Appendix E

Cultural Resources Impact Analysis Report

Cultural Resources Impact Analysis Report

Imperial County Lithium Valley Specific Plan

Imperial County, California

DECEMBER 2025

Lead Agency:

IMPERIAL COUNTY
801 Main Street
El Centro, California 92243

Project Proponent:

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National Archaeological Database (NADB) Information

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB 52	California Assembly Bill 52
APN	Assessor's Parcel Number
B.P.	before present
BERD	Built Environment Resource Directory
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
IID	Imperial Irrigation District
MLD	Most Likely Descendant
MM	mitigation measure
NAHC	Native American Heritage Commission
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
SCIC	South Coastal Information Center
SHPO	State Historic Preservation Officer
Specific Plan	Imperial County Lithium Valley Specific Plan
SPRR	Southern Pacific Railroad
TCP	Traditional Cultural Property
TCR	Tribal Cultural Resource
U.S. 80	U.S. Route 80

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1 Introduction

Dudek conducted an archival review of cultural resources (archaeology and built environment) within the proposed Imperial County Lithium Valley Specific Plan (Specific Plan) Area. This Cultural Resources Impact Analysis Study will support the development of the Specific Plan and associated environmental document. This study was completed under the provisions of local regulations as well as the California Environmental Quality Act (CEQA).

Imperial County is developing the Specific Plan to support the existing, and expansion of, renewable energy (i.e., geothermal and solar) development, lithium extraction, and associated infrastructure and industrial uses. Federal and state renewable energy and greenhouse gas reduction goals are driving the need to find additional utility-scale renewable energy sources as well as the raw materials for battery-powered vehicles. Imperial County is poised to deliver these resources provided sufficient facilities and infrastructure is developed. The Specific Plan is proposing future development through changes to the existing land use and zoning regulations within designated Land Use Areas. The Specific Plan and associated environmental documents are being developed to frame and guide this development.

The 51,786-acre planning area for the Specific Plan is in the northern portion of the Imperial Valley along the southeastern portion of the Salton Sea (Figure 1, Project Site). The irregularly shaped Specific Plan Area spans from northwest of Niland, California, in the north to Calipatria, California, in the south. To the west, the Specific Plan Area is bounded by the shoreline and open water portions of the Salton Sea. The Specific Plan Area is in a portion of the following USGS quadrangles: Iris Wash, Niland, Obsidian Butte, Westmorland West, Westmorland East, and Wister.

This document summarizes Dudek's review of the Specific Plan Area's natural and cultural setting. This review includes the examination of existing maps, records, and reports on file at the South Coastal Information Center at San Diego State University. The purpose of the records search is to identify any previously recorded resources that may be located in or adjacent to the Specific Plan Area. Dudek also requested a search of the Sacred Lands File by the Native American Heritage Commission and sent outreach letters to the Native American representatives associated with the Specific Plan Area. These endeavors were conducted to determine the existing condition of cultural resources within the Specific Plan Area to minimize impacts to cultural resources and guide the development of the Specific Plan. Dudek also reviewed geologic data, historical aerial photographs, and high-resolution modern drone imagery of the entire Specific Plan Area and conducted field visits of different proposed Land Use Areas to determine the level of previous ground disturbance within the Specific Plan Area.

This study analyzes the Specific Plan's potential to impact archaeological, built environment, and Tribal Cultural Resources (TCRs), collectively referred to in this study as cultural resources. Based on the previous studies records, aerial imagery, and field visits, this document analysis varying cultural resources sensitivity throughout the Specific Plan Area to determine the potential for cultural resources impacts in each proposed Land Use Area to determine the level of further cultural review necessary before implementing future projects under the Specific Plan.

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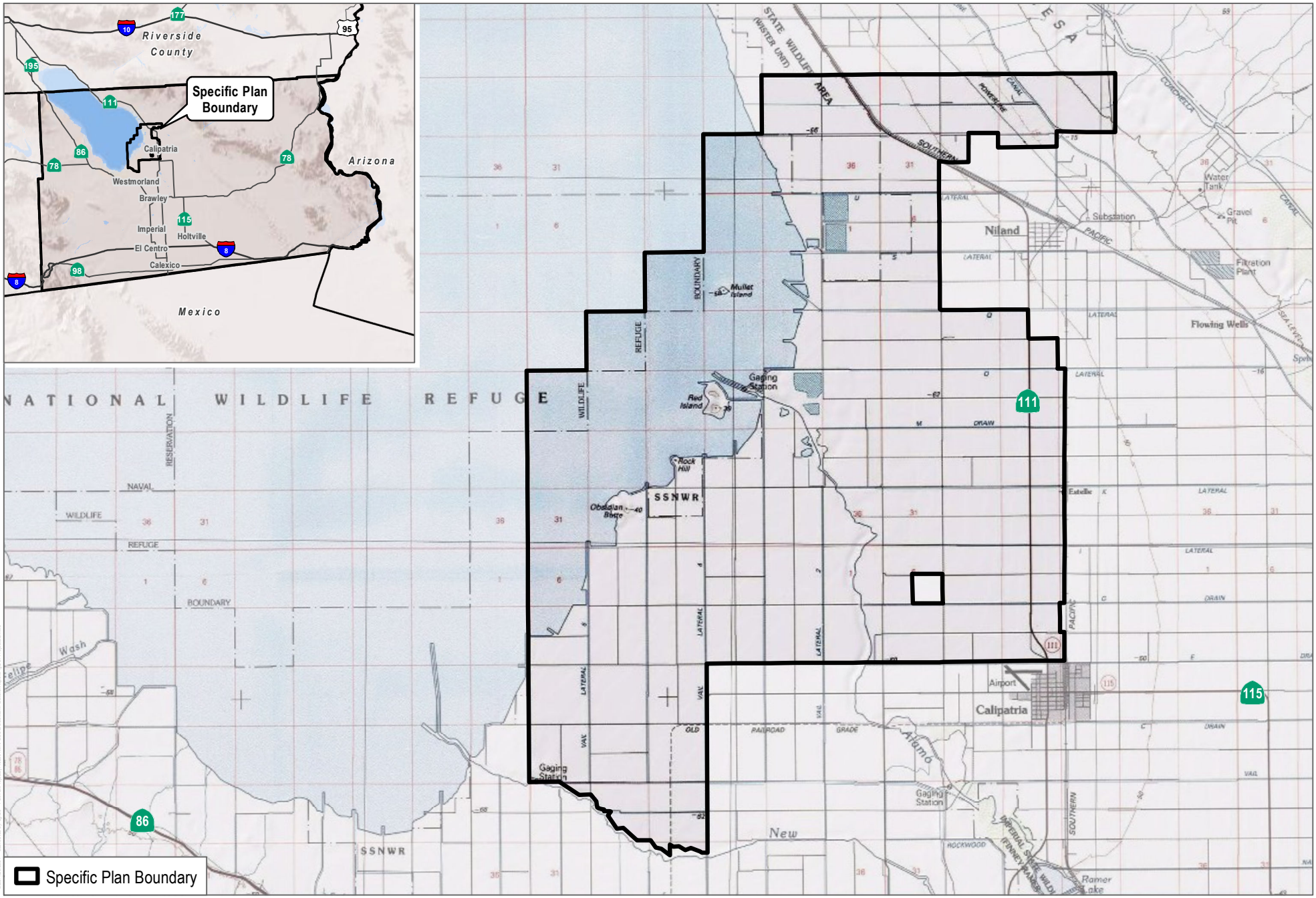

SOURCE: USGS 7.5-Minute Wister, Iris Wash, Obsidian Butte, Niland, Westmorland West, Westmorland Ease Quadrangles

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0 1 2 Miles
0 2,000 4,000 Meters

FIGURE 1

Project Site

Lithium Valley Specific Plan

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2 Regulatory Context

The Specific Plan 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 Specific Plan.

2.1 State Level Regulations

2.1.1 California Register of Historical 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 [PRC] Section 5020.1(j)). In 1992, the California legislature established the California Register of Historical Resources (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 PRC Section 5024.1(a)). The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP). As such, a resource is considered historically significant if it meets at least one of the following criteria outlined under California PRC Section 5024.1(c):

- 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, 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

In addition to meeting one of the significance criteria described in California PRC Section 5024.1(c), a resource must also possess sufficient integrity to qualify for listing in the CRHR. Integrity as defined in 14 California Code of Regulations (CCR) Section 4852(c) as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" as evaluated with regard to the resource's retention of location, design, setting, materials, workmanship, feeling, and association. Historical resources that lack sufficient integrity to meet the criteria for listing in the NRHP may still be eligible for listing in the CRHR if they have the potential to yield significant scientific, historical information, specific data. The CRHR has three special considerations for resources described under 14 CCR, Section 4852(d)(2).

The CRHR includes not only listed prehistoric and historic cultural resources but also California Historical Landmarks (numbered 770 and above), California Points of Historical Interest designated by the State Historical Resources Commission, and resources that are identified through local historical resource surveys or designated under local ordinances provided the survey and ordinance meet the criteria in 14 CCR Section 4852(e) and (f).

2.1.2 California Environmental Quality Act

CEQA requires that the lead agency consider the impacts of a project on historical resources. PRC Section 21084.1 defines historical resources as those listed, or eligible for listing, in the CRHR, or those officially designated or recognized as historically significant by a local government pursuant to a local county or city ordinance or jurisdiction, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. Historical resources also include "historic properties" in California that are listed, or determined eligible for listing, in the NRHP and CRHR. The CEQA Guidelines provide specific guidance for determining the significance of impacts on historical resources. As described in in Section 15064.5(b) of the CEQA Guidelines, a "project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment."

A substantial adverse change in the significance of an historical resource" 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" (Section 15064.5[b][1]. The significance of a historical resource is materially impaired when a project:

- 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 CRHR (Section 15064.5[b][2][A]); or
- 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 PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, 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; (Section 15064.5[b][2][B]); or
- 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 CRHR as determined by a lead agency for purposes of CEQA (Section 15064.5[b][2][B]).

The CEQA Guidelines also provide guidance on minimizing or avoiding significant adverse impacts on historical resources as outlined in the following provisions of Section 15064.5(b)(3)-(5).

- Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource (Section 15064.5[b][3]).
- A lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource. The lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures (Section 15064.5[b][4]).
- When a project will affect state-owned historical resources, as described in Public Resources Code Section 5024, and the lead agency is a state agency, the lead agency shall consult with the State Historic Preservation Officer (SHPO) as provided in California PRC Section 5024.5. Consultation

should be coordinated in a timely fashion with the preparation of the environmental documents (Section 15064.5[b][5]).

The following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological and historic resources:

- California PRC Section 21083.2(g): Defines "unique archaeological resource."
- California PRC 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.
- California PRC 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.
- California PRC 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).

2.1.3 California Health and Safety Code Section 7050.5

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 (Section 7050.5b). If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours (Section 7050.5c). The NAHC will notify the Most Likely Descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 24 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains, and items associated with Native Americans.

2.1.4 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" (TCRs). Section 21074(a) of the PRC 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.

2.1.5 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 (TCPs) in discussions of cultural resource management 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
5. A location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity

A TCP, then, can be defined generally as one that is eligible for inclusion in the NRHP because of its association with cultural practices or beliefs of a living community that (1) are rooted in that community's history, and (2) are important in maintaining the continuing cultural identity of the community.

2.2 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 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.

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3 Setting

3.1 Natural Setting

The Specific Plan Area is located in the southern portion of the Colorado Desert. The topography of the project area is generally flat but includes volcanic domes and geothermal activity along the shore of the Salton Sea. Agriculture dominates the flat land extending east within the Salton Sea basin. Current land use of the Specific Plan Area includes geothermal facilities, some residential housing, and predominantly agriculture including cropland, dryland grain crops, irrigated grain and hayfields, row crops, orchard(s), and pastureland.

3.2 Cultural Setting

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 two subsurface dates on shell that were greater than 37,000 years before present (B.P.) through radiocarbon dating. 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 7500 B.P. (Justice 2002). 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). 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 1999). Materials at Daisy Cave on San Miguel Island were also radiocarbon dated from approximately 11,600 to 11,000 B.P. (Erlandson and Braje 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 7000 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).

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 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 8000 B.P. and continue to about 4000 B.P. (Justice 2002:135). Gypsum series points begin to appear in desert sites at approximately 4000 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 as well as 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 5000 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 2000 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 were 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 most numerous 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 (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. 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).

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). 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 County Route S2 meets State Route 78). To the east of the project area is 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. 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 Native people who lived in the Mount Laguna area wintered in the desert around Vallecitos, Agua Caliente, and Mason Valley (Gifford 1931: 17; Kroeber 1925: 720).

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 Interstate 8 intersects the river today (Gifford 1931; Forbes 1965; Kroeber 1925; Shipek 1982).

3.2.6 Historic Period: Hispanic Period (1540 to 1850)

The first Spanish exploration of what is now Imperial County occurred in 1540 when Hernando de Alarcón ascended the Colorado River likely 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, a Native person 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 a Native 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 to Mission San Gabriel de Arcangel, founded in 1771 in what is now 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 eighteenth and early nineteenth centuries. This route, followed today by County Road S-2, 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. 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).

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 several reforms were passed, including the secularization of the mission system in 1834. Large tracts of land previously owned by the Catholic Church were granted to individuals and families and the Alta California rancho system flourished. Cattle ranching dominated the economy. The hide and tallow trade with 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 Texas 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 U.S. 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 Kearney'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 United States. 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 California before 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 Euro-Americans quickly drowned out much of the old Californio culture of the Spanish-speaking people born before 1848 (Starr 2007).

Tens of thousands of gold-seekers 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 Natives, particularly in the Mother Lode area. In southern California, the rancho system prospered for several years by supplying beef to the tens of thousands of "49ers" who flooded into California. These little-known California cattle drives preceded the better-known Texas drives by about 15 years (Starr 2007).

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. 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 County Route S2. It branched off 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 (Lake 1957).

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. 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 (Lake 1957).

During the American Period, the homestead system rapidly increased American settlement beyond the coastal plain, which subsequently accelerated the decline of the California Indians (Starr 2007). 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).

3.2.7 Historic Period

The exploration of California's remote regions increased after entering the Union as a state in 1850. In 1853, during a survey for a Southern Pacific Railroad (SPRR) route, geologist Dr. W. P. Blake and U.S. Topographical Engineer R. S. Williamson located a region in the Imperial Valley that, although lacking an efficient, sustainable water source, had fertile soil capable of sustaining agriculture. Blake and Williamson developed a plan to route water via a gravity canal from the Colorado River (elevation of 1,000-plus feet above sea level, 45 miles east of the Specific Plan Area) into the valley, which is approximately 200 feet below sea level. Although planning for the canal began in 1853, construction did not occur until 1896 when U.S. Civil Engineer Charles Rockwood and Chief Engineer George Chaffey organized the SPRR subsidiary, the California Development Company. Construction on the canal began in May 1901 and, in 1904, the Imperial Canal began to import water to the valley. Immigrants,

primarily orchardists and salt miners, established several small settlements in the area as water and transportation networks continued to expand (Salton Sea Authority 2017; Schaefer and Laylander 2007).

