
605 NE 21st Avenue Ste. 200
Portland, OR, 97232

*P9. Date Recorded: 4/11/2023

*P10. Survey Type: (Describe)
Intensive Pedestrian

*P11. Report Citation: (Cite survey report and other sources or enter "none.") Brisentine, E and Jones, E. 2023. Built Environment Inventory and Evaluation Report. El Centro, California: Dudek. September 2023.

*Attachments: ☐NONE ■Location Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # _____
HRI # _____

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) 2104 W Wixom Road *NRHP Status Code 6Z
Page 2 of 8

B1. Historic Name: None.
B2. Common Name: None.
B3. Original Use: Agricultural B4. Present Use: Residential
*B5. Architectural Style: Residential Mobile/ Manufactured Home type

*B6. Construction History: (Construction date, alterations, and date of alterations) 2104 West Wixom Road was first developed in the 1940s as agricultural farmland with multiple buildings, which were later demolished and then rebuilt in the 1970s (See Continuation Sheet)

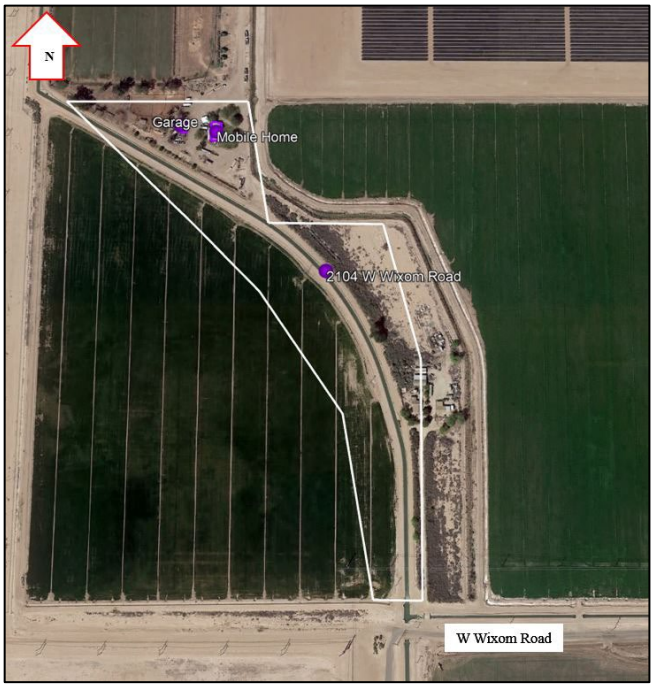
*B7. Moved? ■ No ☐Yes ☐Unknown Date: N/A Original Location: N/A
*B8. Related Features: N/A

B9a. Architect Unknown b. Builder: Unknown
*B10. Significance: Theme N/A Area N/A
Period of Significance N/A Property Type N/A Applicable Criteria N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property, located at 2104 West Wixom Road, does not meet any of the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), either individually or as part of an existing or potential historic district. The property was evaluated in accordance with Section 15064.5(a)(2)-(3) of the California Environmental Quality Act (CEQA) Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code and found not to be a historical resource for the purposes of CEQA.

(See Continuation Sheet)

B11. Additional Resource Attributes: None.
*B12. References: See Continuation Sheet
B13. Remarks: Buildings located on the southeast border of the parcel were associated with 2094 West Wixom Road (APN 051-330-024)
*B14. Evaluator: Evan Brisentine, MSHP, Dudek *Date of Evaluation: 09/18/2023



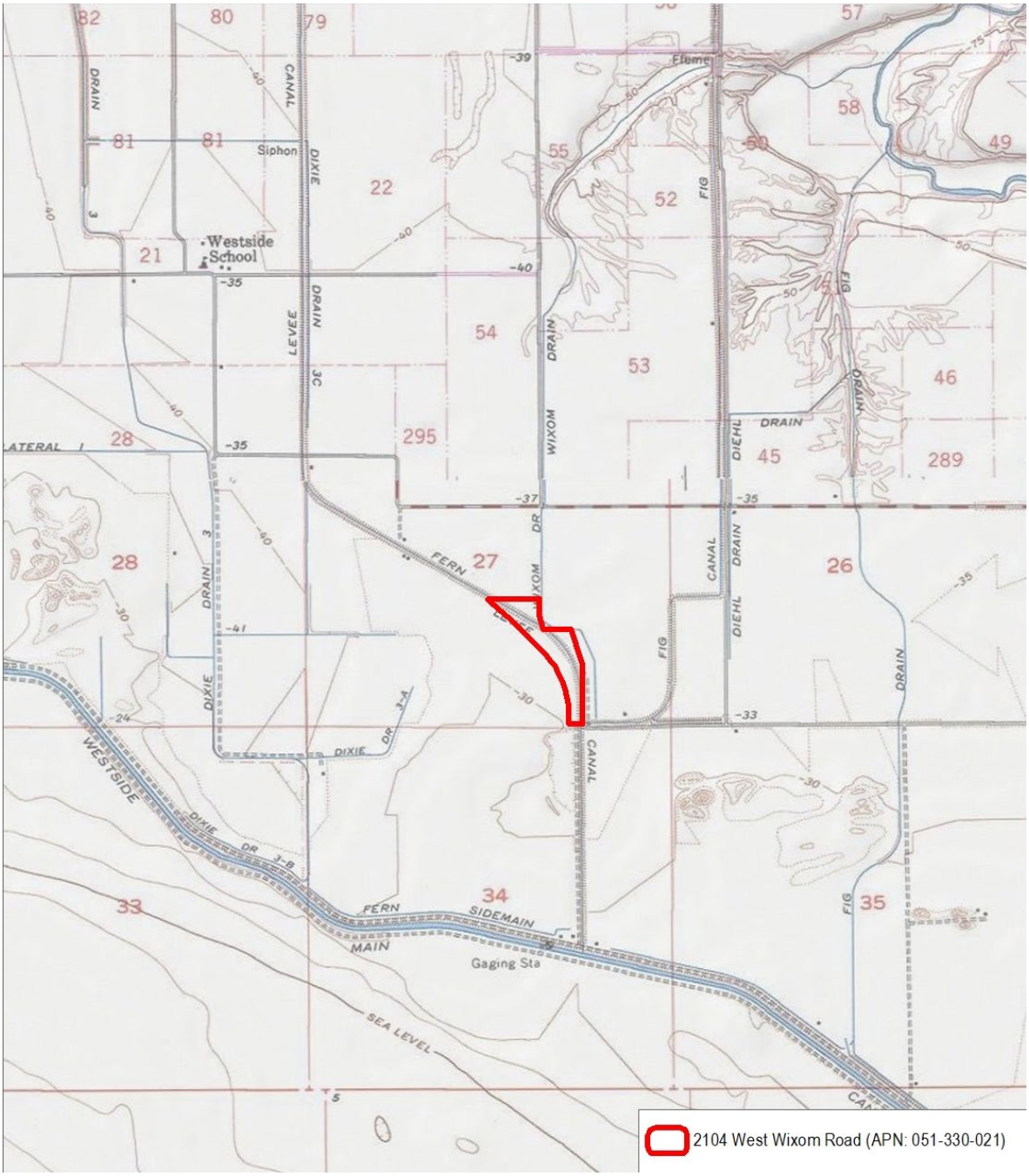
(This space reserved for official comments.)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #_____
HRI # _____
Trinomial_____

 *Resource Name or # (Assigned by recorder) 2104 W Wixom Road
*Map Name: Mount Signal Quadrangle *Scale: 1:24,000 *Date of map: 2000



*Required information

*P3a. Description (Continued):

The subject property was identified using aerial images and observed from the access roads. Parcel information reveals that the subject property was built in 1940. The residential property includes one residential building with two garage-like structures. Historical aerials reveal multiple structures on the property before 1953, including a residence and other ancillary buildings that were removed by 1959. Today, the property includes one mobile home located near where the Wixom Drain and the Fern Canal meet. The mobile home is a shotgun-style rectangular floor plan elevated with concrete slabs and a front gabled roof. The main façade faces east and has an overhanging roof extension over the main entrance. The roof is made of composite shingles, and the siding appears to be horizontal board. Windows on the east and south elevations include one-by-one siding windows. The west elevation includes an extended wall made of concrete and appears to have an entrance on the south elevation with decorative concrete ornament slabs (Photograph 1 and 2). Other structures located on the property include standalone metal garage overhang with metal pole siding and a flat wooden roof (NETR 2023a; ParcelQuest 2023).

Photograph 2. Road between the Fern Canal (left) and the subject property (right), showing the residence, RV, and garage structures (Dudek 2023).



*B10. Significance (Continued):

Historic Context

The Imperial Valley has been one of the most successful farm areas in the United States since the early twentieth century. Agricultural production was slowly introduced to the valley after the first canal was created in 1901. Nutrient-rich soil varied throughout the valley and included heavy clay and loose sand. The soil type determined the type of crop grown in each region. Fruits were often grown in sands and sandy loams, while grains were cultivated in clays and clay loams. However, most of the valley was devoted to grain and alfalfa. Alfalfa was grown to supply the soil with organic matter and proved important during the valley's early agricultural industry. The land used to grow alfalfa was worth more than raw land and was in great demand for the growth of cotton and fruit. Additionally, the crops varied by season, with barley and wheat grown in the winter and corn in the summer (Farr 1918; Schonfeld 1968).

Early farming techniques involved planting on newly leveled ground, discing it, and irrigating it before harvesting it, then relying on volunteer crop growth for 3 to 4 years. Such methods did not result in a high crop yield but produced a profit for little investment. Early County settlers did not have much wealth and were dependent on crop yields. Barley provided the highest crop yield and was the main crop grown during the winters. Alfalfa grew during the spring, so barley could be planted in its nutrient-rich soil by the fall and produce a winter pasture. This practice is still used today in barley cultivation in the Imperial Valley. Most of the barley is produced today to support the livestock and dairy industries as feed for the cows (Farr 1918).

While large areas of clay are still devoted to the growth of barley, the acreage of other crops has increased throughout the County's history. By 1909, when 300 acres and a cotton gin were established, cotton became an important crop in the valley. By 1910, the acreage increased to 1,400 acres, and by 1911, the valley supported 14,000 acres of cotton, reaching a peak of 70,000 acres in 1917. Likewise, cotton and oil mills were constructed to produce the crop (Farr 1918).