In the summer of 1905, the Colorado River breached the headgate of the Imperial Canal and freshwater flooded the Salton Sink via the Alamo and New Rivers (within the Specific Plan Area). The flood destroyed more than 12,000 acres of cultivated land, productive salt fields, the SPRR railway, and the heart of the settlements' commercial and residential districts. Engineers attempted, and failed, to quell the flood for 18 months as the Colorado River threatened to refill the extinct Lake Cahuilla. In 1907, with aid from the federal government, SPRR employed construction crews to dump refuse into the canal's headworks faster than the river could sweep the material away. The experiment successfully clogged the breach and SPRR vowed to rebuild transportation infrastructure through the area and support the valley's residents, who had rebuilt along the south and east shores of the newly formed Salton Sea (Salton Sea Authority 2017; Schaefer and Laylander 2007).

Wary of the SPRR-owned California Development Company's handling of the canal during the disaster, valley residents petitioned the Imperial County Board of Supervisors for a County-managed irrigation district. The Imperial Irrigation District (IID) was established in 1911 and, over 10 years, improved, repaired, and expanded the canal system. The parcels included within the Specific Plan Area, which are predominantly agricultural fields, were most likely developed in 1914 by the Imperial Valley Farmlands Association, a land development firm responsible for the establishment of Niland and Calipatria. By the early 1920s, IID delivered water to nearly 550,000 acres of farmland in the area, and in 1926, U.S. Route 80 (U.S. 80) was constructed alongside the SPRR line to facilitate the conveyance of agricultural products to and from the Imperial Valley (Dowd 1954; Metz 2023; AA Roads 2013; Schaefer and Laylander 2007).

As the valley's agricultural industry healed and infrastructure was expanded, SPRR sold the original right-of-way for the railway (now entombed under water) to entrepreneurs who envisioned the Salton Sea as a recreation area. San Francisco Bay-area developers constructed beaches and resort areas on the Salton Sea's north shore, which was conveniently accessed via U.S. 80. In 1930, the Salton Sea Migratory Bird Refuge (now the Sonny Bono National Wildlife Refuge) was established to provide a protected resting point for migratory birds. The wildlife refuge was an inviting spectacle for tourists (Salton Sea Authority 2017; Schaefer and Laylander 2007).

As tourism continued to increase, the IID worked diligently to regulate the Salton Sea's saline levels and cultivate a stable ecological habit for fish, birds, and game. The water that flooded the basin in 1905 was freshwater from the Colorado River but, as the pool stagnated, the water's saline levels rose. Frequent flooding, which arrived in the Salton Sink via the Alamo and New Rivers, refreshed the basin's water quality intermittently until 1935 and the completion of the Boulder (now Hoover) Dam. Although the dam protected farmland from inundation, the sea's water quality devolved. Additionally, the only influx of water to the Salton Sea after the Colorado River was dammed and was composed of agricultural runoff that contaminated water with silt and harmful chemicals. Shortly after the Salton Sea was named a State Park in 1955, tourism to the area declined steeply. In the 1980s, some agricultural parcels in the region, including in the Specific Plan Area, were redeveloped with large industrial mineral processing complexes. In the 1990s, the region's fauna began to die in mass casualty events. The wildlife casualties prompted Congressman Sonny Bono to champion the Salton Sea's rehabilitation in 1997 (Salton Sea Authority 2017).

After Congressman Bono's death in 1998, Mary Bono, his wife, filled his congressional seat and successfully fought for governmental action to restore the Salton Sea. Efforts and studies began in earnest in 2000 and, over the last two decades, numerous programs have been enacted to try and desalinate the sea. In 2008, within the

Specific Plan Area, the IID developed Managed Marsh Complexes across 1,000 acres intended to benefit 100 species. The program appears to have been expanded in 2014, reevaluated in 2017, and approved for continuation into the 2020s. IID, the largest irrigation district in the nation, continues to provide water to nine communities in the Imperial Valley. Ninety-eight percent of the water IID transports is used for agriculture and the remaining 2% is treated potable and delivered to the nine Imperial Valley cities (Desert Review 2017; Schaefer and Laylander 2007).

3.2.8 Development of the Specific Plan Area

Within the Specific Plan Area, the land is predominantly used for agriculture. The railroad through the Imperial Valley was completed in 1884, with the establishment of the Salton Station. The town of Salton developed around the railroad depot and its residents included salt miners and immigrants. When the Colorado River flooded the area between 1905 and 1907, the town and surrounding crop land were destroyed. Water conveyance structures were developed as early 1901 by the California Development Company, and in 1911, the IID formed and acquired the properties of the then-bankrupt California Development Company. The land within the Specific Plan Area remained undeveloped until circa 1914, when it appears to have been cultivated as farmland. Hundreds of miles of roads within the Imperial Valley were developed by 1914 as well (LAH 1884: 5; Signor n.d.: 2; Thurston and Rock 1914).

Growth within the area remained slow throughout the twentieth century and remains the same today. Residential complexes developed by the early 1950s along with agricultural outbuildings and livestock shelters. By 1950, the population of Imperial County numbered 62,580. As of 2023, the population of the County was 179,057 and within Imperial County, the agricultural industry produces over $2.6 billion worth of crops and livestock. Top commodities include cattle, alfalfa, lettuce, Bermuda grass, and broccoli (Imperial County 2022: 4; U.S. Census Bureau 2024; Census.gov 2024).

4 Methods to Identify Cultural Resources

The following methods were used by Dudek's cultural resources professionals to identify known and potential cultural resources within the Specific Plan.

4.1 South Coastal Information Center Records Search

Staff at the South Coastal Information Center (SCIC) at San Diego State University conducted a records search for the Specific Plan Area and delivered those results to Dudek on November 2, 2022, and January 4, 2023. The search encompassed the Specific Plan Area and a 1-mile search buffer. The purpose of the records search is to identify any previously recorded resources located in, or adjacent to, the Specific Plan Area and to identify previous studies in the Specific Plan vicinity. In addition to a review of previously prepared site records and reports, the records search also reviewed historical maps of the Specific Plan Area, ethnographies, the NRHP, the CRHR, the California Historic Property Data File, and the California State Historical Landmarks, California Points of Historical Interest, and Archaeological Determinations of Eligibility lists.

4.2 Additional Research on Built Environment Cultural Resources

Dudek cultural resources staff conducted additional desktop research using online sources and tools to identify other previously identified and potential cultural resources not identified in the records search. The purpose of this additional research is to identify properties that contain buildings and structures that may require further study including recordation and evaluation should the Specific Plan result in potential impacts to historical resources. The desktop research was also used date buildings and structures on parcels within the Specific Plan Area.

4.2.1 Built Environment Resources Directory

The California Office of Historic Preservation (OHP) maintains the Built Environment Resource Directory (BERD), an inventory of built environment cultural resources that are processed through OHP's office. A November 22, 2024, search of the BERD for Imperial County did not reveal any historical resources in the Specific Plan Area (OHP 2022).

4.2.2 California Department of Transportation Bridge Survey

The California Department of Transportation (Caltrans) maintains and a statewide historic bridge inventory. The first bridge survey inventoried and evaluated state-owned and local agency bridges constructed in or before 1936. The statewide bridge inventory has been updated several times to cover bridges as they reach 50 years of age. The most recent update, dating to December 2023, inventoried and evaluated bridges constructed between 1975 and 1984 for their historical significance under the NRHP and CRHR criteria (JRP 2023: 1–2).

4.2.3 Historic Aerials

The earliest historic aerials available online are from 1953 and 1959. There is a 39-year gap in online aerial photographs for the Specific Plan Area, with the next aerial dating to 1984 (NETR 2024a).

4.2.4 Historic Topographic Maps

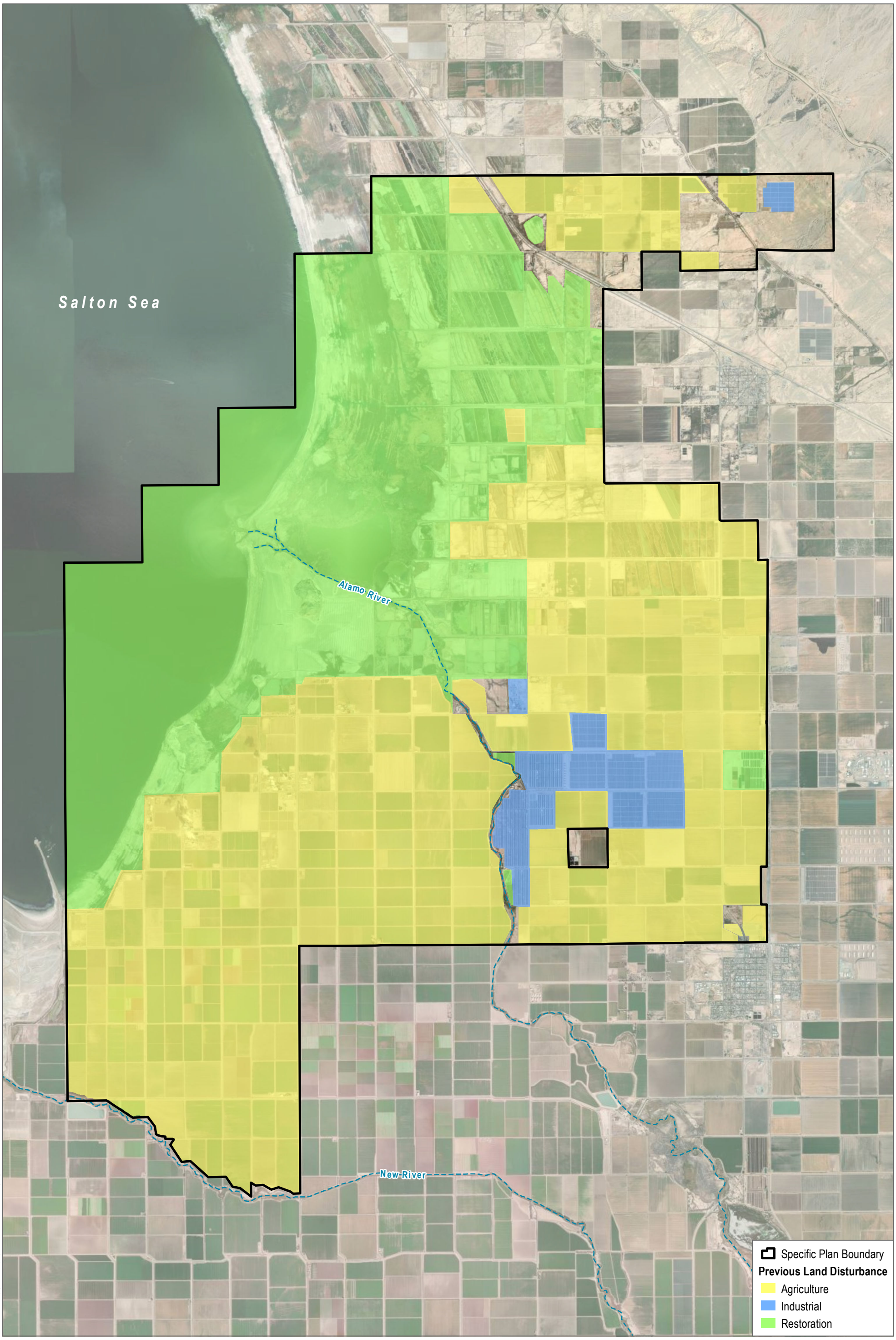
The earliest topographic map that covers the Specific Plan Area dates to 1944 (USGS 2024). Subsequent updated maps cover the years 1952, 1955 through 1959, 1963, 1965, 1968, 1976, and 1983 (NETR 2024b).

4.2.5 Parcel Quest

Parcel Quest's online assessor parcel data were consulted. However, this resource did not provide property characteristics because that information is not captured by Imperial County, the source of Parcel Quest's data, which is updated daily (Parcel Quest 2024).

4.3 Current Land Use Analysis

Dudek reviewed historical imagery, as compared to aerial information on Google Earth, and that provided through drone imagery. The intent was to classify the relative level of disturbance throughout the Specific Plan Area introduced by previous and existing uses and, through that process, come to some understanding where buried archaeological resources, if present, have potential to persist. Dudek first identified areas that have been greatly disturbed by previous major projects, such as Salton Sea or other restoration environments that required major excavations and grading, or intensive industrial projects like thermal and solar projects, and other substantial activities (Figure 2. Previous Land Use Disturbance). Agricultural activities were also considered to have represented potential substantial disturbance. Soil tilling can extend down to four feet of depth. Practiced throughout the Specific Plan area, agricultural tile drainage systems include the installation of a lattice of pipes throughout an agricultural field to prevent oversaturation of water and salts/minerals. Installation of these systems includes excavation of a series of trenches at intervals as little as 15 feet. The depth of the tiles varies depending on that groundwater table depth, ranging from several feet to depths as great as 16 feet. The subsurface return tiles are regularly maintained and replaced as necessary to ensure ideal soil hydration and prevent mineral buildup that would affect crop success. Decades of soil tilling and the installation of tile drainage systems would have greatly disturbed any cultural deposits that may have existed within agricultural lands within the Specific Plan area. These agricultural lands were classified as very low archaeological buried resource sensitivity when corroborated by a previous archaeological technical survey findings. Dudek also compared these areas to the Ancient Lake Cahuilla high stand and geology in order to gain an understanding of potential soil conditions with potential to support the presence of archaeological deposits (Figure 3, Soil Units and Drainages). Soil mapping reflects the area's relationship to the Ancient Lake Cahuilla. Nearly all areas have been subject to reoccurring inundations by this natural feature; at least seven high stands have occurred in the last 1,400 years, the most recent of which was less than 300 years ago (Rockwell et al. 2022). This natural disturbance, coupled with the above-discussed disturbance introduced by agricultural activities in the richer lake-bottom soils, and as substantiated by the distribution of known archaeological habitation sites only being above the Ancient Lake Cahuilla high stand (Figure 4, Confidential Soil Units and Drainages, in Confidential Appendix B), indicates that the majority of the Specific Plan Area has a low potential for buried archaeological deposits.



SOURCE: Imperial County; SCIC; Open Street Map; ESRI World Imagery

DUDEK

0 0.5 1 Miles

FIGURE 2

Previous Land Use Disturbances

Lithium Valley Specific Plan

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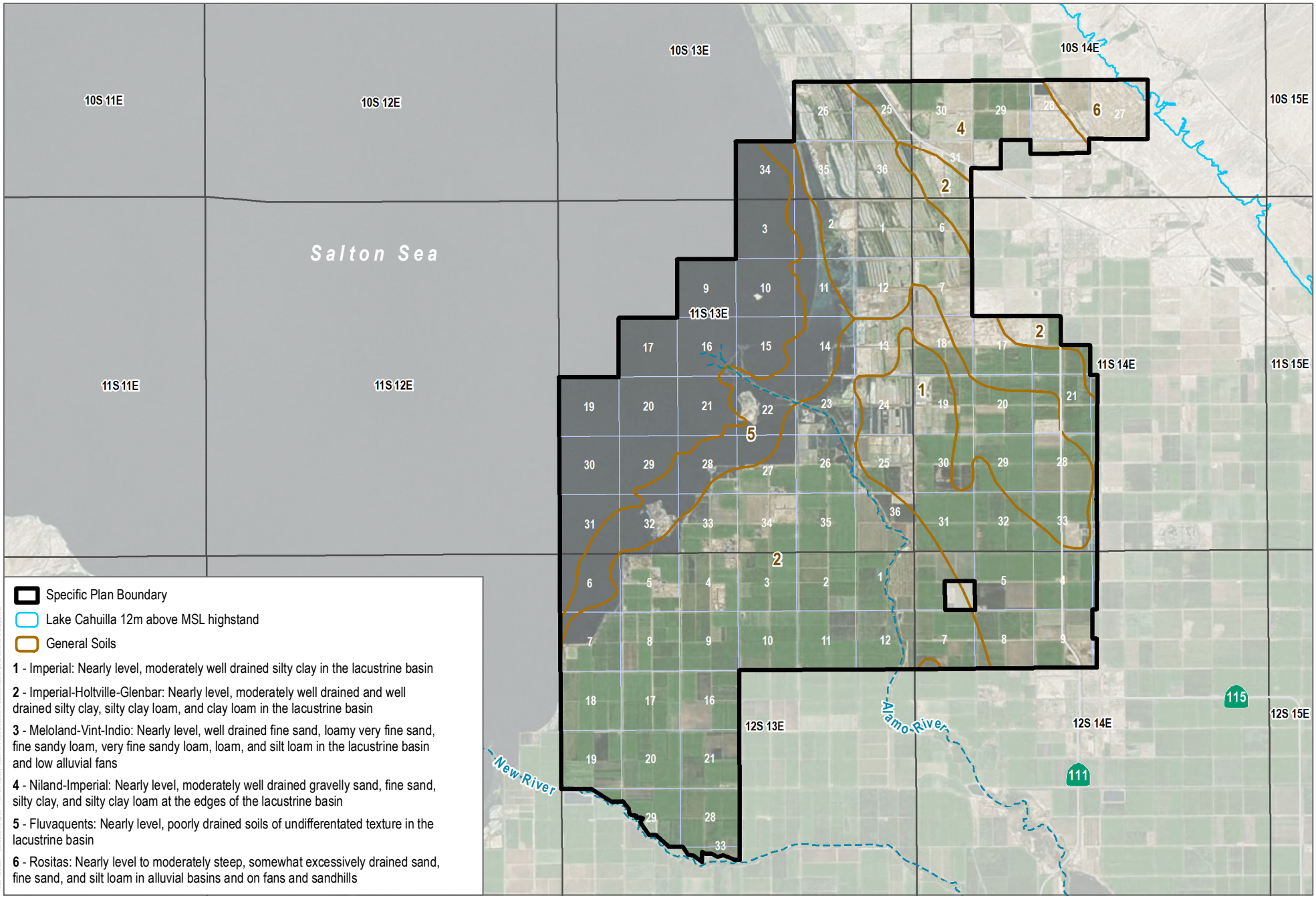

SOURCE: Imperial County Planning & Development Services (1993a); USDA; County of Imperial; Bing Maps

DUDEK

0 1 2 Miles
0 2,000 4,000 Meters

FIGURE 3

Soil Units and Drainages

Lithium Valley Specific Plan

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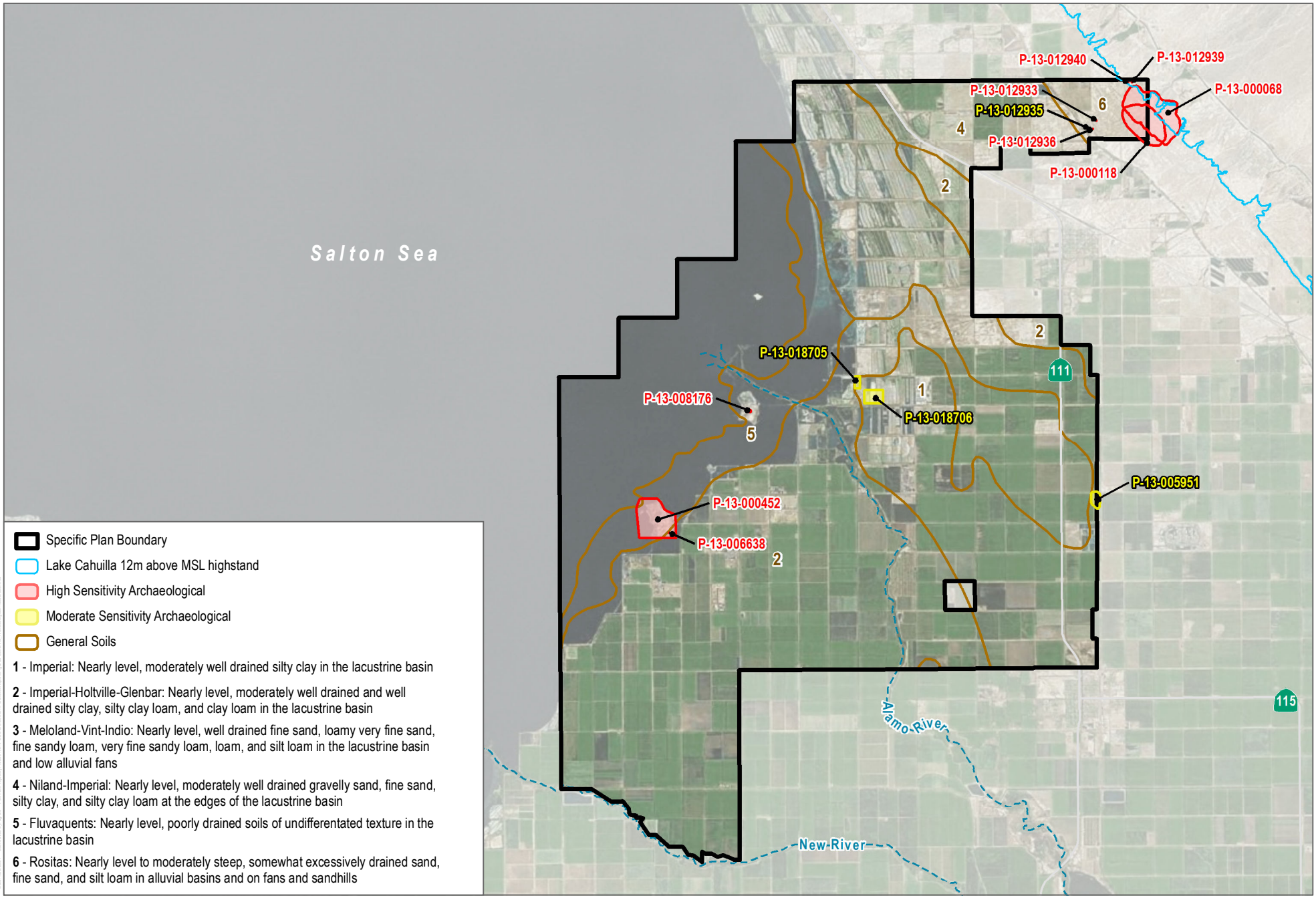

SOURCE: Imperial County Planning & Development Services (1993a); USDA; SCIC; County of Imperial; Bing Maps

DUDEK

0 1 2 Miles
0 2,000 4,000 Meters

FIGURE 4

Confidential Soil Units and Drainages

Lithium Valley Specific Plan

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5 Results

Confidential Appendix A provides the records search results maps and a complete bibliography of all prior cultural resource studies occurring within 1 mile of the project area. Figure 5, Built Environment Properties Identified in the Specific Plan Area, provides a visual overview of identified built environment properties discussed in this chapter.

5.1 South Coastal Information Center Records Search

5.1.1 Previously Conducted Cultural Resources Studies

The records search results indicate 99 previous cultural resources studies have been previously conducted within 1 mile of the Specific Plan Area. Sixty-five of these studies intersect the Specific Plan Area (Table 1). These 65 studies were conducted between 1974 and 2021. These 65 studies cover approximately 94% of the Specific Plan Area. Previous studies that do not intersect the Specific Plan Area are included as part of Confidential Appendix A.

Table 1. Previous Cultural Resources Studies Within the Specific Plan Area

SCIC Report ID	Year	Author	Report Title
IM-00089	1977	Von Werlhof, Jay, and Sherilee Von Werlhof	Archaeological Examinations of Ten Proposed Geothermal Drill Test Sites Near Salton Sea
IM-00104	1977	Von Werlhof, Jay, and Sherilee Von Werlhof	Archaeological Examinations of A Waste-Water Treatment System for The City of Calipatria
IM-00109	1977	Von Werlhof, Jay, Sherilee Von Werlhof, and Morlin Childers	Archaeological Examinations of The Obsidian Butte Quarry Site, Imperial County
IM-00136	1978	Von Werlhof, Jay, and Sherilee Von Werlhof	Archaeological Examinations of Two Geothermal Test Hole Sites, Westmorland, Imperial County
IM-00140	1978	Von Werlhof, Jay, and Sherilee Von Werlhof	Archaeological Examinations of Ten Geothermal Test Sites Near Salton Sea
IM-00160	1978	Von Werlhof, Jay	Archaeological Examinations of Republic Geothermal Sweetwater Drill Sites
IM-00163	1978	Imperial County Planning Department	Final Environmental Impact Report for Geothermal Exploratory Operations in The Salton Sea Prospect
IM-00183	1979	Imperial County Planning Department	Environmental Impact Report #211-78 For Forty Nine Megawatt Geothermal Power Plant and Facilities Niland Area
IM-00187	1979	Eckhardt, William T.	Cultural Resource Inventory of Areas Affected By Reject Stream Replacement Projects
IM-00189	1979	Eckhardt, William	Cultural Resource Inventory of Areas Affected By Reject Stream Replacement Projects
IM-00225	1980	Westec Services, Inc.	Appendix A - History of Local Development
IM-00230	1981	Westec Services, Inc.	Salton Sea Anomaly Cultural Resource Review Data-Support Package
IM-00234	1981	Westec Services, Inc.	Salton Sea Anomaly - Master Environmental Impact Report

Table 1. Previous Cultural Resources Studies Within the Specific Plan Area

SCIC Report ID	Year	Author	Report Title
IM-00236	1981	Westec Services, Inc.	Volume I - Salton Sea Anomaly Master Environmental Impact Report and Magma Power Plant #3 (49 Mw) Environmental Impact Report Appendices
IM-00237	1981	Westec Services, Inc.	Volume I - Salton Sea Anomaly Master Environmental Impact Report and Magma Power Plant #3 (49 Mw) Environmental Impact Report Draft
IM-00254	1981	Westec Services, Inc.	Final Salton Sea Anomaly Master Environmental Impact Report and Magma Power Plant #3 (49 Mw) Environmental Impact Report Comments and Responses
IM-00255	1981	Westec Services, Inc.	Final Salton Sea Anomaly Master Environmental Impact Report and Magma Power Plant #3 (49mw) Environmental Impact Report Volume I
IM-00291	1983	Von Werlhof, Jay	Archaeological Examinations of The Republic Geothermal, Inc., 49 Mw Plant Site Near the Salton Sea
IM-00293	1983	Von Werlhof, Jay	Bear Creek Mining Company
IM-00320	1984	County Of Imperial Planning Department	Draft Environmental Impact Report for The Niland Geothermal Energy Program
IM-00408	1988	Pigniolo, Andrew	Cultural Resource Study of The Imperial County Prison Alternatives Imperial County, California
IM-00509	1994	Rtp Environmental Associates Inc.	Salton Sea Mineral Recovery Pilot Demonstration Project
IM-00512	1994	Rtp Environmental Associates Inc.	Conditional Use Permit and Environmental Information for The Hazard Area Exploration Wells
IM-00513	1994	Ogden Environmental and Energy Services	Biological Technical Report in Support of An Environmental Assessment for The Hazard Area Geothermal Exploration Project
IM-00636	1980	Von Werlhof, Jay	Imperial Valley College Foundation Environmental Studies for Ten Geothermal Exploratory Wells
IM-00637	1974	Weaver, Richard A.	Environmental Impact Evaluation: Archaeology Of the Proposed Sewage Treatment Plant for The City Of Calipatria
IM-00674	1994	Bureau Of Land Management	Southern Arizona Transmission Project Preliminary Draft Environmental Impact Statement, Draft Environmental Impact Report, Draft Plan Amendment, DEIS/DEIR/DPA
IM-00677	1993	Dames & Moore	Southern Arizona Transmission Project Eis/Eir, Cultural Resources Inventory Report, Draft
Im-00975	2004	Perry, Laureen M.	Negative Cultural Resources Survey Calipatria Proposed Pilot Wetlands Brawley Wetlands Project, Imperial County, California
Im-00985	2005	Sowell, Chris	SCG Class II Project: Pipeline Erosion Repair, Niland, Imperial County
IM-01042	1999	Jones & Stokes	Cultural Resources Inventory Report for Williams Communications, Inc. Fiber Optic Cable System Installation Project Riverside, California to The California/Arizona Border, Riverside, San Bernardino, And Imperial County, California

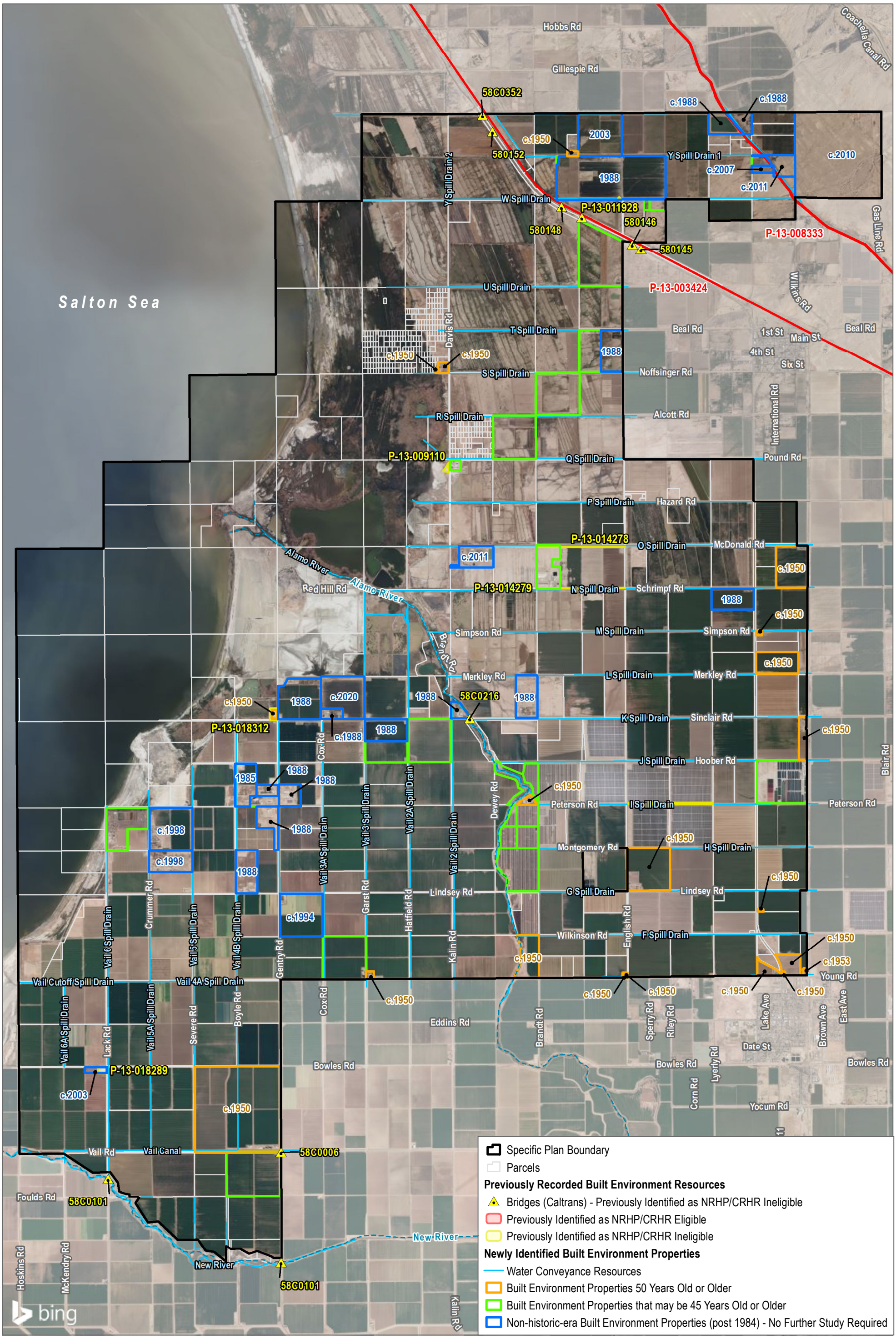
Table 1. Previous Cultural Resources Studies Within the Specific Plan Area