The production of agricultural products continued to increase throughout the twentieth century due to the area's temperate climate. Low humidity and high temperatures have created a stable environment for the growth of crops supported by the region's extensive irrigation system (Schonfeld 1968). During the area's growth, cantaloupe and lettuce became popular summer crops and cabbage, onions, asparagus, and peas were plentiful during winter (VRIC 2023). Although the cattle industry surpassed the agricultural industry during the twenty-first century, the County's agricultural production remains significant. As of 2019, alfalfa, lettuce, broccoli, carrots, sugar beets, and spinach have dominated agricultural production in the County (Office of Agricultural Commissioner 2019).

The California Development Company and the Imperial Land Company began building canal systems from Calexico heading north and west to El Centro and Holtville beginning in 1900. During the next 5 years, water companies were formed, and water from the Colorado River was distributed throughout the Imperial Valley, allowing settlers to apply for a desert land entry claim and settle along newly irrigated lands. By 1905, residents in the Imperial Valley numbered 12,000, and irrigated acreage increased from 1,500 acres to 67,000 acres. Between 1905 and 1907, the community of Silsbee was largely destroyed by flooding and was relocated. Seeley was established in 1910 along U.S. Highway 80 (Pioneers Museum of the Imperial Valley 2000; Gallegos 1979: 47).

The earliest depiction of residential development in the specific property location is of 1905 Wixom Road (Map ID 9) in 1940 topographic maps (USGS 2023). The original construction from the 1940s is not present by 1959. The subject

*B10. Significance (Continued):

property is first visible in 1984 but was likely constructed in ca. 1975. The parcel north of the subject property and south of the Fern Canal has remained agriculture land (NETR 2023a).

Significance Evaluation

National Register of Historic Places/California Register of Historical Resources Statement of Significance

Under NRHP Criterion A and CRHR Criterion 1, the property at 2104 West Wixom Road lacks a direct and important association with any event significant in local, state, or national history. The residential farmstead does not appear to have had a direct involvement in significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. For these reasons, 2104 West Wixom Road does not appear eligible for listing in the NRHP/CRHR under Criterion A/1.

Under NRHP Criterion B and CRHR Criterion 2, the property at 2104 West Wixom Road lacks a significant association with the productive life of any person important in local, state, or national history. Archival research does not indicate that the subject property is connected to any significant individuals or persons at a local, state, or national level. Due to a lack of significant associations with important persons in history, the subject property is not recommended to be eligible under NRHP Criterion B or CRHR Criterion 2.

Under NRHP Criterion C and CRHR Criterion 3, the property at 2104 West Wixom Road does not include resources that fully embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or creative individual or that possesses high artistic values. The extant buildings located on the subject property were developed in ca. 1975. The built environment resources located on the subject property do not possess high artistic value or contribute to the significance of a larger resource. Despite archival research, no information was found about the architect for the original design of the subject property buildings. Therefore, nothing suggests that the property is associated with an expert architect. Due to the pervasive nature of the buildings and structures, a lack of high artistic value, and a lack of evidence to suggest the extant buildings and structures are associated with an expert architect, the subject property buildings are not eligible under NRHP Criterion C or CRHR Criterion 3.

Under NRHP Criterion D and CRHR Criterion 4, the property at 2104 West Wixom Road is not significant as a source, or likely source, of important information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies. This technology is well understood through contemporary trade journals and scientific monographs. Therefore, the property is not eligible under NRHP/CRHR Criterion D/4.

In conclusion, 2104 West Wixom Road lacks sufficient significance to meet any criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above before determining whether the resource retains its historic character and can convey its significance. In the specific case of the property at 2104 West Wixom Road, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further analysis of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC

Section 5024.1 and 14 CCR Section 15064.5(a), either individually or as a contributing element to an existing or potential historic district

References

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Gallegos, D. 1979. *Class II Cultural Resource Inventory of the East Mesa and West Mesa Regions, Imperial Valley, California*. Volume 1. WESTEC Services. Prepared for U.S. Department of Interior.

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State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

***Resource Name or #:** (Assigned by recorder) Cattle Corral Shelter

P1. Other Identifier: Cattle Corral Shelter along Derrick Road

*__P2. Location:__ ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Imperial

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** *Seeley, Calif.* **Date** 04/2024 T 16S; **R** 12E; SW ¼ **of** SW ¼ **of Sec** 23; San Bernardino **B.M.**

c. Address No Situs Address City El Centro Zip 92243

d. UTM: (Give more than one for large and/or linear resources) Zone 11, 621045 mE/ 3625023 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Parcel Number (APN) 051-310-026

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This 40-acre, square-shaped parcel (051-310-026) is adjacent to Derrick Road, directly north of APN 051-310-027. The Cattle Corral Shelter has a rectangular floor plan and a front-gabled roof. See Continuation Sheet.

***P3b. Resource Attributes:** (List attributes and codes) HP4. Ancillary Building

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)Photograph 1



P5b. Description of Photo: (View, date, accession #) Photograph 1, View from the elevated dirt road between Derrick Road and the Fig Canal, looking W, 4/4/2024,

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
Circa 1956 (NETR 2024)

***P7. Owner and Address:**
J R Preece Inc
2396 W. Vaughn Rd.
El Centro 92243

***P8. Recorded by:** (Name, affiliation, address)
Evan Brisentine, Dudek
605 NE 21st Avenue, Ste. 200
Portland,Oregon,97232

***P9. Date Recorded:**
04/04/2024

***P10. Survey Type:** (Describe)
Intensive Pedestrian

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Brisentine, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2024.

***Attachments:** ☐ NONE ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐Sketch Map ☐Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** Choose an item.

***Resource Name or #** (Assigned by recorder) Cattle Corral Shelter

B1. Historic Name: None
B2. Common Name: None
B3. Original Use: Agricultural
B4. Present Use: Agricultural
***B5. Architectural Style:** Barn
***B6. Construction History:** (Construction date, alterations, and date of alterations) The Cattle Corral Shelter was constructed between 1953 and 1959. No alterations were documented or observed.

***B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** Click here to enter a date. **Original Location:**
***B8. Related Features:** N/A

B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance:** **Theme** Agricultural Development **Area:** El Centro
Period of Significance circa 1956 Property **Type** agricultural **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property, The Cattle Corral Shelter, does not meet the criteria for the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), either individually or as part of an existing or potential historic district. The property was evaluated in accordance with Section 106 of the National Historic Preservation Act (Section 106) and Section 15064.5 (a)(2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code. The property is not considered a historic property for the purposes of Section 106 or a historical resource under CEQA. See Continuation Sheet

B11. Additional Resource Attributes: (List attributes and codes) None

***B12. References:** See Continuation Sheet

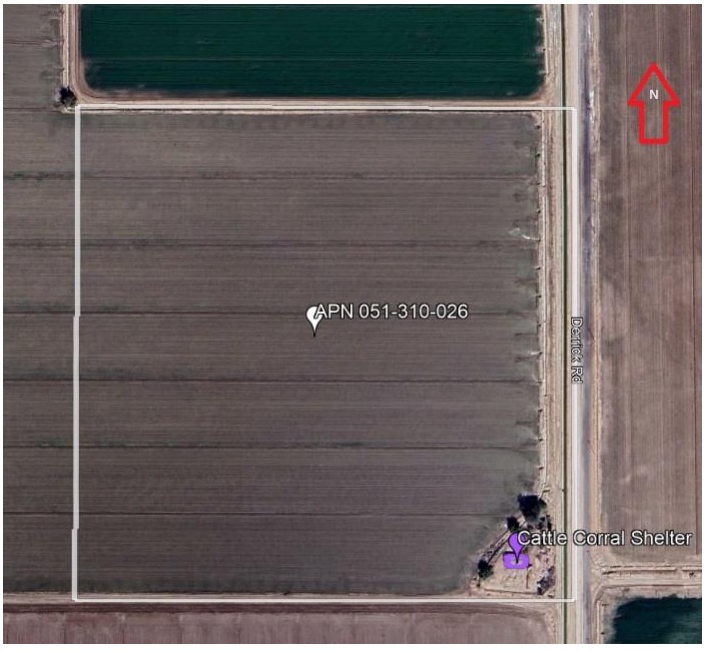
B13. Remarks: None

***B14. Evaluator:** Evan Brisentine, MSHP, Dudek

***Date of Evaluation:** 04/20/2024

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



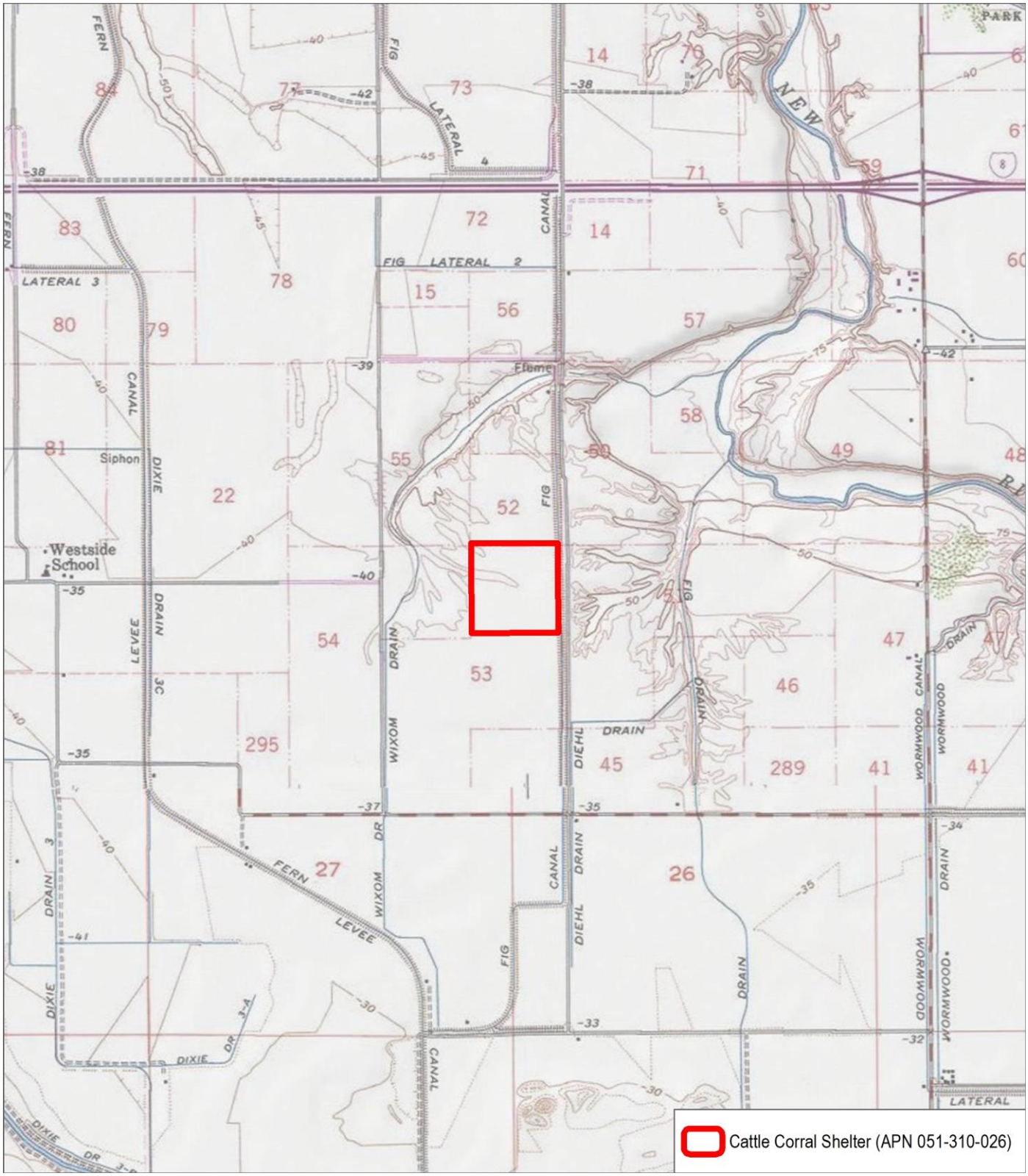
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #** (Assigned by recorder) Cattle Corral Shelter