SCIC Report ID	Year	Author	Report Title
IM-01043	2000	Jones & Stokes	Final Cultural Resources Inventory for Williams Communications, Inc. Fiber Optic Cable System Installation Project, Riverside, California to The California/Arizona Border, Riverside, San Bernardino, And Imperial Counties, California
IM-01096	2007	ASM Affiliates	Cultural Resources Survey of The Hudson Ranch I Geothermal Project, Imperial County, California
IM-01158	1996	Archaeological Consulting Services, Ltd.	An Archaeological Assessment of The Niland-Imperial Pipeline Expansion Corridor, Imperial County, California
IM-01181	2000	Tetra Tech, Inc.	Draft Salton Sea Restoration Project Environmental Impact Statement/Environmental Impact Report
IM-01251	2007	Sander, Jay, and Patrick Maxon	Phase I Cultural Resources Reconnaissance for The Union Pacific Railroad, Yuma Subdivision Capacity Project, Riverside and Imperial Counties, California - Revised Draft
IM-01255	2001	Mcgown, Lucille Ronan, Gordon A. Clopine, Doris Hoover Bowers, Jay Von Werlhof, Ruth Deette Simpson, Ronald V. May, and Pat King	The Archaeological Survey Association of Southern California's Lake Le Conte Survey
IM-01306	1980	Wirth Associates, Inc.	APS/SDG&E Interconnection Project Environmental Study Phase II Corridor Studies - Native American Cultural Resources Appendices
IM-01385	2008	Laylander, Don, Sarah Stringer-Bowsher, and Jerry Schaefer	Cultural Resources Review for The Sonny Bono Salton Sea National Wildlife Refuge Complex, Imperial and Riverside Counties, California
IM-01461	2011	Esa Associates	Cluster I Solar Power Project
IM-01470	2010	Schaefer, Jerry, Shelby Gunderman, and Don Laylander	Cultural Resource Study for The Hudson Ranch II Project, Imperial County, California
IM-01484	2010	Imperial County Planning Department	Simbol Calipatria I Plant Project
IM-01493	2012	ESA Community Development	Revised Cluster I Solar Power Project Final Environmental Impact Report/ Response to Comments
IM-01494	2012	Ecology And Environment, Inc.	County Of Imperial Hudson Ranch Power II Cup #G10-0002/ Simbol II Cup #12-0005 Draft Environmental Impact Report
IM-01498	2011	Glenny, Wayne	Draft Archaeological Survey Investigation for The San Diego County Water Authority Fish Pond Imperial County, California
IM-01505	2012	Ecology And Environment, Inc.	County Of Imperial Simbol Calipatria Plant I Cup #12-0004 Draft Environmental Impact Report Volume 1
IM-01510	2011	Bureau Of Land Management	Draft Environmental Impact Statement and California Desert Conservation Area Plan Amendment for The West Chocolate Mountains Renewable Energy Evaluation Area
IM-01520	2013	Imperial Wells Power LLC	Imperial Wells Geothermal Exploration Project, Project Description

Table 1. Previous Cultural Resources Studies Within the Specific Plan Area

SCIC Report ID	Year	Author	Report Title
IM-01525	2012	Cardno Entrix	Salton Sea Species Conservation Habitat Project Cultural Resources Survey Report
IM-01559	2011	Giacinto, Adam	Cultural Resource Study for The Simbol Sm Calipatria Plant I, Imperial County, California
IM-01603	2009	Wahoff, Tanya, and Jow, Stephanie	Archaeological Survey and National Register Evaluation For A Supplemental Magazine Project Camp Billy Machen, Imperial County, California
IM-01640	2016	Stanford, J. Todd, and Lachman, Daniel	Phase I Environmental Site Assessment Hell's Kitchen Power Plant West of Wister Road, Between Noffsinger Road and Pound Road Calipatria, California 90291
IM-01642	2012	None Listed	County Of Imperial - Hudson Ranch Power II Cup #G10-002/Simbol II Cup #12-0005 Final Environmental Impact Report, Volumes I and II
IM-01643	2016	None Listed	Geo-Genco Geothermal Project, Imperial County, California
IM-01654	2016	Morehouse, Jana	Archaeological and Historic Architecture Records Review for The Union Pacific Railroad Yuma Subdivision Positive Train Control Mile Posts 659.95 Through 691.12
IM-01657	2016	Morehouse, Jana	Archaeological and Historic Architecture Records Review for The Union Pacific Railroad Yuma Subdivision Positive Train Control Mile Posts 665.7, 668.06, and 676.1
IM-01675	2016	Minnick, Jim	Initial Study and Environmental Analysis For: Geothermal #16-0002 San Piper Geothermal Exploratory Well
IM-01692	2017	Castells, Shelby Gunderman, Douglas Drake, and Joel Lennen	Cultural Resource Study for The Hell's Kitchen Exploratory Well Project, Imperial County, California
IM-01693	2016	Castells, Shelby Gunderman, and Joel Lennen	Cultural Resource Study for The Sand Piper Geothermal Project, Imperial County, California
IM-01695	2016	Castells, Shelby Gunderman	Cultural Resource Study for The Geo-Genco Geothermal Project, Imperial County, California
IM-01697	2017	BRG Consulting, Inc.	Addendum To Peir and Initial Study/Environmental Analysis For: Controlled Thermal Resources Hell's Kitchen Exploratory Wells Project
IM-01710	2011	Ehringer, Candace	Cluster I Solar Project - Cultural Resources and Paleontological Studies
IM-01721	2019	Smith, Garnett, and Joseph Howell	Archaeological Monitoring in Support of The P-771 Power Utility Upgrade Project, Near The Chocolate Mountain Aerial Gunnery Range, Imperial County, California
IM-01797	2020	Gilbert, Rebecca, and Amber Lopez-Johnson	Cultural Resources Survey Report for The Lack Road Bridge Replacement, Imperial County, California
IM-01818	2021	Pentney, Sandra, Kellie Kandybowicz, Niranjala Kottachchi, and Eduvijes Davis-Mullens	Archaeological And Paleontological Assessment Report for The Energy Source Mineral, LLC Project, Calipatria, Imperial County, California

Note: SCIC = South Coastal Information Center.



SOURCE: Imperial County; SCIC; Open Street Map; Bing Maps

FIGURE 5

Built Environment Properties Identified in the Specific Plan Area

Lithium Valley Specific Plan

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5.1.2 Previously Recorded Cultural Resources

5.1.2.1 Archaeological Resources

The SCIC records indicate that 55 previously recorded archaeological resources are located within 1 mile of the Specific Plan Area, 30 of which intersect the Specific Plan Area (Table 2). The prehistoric sites within the Specific Plan Area include two habitation debris scatters, a lithic scatter, seven possible trail segments, two toolstone quarries, and eight isolates. The historic-period sites include four isolates and five refuse scatters, two of which are associated with manufactured duck ponds. The one multi-component resource consists of the remains of a prehistoric village site with an artifact scatter and evidence of human cremation. The historic component consists of a refuse scatter. None of the resources within the Specific Plan Area have been previously evaluated for listing on the NRHP, CRHR, or local listing, though the 12 isolates are not eligible. Site records for all 55 recorded resources previously recorded within 1 mile of the Specific Plan Area are included in Confidential Appendix A.

Table 2. Previously Recorded Cultural Resources Within the Specific Plan Area

Primary Number	Trinomial	Resource Type	Description	Evaluation Status	Sensitivity
P-13-000068	CA-IMP-000068	Multi-component	Prehistoric village site; prehistoric scatter; human cremation; historic refuse scatter	Unevaluated	High
P-13-000452	CA-IMP-000452	Prehistoric	Obsidian Quarry	Unevaluated; partially damaged	High
P-13-000900	CA-IMP-000900	Prehistoric	Indian Trail course	Unlikely to still exist; need confirmation	Low
P-13-000901	CA-IMP-000901	Prehistoric	Indian Trail course	Unlikely to still exist; need confirmation	Low
P-13-000902	CA-IMP-000902	Prehistoric	Indian Trail course	Unlikely to still exist; need confirmation	Low
P-13-000903	CA-IMP-000903	Prehistoric	Indian Trail course	Unlikely to still exist; need confirmation	Low
P-13-000904	CA-IMP-000904	Prehistoric	Indian Trail course	Unlikely to still exist; need confirmation	Low
P-13-005951	CA-IMP-005951	Historic	Water tank and artifact scatter	Unevaluated	Moderate
P-13-006638	CA-IMP-006638	Prehistoric	Lithic scatter	Unevaluated	High
P-13-008176	N/A	Prehistoric	Quarry	Unevaluated	High
P-13-009610	N/A	Prehistoric	Isolate: Trash	Not eligible	Low
P-13-012745	N/A	Prehistoric	Isolate: Lithic	Not eligible	Low
P-13-012746	N/A	Historic	Isolate: Trash	Not eligible	Low

Table 2. Previously Recorded Cultural Resources Within the Specific Plan Area

Primary Number	Trinomial	Resource Type	Description	Evaluation Status	Sensitivity
P-13-012747	N/A	Historic	Isolate: Trash	Not eligible	Low
P-13-012748	N/A	Prehistoric	Isolate: Lithic	Not eligible	Low
P-13-012930	N/A	Prehistoric	Isolate: Lithic	Not eligible	Low
P-13-012931	N/A	Prehistoric	Isolate: Ceramic	Not eligible	Low
P-13-012932	N/A	Prehistoric	Isolate: Lithic	Not eligible	Low
P-13-012933	CA-IMP-011347	Prehistoric	Trail	Unevaluated	High
P-13-012934	N/A	Prehistoric	Isolate: Ceramic	Not eligible	Low
P-13-012935	CA-IMP-011348	Historic	Trash	Unevaluated	Moderate
P-13-012936	CA-IMP-011349	Prehistoric	Trail	Unevaluated	High
P-13-012937	N/A	Prehistoric	Isolate: Lithic	Not eligible	Low
P-13-012938	N/A	Prehistoric	Isolate: Lithic	Not eligible	Low
P-13-012939	CA-IMP-011350	Prehistoric	Habitation debris	Unevaluated	High
P-13-012940	CA-IMP-011351	Prehistoric	Habitation debris	Unevaluated	High
P-13-014277	CA-IMP-012061	Historic	Trash	Destroyed	Low
P-13-016860	N/A	Historic	Isolate: Trash	Not eligible	Low
P-13-018705	CA-IMP-013448	Historic	Trash scatter and duck ponds	Not eligible	Moderate
P-13-018706	CA-IMP-013449	Historic	Trash scatter and duck ponds	Unevaluated	Moderate

Note: N/A = not applicable.

5.1.2.2 Built Environment Resources

Records Search Results - Previously Recorded Resources

The SCIC records indicate that nine previously recorded of-age built environment resources intersect the Specific Plan Area (Table 3). Seven components were found ineligible for the NRHP, CRHR, or local designation through survey evaluation. Two of the previously recorded built environment resources, P-34-003424 and P-13-008333, have had segments of these linear resources recommended as eligible for listing on the NRHP and CRHR. There is nothing in the records search materials documenting SHPO's concurrence on those eligibility recommendations. These two resources are summarized below. Site records for all 65 recorded resources previously recorded within 1 mile of the Specific Plan Area are included in Confidential Site records in Confidential Appendix A.

Table 3. Previously Recorded Built Environment Resources Within the Specific Plan Area

Primary Number	Name	Year Built	Resources Attributes	CHR Status Code	Proposed Land Use Area
P-13-003424	SRI 116	1877–Present	AH7: Railroad grade, bed; HP18: Train; HP19: Train; HP39: Bridge	6Y	Logistics Phase 2
P-13-008333	East Highline Canal at Bridge No. 58C-0115	ca. 1914	AH6: Water Conveyance System; HP20: Canal/Aqueduct	3D	Logistics Phase 2
P-13-009110	Tt-05-08-02-01	1934–1944	AH05: Well	6Z	Green Industrial Phase 1
P-13-011928	Old Niland Road/English Road Siphon	1964	HP20: Canal/aqueduct	6Z	Logistics Phase 2
P-13-013841	Cal-1	ca. 1940	HP20: Canal/aqueduct	6Z	Solar – Phase 3 Manufacturing
P-13-014278	O Lateral	ca. 1914–ca. 1929	HP20: Canal/aqueduct	6Z	Conservation; Green Industrial Phase 1; Logistics Phase 2
P-13-014279	N Drain	ca. 1914–ca. 1929	HP20: Canal/aqueduct	6Z	Conservation; Green Industrial Phase 1; Logistics Phase 2
P-13-018289	Vail Ranch	1920s–Modern	Code: Farm/Ranch	6Z	Interim Agricultural Overlay – Phase 3 Green Industrial
P-13-018312	Quarters 7, Sonny Bono Salton Sea NWR	1951	HP2: Single Family Property	6Z	Conservation

Notes: AH = Archaeological Historic; HP = Historic Property; CHR = California Historical Resource; 3D = Appears Eligible for NRHP as a contributor to a NRHP Eligible Multi-component Resource; 6Z = Found Ineligible for NRHP, CRHR or Local designation Through Survey Evaluation; ca. = circa.

P-34-003424 – Southern Pacific Railroad

P-34-003424 is the historic-era SPRR constructed in 1877. Portions of this railroad and its associated features have been inventoried and evaluated throughout Imperial County. A segment of P-34-003424 is located in the Specific Plan Area. That segment of P-34-003424 was inventoried and evaluated in 1999 and was recommended as eligible under NRHP/CRHR Criterion A/1 for important historical associations, and under NRHP/CRHR Criterion B/2 for the railroad's association with Leland Stanford, Collis Potter Huntington, Mark Hopkins Jr., and Charles Crocker. There is nothing in the record to demonstrate this evaluation was concurred with by the SHPO. Other portions of P-34-003424, outside the Specific Plan Area, have been evaluated as not eligible for the NRHP/CRHR. According to the Archaeological Determinations of Eligibility for Imperial County (OHP 2012), P-34-003424 was determined not eligible for the NRHP by the SHPO in 1998 as part of a U.S. Bureau of Reclamation project; however, there is no detail to confirm that this determination of ineligibility pertains to the segment within the Specific Plan Area (OHP 2012: 51). A reevaluation of the SPRR segment would be required at the project level.

P-13-008333 – Highline Canal

A segment of P-13-008333, the historic-era Highline Canal constructed in 1914, is located within the Specific Plan Area. The canal is a long linear feature that extends outside the Specific Plan Area. Portions of this canal were inventoried as early as 1998. In 2016, a portion of the canal (outside the Specific Plan Area) was recorded and recommended the segment as eligible for NRHP/CRHR Criterion 1/A and NRHP/CRHR Criterion C/3 at the local level of significance. That recordation was an update to a previous evaluation; however, the updated form did not provide information on the original evaluation of historical significance. Preliminary research indicates that SHPO has not concurred on this finding. A reevaluation of this resource would be required at the project level.