***Map Name:** *Seeley Quadrangle* ***Scale:** 1:24,000 ***Date of map:** 2000



*** Required information**

P3a. Description (cont.)

This 40-acre, square-shaped parcel (051-310-026) is adjacent to Derrick Road, directly north of APN 051-310-027. The Cattle Corral Shelter has a rectangular floor plan and a front-gabled roof. The roof overhang is oriented east to west and appears to be made of corrugated metal. There are four horizontal wood beam pillars on the south and north elevations, maintaining the roof shelter. No exterior or interior walls are present. Features of the property include triangle-shaped metal fences along the west and east borders of the corral, with a gate on the north side for entry and exit. The southern border of the corral is the only concrete-lined fence surrounding the Cattle Corral Shelter. There are no noticeable additions to the property. The fencing appears in disrepair and is surrounded by refuse such as tires, downed trees, and metal debris.

Photograph 2 View from the southeast corner of the Cattle Corral Shelter near the Fig Canal, facing northwest.



***B10. Significance (cont.)**

The Imperial Valley has been one of the most successful farm areas in the United States since the early twentieth century. Agricultural production was slowly introduced to the valley after the first canal was created in 1901. Nutrient-rich soil varied throughout the valley and included heavy clay and loose sand. The soil type determined the type of crop grown in each region. Fruits were often grown in sands and sandy loams, while grains were cultivated in clays and clay loams. However, most of the valley was devoted to grain and alfalfa. Alfalfa was grown to supply the soil with organic matter and proved crucial during the valley's early agricultural industry. The land used to grow alfalfa was worth more than raw land and was in great demand for the growth of cotton and fruit. Additionally, the crops varied by season, with barley and wheat grown in the winter and corn in the summer (Farr 1918; Schonfeld 1968).

The California Development Company and the Imperial Land Company began building canal systems from Calexico, heading north and west to El Centro and Holtville, in 1900. During the next 5 years, water companies were formed, and water from the Colorado River was distributed throughout the Imperial Valley, allowing settlers to apply for a desert land entry claim and settle along newly irrigated lands. By 1905, residents in the Imperial Valley numbered 12,000, and irrigated acreage increased from 1,500 to 67,000 acres (Pioneers Museum of the Imperial Valley 2000).

Early farming techniques involved planting in newly leveled ground, discing it, and irrigating it before harvesting. Farmers relied on volunteer crop growth for 3 to 4 years following this establishment period. Such methods did not result in a

high crop yield but produced a profit for little investment. Early County settlers did not have much wealth and depended on crop yields. Barley provided the highest crop yield and was the main crop grown during winter. Alfalfa grew during the spring so that barley could be planted in its nutrient-rich soil by the fall and produce a winter pasture. This practice is still used today in barley cultivation in the Imperial Valley. Most of the barley is produced today to support the livestock and dairy industries as cow feed (Farr 1918).

While large areas of clay are still devoted to the growth of barley, the acreage of other crops has increased throughout the County's history. By 1909, when 300 acres and a cotton gin were established, cotton became an important crop in the valley. By 1910, the acreage increased to 1,400 acres, and by 1911, the valley supported 14,000 acres of cotton, reaching a peak of 70,000 acres in 1917. Likewise, cotton and oil mills were constructed to produce the crop (Farr 1918).

The production of agricultural products continued to increase throughout the twentieth century due to the area's temperate climate. Low humidity and high temperatures have created a stable environment for the growth of crops supported by the region's extensive irrigation system (Schonfeld 1968). During the area's development, cantaloupe and lettuce became popular summer crops, and cabbage, onions, asparagus, and peas were plentiful during winter (VRIC 2023). Although the cattle industry surpassed the agricultural industry during the twenty-first century, the County's agricultural production remains significant. As of 2019, alfalfa, lettuce, broccoli, carrots, sugar beets, and spinach have dominated agricultural production in the County (Office of Agricultural Commissioner 2019).

The California Development Company and the Imperial Land Company began building canal systems from Calexico, heading north and west to El Centro and Holtville, in 1900. During the next 5 years, water companies were formed, and water from the Colorado River was distributed throughout the Imperial Valley, allowing settlers to apply for a desert land entry claim and settle along newly irrigated lands. By 1905, residents in the Imperial Valley numbered 12,000, and irrigated acreage increased from 1,500 to 67,000 acres (Pioneers Museum of the Imperial Valley 2000).

The subject property is in the southwest corner of Section 23 of Township 16 South, Range 12 East. The earliest map of the area shows the "road from Warners Rancho to Fort Yuma" in the northeast corner of Section 23, about 0.5 miles from the property, in 1857 (GLO 1857). By 1909, the entire area was divided into tracts, with the subject property is located in Tract No. 52 (GLO 1909). Derrick Road was likely named after the Derrick family, who were farmers around the area as early as 1893. Anderson B. Derrick first came to the Imperial Valley in 1893 and began buying land in the 1910s (IVP 1933a:2).

In 1911, George H. Woolliscroft applied for a desert land entry to establish a claim of the southwest corner of Section 23, Township 16 South, Range 12 East. Woolliscroft was an alfalfa farmer into the 1930s. Census data show George H. and Bertha M. had two children, Mabel and Merlin, and lived along San Diego Highway and Fern Ditch Road. Woolliscroft also sold Guernsey bulls and milk cows in the 1930s (IVP 1911:2, 1928:5, 1933b:5; U.S. Census Bureau 1930:16).

Prior to 1953, two buildings were located near the same area where the current Cattle Corral Shelter stands today. By 1959, the current structure and a building to the south and the north were present. The farmlands to the west and south are split into two sections, and a dirt road bisects them between Derrick Road and Jessup Road. By 1996, the only building on the property is the Cattle Corral Shelter. Today, the property is owned by J.R. Preece Inc., a large alfalfa, Bermuda grass, and oat hay grower in Imperial Valley (NETR 2024a, 2024b; ParcelQuest 2024; Preece Farms 2014).

Significance Evaluation

Under NRHP/CRHR Criterion A/1, the Cattle Corral Shelter lacks a direct and important association with any event significant in local, state, or national history. The Cattle Corral Shelter does not appear to have been directly involved in significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. For these reasons, the Cattle Corral Shelter does not appear eligible for listing in the NRHP/CRHR under Criterion A/1.

Under NRHP/CRHR Criterion B/2, the Cattle Corral Shelter lacks a significant association with the productive life of any person important in local, state, or national history. Archival research did reveal the original owner of the property. However, it did not reveal the property owner at the time the structure was built. Therefore, there is no known connection

to any significant individuals or persons at a local, state, or national level. Due to a lack of significant associations with important persons in history, the subject property is not recommended to be eligible under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the Cattle Corral Shelter does not include resources that fully embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or creative individual or that possess high artistic values. The extant structures located on the subject property were developed ca. 1956. The built environment resources located on the subject property do not have high artistic value or contribute to the significance of a larger resource. Despite archival research, no information was found about the builder for the subject property buildings. Therefore, nothing suggests that the property is associated with an expert architect or builder. Due to the pervasive nature of the buildings and structures, a lack of high artistic value, and a lack of evidence to suggest the extant buildings and structures are associated with an expert architect, the subject property buildings are not eligible under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the Cattle Corral Shelter is not significant as a source, or likely source, of important information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies. This technology is well understood through contemporary trade journals and scientific monographs. Therefore, the property is not eligible under NRHP/CRHR Criterion D/4.

In conclusion, the Cattle Corral Shelter lacks sufficient significance to meet any criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above before determining whether the resource retains its historic character and can convey its significance. In the specific case of the Cattle Corral Shelter, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further study of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), individually or as a contributing element to an existing or potential historic district.

References (cont.)

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GLO. 1909. General Land Survey of Township 16S, Range 12E. San Bernadino Meridian, California. DM ID 289218. Available at the Bureau of Land Management. U.S. Department of the Interior. https://glorecords.blm.gov/search/default.aspx.

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IVP. 1911. "Notice for Publication." *Imperial Valley Press*. September 30, 1911. IVP. 1917.

IVP. 1928. "El Centro Lumber & Trading Co." Imperial Valley Press. December 6, 1928.

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State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

***Resource Name or #:** (Assigned by recorder) Diehl Drain

P1. Other Identifier: Diehl Drain

*P2. **Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Imperial

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** *Seeley, Calif.* **Date** 04/2024 T 16S; **R** 12E; **Sec** 23; 26, 35 San Bernardino **B.M.**

c. Address No Situs Address City El Centro Zip 92243

d. UTM: (Give more than one for large and/or linear resources) Zone 11, 621631 mE/ 3624748 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
N/A

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Diehl Drain is an earthen-dug irrigation drainage ditch located east of Derrick Road. It flows west from the Fig Drain south to the agricultural fields along Derrick Road. See Continuation Sheet.