Historic Era Bridges

Within the Specific Plan Area, there are six bridges constructed between 1936 and 2012 (Table 4). Two bridges are local agency bridges and four are state-owned bridges. All the bridges located in the Specific Plan Area have documented and coded as part of Caltrans Historic Bridge Inventory. They have all been assigned a historical significance status of Category 5, meaning they are not eligible for the NRHP. Category 5 bridges are not historical resources under CEQA.

Table 4. Caltrans Bridges Located Within the Specific Plan Area

Type	Bridge Number	Name	Year Built	Year Reconstructed	Caltrans Historical Significance Status Code	Proposed Land Use Area
State	58 0147	Brawley Wash Bridge	1950	1986	Category 5: Bridge is not eligible for the NRHP	Logistics Phase 2
State	58 0148	Phil Wash Bridge	1950	1986	Category 5: Bridge is not eligible for the NRHP	Logistics Phase 2
State	58 0152	Cattail Wash Bridge	1950	N/A	Category 5: Bridge is not eligible for the NRHP	Logistics Phase 2
State	58C0352	Z Drain Bridge	2012	N/A	Category 5: Bridge is not eligible for the NRHP	Logistics Phase 2
Local	58C0006	Vail Canal Bridge	1936	N/A	Category 5: Bridge is not eligible for the NRHP	Interim Agricultural Overlay – Phase 3 Green Industrial
Local	58C0216	Alamo River Bridge	1994	N/A	Category 5: Bridge is not eligible for the NRHP	Floodway

Notes: Caltrans = California Department of Transportation; NRHP = National Register of Historic Places; N/A = not applicable.

5.2 Newly Identified Built Environment Properties

Dudek conducted additional desktop research to identify buildings and structures in the Specific Plan Area that were constructed in or before 1980 (over 45 years old as of 2025) and may require additional study at the project level.

The properties identified through this desktop analysis have not been evaluated for historical significance. They are not known to be CEQA historical resources but due to their age would require evaluation and consideration as potential CEQA historical resources if they may be subject to direct or indirect impacts at the project level. Parcel data in the region are sparse and obtaining clear year-built dates through assessor parcel data was not possible. Dudek utilized historic aerial data to circa date properties. There are gaps in available dates for historic aerials so Dudek was able to identify several properties that appear to be in place by the early 1950s and then in place by 1984. It is considered best practice under CEQA to evaluate any built environment property that may be impacted by a proposed project 45 years old or older. In 2025, properties with buildings or structures constructed by 1980 will be 45 years old; however, the 1984 aerial was the earliest date available following 1959. As such, the properties identified on the 1984 aerial may have been constructed between 1960 and 1984. The likelihood of this group of properties being 45 year old or older is high; therefore, they have been identified for consideration as part of this study. These built environment properties identified include an irrigation system, residential farm complexes, and agricultural-related ancillary buildings or structures. These newly identified resources are grouped into the following categories:

- Water conveyance structures
- Built environment properties 50 year old or older (built in before 1950)
- Built environment properties that may be 45 year old or older

5.2.1 Water Conveyance Structures

There are 42 water-related built environment structures contained within the Specific Plan Area including two canals, and 40 irrigation spill drains maintained as part of the IID. Table 5 below provides a list of water conveyance structures that may be over 45 years of age located in the Specific Plan Area. More detailed archival research will be needed to determine the exact years of construction for most of these resources, which are estimated to have been built between circa 1914 and circa 1984 based on historic maps and aerial imagery. Since most of these resources are associated with the IID, it is recommended to evaluate these resources as a group for their potential association with IID.

Table 5. Water Conveyance Structures Within the Specific Plan Area

Name	Proposed Land Use Area
Niland Canal	Logistics Phase 2; Solar – Phase 3 Logistics
Vail Canal	Floodway; Interim Agricultural Overlay – Phase 3 Green Industrial
E Spill Drain	Floodway; Community Opportunity Areas Phase 1; Community Opportunity Areas Phase 2; Interim Agricultural Overlay – Phase 3 Manufacturing
F Spill Drain	Floodway; Community Opportunity Areas Phase 1; Community Opportunity Areas Phase 2; Interim Agricultural Overlay – Phase 3 Manufacturing
G Spill Drain	Community Opportunity Phase 2; Manufacturing Phase 2; Interim Agricultural Overlay – Phase 3 Manufacturing
H Spill Drain	Manufacturing Phase 2; Solar – Phase 3 Manufacturing; Interim Agricultural Overlay – Phase 3 Manufacturing
I Spill Drain	Floodway; Manufacturing Phase 2; Solar – Phase 3 Manufacturing; Interim Agricultural Overlay – Phase 3 Manufacturing
J Spill Drain	Floodway; Green Industrial Phase 1; Manufacturing Phase 2; Solar – Phase 3 Manufacturing

Table 5. Water Conveyance Structures Within the Specific Plan Area

Name	Proposed Land Use Area
K Spill Drain	Floodway; Green Industrial Phase 1; Manufacturing Phase 1; Solar – Phase 3 Manufacturing
L Spill Drain	Floodway; Green Industrial Phase 1; Logistics Phase 1; Manufacturing Phase 1
M Spill Drain	Conservation; Floodway; Green Industrial Phase 1; Logistics Phase 1
N Spill Drain	Conservation; Floodway; Green Industrial Phase 1; Logistics Phase 1; Community Opportunity Areas Phase 2
O Spill Drain	Conservation; Community Opportunity Areas Phase 1; Green Industrial Phase 1; Green Industrial Phase 2; Logistics Phase 2
P Spill Drain	Conservation; Green Industrial Phase 1; Green Industrial Phase 2; Logistics Phase 2
Q Spill Drain	Green Industrial Phase 1; Green Industrial Phase 1; Green Industrial Phase 2; Logistics Phase 2
R Spill Drain	Green Industrial Phase 1; Green Industrial Phase 1; Green Industrial Phase 2; Logistics Phase 2
S Spill Drain	Conservation; Green Industrial Phase 1; Green Industrial Phase 2; Logistics Phase 1
T Spill Drain	Conservation; Playas Renewables Phase 1; Logistics Phase 2
U Spill Drain	Conservation; Playas Renewables Phase 1; Logistics Phase 2
W Spill Drain	Conservation; Logistics Phase 2
Y Spill Drain 1	Logistics Phase 2
Y Spill Drain 2	Conservation
Z Spill Drain	Conservation; Logistics Phase 2; Solar – Phase 3 Logistics
O'Brien Spill Drain 1	Interim Agricultural Overlay – Phase 3 Green Industrial
O'Brien Spill Drain 2	Interim Agricultural Overlay – Phase 3 Green Industrial
Thompson Spill Drain	Floodway; Interim Agricultural Overlay – Phase 3 Green Industrial
Unnamed Connector between 2 and 3 Spill Drain	Conservation
Unnamed Spill Drain 1	Interim Agricultural Overlay – Phase 3 Green Industrial
Unnamed Spill Drain 2	Interim Agricultural Overlay – Phase 3 Green Industrial
Vail Cutoff Spill Drain	Interim Agricultural Overlay – Phase 3 Green Industrial
Vail 2 Spill Drain	Conservation; Green Industrial Phase 2; Interim Agricultural Overlay – Phase 3 Green Industrial
Vail 2A Spill Drain	Conservation; Floodway; Green Industrial Phase 1; Green Industrial Phase 2; Interim Agricultural Overlay – Phase 3 Green Industrial
Vail 2B Spill Drain	Conservation; Floodway
Vail 3 Spill Drain	Conservation; Floodway; Green Industrial Phase 1; Green Industrial Phase 2; Interim Agricultural Overlay – Phase 3 Green Industrial
Vail 3A Spill Drain	Green Industrial Phase 1; Green Industrial Phase 2; Interim Agricultural Overlay – Phase 3 Green Industrial
Vail 4 Spill Drain	Green Industrial Phase 1; Green Industrial Phase 2; Interim Agricultural Overlay – Phase 3 Green Industrial
Vail 4A Spill Drain	Interim Agricultural Overlay – Phase 3 Green Industrial
Vail 4B Spill Drain	Conservation; Green Industrial Phase 1; Green Industrial Phase 2; Interim Agricultural Overlay – Phase 3 Green Industrial

Table 5. Water Conveyance Structures Within the Specific Plan Area

Name	Proposed Land Use Area
Vail 5 Spill Drain	Conservation; Green Industrial Phase 1; Interim Agricultural Overlay – Phase 3 Green Industrial
Vail 5A Spill Drain	Conservation; Green Industrial Phase 1; Interim Agricultural Overlay – Phase 3 Green Industrial
Vail 6 Spill Drain	Conservation; Green Industrial Phase 1; Interim Agricultural Overlay – Phase 3 Green Industrial
Vail 6A Spill Drain	Interim Agricultural Overlay – Phase 3 Green Industrial

5.2.2 Built Environment Properties 50 Years Old or Older

The Specific Plan Area also includes 69 residential farm complexes, described below (NETR 2024a). Desktop analysis indicates that the following 20 parcels located in the Specific Plan Area contain buildings or structures over the age of 50 as of 2025 (built before 1975) (Table 6) (NETR 2024a).

Table 6. Parcels Containing Built Environment Properties Over 50 Years Old

APN	Built Date	Proposed Land Use Area
003-230-004	ca. 1950	Logistics Phase 2
020-050-077	ca. 1950	Green Industrial Phase 1; Playas Renewables Phase 1
020-050-078	ca. 1950	Conservation; Green Industrial Phase 1; Playas Renewables Phase 1
020-090-005	ca. 1950	Conservation
020-120-019	ca. 1950	Floodway; Manufacturing Phase 2
020-140-002	ca. 1950	Interim Agricultural Overlay – Phase 3 Green Industrial
020-140-023	ca. 1950	Floodway; Interim Agricultural Overlay – Phase 3 Manufacturing
020-150-037	ca. 1950	Interim Agricultural Overlay – Phase 3 Green Industrial
022-020-020	ca. 1950	Community Opportunity Areas Phase 1; Logistics Phase 1; Community Opportunity Areas Phase 2
022-110-003	ca. 1950	Logistics Phase 1
022-110-013	ca. 1950	Logistics Phase 1
022-140-006	ca. 1950	Manufacturing Phase 1; Manufacturing Phase 2
022-160-010	ca. 1950	Solar – Phase 3 Manufacturing
023-010-005	ca. 1950	Interim Agricultural Overlay – Phase 3 Manufacturing
023-010-019	ca. 1950	Interim Agricultural Overlay – Phase 3 Manufacturing
023-020-005	ca. 1950	Community Opportunity Areas Phase 1
023-020-013	ca. 1953	Community Opportunity Areas Phase 1
023-020-019	ca. 1950	Community Opportunity Areas Phase 1
023-020-020	ca. 1950	Community Opportunity Areas Phase 1
023-020-024	ca. 1950	Community Opportunity Areas Phase 1

Notes: APN = Assessor's Parcel Number; ca. = circa.

5.2.3 Built Environment Properties That May Be 45 Years Old or Older

Desktop analysis indicates that the following 24 parcels located in the Specific Plan Area contain residential farm complexes that may contain buildings over the age of 45 as of 2024 (Table 7). More in-depth research of field survey would be required to attain year-built information (NETR 2024a).

Table 7. Parcels Possibly Containing Built Environment Properties Built In or Before 1980

APN	Proposed Land Use Area
003-230-015	Logistics Phase 2
003-230-029	Conservation; Logistics Phase 2
003-230-065	Logistics Phase 2
003-230-066	Logistics Phase 2
003-230-074	Logistics Phase 2
020-010-010	Conservation; Green Industrial Phase 1
020-010-031	Green Industrial Phase 1
020-110-019	Green Industrial Phase 1
020-110-042	Green Industrial Phase 1
020-120-006	Green Industrial Phase 1; Green Industrial Phase 2
020-120-010	Green Industrial Phase 2
020-120-017	Floodway; Manufacturing Phase 2
020-120-031	Floodway; Green Industrial Phase 1; Manufacturing Phase 2
020-120-032	Floodway; Manufacturing Phase 2; Interim Agricultural Overlay – Phase 3 Manufacturing
020-120-035	Floodway; Interim Agricultural Overlay – Phase 3 Manufacturing
020-120-037	Floodway; Interim Agricultural Overlay – Phase 3 Manufacturing
020-120-043	Interim Agricultural Overlay – Phase 3 Manufacturing
020-120-044	Floodway; Interim Agricultural Overlay – Phase 3 Manufacturing
020-150-040	Interim Agricultural Overlay – Phase 3 Green Industrial
021-010-008	Conservation; Logistics Phase 2
021-200-010	Logistics Phase 1; Logistics Phase 2
022-010-011	Green Industrial Phase 1; Logistics Phase 2
022-140-015	Manufacturing Phase 2
120-140-051	Interim Agricultural Overlay – Phase 3 Green Industrial

Note: APN = Assessor's Parcel Number.

5.2.4 Non-Historic-Era Built Environment Properties (Post 1984)

Desktop research indicates that the following 25 parcels located in the Specific Plan Area with built environment components appear to have been constructed after 1980 (Table 8). As of 2025, these properties would not require any additional study as potential CEQA historical resources.

Table 8. Parcels Containing Built Environment Properties Post-1980

APN	Built Date	Proposed Land Use Area
003-230-005	2003	Logistics Phase 2
003-230-007	ca. 1988	Logistics Phase 2
003-230-012	1988	Logistics Phase 2
003-230-016	ca. 2007	Logistics Phase 2
003-230-017	ca. 2011	Logistics Phase 2
003-230-075	1988	Logistics Phase 2
003-240-001	ca. 2010	Logistics Phase 2; Solar – Phase 3 Logistics
020-100-014	1988	Floodway; Green Industrial Phase 2
020-100-038	ca. 2020	Green Industrial Phase 1; Playas Renewables Phase 2
020-100-039	ca. 1988	Green Industrial Phase 1
020-100-040	1988	Green Industrial Phase 1; Manufacturing Phase 1
020-100-043	1988	Green Industrial Phase 1
020-100-044	ca. 2011	Green Industrial Phase 1
020-110-040	1985	Green Industrial Phase 1
020-110-038	1988	Green Industrial Phase 1
020-110-039	ca. 1998	Green Industrial Phase 1
020-110-043	ca. 1988	Green Industrial Phase 1; Green Industrial Phase 2
020-110-047	1988	Green Industrial Phase 1
020-110-049	ca. 1998	Green Industrial Phase 1
020-120-005	1988	Green Industrial Phase 1; Green Industrial Phase 2
020-120-059	1988	Green Industrial Phase 1
020-140-052	ca. 1994	Green Industrial Phase 2
020-150-026	ca. 2003	Interim Agricultural Overlay - Phase 3 Green Industrial
021-010-007	1988	Logistics Phase 2
022-020-012	1988	Logistics Phase 1

Notes: APN = Assessor's Parcel Number; ca. = circa.

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6 Impacts

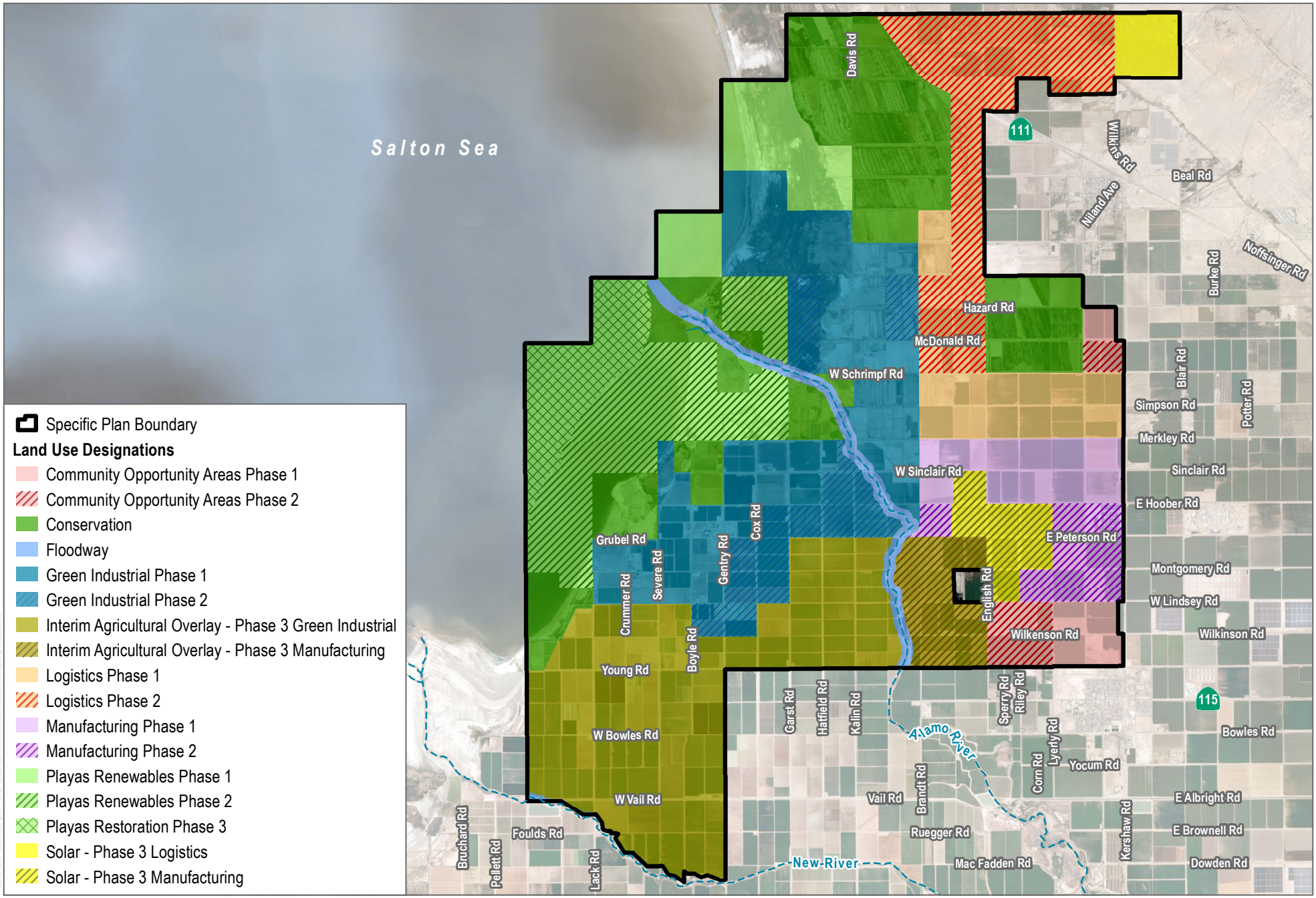
The Specific Plan proposes to facilitate future development through changes to the existing land use and zoning regulations within the designated areas (Figure 6, Project Area Land Use). The Specific Plan proposes to establish the following land uses:

- Community Opportunity Area: Addresses community needs of nearby residential areas, allowing for commercial hubs, social gathering areas, recreational uses, healthcare services, and childcare services, planned in collaboration with neighboring communities.
- Conservation: Protects areas of environmental, cultural, and tribal significance, retaining areas for restoration and mitigation projects, including those under contract for restoration efforts and new areas for Salton Sea rehabilitation projects.
- Floodplain Drainage Basin: Maintains and enhances the Alamo River and New River drainage basins, including a buffer zone to improve water quality and environmental health while reducing flooding impacts.
- Green Industrial: Promotes industrial operations that decarbonize the energy and mineral recovery industries, with a focus on geothermal energy production and environmentally responsible mineral recovery operations.
- Interim Agriculture: Retains large agricultural areas until they are needed for industry-driven uses, including existing agricultural lands and other agriculture-related uses, transitioning to industrial uses in later phases.
- Logistics: Facilitates the efficient movement of goods, accommodating warehousing, management, distribution activities, geothermal energy, and mineral recovery operations.
- Manufacturing: Supports the assembly of clean energy products and accommodates industrial, office, and warehouse space for manufacturers, including geothermal energy and mineral recovery operations.
- Playas Renewables: Promotes uses similar to Green Industrial, with restrictions to ensure compatibility with the environmental conditions of the Salton Sea and the exposed playas, requiring dust suppression measures.
- Playas Restoration: Supports Salton Sea restoration, habitat creation, and dust suppression while allowing subsurface geothermal, i.e., well drilling, focusing on environmental restoration and mitigation activities.
- Solar: Supports the development of large-scale solar power generation facilities, transitioning to other uses like Logistics or Manufacturing after their lifespans end.

Development is proposed in three phases. This approach divides the project into manageable stages. The three phases are:

1. Phase One identifies various industrial-type uses, such as geothermal operations, environmentally responsible mineral recovery, and battery energy storage systems, which are generally permitted across Green Industrial, Manufacturing and Logistics zones. Certain activities, like logistics and warehousing, are conditionally permitted, while some uses can be ancillary, with specified percentages of use allowed. Office and community-oriented uses, including parks and public art installations, are similarly designated across the phases, ensuring a blend of industrial development and community services.
2. Phase Two extends outward from the first phase into areas with less established infrastructure. Phase Two includes new classifications like Playas Renewables.

3. Phase Three includes areas within the Interim Agriculture land use designation that are intended to remain as usable agriculture until there is a need to transition these lands to industry-driven uses that have expanded outside of their initial land use designated areas.



SOURCE: Rick Engineering 2025; Open Street Map; Bing Maps (2022-12-06)

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FIGURE 6

Project Area Land Use

Lithium Valley Specific Plan

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6.1 Thresholds of Significance

The significance criteria used to evaluate the project impacts to cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to cultural resources would occur if the project would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5
- Disturb any human remains, including those interred outside of dedicated cemeteries
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in California PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in California PRC Section 5020.1(k)
  - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of California PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of California PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

6.2 Impact Analysis

The efforts to identify cultural resources in the Specific Plan Area are described in detail in Chapter 4, Methods to Identify Cultural Resources, and results are presented in Chapter 5, Results.

Impact CUL-1 The project may cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5. (Potentially Significant)

As described above, the Specific Plan is proposing future development through changes to the existing land use and zoning regulations within the designated areas. This impact analysis considers the changes in land use of the Specific Plan as a whole at the "program level."

The Specific Plan Area contains several buildings and structures that may qualify for as historical resources for the purposes of CEQA, including the SPRR (P-34-003424) and the Highline Canal (P-13-008333), which are properties that were previously evaluated for their potential historical significance and were recommended as eligible for the NRHP and the CRHR. Future Specific Plan projects could potentially impact buildings and structures 45 years old or older that have not been identified as historical resources. Properties that meet the 45-year threshold and have not been evaluated under NRHP and CRHR criteria should be further studied for potential impacts to historical resources in the event they are included in a future project. The properties identified in the Specific Plan Area are and noted in this section are shown in Figure 7, Built Environment Considerations by Land Use Areas. Consequently, these future activities could result in significant impacts to previously unidentified CEQA historical resources in the Specific

Plan Area. Implementation of mitigation measure (MM)-CUL-2, which requires that properties 45 years old or older be evaluated for historical significance prior to initiation of any project-related activities that could result in impacts. Master-planned projects that may affect a historical resource, either identified herein or as a result of MM-CUL-2, would be subject to MM-CUL-1.

Impact CUL-2

The project may cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. (Potentially Significant)

Much of the Specific Plan Area possesses a low potential of significant archaeological resources. The SCIC cultural resources records search indicated that 65 cultural resources studies have been previously conducted within or intersect the Specific Plan Area (Table 1). These 65 studies cover 94% of the Specific Plan Area and produced relatively few (n=30) archaeological resources (Figure 8, Confidential Project Area Land Use, in Confidential Appendix B). Future developments of the Specific Plan Area that have been previously surveyed and did not contain archaeological resources have a low potential to adversely change the significance of an archaeological resource (Figure 9, Archaeological Resources Sensitivity).

Additionally, aerial imaging and field visits show that most of the Specific Plan Area has been subject to previous ground disturbance. The Specific Plan Area is dominated by agricultural land that has disturbed soils as deep as 16 feet for decades. Similarly, existing livestock yards are also present within the Specific Plan Area and, similarly, have undergone extensive ground disturbance throughout their use. Existing developments such as warehouses, agricultural buildings, solar array fields, and geothermal facilities have included extensive ground disturbance during their construction, which would have displaced any archaeological resources or native soils that were present. Considering the repeated ground disturbance of agriculture and livestock and the deep excavation from the development of existing structures, future Specific Plan projects conducted within previous disturbance have a low potential to adversely change the significance of an archaeological resource (Figure 9).

Most of the Specific Plan Area's geology in not conducive to well-stratified archaeological resources. Excluding consideration of previous earth disturbances introduced through extended, intensive agricultural activities, the majority of this area would have been subject to natural disturbances related to the multiple historic-era and prehistoric infillings and recessions of Ancient Lake Cahuilla. In the last approximate 1,400 years, the area representing the Specific Land area would have been inundated up to seven times, the most recent being less than 300 years ago (Rockwell et al. 2022). While physical features of archaeological and cultural value, such as Obsidian Butte, would have remained largely intact between infillings, only areas located above the high stand of the Ancient Lake Cahuilla (12 meters to 13 meters) would have had a high potential to retain substantial subsurface development of cultural deposits. While the southeastern portion of Lake Cahuilla was characterized by lower topographic relief and, therefore, arguably could have been less disturbed by wave action or inundation, this trait also

allowed for greater settling of soils that were well-suited for later agricultural purposes as well as construction. These characteristics are reflected in the archaeological record; with prehistoric and ethnohistoric resources of highest sensitivity (meaning those with artifact assemblages reflective of more intensive or variable use, potential buried deposits, and other characteristics that may best inform key regional research considerations) all documented largely above the Ancient Lake Cahuilla high stand. As noted, this excludes resources like Obsidian Butte, which would have acted as a specific area of use and reuse, when accessible to prehistoric people.

While the areas along the eastern shoreline of the Salton Sea described above have a low potential to adversely impact archaeological sites, other sediments farther east may contain a low to moderate potential to impact previously unknown archaeological sites. Agricultural tilling thoroughly disturbs sediments to depths of four feet, while disturbance from the installation of drainage tiles can extend to depths of 16 feet. Any archaeological materials previously located within these sediments would have been widely dispersed or removed after decades of repeated agricultural use. Dudek reviewed historical imagery, as compared to aerial information on Google Earth, and that provided through drone imagery. The intent was to classify the relative level of disturbance throughout the Specific Plan Area introduces by previous and existing uses and, through that process, come to some understanding where buried archaeological resources, if present, have potential to persist. Dudek first identified areas that have been previous major projects, such as Salton Sea or other restoration environments that required major excavations and grading, thermal and solar projects, and other substantial activities. Due to the widespread practice of installing drainage tiles at depth up to 16 feet within the agricultural fields within the Specific Plan area, agricultural activities are also considered to represent substantial disturbance and these areas were classified as having a very low potential for buried archaeological resource.

The presence of known cultural resources within the Specific Plan Area would suggest a heightened the cultural sensitive and increase the Specific Plan's potential to adversely impact archaeological resources. The SCIC cultural resources records search identified 30 archaeological resources within the Specific Plan Area. These 30 archaeological resources include 12 isolates, five destroyed trail segments, and one removed historical refuse scatter that are not considered significant under CEQA and do not increase the archaeological sensitivity of an area. Three highly sensitive archaeological resources (P-13-000452, P-13-006638, and P-13-008176) are located within Conservation Land Use Areas and will not be impacted by future projects implemented under the Specific Plan (Figure 8 in Confidential Appendix B). Four of the remaining resources within the Specific Plan consist of historical refuse scatters (P-13-005951, P-13-012935, P-13-018705, and P-13-018706), which have a moderate sensitivity. These resources are within proposed Logistics, Manufacturing, and Green Industrial Land Use Areas and will require evaluation prior to the implementation of future projects within their boundaries. The five remaining archaeological resources located within the Specific Plan Area consists of highly sensitive prehistoric habitation sites and artifact scatters (P-13-000068, P-13-012933, P-13-012936, P-13-012939, and P-13-012940), all of which are located along

the shoreline of Ancient Lake Cahuilla (Figure 4 in Confidential Appendix B). Though most of the Specific Plan Area was located underneath its waters, the shoreline of Ancient Lake Cahuilla passes through the Specific Plan and is highly culturally sensitive. This riparian area was highly attractive for prehistoric populations and archaeological sites are prevalent along much of its shoreline. These five prehistoric habitation sites and artifact scatters are all located in an area that is largely undeveloped and proposed for Solar and Phase III Logistics Land Use Area. These resources are highly sensitive and will require extensive review and mitigation if future projects under the Specific Plan cannot avoid them (Figure 9).

Therefore, impacts to known and previously undiscovered archaeological resources within the Specific Plan Area would be **potentially significant (CUL-2**), absent mitigation.