***P3b. Resource Attributes:** (List attributes and codes) HP20. Canal/ Aqueduct

***P4. Resources Present:** ☐ Building ☒ Structure ☒ Object ☐ Site ☐ District ☐ Element of District ☒ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)Photograph 1



P5b. Description of Photo: (View, date, accession #) Photograph 1, View from southern end of Diehl Drain, facing north., 4/4/2024,

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
Circa 1950 (NETR 2024)

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

***P8. Recorded by:** (Name, affiliation, address)
Evan Brisentine, Dudek
605 NE 21st Avenue, Ste. 200
Portland,Oregon,97232

***P9. Date Recorded:**
04/04/2024

***P10. Survey Type:** (Describe)
Intensive Pedestrian

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Brisentine, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2024.

***Attachments:** ☐ NONE ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐Sketch Map ☐Other (List):

B1. Historic Name: Diehl Drain
B2. Common Name: Diehl drain
B3. Original Use: Water Conveyance for irrigation
B4. Present Use: Water Conveyance for irrigation
***B5. Architectural Style:** None
***B6. Construction History:** (Construction date, alterations, and date of alterations) circa 1950

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** Click here to enter a date. **Original Location:**
***B8. Related Features:** N/A

B9a. Architect: Unknown b. Builder: Mr. Edgar
***B10. Significance:** **Theme** Agricultural Water Conveyance **Area:** Imperial Valley
Period of Significance circa 1950 Property **Type** agricultural **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property, The Diehl Drain, does not meet the criteria for the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR), either individually or as part of an existing or potential historic district. The property was evaluated in accordance with Section 106 of the National Historic Preservation Act (Section 106) and Section 15064.5 (a)(2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code. The property is not considered a historic property for the purposes of Section 106 or a historical resource under CEQA. See Continuation Sheet.

B11. Additional Resource Attributes: (List attributes and codes) None

***B12. References:** See Continuation Sheet

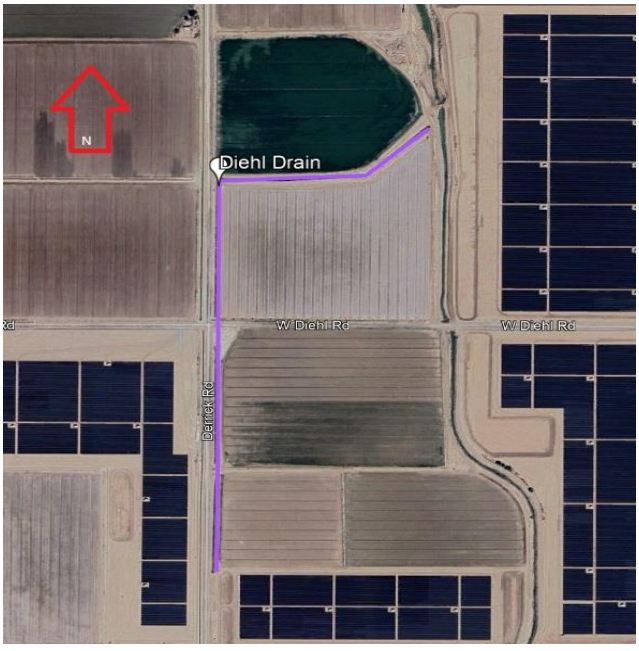
B13. Remarks: None

***B14. Evaluator:** Evan Brisentine, MSHP, Dudek

***Date of Evaluation:** 04/20/2024

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

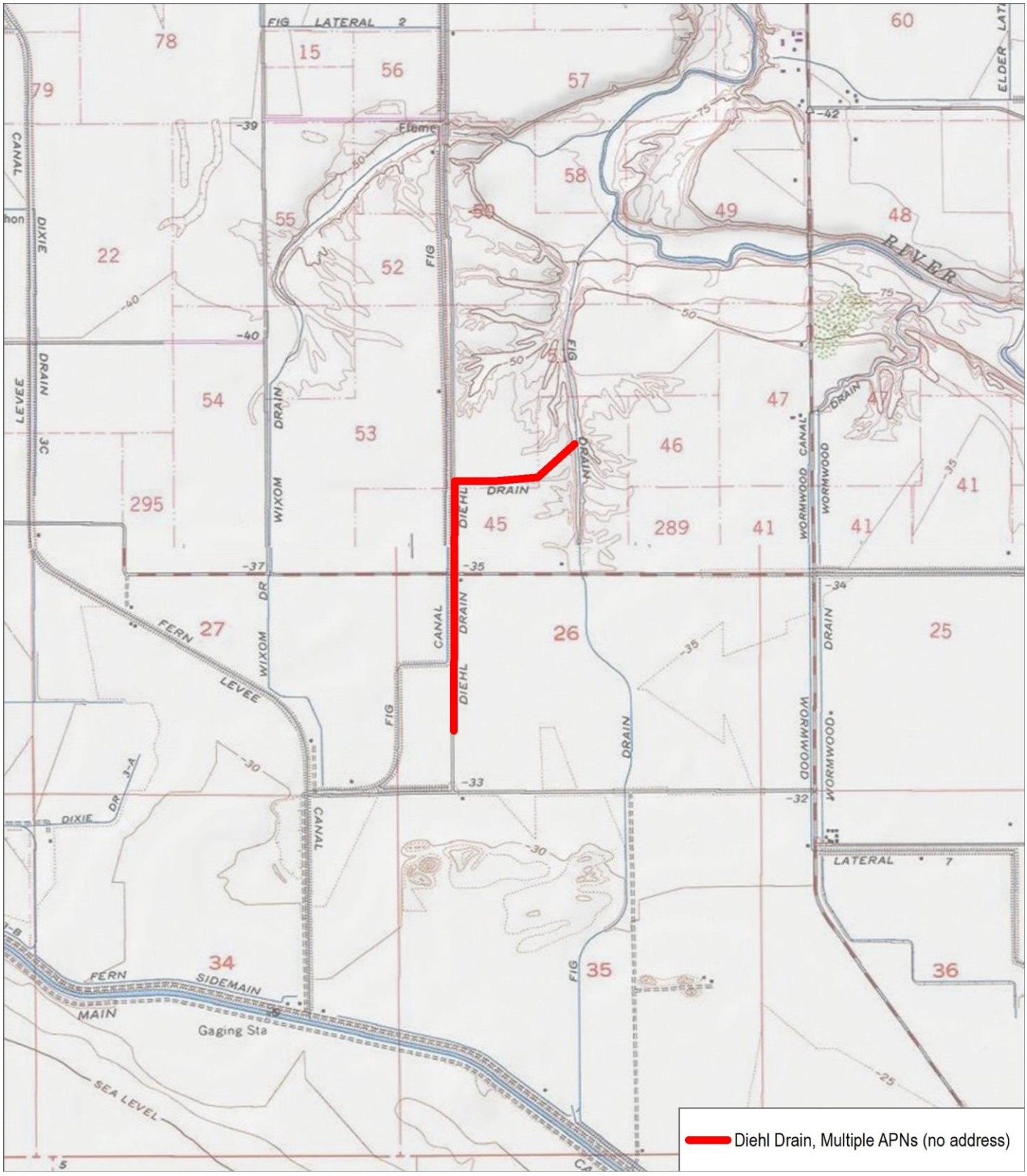


State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

Page 3 **of** 9 ***Resource Name or #** (Assigned by recorder) Diehl Drain
***Map Name:** *Seeley Quadrangle* ***Scale:** 1:24,000 ***Date of map:** 2000



DPR 523J *** Required information**

P3a. Description (cont.)

The Diehl Drain is an earthen-dug irrigation drainage ditch located east of Derrick Road. It flows west from the Fig Drain south to the agricultural fields along Derrick Road. The 1.1-mile drainage ditch is approximately 10–20 feet wide and about 10–15 feet deep. Concrete weirs are located intermittently along the drain to control water flow, including underneath Diehl Road and other paths between agricultural fields. It appears the Diehl Drain would allow overflow water to drain into the Fig Drain. However, the concrete weirs connecting the irrigation system appear out of use and in decay. The Diehl Drain connects to the agricultural lands to the north and south.

Photograph 2 View of Diehl Drain and its connection to the Fig Drain, facing east.



***B10. Significance (cont.)**

Historic Context

On one of the railroad corridor expeditions in 1853, led by Lieutenant R.S. Williamson of the U.S. Topographical Engineers, geologist Dr. W.P. Blake discovered the possibility of irrigating Imperial Valley from the Colorado River. Blake observed a region of fertile soil capable of sustaining agriculture but lacking in water. He measured the elevation of the dry bed of the Salton Sea at below sea level, a fact that made feasible the cutting of a canal from the Colorado River to the interior of the desert, which would bring with it a constant supply of water. Dr. Oliver Wozencraft, a proponent of irrigating Imperial Valley, lobbied for support from the California legislature, who, in turn, asked Congress to convey 6 million acres to Wozencraft. He endeavored to secure action by Congress on his plan to bring potable water to the desert for more than 30 years without success. Despite Wozencraft's failed attempts at reclamation, by his death in 1887, settlers and developers alike were eager to bring water to Imperial Valley.

Preliminary investigations into the feasibility of irrigating the Colorado Desert began in 1893 with the Colorado River Irrigation Company, but an inability to procure financing quickly led to the company's demise. In 1896, the California Development Company was organized to take charge of the project under the direction of Charles Rockwood and George Chaffey. The proposed canal route would run from the diversion point at the Colorado River through lower California, Mexico, and back into the United States to reach Imperial Valley. To gain title to the Mexican lands, the California Development Company organized a Mexican subsidiary company in 1898, La Sociedad de Yrrigacion y Terrenos de la Baja California, S.A. With plans to colonize the region, the California Development Company divided Imperial Valley into

districts of varying size, each with its own mutual water company.

By August 1900, the construction of the first diversion canal and irrigation system was underway. The canal was excavated from the point of diversion from the Colorado River south about 4 miles into Mexico, where it swung west and connected for 40 miles within the Alamo River channel until it reached Sharp's Heading and turned north to the Salton Sea. A series of main canals were constructed to divert from Sharp's Heading into various stretches of Imperial Valley: Central Main, Boundary, West Side Main, and East Side Main. The Central Main Canal continued from the international boundary line and traveled north through the present cities of Brawley and Imperial; the Boundary Canal diverted west toward Calexico; the West Side Main Canal traveled west toward Calexico then north; and the East Side Main Canal traveled east then north to the eastern Salton Sea. Water delivery reached Calexico through the Boundary Canal less than 1 year after construction. That same year, nearly 1,500 acres of land were put under crops.