Impact CUL-3

The project may disturb human remains interred outside of dedicated cemeteries. (Potentially Significant)

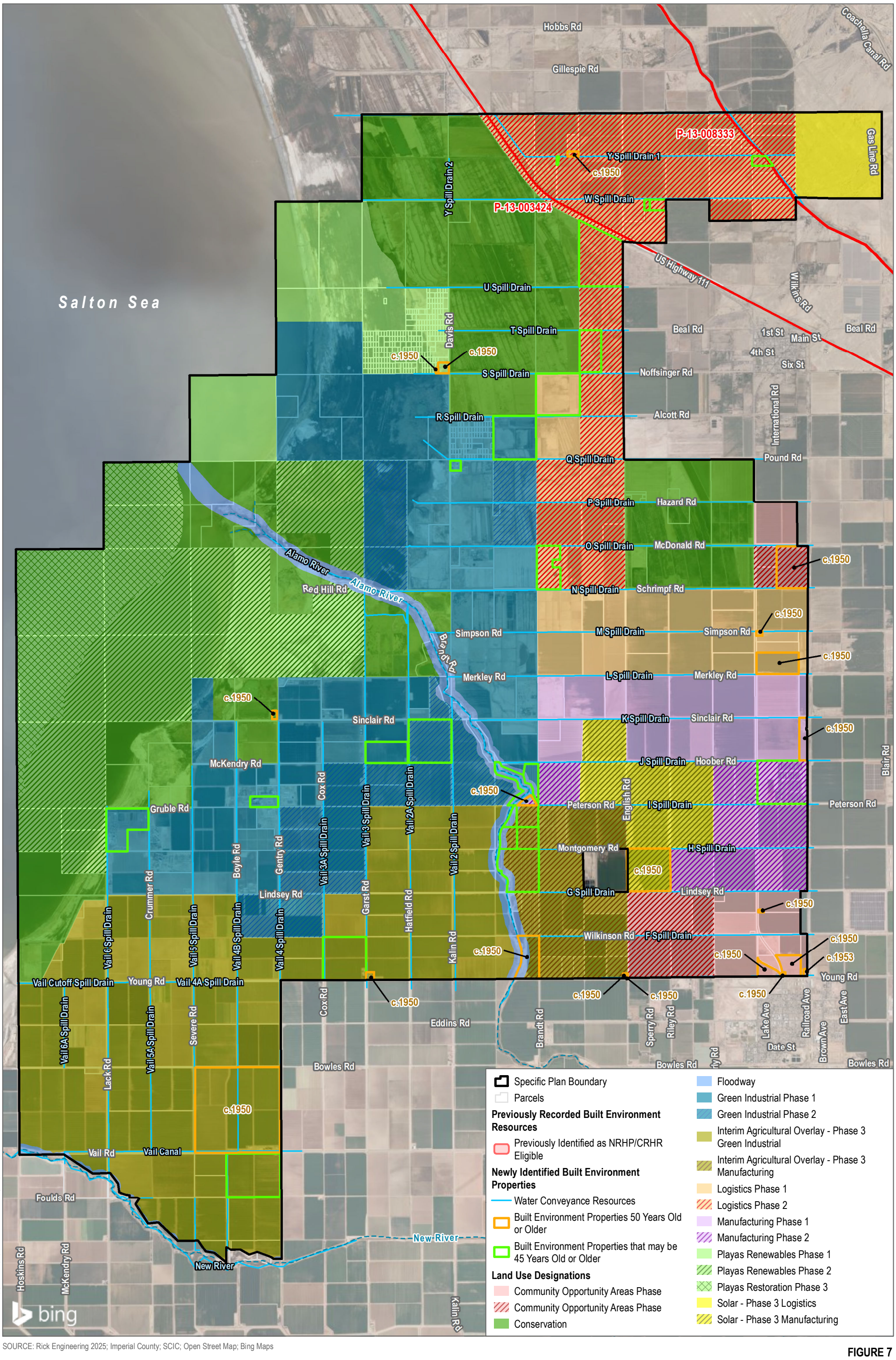
The SCIC cultural resources records search identified 30 archaeological resources within the Specific Plan Area. One previously identified resource, P-13-000068, consists of a prehistoric village site that includes evidence of human cremation. P-13-000068 is located in an area that is largely undeveloped and is proposed for Solar and Phase III Logistics Land Use Areas by the Specific Plan. This resource's boundary saddles the Specific Plan boundary and may be avoidable.

Therefore, the Specific Plan may disturb human remains and would be **potentially significant (CUL-3),** absent mitigation.

Impact CUL-4

The project would not cause a substantial adverse change in the significance of a TCR, defined in Public Resources Code section 21074.

The County is conducting Native American consultation to determine the potential for the Specific Plan to impact TCRs. Consultation is ongoing.



SOURCE: Rick Engineering 2025; Imperial County; SCIC; Open Street Map; Bing Maps

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FIGURE 7

Built Environment Considerations by Land Use Areas

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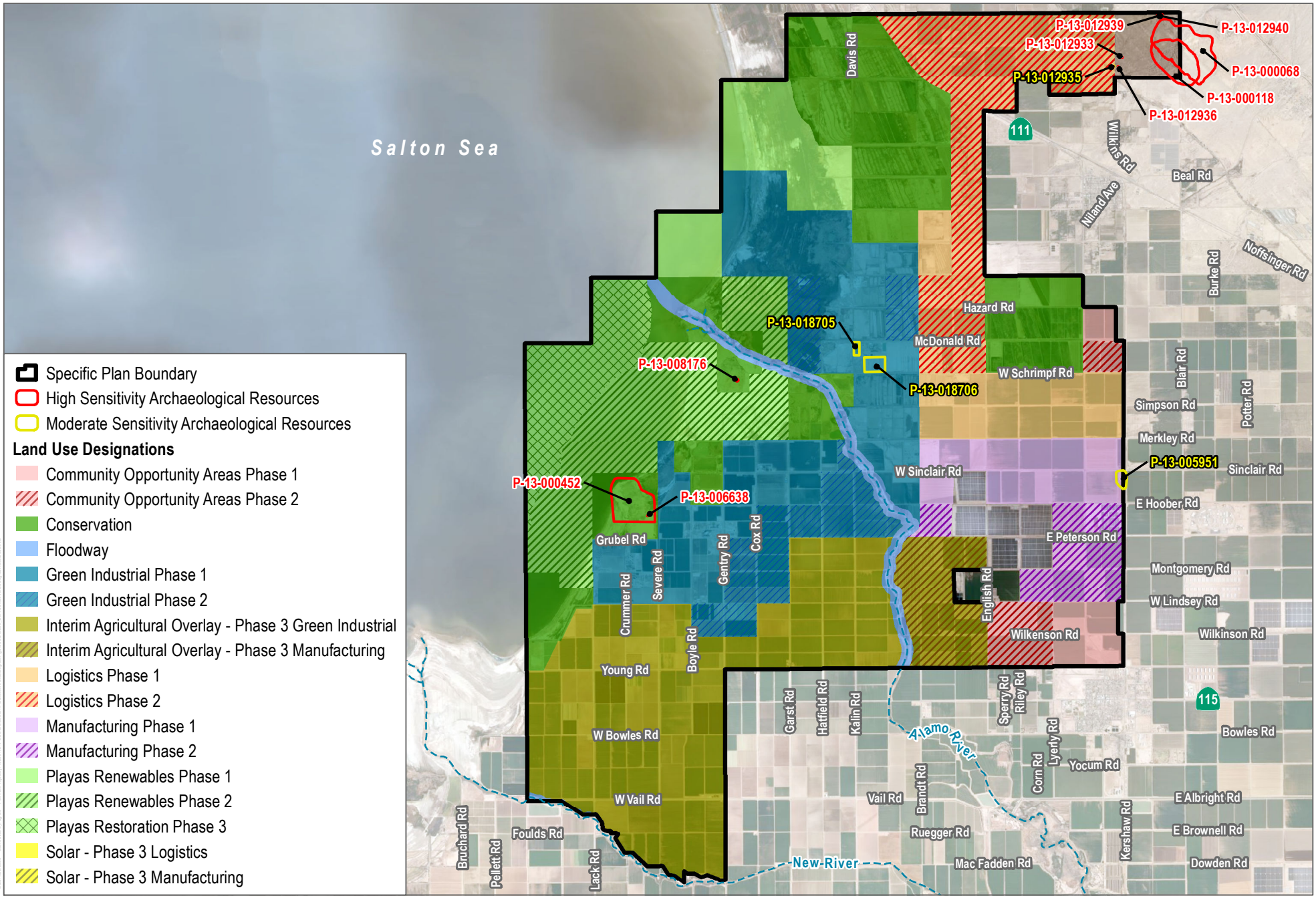

SOURCE: Rick Engineering 2025; SCIC; Open Street Map; Bing Maps (2022-12-06)

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FIGURE 8

Confidential Project Area Land Use

Lithium Valley Specific Plan

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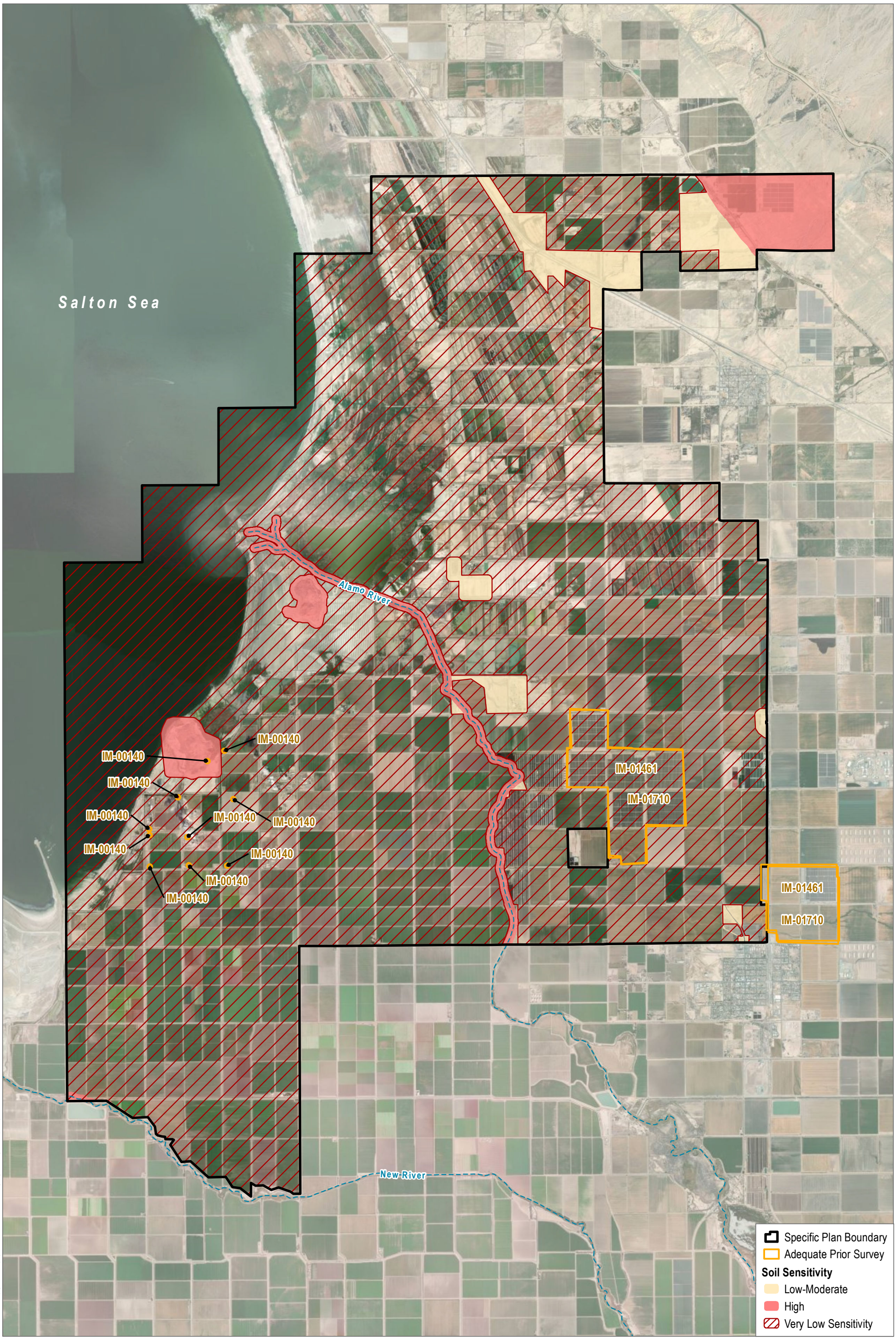

SOURCE: Imperial County; SCIC; Open Street Map; ESRI World Imagery

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FIGURE 9

Archaeological Resources Sensitivity

Lithium Valley Specific Plan

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6.2.1 Cumulative Impacts

Cumulative impacts on cultural resources consider whether the impacts of the proposed project together with other related projects substantially diminish the number of historic or archaeological cultural resources within the same or similar context or property type. The Specific Plan, in combination with other related projects and plans throughout the state, could contribute to a cumulative loss of historic resources in the Specific Plan Area. Conducting record searches, contacting Native American groups, conducting pre-field research and cultural resource surveys, and avoiding known resources, will avoid or minimize the risk of disturbance, damage, or destruction of these resources by identifying, avoiding, or protecting these sensitive resources from damage that could be caused by treatment activities. Therefore, the contribution of the Specific Plan activities to a significant cumulative impact related to known unique archaeological resources, subsurface historical resources, or built environment historical resources, would not be cumulatively considerable.

6.3 Mitigation Measure Framework

The following mitigation measure framework would reduce potentially significant impacts to cultural resources (historic era-built environment and archaeological) and human remains to a less-than-significant level. As project level cannot be known at this time, mitigation is necessarily programmatic, and intended to meet best practice and performance standards in accordance with State CEQA Guidelines Section 15168 for streamlining of CEQA review of later activities.

MM-CUL-1 Cultural Resources. Prior to project-level activities, a Secretary of the Interior–qualified cultural resources specialist shall review the Cultural Resources Impact Analysis Report for the Imperial County Lithium Valley Specific Plan, Imperial County, California (Dudek 2025), including appendices and confidential figures in order to confirm if any known cultural resources may be impacted. If the supporting California Historical Resources Information System record search is older than 5 years in age, a new project-level record search shall be conducted for the area.

MM-CUL-2 Historic Era Built Environment Resources. Subsequent For sites with historic age structures, subsequent technical work must be conducted prior to the start of new construction, additions, renovations or site improvements, involving work that could possibly constitute a substantial adverse change in the significance of a historical resource by means of physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings, such that the significance of a historical resource would be materially impaired (California Environmental Quality Act [CEQA] Guidelines Section 15064.5) within or adjacent to CEQA historical resources. The subsequent technical work must include preparation of a report where the proposed project design plans and/or schematics are analyzed in conformance with the Secretary of the Interior's Standards (SOIS) for the Treatment of Historic Properties, specifically, the Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Standards for Rehabilitation).

As part of this subsequent technical reporting, if the subject buildings or structures are located within an existing historic district or directly adjacent to a historical resource possible indirect impacts to those buildings will need to be addressed. If deemed necessary, an appropriate level of protection shall be provided for those buildings adjacent to historical resources during proposed new construction and renovation activities. A preservation plan shall be developed to

provide these details. At a minimum, protective fencing shall be used during construction activities so historic buildings or structures are not inadvertently impacted. The preservation plan shall also examine the potential effects of vibration resulting from nearby demolition and construction activities. The final preservation plan shall be appended to the final set of construction plans.

MM-CUL-3 Historic Era Built Environment Resources. If necessary, Imperial County shall require applicants of new projects that will tier from the LVSP to ensure that potential impacts to historical resources be assessed as part of planning and environmental clearance for their individual project(s). Prior to the initiation of any construction and/or ground disturbing activities, subsequent identification and impact analysis, including consideration of previously identified historical resources, which shall be reevaluated for their historical significance, and evaluation of buildings and structures over the age 45 years old that have not been previously identified for historical significance in accordance with the guidance of the California Office of Historic Preservation, shall be conducted. As such, a Historic Resource Evaluation (HRE) report must be prepared. If the HRE identifies the presence of CEQA historical resources and if impacts cannot be avoided through project redesign (MM-CUL-2) then more documentation may be required, and mitigation will be necessary. A qualified architectural historian, meeting the Secretary of the Interior's Standards and Professional Qualifications, shall conduct all work related to the preparation of a HRE, impact analyses, mitigation recommendations (if deemed necessary), and/or subsequent technical reports, should the proposed construction and implementation of the LVSP result in potential impacts to CEQA historical resources. MM-CUL-2 would apply to resources found to be historical under CEQA.

MM-CUL-4 Archaeological Resources. Having reviewed the Cultural Resources Impact Analysis Report for the Imperial County Lithium Valley Specific Plan, Imperial County, California (Dudek 2025), notably Figure 10, Archaeological Management Strategy, the County shall confirm what level of analysis is required. In areas determined to qualify for a "Streamlined Check," and demonstrable existing depths of disturbance for agriculture and related infrastructure are greater than that of proposed excavation depths, no additional pre-construction action is required beyond posting of planned projects on the County website or through other forms of notification that may be reviewed by Consulting Tribes that have requested pre-project notification. "Consulting Tribes" is defined as those NAHC-listed Native American Tribes that have engaged in government-to-government consultation with the County as part of preparation of the present Plan. In areas determined to qualify for a "Streamlined Check," and demonstrable existing depths of disturbance for agriculture and related infrastructure are less than that of proposed excavation depths, the following shall be required by a qualified archaeologist.

- Review existing documentation to confirm no previously recorded CRHR eligible or potentially eligible archaeological resources are present that may be impacted.
- Complete physical site visit with a regionally affiliated Native American monitor to confirm that the area has been substantially disturbed and that is has a low or no potential for potentially significant arcaeological resources to be present. Intensive-level survey of the full project site shall not be required; however, targeted visual sampling of representative areas may be appropriate, at the discretion of a qualified archaeologist and Native American monitor.

- Complete a simple "Streamlined Cultural Resources Check" memo for file to the County, prior to initiation of project earth-disturbing activities, confirming disturbed conditions and the low suitability to support the presence of archaeological sites. The format of this memo shall be developed in coordination with the County.
- Consulting Tribes that have requested notification of future project-level activities shall be notified by letter and phone call at least 30 days ahead of ground disturbing project activities. The Consulting Tribes shall additionally be provided the Streamlined Cultural Resources Check memo at this time. In the event that a Consulting Tribe disagrees with this assessment, or otherwise indicates that it is aware of resources that would be affected, the tribe will provide information of the specific cultural resource(s) being impacted and possible steps to reduce those impacts. If determined appropriate by the County, an Archaeological Survey level study, shall be required, including the presence of a regionally affiliated Native American monitor.

Cultural resources review shall be considered complete, once confirmed by the County that documentation provided is adequate.

MM-CUL-5 Having reviewed the Cultural Resources Impact Analysis Report for the Imperial County Lithium Valley Specific Plan, Imperial County, California (Dudek 2025), notably Figure 10, Archaeological Management Strategy, the County shall confirm what level of analysis is required to meet CEQA compliance. In areas determined to require a "Project-Level Archaeological Analysis," the following shall be required by a qualified archaeologist:

- Research will be conducted prior to implementing treatments as part of the cultural resource investigation. The purpose of this research is to properly inform survey design, based on the types of resources likely to be encountered within the treatment area, and to be prepared to interpret, record, and evaluate these findings within the context of local history and prehistory. Qualified cultural resources specialists will review records, study maps, read pertinent ethnographic, archaeological, and historical literature specific to the area being studied, and conduct other tasks to maximize the effectiveness of the survey.
- Intensive-level archaeological survey (consisting of 15 meters or less), shall be completed of the entire project site. Survey shall be overseen by a Secretary of the Interior–qualified archaeologist. A regionally affiliated Native American monitor will participate in the survey.
- An Archaeological Survey Report shall be completed for every cultural resource survey completed. Additional management requirments concerning identified cultural resources, such as archaeological and Native American construcion monitoring, may be recommended in this report, implementation of which shall be determined by the County. The specific requirements will comply with the applicable federal, state, or local agency procedures.
- Consulting Tribes shall be notified by letter and phone call at least 90 days ahead of planned activities. The Consulting Tribes shall be provided the Archaeological Survey Report. In the event that a Consulting Tribe disagrees with this assessment, or otherwise indicate that it is aware of resources that would be affected, the County shall have the opportunity to assess information provide and provide direction on next steps.

- Cultural resources review shall be considered complete, once confirmed by the County that documentation provided is adequate.

MM-CUL-6 For all future projects conducted under the Specific Plan, contractors shall include a standard clause in every construction contract for the project that requires cultural resources sensitivity training that shall occur as part of a worker environmental awareness program. Prior to the initiation of ground-disturbing activities, construction crews shall be made aware of the potential to encounter cultural resources and the requirement for cultural monitors to be present during these activities. Topics addressed should include definitions and characteristics of cultural resources and Tribal Cultural Resources, regulatory requirements and penalties for intentionally disturbing cultural resources, and protocols to be taken in the event of an inadvertent discovery. The presentation shall be reviewed by the tribal monitor and the tribal monitor shall have the opportunity to be present and further discuss tribal cultural resources, tribal heritage, and/or cultural resources values during sensitivity training.

MM-CUL-7 Inadvertent Identification of Archaeological Resources. If any cultural resources (archaeological, Tribal Cultural Resources, or built environment elements over 45 years in age) are identified during construction of any future project conducted under the Specific Plan, earth-disturbing work in the vicinity shall be halted and a Secretary of the Interior–qualified archaeologist shall be contacted. Avoidance of any cultural resources discovery shall be assumed to be the preferred treatment strategy. An appropriate buffer for avoidance is 100 feet, which may be adjusted at the recommendation of the principal investigator, so that the exclusion buffer allows key activities to proceed while ensuring that no ongoing project activities will affect the find. If it is determined by the project proponent that avoidance is unfeasible, a significance evaluation shall be completed in order to determine the significance of the resource as outlined by the California Environmental Quality Act (CEQA) (14 CCR 15064.5[f]; California Public Resources Code Section 21082). No project activities shall be permitted in the vicinity of the resource until the significance of the resource is assessed by the qualified archaeologist.

If the resource is of Native American origin, Consulting Tribes shall be given the opportunity to provide input on evaluation strategies prior to implementation and findings. Where appropriate and approved by the County, archaeological resources with potential to support buried archaeological deposits shall be evaluated by the qualified archaeologist through an archaeological testing phase that consists of systematic excavations of a sample of areas within the proposed project area to determine the integrity of the archaeological deposits, the horizontal and vertical extent of the deposits, the quantity and diversity of artifacts contained within the deposits, and the potential for human remains. The goal is to avoid or minimize impacts to archaeological resources based on the results of the test excavations. Pursuant to Section 15126.4(b)(3)(A), preservation-in-place is the preferred manner of mitigating impacts to archaeological resources. However, Section 15126.4(b)(3)(C) also recognizes that data recovery through excavation may be the only feasible mitigation for significant or unique cultural resources at times; therefore, this contingency should be provided for. Any data recovery shall meet best practice standards and supported by a data recovery plan, prepared by the principal investigator, that has been approved by the County. Consulting Tribes shall be provided the opportunity to

comment on any data recovery plan concerning resources of Native American origin or association. All studies shall be submitted to the County for review and approval.

Please note that Tribal Cultural Resources (as defined by PRC Section 21074(a)) represent an independent, albeit often related, resource type under CEQA. Impacts to Tribal Cultural Resources are assessed through the process of government-to-government consultation. Should a possible Tribal Cultural Resource be identified, management strategies to address this find shall occur in compliance approved Tribal Cultural Resources mitigation.

MM-CUL-8 In compliance with California Health and Safety Code, Section 7050.5, if human remains are discovered in any place other than a dedicated cemetery during implementation of any project under the Specific Plan, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County coroner has examined the remains (California Health and Safety Code, Section 7050.5b). Public Resources Code, Section 5097.98, also outlines the process to be followed in the event that remains are discovered. If the County coroner determines or has reason to believe the remains are those of a Native American, in any state of decomposition or cremated, the coroner must contact the California Native American Heritage Commission (NAHC) within 24 hours (California Health and Safety Code, Section 7050.5c). The NAHC will notify the Most Likely Descendant. With the permission of the landowner, the Most Likely Descendant may inspect the site of discovery. Within 48 hours of notification of the Most Likely Descendant by the NAHC, codes and regulations provide that the Most Likely Descendant shall initiate discussions relating to next steps and provide recommended additional management strategies.

6.4 Level of Significance After Mitigation

Implementation of mitigation measures **MM-CUL-1** and **MM-CUL-4 through MM-CUL-7** provide a project-level framework to ensure proper treatment should unknown cultural resources be discovered and would ensure proper treatment of previously unidentified archaeological resources. In addition, implementation of **MM-CUL-5 and MM-CUL-8** would ensure appropriate handling of human remains, if encountered during grading, in accordance with CEQA and other applicable legal requirements, most notable among these being California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. **MM-CUL-5** would also provide a project-level framework for archaeological analysis of resource P-13-000068. With implementation of these mitigation measures, impacts would be **less than significant with mitigation** and **not cumulatively considerable.**

Implementation of mitigation measures **MM-CUL-2 and MM-CUL-3** would reduce the significance of impacts to historic resources. However, because there is no feasible mitigation available to guarantee that demolition, damage or destruction of historically significant resource would not occur from future developments that may be conceptualized and implemented as a result of approval of the LVSP, the impact remains **significant and unavoidable** and **cumulatively considerable**.

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7 Recommendations

7.1 Archaeological Resources

This report documents the findings of a records search analysis, historical and modern aerial photograph analysis, and site visits to a sample of proposed Land Use Areas. This analysis reveals that large portions of the Specific Plan Area have a low archaeological sensitivity. Extensive archaeological review has been conducted but limited archaeological resources have been identified within the Specific Plan Area, much of the Specific Plan Area has undergone extensive ground disturbance by previous development, including agricultural excavations to depths of 16 feet, that would have displaced any archaeological resources or native soils, and most of the Specific Plan Area's geology is not conducive to well stratified archaeological deposits. Future developments under the Specific Plan within these low sensitivity areas should only require a Streamlined Check as described in MM-CUL-4 (Figure 10, Archaeological Management Strategy).

There are portions of the Specific Plan Area that have an increased archaeological sensitivity. The presence of known cultural resources within the Specific Plan Area would suggest a heightened archaeological sensitivity and increase the Specific Plan's potential to adversely impact archaeological resources within the vicinity of those known resources. The SCIC cultural resources records search identified three highly sensitive archaeological resources (P-13-000452, P-13-006638, and P-13-008176) located within Conservation Land Use Areas. Future projects implemented under the Specific Plan will not take place within the Conservation Land Use Areas so the Specific Plan avoids impacts to these three resources (Figure 10). Four historical refuse scatters (P-13-005951, P-13-012935, P-13-018705, and P-13-018706) are located in the Specific Plan Area and constitute a moderate archaeological sensitivity that will require evaluation prior to the implementation of future projects within their boundaries. Five highly sensitive prehistoric habitation sites and artifact scatters (P-13-000068, P-13-012933, P-13-012936, P-13-012939, and P-13-012940) are located where the shoreline of Ancient Lake Cahuilla intersects the Specific Plan Area. Future projects implemented under the Specific Plan within low-moderate or high archaeological sensitivity areas require project-level archaeological analysis as described in MM-CUL-5 (Figure 10). Additionally, as a result of tribal consultation, the County has identified a TCR cultural landscape that is comprised of multiple contributing elements (see Tribal Cultural Resources Section of PEIR). Any projects within 300 feet of these components require project-level archaeological analysis as described in MM-CUL-5 and MM-TCR-1, and are identified in Figure 10 as requiring project-level archaeological analysis.

7.2 Built Environment Resources

Based on the records search and desktop research 72 parcels that contain buildings or structures and none are known to be historical resources as defined by CEQA. Property specific research would need to be conducted to determine the age of those properties. Properties built in or before 1980 (as of 2024) would need to be inventoried and evaluated for their potential historical significance by a qualified architectural historian.

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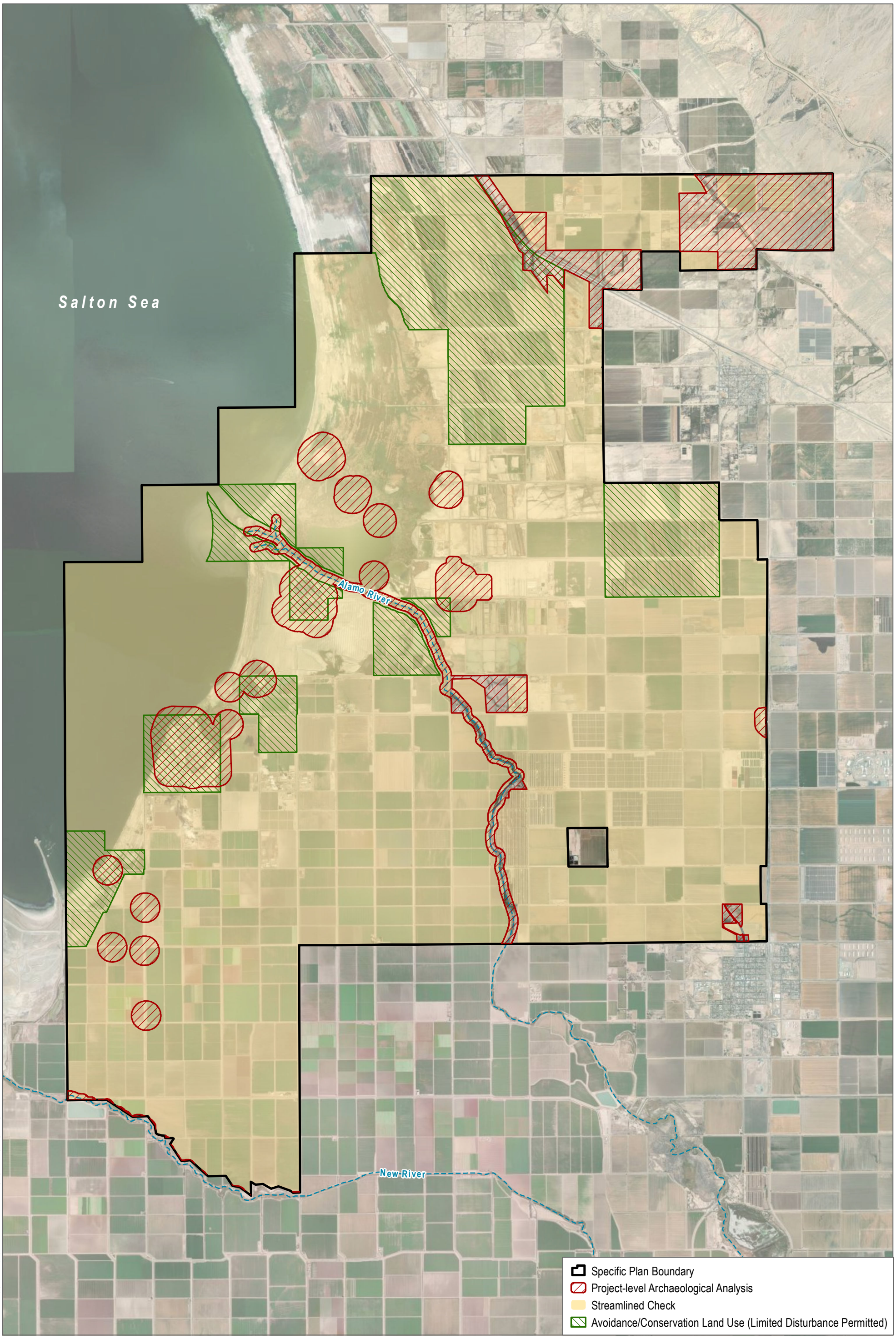

SOURCE: Imperial County; SCIC; Open Street Map; ESRI World Imagery

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FIGURE 10

Archaeological Management Strategy

Lithium Valley Specific Plan

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Appendix A

Confidential SCIC Records Search Results

Appendix B
Confidential Figures