Few natural resources existed for potable water prior to the construction of the irrigation system. Domestic use water had to be hauled to the valley via the Southern Pacific Railroad Company. Once considered a barren wasteland, Imperial Valley was making good progress with colonization by the early 1900s. The Imperial Land Company, under the direction of the California Development Company, began laying out townsites in Imperial Valley based primarily on the density of purchased water stock. The town of Imperial was the first to be laid out, with settlement commencing in 1901. Over 10 years, from 1901 to 1911, irrigable land in Imperial Valley jumped from 1,500 to 220,000 acres. As the water flowed into the valley, so did the people. In 1902, a year after the first water reached Calexico, nearly 2,000 settlers came to Imperial Valley. The population grew to seven times that amount within 4 years. The Southern Pacific Railroad Company constructed the Niland to Calexico branch rail to accommodate the growing population. At the same time, the newly developed Imperial Valley broke apart from San Diego County to form its government as Imperial County, with El Centro being designated as the county seat.

The rapid colonization of Imperial Valley in the early 1900s strained the relationship between settlers and the California Development Company. Initial land and soil surveys were inaccurate, leading to discrepancies with land titles, and water rights held by the California Development Company were called into question. The Reclamation Act was proposed in 1902 to take the Imperial Valley project from the California Development Company and organize it under government control. Further dissatisfaction with the California Development Company arose after hurried and negligible attempts to correct the Colorado River's heavily silt-laden waters, ultimately leading to grave damage to Imperial Valley following the massive flooding events of 1905 and 1906. The Colorado River break destroyed nearly 12,000 acres of cultivated land and more than 30,000 acres of irrigable land, caused immense damage to the Southern Pacific Railroad Company lines, and severed the ties between settlers and the California Development Company. The Colorado River break took two years to repair, during which time the Salton Sea filled and expanded to a length of 50 miles and a width of 10 to 15 miles.

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The California Development Company and the Imperial Land Company began building canal systems from Calexico, heading north and west to El Centro and Holtville, in 1900. During the next 5 years, water companies were formed, and water from the Colorado River was distributed throughout the Imperial Valley, allowing settlers to apply for a desert land entry claim and settle along newly irrigated lands. By 1905, residents in the Imperial Valley numbered 12,000, and irrigated acreage increased from 1,500 to 67,000 acres (Pioneers Museum of the Imperial Valley 2000). Between 1905

and 1907, the community of Silsbee was largely destroyed by flooding and was relocated. Seeley was established in 1910 along U.S. Highway 80 (Pioneers Museum of the Imperial Valley 2000; Gallegos 1979: 47).

The Imperial Valley has been one of the most successful farm areas in the United States since the early twentieth century. Agricultural production was slowly introduced to the valley after the first canal was created in 1901. Nutrient-rich soil varied throughout the valley and included heavy clay and loose sand. The soil type determined the type of crop grown in each region. Fruits were often grown in sands and sandy loams, while grains were cultivated in clays and clay loams. However, most of the valley was devoted to grain and alfalfa. Alfalfa was grown to supply the soil with organic matter and proved crucial during the valley's early agricultural industry. The land used to grow alfalfa was worth more than raw land and was in great demand for the growth of cotton and fruit. Additionally, the crops varied by season, with barley and wheat grown in the winter and corn in the summer (Farr 1918; Schonfeld 1968).

Early farming techniques involved planting in newly leveled ground, discing it, and irrigating it before harvesting. Farmers relied on volunteer crop growth for 3 to 4 years following this establishment period. Such methods did not result in a high crop yield but produced a profit for little investment. Early County settlers did not have much wealth and depended on crop yields. Barley provided the highest crop yield and was the main crop grown during winter. Alfalfa grew during the spring so that barley could be planted in its nutrient-rich soil by the fall and produce a winter pasture. This practice is still used today in barley cultivation in the Imperial Valley. Most of the barley is produced today to support the livestock and dairy industries as cow feed (Farr 1918).

While large areas of clay are still devoted to the growth of barley, the acreage of other crops has increased throughout the County's history. By 1909, when 300 acres and a cotton gin were established, cotton became an important crop in the valley. By 1910, the acreage increased to 1,400 acres, and by 1911, the valley supported 14,000 acres of cotton, reaching a peak of 70,000 acres in 1917. Likewise, cotton and oil mills were constructed to produce the crop (Farr 1918).

The production of agricultural products continued to increase throughout the twentieth century due to the area's temperate climate. Low humidity and high temperatures have created a stable environment for the growth of crops supported by the region's extensive irrigation system (Schonfeld 1968). During the area's development, cantaloupe and lettuce became popular summer crops, and cabbage, onions, asparagus, and peas were plentiful during winter (VRIC 2023). Although the cattle industry surpassed the agricultural industry during the twenty-first century, the County's agricultural production remains significant. As of 2019, alfalfa, lettuce, broccoli, carrots, sugar beets, and spinach have dominated agricultural production in the County (Office of Agricultural Commissioner 2019).

In 1910, the Fig Canal, along with other distribution ditches were constructed as part of the irrigation land extension system by Mr. Edgar (IVP 1910:4). Both the Fig Canal and Fig Drain were not visible until a 1940s topographic map (NETR 2024b). A 1953 aerial photo shows the earliest visual of the Diehl Drain. However, it does not appear to be connected to the Fig Drain. By 1959, the Diehl Drain was widened and appeared regulated in size. A connection to the Fig Drain appears to be constructed. Between 1959 and 1984, a residential building was removed near the Diehl Drain on the southeast corner of Derrick Road and Diehl Road. The drain appeared unchanged until the late 1990s and 2000s, when the section connecting to the Fig Drain appeared slightly wider, with farm equipment and hay derricks staged north of the drain (NETR 2024a, 2024b).

Significance Evaluation

Under NRHP/CRHR Criterion A/1, the Diehl Drain lacks a direct and important association with any event significant in local, state, or national history. The Diehl Drain does not appear to have been directly involved in significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. For these reasons, the Diehl Drain does not appear eligible for listing in the NRHP/CRHR under Criterion A/1.

Under NRHP/CRHR Criterion B/2, the Diehl Drain lacks a significant association with the productive life of any person important in local, state, or national history. Archival research does not indicate that the Diehl Drain is connected to any significant individuals or persons at a local, state, or national level. Due to a lack of significant associations with important persons in history, the subject property is not recommended to be eligible under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the Diehl Drain does not include resources that fully embody the distinctive characteristics of a type, period, or construction method or represent the work of a master or creative individual or that possess high artistic values. The ditch appears to be constructed ca. 1950. The linear resource does not have high artistic value or contribute to the significance of a larger resource. Despite archival research, no information was found about the architect or builder for the original design of the earthen drainage ditch. Therefore, nothing suggests that the property is associated with an expert. Due to the pervasive nature of the resource, a lack of high artistic value, and a lack of evidence to suggest the drainage ditch associated with an expert architect, the subject property is not eligible under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the Diehl Drain is not significant as a source, or likely source, of important information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies. This technology is well understood through contemporary trade journals and scientific monographs. Therefore, the property is not eligible under NRHP/CRHR Criterion D/4.

In conclusion, the Diehl Drain lacks sufficient significance to meet any criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above before determining whether the resource retains its historic character and can convey its significance. In the specific case of the Diehl Drain, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further analysis of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), individually or as a contributing element to an existing or potential historic district.

References (cont.)

Dowd, M.J. 1956. *IID: The First 40 Years*. History of the Imperial Irrigation District and the Development of Imperial Valley. Unpublished manuscript on file at IID. Accessed November 12, 2021. https://www.iid.com/home/showpublisheddocument/6000/635648001335730000.

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State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

***Resource Name or #:** (Assigned by recorder) Fig Drain

P1. Other Identifier: Fig Drain

*__P2. Location:__ ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Imperial
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** *Seeley, Calif.* **Date** 04/2024 T 16S; **R** 12E; **Sec** 23; 26, 35 San Bernardino **B.M.**

c. Address No Situs Address City El Centro Zip 92243

d. UTM: (Give more than one for large and/or linear resources) Zone 11, 621690 mE/ 3624202 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
N/A

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Fig Drain is an earthen-dug irrigation drainage ditch located east of Derrick Road and flows in between the New River and the Westside Main Canal. See Continuation Sheet.

***P3b. Resource Attributes:** (List attributes and codes) HP20. Canal/ Aqueduct

***P4. Resources Present:** ☐ Building ☒ Structure ☒ Object ☐ Site ☐ District ☐ Element of District ☒ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)Photograph 1



P5b. Description of Photo: (View, date, accession #) Photograph 1, View of the Fig Drain and an intact concrete weir near Diehl Road, facing south 4/4/2024,

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
Circa 1940 (NETR 2024)

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

***P8. Recorded by:** (Name, affiliation, address)
Evan Brisentine, Dudek
605 NE 21st Avenue, Ste. 200
Portland,Oregon,97232

***P9. Date Recorded:**
04/04/2024

***P10. Survey Type:** (Describe)
Intensive Pedestrian

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Brisentine, E. Confidential Built Environment Inventory and Evaluation Report near El Centro, Imperial County, California. Prepared by Dudek 2024.

***Attachments:** ☐ NONE ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐Sketch Map ☐Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** Choose an item.
***Resource Name or #** (Assigned by recorder) Fig Drain

B1. Historic Name: Fig Drain
B2. Common Name: Fig Drain
B3. Original Use: Water Conveyance for irrigation
B4. Present Use: Water Conveyance for irrigation
***B5. Architectural Style:** None
***B6. Construction History:** (Construction date, alterations, and date of alterations) circa 1950

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** Click here to enter a date. **Original Location:**
***B8. Related Features:** N/A

B9a. Architect: Unknown b. Builder: Mr. Edgar
***B10. Significance:** **Theme** Agricultural Water Conveyance **Area:** Imperial Valley
Period of Significance circa 1940 Property **Type** agricultural **Applicable Criteria** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The subject property, The Fig Drain, does not meet the criteria for the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), either individually or as part of an existing or potential historic district. The property was evaluated in accordance with Section 106 of the National Historic Preservation Act (Section 106) and Section 15064.5 (a)(2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code. The property is not considered a historic property for the purposes of Section 106 or a historical resource under CEQA. See Continuation Sheet.

B11. Additional Resource Attributes: (List attributes and codes) None

***B12. References:** See Continuation Sheet

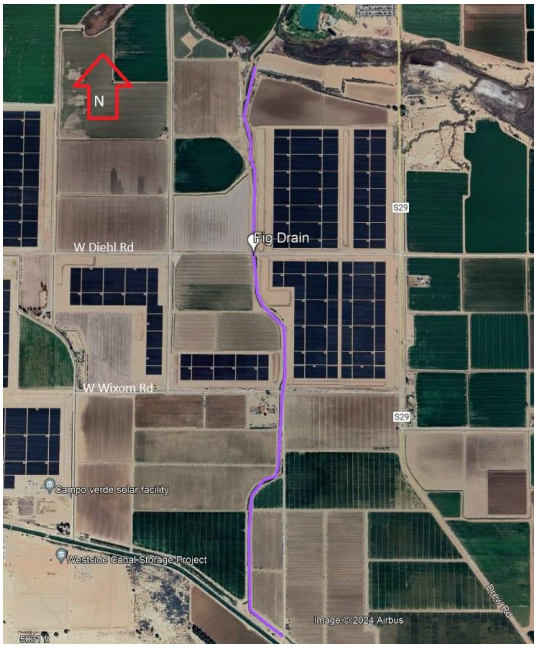
B13. Remarks: None

***B14. Evaluator:** Evan Brisentine, MSHP, Dudek

***Date of Evaluation:** 04/20/2024

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



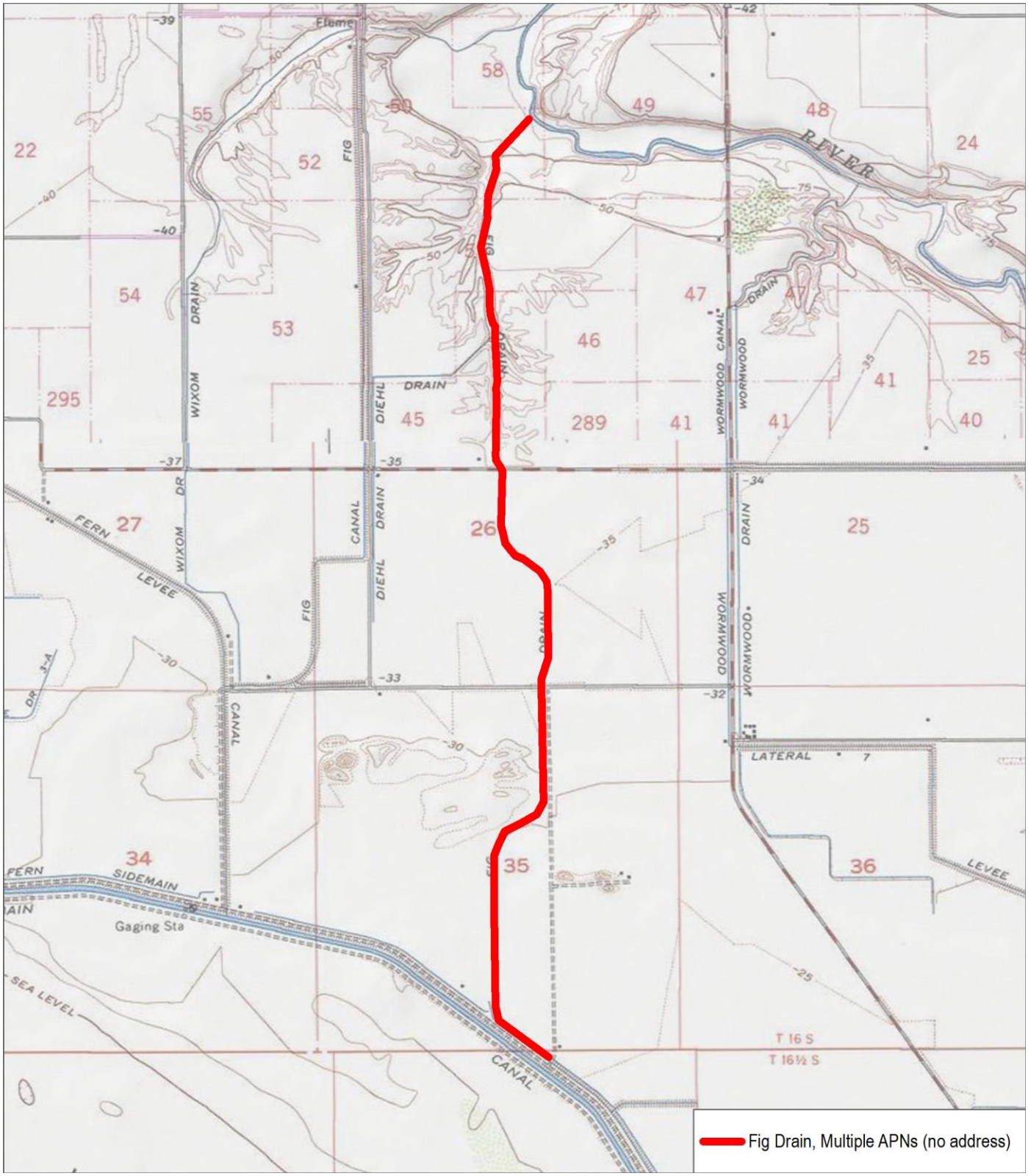
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #** (Assigned by recorder) Fig Drain

***Map Name:** *Seeley Quadrangle* ***Scale:** 1:24,000 ***Date of map:** 2000



* Required information

***P3a. Description (cont.)**

The Fig Drain is an earthen-dug irrigation drainage ditch located east of Derrick Road and flows in between the New River and the Westside Main Canal. The 2.6-mile drainage ditch is approximately 20–30 feet wide and about 15–20 feet deep and runs north and south along agricultural land. Concrete weirs are located intermittently along the drain to control water flow, including underneath Diehl Road, Wixom Road, and other dirt paths between agricultural fields. The Fig Drain extends parallel to the Westside Main Canal 2 miles south towards Mt. Signal.

Photograph 2 View of Fig Drain near W Wixom Road, facing north.



***B10. Significance (cont.)**

Historic Context

On one of the railroad corridor expeditions in 1853, led by Lieutenant R.S. Williamson of the U.S. Topographical Engineers, geologist Dr. W.P. Blake discovered the possibility of irrigating Imperial Valley from the Colorado River. Blake observed a region of fertile soil capable of sustaining agriculture but lacking in water. He measured the elevation of the dry bed of the Salton Sea at below sea level, a fact that made feasible the cutting of a canal from the Colorado River to the interior of the desert, which would bring with it a constant supply of water. Dr. Oliver Wozencraft, a proponent of irrigating Imperial Valley, lobbied for support from the California legislature, who, in turn, asked Congress to convey 6 million acres to Wozencraft. He endeavored to secure action by Congress on his plan to bring potable water to the desert for more than 30 years without success. Despite Wozencraft's failed attempts at reclamation, by his death in 1887, settlers and developers alike were eager to bring water to Imperial Valley.

Preliminary investigations into the feasibility of irrigating the Colorado Desert began in 1893 with the Colorado River Irrigation Company, but an inability to procure financing quickly led to the company's demise. In 1896, the California Development Company was organized to take charge of the project under the direction of Charles Rockwood and George Chaffey. The proposed canal route would run from the diversion point at the Colorado River through lower California, Mexico, and back into the United States to reach Imperial Valley. To gain title to the Mexican lands, the California Development Company organized a Mexican subsidiary company in 1898, La Sociedad de Yrrigacion y Terrenos de la Baja California, S.A. With plans to colonize the region, the California Development Company divided Imperial Valley into districts of varying size, each with its own mutual water company.

By August 1900, the construction of the first diversion canal and irrigation system was underway. The canal was excavated from the point of diversion from the Colorado River south about 4 miles into Mexico, where it swung west and connected for 40 miles within the Alamo River channel until it reached Sharp's Heading and turned north to the Salton Sea. A series of main canals were constructed to divert from Sharp's Heading into various stretches of Imperial Valley: Central Main, Boundary, West Side Main, and East Side Main. The Central Main Canal continued from the international boundary line and traveled north through the present cities of Brawley and Imperial; the Boundary Canal diverted west toward Calexico; the West Side Main Canal traveled west toward Calexico then north; and the East Side Main Canal traveled east then north to the eastern Salton Sea. Water delivery reached Calexico through the Boundary Canal less than 1 year after construction. That same year, nearly 1,500 acres of land were put under crops.

Few natural resources existed for potable water prior to the construction of the irrigation system. Domestic use water had to be hauled to the valley via the Southern Pacific Railroad Company. Once considered a barren wasteland, Imperial Valley was making good progress with colonization by the early 1900s. The Imperial Land Company, under the direction of the California Development Company, began laying out townsites in Imperial Valley based primarily on the density of purchased water stock. The town of Imperial was the first to be laid out, with settlement commencing in 1901. Over 10 years, from 1901 to 1911, irrigable land in Imperial Valley jumped from 1,500 to 220,000 acres. As the water flowed into the valley, so did the people. In 1902, a year after the first water reached Calexico, nearly 2,000 settlers came to Imperial Valley. The population grew to seven times that amount within 4 years. The Southern Pacific Railroad Company constructed the Niland to Calexico branch rail to accommodate the growing population. At the same time, the newly developed Imperial Valley broke apart from San Diego County to form its government as Imperial County, with El Centro being designated as the county seat.

The rapid colonization of Imperial Valley in the early 1900s strained the relationship between settlers and the California Development Company. Initial land and soil surveys were inaccurate, leading to discrepancies with land titles, and water rights held by the California Development Company were called into question. The Reclamation Act was proposed in 1902 to take the Imperial Valley project from the California Development Company and organize it under government control. Further dissatisfaction with the California Development Company arose after hurried and negligible attempts to correct the Colorado River's heavily silt-laden waters, ultimately leading to grave damage to Imperial Valley following the massive flooding events of 1905 and 1906. The Colorado River break destroyed nearly 12,000 acres of cultivated land and more than 30,000 acres of irrigable land, caused immense damage to the Southern Pacific Railroad Company lines, and severed the ties between settlers and the California Development Company. The Colorado River break took two years to repair, during which time the Salton Sea filled and expanded to a length of 50 miles and a width of 10 to 15 miles.

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The production of agricultural products continued to increase throughout the twentieth century due to the area's temperate climate. Low humidity and high temperatures have created a stable environment for the growth of crops supported by the region's extensive irrigation system (Schonfeld 1968). During the area's development, cantaloupe and lettuce became popular summer crops, and cabbage, onions, asparagus, and peas were plentiful during winter (VRIC 2023). Although the cattle industry surpassed the agricultural industry during the twenty-first century, the County's agricultural production remains significant. As of 2019, alfalfa, lettuce, broccoli, carrots, sugar beets, and spinach have dominated agricultural production in the County (Office of Agricultural Commissioner 2019).

A 1945 topographic map provides the earliest visual of the Fig Drain. However, it only shows the portion of the Fig Drain south of Diehl Road. By 1959, agricultural fields populated the area along the Fig Drain. By this time, the Fig and Deihl Drains appeared to be connected and widened. By 1984, agricultural fields were established along the Fig Drain near the confluence of the New River Wixom Drain area. The Fig Drain has experienced minimal changes since the 1980s (NETR 2024a, 2024b).

Significance Evaluation

Under NRHP/CRHR Criterion A/1, the Fig Drain lacks a direct and important association with any event significant in local, state, or national history. The Fig Drain does not appear to have been directly involved in significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. The Fig Drain was just an addition to a preexisting irrigation system that had already been established throughout the area. Therefore, the Fig Drain does not appear eligible for listing in the NRHP/CRHR under Criterion A/1.

Under NRHP/CRHR Criterion B/2, the Fig Drain lacks a significant association with the productive life of any person important in local, state, or national history. Archival research does not indicate that the Fig Drain is connected to any significant individuals or persons at a local, state, or national level. Due to a lack of significant associations with important persons in history, the subject property is not recommended to be eligible under NRHP/CRHR Criterion B/2.

Under NRHP/CRHR Criterion C/3, the Fig Drain does not include resources that fully embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or creative individual or that possess high artistic values. The ditch appears to be constructed ca. 1940. The linear resource does not possess high artistic value or contribute to the significance of a larger resource. Despite archival research, no information was found about the architect for the original design of the earthen drainage ditch. Therefore, nothing suggests that the property is associated with an expert architect. Due to the pervasive nature of the resource, a lack of high artistic value, and a lack of evidence to suggest the drainage ditch associated with an expert architect, the subject property is not eligible under NRHP/CRHR Criterion C/3.

Under NRHP/CRHR Criterion D/4, the Fig Drain is not significant as a source, or likely source, of important information, nor does it appear likely to yield important information about historic construction methods, materials, or technologies. This technology is well understood through contemporary trade journals and scientific monographs. Therefore, the property is not eligible under NRHP/CRHR Criterion D/4.

In conclusion, the Fig Drain lacks sufficient significance to meet any criteria for listing in the NRHP or CRHR. To be eligible for listing in either register, a resource must first meet one or more of the significance criteria outlined above before determining whether the resource retains its historic character and can convey its significance. In the specific case of the Fig Drain, an integrity analysis was considered immaterial because the evaluation found that the property lacked the necessary significance to warrant further analysis of its physical and historic integrity.

Consequently, the subject property is not a historic property based on the NRHP criteria outlined in 36 CFR Section 60.4, individually or as a contributing element to an existing or potential historic district. Similarly, the evaluation also concludes that the subject property is not a historical resource for the purposes of CEQA as defined under PRC Section 5024.1 and 14 CCR Section 15064.5(a), individually or as a contributing element to an existing or potential historic district.

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Appendix D

Paleontological Resources Inventory Report
for the Big Rock 2 Cluster Solar and Storage Project

Paleontological Resources
Inventory Report

Big Rock 2 Cluster Solar and Storage Project Imperial County, California

MAY 2024

Lead Agency:

IMPERIAL COUNTY
801 Main Street
El Centro, California 92243

Project Proponent:

90FI 8ME LLC
4370 Town Center Boulevard,
Suite 110 El Dorado Hills, California 95762

Prepared by:

DUDEK

605 Third Street
Encinitas, California 92024
Sarah Siren, MSc Michael Williams, PhD

This report was prepared by Dudek Paleontologists Sarah Siren, MSc and Michael Williams, PhD, who meet the Society for Vertebrate Paleontology's qualification standards for qualified professional paleontologists. This report is intended for the exclusive use of the Client and its representatives. It contains professional conclusions and recommendations concerning the potential for project-related impacts to paleontological resources based on the results of Dudek's investigation. It should not be considered to constitute project clearance with regard to the treatment of paleontological resources or permission to proceed with the project described in lieu of review by the appropriate reviewing or permitting agency. This report should be submitted to the appropriate state and local review agencies for their comments prior to the commencement of the project.

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APPENDIX

A SDNHM Records Search Results (Confidential)

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Management Summary

Dudek conducted a paleontological resources inventory study for the Big Rock 2 Energy Project (project). The project is located in unincorporated Imperial County, California (Figure 1, Project Location), south of Interstate Highway 8 and west of the town of El Centro, California. The project would involve development of a solar facility on approximately 1,849 acres of agricultural land. The entire 1,849 acres of the project area will be developed and disturbed by project implementation. The paleontological resources project area (project area) is composed of the following 24 Assessor's Parcel Numbers (APNs): 051-270-020, 051-270-028, 051-270-036, 051-270-041, 051-280-054, 051-290-018, 051-290-019, 051-300-011, 051-300-016, 051-300-026, 051-300-032, 051-300- 035, 051-300-036, 051-300-037, 051-310-027, 051-310-028, 051-320-005, 051-320-006, 051-320-007, 051-330-003, 051-350-004, 051-350-006, 051-350-007, and 051-350-008 (Figure 1).

This study was completed under the provisions of the state, California Environmental Quality Act (CEQA), local regulations, and the Society of Vertebrate Paleontology (SVP 2010) guidelines and included a paleontological records search through the San Diego Natural History Museum (SDNHM), a geological map and paleontological and geological literature review, a paleontological resources pedestrian survey of the 1,849-acre project area, and the preparation of this paleontological resources technical report.

The SDNHM paleontological records search results indicated a total of fourteen recorded fossil localities were found within a 1-mile radius buffer of the project area. The localities within a 1-mile radius buffer of the project area were discovered as a part of the Sunrise Powerlink, Imperial Valley Substation, and Campo Verde Solar Facility projects, and include fossil specimens from Lake Cahuilla deposits and the Brawley Formation.

No in situ fossils were observed during the paleontological survey; however, shell material within artificial fill deposits derived from ancient Lake Cahuilla was noted within man-made berms and along improvements for the farming canals.

Dudek's Paleontological Resources Inventory of the project area found that it is underlain by ancient Lake Cahuilla sediments that have high paleontological resource sensitivity or potential when not disturbed by agricultural activities. Surficial sediments that have been disturbed by agricultural activities or other man-made disturbances have low paleontological resource sensitivity and do not require paleontological monitoring. However, deeper excavations, below the disturbance level, that encounter undisturbed Lake Cahuilla sediments would be considered a potentially significant impact. Therefore, a paleontological monitoring program is recommended during grading within previously undisturbed sedimentary deposits within the project area.

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1 Introduction

Dudek completed a paleontological resources review of the potential for impacts during construction activities for the Big Rock 2 Cluster Solar and Storage Project (project) located in Imperial County, California (Figure 1, Project Location). This report was prepared by Sarah Siren, MSc and Michael William, PhD, qualified Principal Investigators (PI) for Paleontology, with assistance from Jason Collins, BA, in accordance with state California Environmental Quality Act (CEQA) guidelines and the Society of Vertebrate Paleontology (SVP) standards (SVP 2010).

The project consists of approximately 1,849 acres of agricultural lands, associated roads, and irrigation canals located in Imperial County, California. The project is anticipated to interconnect into approved transmission facilities in the paleontological resources project area (project area) via an above-ground generation transmission line (gen-tie). The project is located within the Seeley, Plaster City, and Mount Signal, California U.S. Geological Survey 7.5-Minute Series Topographic Quadrangle maps, Township 16S, Range 12E; Sections 14, 15, 16, 20, 21, 22, 23, 26, 27, 28, 29, 33, 34.

In accordance with CEQA, Appendix G and SVP (2010) standards, Dudek's qualified paleontologists completed a records search at the San Diego Natural History Museum (SDNHM), conducted a pedestrian field survey of the project area, and performed a desktop geological and paleontological literature review.

1.1 Paleontological Resources

Paleontological resources are the remains or traces of plants and animals that are preserved in Earth's crust, and per the SVP (2010) guidelines, are older than written history or older than approximately 5,000 years. They are limited, nonrenewable resources of scientific and educational value and are afforded protection under state laws and regulations. This study satisfies requirements in accordance with state guidelines (13 PRC, 21000 et seq.) and Public Resources Code Section 5097.5 (Stats 1965, c 1136, p. 2792). This analysis also complies with guidelines and significance criteria specified by SVP (2010). Table 1 provides definitions for high, undetermined, low, and no paleontological resource potential, or sensitivity, as set forth in and by the SVP (2010) Guidelines for Determining Significance: Paleontological Resources.

Table 1. Paleontological Resource Sensitivity Criteria

Resource Sensitivity / Potential	Definition
High	Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcaniclastic formations (e. g., ashes or tephras), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.). Paleontological potential consists of both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and (b) the importance of recovered evidence for new and

Table 1. Paleontological Resource Sensitivity Criteria

Resource Sensitivity / Potential	Definition
	significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.
Undetermined Potential	Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist (see "definitions" section in this document) to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.
Low Potential	Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e. g. basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.
No Potential	Some rock units have no potential to contain significant paleontological resources, for instance high- grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

Source: Society of Vertebrate Paleontology 2010.

2 Project Description and Location

Dudek conducted a paleontological resources inventory study for the Big Rock 2 Energy Project (project). The project is located in unincorporated Imperial County, California (Figure 1), south of Interstate Highway 8 and west of the town of El Centro, California. The project proposes to develop a solar facility on agricultural land. The entire 1,849 acres of the project area will be developed and disturbed by project implementation. The project area is composed of the following 24 Accessors Parcel Numbers (APNs): 051-270-020, 051-270-028, 051-270-036, 051- 270-041, 051-280-054, 051-290-018, 051-290-019, 051-300-011, 051-300-016, 051-300-026, 051-300-032, 051-300-035, 051-300-036, 051-300-037,051-310-027, 051-310-028, 051-320-005, 051-320-006, 051-320-007, 051-330-003, 051-350-004, 051-350-006, 051-350- 007, and 051-350-008. Specifically, the project is located in Township 16 South, Range 12 East, in Sections 14, 15, 16, 20, 21, 22, 23, 26, 27, 28, 29, 33, 34 of the Seeley, Plaster City, and Mount Signal, California USGS 7.5-Minute Series Quadrangles (Figure 1).

The applicant proposes to develop a 1,849-acre solar and battery energy storage facility located in Imperial County, California. The project includes the construction and operation of a 500-megawatt (MW) utility-scale photovoltaic solar energy generation and a 500MW battery energy storage system (BESS). The project's permanent facilities would include service roads, a power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, project substations, energy storage system(s), and operations and maintenance (O&M) facilities. Power generated by the project would be collected using up to 66-kilovolt (kV) collector lines, which could run overhead and/or underground to a dedicated project substation. A 230-kV overhead gen-tie line would then link the project substation to the planned Liebert Switchyard, which will be connected via an overhead 230-kilovolt gen-tie line to the existing San Diego Gas & Electric (SDG&E) Imperial Valley Substation.

2.1 Regulatory Context

California Environmental Quality Act

The CEQA Guidelines require that all private and public activities not specifically exempted be evaluated against the potential for environmental damage, including effects to paleontological resources. Paleontological resources, which are limited, nonrenewable resources of scientific, cultural, and educational value, are recognized as part of the environment under these state guidelines. This study satisfies project requirements in accordance with CEQA (13 PRC, 21000 et seq.) and Public Resources Code Section 5097.5 (Stats 1965, c 1136, p. 2792). This analysis also complies with guidelines and significance criteria specified by SVP (2010).

Paleontological resources are explicitly afforded protection by CEQA, specifically in Section VII(f) of CEQA Guidelines Appendix G, the "Environmental Checklist Form," which addresses the potential for adverse impacts to "unique paleontological resource[s] or site[s] or … unique geological feature[s]." This provision covers fossils of signal importance – remains of species or genera new to science, for example, or fossils exhibiting features not previously recognized for a given animal group – as well as localities that yield fossils significant in their abundance, diversity, preservation, and so forth. Further, CEQA provides that generally, a resource shall be considered "historically significant" if it has yielded or may be likely to yield information important in prehistory (PRC 15064.5 [a][3][D]). Paleontological resources would fall within this category. The PRC, Chapter 1.7, sections 5097.5 and 30244 also regulates removal of paleontological resources from state lands, defines unauthorized removal of fossil resources as a misdemeanor, and requires mitigation of disturbed sites.

California Public Resources Code Section 5097.5

In addition to CEQA's requirements, Public Resources Code Section 5097.5 (Stats 1965, c 1136, p. 2792) regulates removal of paleontological resources from state lands, defines unauthorized removal of fossil resources as a misdemeanor, and requires mitigation of disturbed sites.

3 Methods

3.1 Geological Map and Literature Review

Published geological maps (Dibblee and Minch 2008) and published and unpublished reports were reviewed to identify geological units on the project area and determine their paleontological sensitivity.

3.2 Paleontological Records Search

A paleontological records search was received from the SDNHM on April 11, 2023. The purpose of the museum records search is to determine whether there are any known fossil localities in or near the project area, identify the sensitivity of geological units present within the project area, and aide in determining whether a paleontological mitigation program is warranted to avoid or minimize potential adverse effects of construction on paleontological resources.

3.3 Field Survey

Dudek paleontological field lead, Jason Collins, conducted an initial independent pedestrian survey of the project area on April 10, 2023, and dual archaeological/paleontological surveys were conducted with field lead Javier Hernandez on April 11 through 14, 2023 and from April 4 to April 5, 2024. The survey was conducted to determine if any surficial paleontological resources were present within the project area and confirm geological mapping. The survey utilized standard paleontological survey procedures and consisted of systematic surface inspection of exposed geological units with high paleontological sensitivity. The ground surface was examined for the presence of exposed surficial fossils. Ground disturbances such as canals, drainages, road cuts, and animal burrows were also visually inspected for exposed fossils and sediments.

All fieldwork was documented using field notes and iPad technology with close-scale field maps and aerial photographs. Location-specific photographs were taken using an Apple iPad equipped with eight (8) mega-pixel (MP) 1080p resolution and georeferenced PDF maps of the project area. Accuracy of this device ranged between 3 and 10 meters. All field notes, photographs, and records related to the current study are on file at Dudek's Encinitas, California office.

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4 Results

4.1 Geological Map and Literature Review

The project area lies within the Colorado Desert Geomorphic Province (CGS 2002). This Province is bound by a southern extension of the Mojave Desert Geomorphic Province on the east, the Peninsular Ranges Geomorphic Province on the west, the eastern Transverse Ranges and Mojave Desert Geomorphic Provinces to the north, and the United States – Mexico border on the south (CGS 2002).

According to the published geological mapping at a scale of 1:62,500 by Dibblee and Minch (2008) and the SDNHM records search (Confidential Appendix A), the project area is underlain by Quaternary alluvium and Lake Cahuilla deposits (map unit Qa-Qc). Repeated inundation and desiccation sequences are recorded in lacustrine and fluvial sediments associated with Lake Cahuilla within the Salton Trough. These freshwater inundation and desiccation events bring with them assemblages of fossils and subfossils, including freshwater invertebrates and freshwater and terrestrial vertebrates, that provide a snapshot of the biota living in a given location at a time in the distant past.

The Holocene to late Pleistocene (Li et al. 2007) Lake Cahuilla sediments have an extensive record of preserving freshwater invertebrate and freshwater and terrestrial vertebrate taxa (Roeder and Calvano 2014). According to stratigraphic sections of boring walls examined by CRM TECH for the nearby Imperial Solar Energy Center West (ISECW) project, sediments derived from Lake Cahuilla vary in thickness from approximately 5 to 15 feet and indicate shallow water deposition (Quinn and Kerridge 2015). Quinn and Dahdul (2014) reported *Anodonta* sp., *Helisoma newberryi*, *Physa humerosa,* and *Tryonia protea* from geotechnical work on the ISECW project; Quinn and Kerridge (2015) reported *Planorbella tenuis*, *Physa humerosa*, *Physa* like *P. wattsi*, *Physa* sp., *Tryonia protea*, *Tryonia* sp., *Fluminicola* sp., and *Anodonta* sp. from boring in the southern part of the ISEC West Project; and Siren (2017) reported *Pyrgulopsis longinqua, P. californiensis, Tryonia porrecta* (*T. protea*)*, Physa* sp., *Helisoma* sp., *Ferrissia* sp., *Anodonta californiensis,* and *Chionactus* cf. *Chionactus occipitalis* salvaged during paleontological monitoring for the ISECW project. Finally, Stewart (2008) reported *Tryonia protea, Flumnicola* sp., *Physella* cf. *P. humerosa, Valvata* sp.*, Anodonta californiensis,* unidentified ostracods, cyprinid and centrarchid fish, a rodent tibia, and large mammal rib fragment from Lake Cahuilla sediments sampled from a gas turbine plant project in Niland, California.

4.2 Paleontological Records Search

The records search results letter from the SDNHM was received on April 11, 2023. A total of 14 recorded fossil localities were found within a 1-mile radius buffer of the project area (Confidential Appendix A). The localities were discovered as a part of the Sunrise Powerlink, Imperial Valley Substation, and Campo Verde Solar Facility projects, and include fossil specimens from Lake Cahuilla deposits and the Brawley Formation (Confidential Appendix A). Given the record of the Lake Cahuilla deposits and Brawley Formation to produce scientifically significant fossils and resultant high paleontological resource potential of the mapped geological units, the SDNHM recommended the implementation of a full paleontological mitigation program.

4.3 Field Survey

The approximately 1,849-acre project area in Imperial County consists of existing agricultural fields with ground visibility ranging from 0% to 100% depending on whether the field was recently plowed and what type of produce was being grown (Figures 2 and 3). Areas where there was less than 5% of the ground surface visible or where the area was flooded for crop irrigation were not surveyed (Figure 4). No in situ fossils were observed during the paleontological survey; however, shell material within artificial fill deposits derived from ancient Lake Cahuilla was noted within man-made berms and along improvements for the farming canals (Figure 5).

5 Summary and Management Recommendations

The project area is underlain by ancient Lake Cahuilla sediments that have high paleontological sensitivity when not disturbed by agricultural activities (Confidential Appendix A; Dibblee and Minch 2008). Surficial sediments that have been disturbed by agricultural activities or other human-made disturbances have low paleontological resource sensitivity and do not require paleontological monitoring. However, deeper excavations, below the disturbance level, that encounter undisturbed Lake Cahuilla sediments would be considered a potentially significant impact. Therefore, a paleontological monitoring program is recommended during grading within previously undisturbed sedimentary deposits within the project area. Dudek recommends implementation the following measure to minimize impacts to subsurface paleontological resources. With implementation of the following measure, impacts of the project are considered less than significant.

Prior to commencement of any grading activity in areas of high paleontological sensitivity, the applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The qualified paleontologist or their representative shall attend the preconstruction meeting and a qualified paleontological monitor shall be present during excavation activities associated with project construction. The depth of excavation that requires paleontological monitoring shall be determined by the paleontological monitor and the construction contractor based on initial observations during construction earth moving. The paleontological monitor will be equipped to salvage fossils as they are unearthed (to help avoid construction delays). Monitors are empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Recovered specimens shall be prepared to a point of identification and permanent preservation. Fossil specimens shall be curated by accessioning them into an established, accredited museum repository with permanent retrievable paleontological storage. Costs for laboratory and museum curation fees are the responsibility of the project applicant/proponent. A report of findings with an appended itemized inventory of specimens will be prepared. The report and inventory, when submitted to the Imperial County Department of Planning and Development Services, along with confirmation of the curation of recovered specimens into an established, accredited museum repository, will signify completion of the program to mitigate impacts on paleontological resources.

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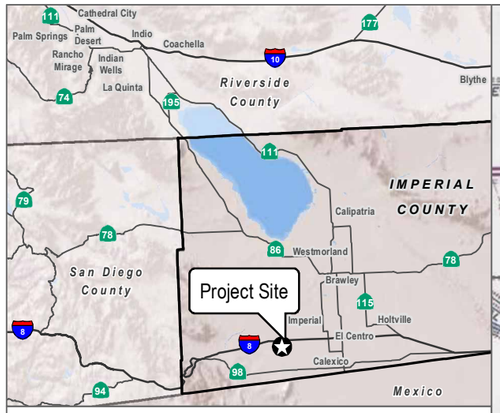
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- Project Boundary
- Project BESS
- Project Substation
- Switchyard
- Gen-Tie Line
- Alternative Gen-Tie Line

Township 16S Range 12E Section 13
Township 16S Range 12E Section 14
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Township 16S Range 12E Section 35
Township 16S Range 12E Section 36

SOURCE: USGS 7.5-Minute Series Seeley, Plaster City, Mount Signal, Yuha Basin Quadrangles

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

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Figure 2. Overgrown cropland with low visibility. View to the northeast.



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Figure 3. Plowed field. View to the east.



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Figure 4. Recently flooded field. View to the north.



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Figure 5. Lake Cahuilla shells observed in exposed earthen berm. View to the west.



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Appendix A

SDNHM Records Search Results (Confidential)