



FIGURE 3: THE JAMES CANAL PORTRAYED ON THE 1981 USGS AERIAL MAP. PORTIONS OF THE CANAL, INCLUDING THE SEGMENT DOCUMENTED IN THIS RECORDING, HAVE BEEN ORPHANED BY SURROUNDING DEVELOPMENT. A RED ARROW POINTS TO THE EXTANT SEGMENT RECORDED AS PART OF THIS STUDY (USGS 1978, REV. 1981).

Water Conveyance and Control

In 2000, the California Department of Transportation (Caltrans) published a report that provides a statewide thematic approach to surveying and evaluating the ditches and canals commonly found throughout California. This report, *Water Conveyance Systems in California: Historic Context Development and Evaluation Procedures*, asserts that “there is an increased awareness canals and other water conveyance facilities can be historically significant, and that when projects do have the potential to affect them, they need to be studied systematically” (Caltrans and JRP Historical Consulting Services 2000: 1). Caltrans notes that some level of research is required to determine the potential for historical significance of these resources, and that certain types of features are more likely than others to have potential significance, including “prehistoric or mission era irrigation systems; gold rush-era mining ditches; early or major irrigation, reclamation, or hydroelectric systems, major multi-purpose systems, flumes; tunnels, or ditches that may possess engineering, construction, or design distinction; properties associated with important events, such as critical or precedent setting litigation; and any early or prototype facilities” (1). The report also delineates resources that typically would not require evaluation, including roadside drainage ditches; municipal water, sewer, and storm drain systems; most ordinary irrigation ditches; modified natural waterways; modern pipelines; isolated or unidentified ditch

segments; and canals less than 50 years old (1-2). Caltrans outlines the types of actions that could result in an effect on a water conveyance resource, including but not limited to modifying a critical element of a significant system; concrete line or pipe an important earthen ditch; introducing visual instructions that alter a canal's historic setting; rerouting a critical component of an early system; obliterating a small mining ditch; or causing other changes to an important property's essential physical features (2). Ultimately, Caltrans cautions that, due to the ubiquitous nature of this type of resource, an understanding of the potential historical significance of a water conveyance resource is key to determining the level of documentation and evaluation necessary (1-2). For the James Canal, while an early feature of the Kern River water conveyance and control infrastructure, it was only one minor canal in a large system that facilitated the agricultural success of the region.

People

Targeted research failed to identify any direct association with the James Canal and the lives of significant persons in the past (Ancestry.com n.d.; Newspapers.com n.d.; Google.com n.d.). The James Canal was part of the early Kern River water infrastructure system, and the water infrastructure features in this system have been used by numerous private and public entities and municipal personnel over the years. While water infrastructure system features and complexes often have associations with multiple people, and although these individuals may have contributed to aspects of local and regional history, there is insufficient evidence to establish a substantive connection between their specific contributions and this canal.

Architect and Builder

Targeted research failed to identify any specific architect or builder associated with the design of the James Canal (Ancestry.com n.d.; Newspapers.com n.d.; Google.com n.d.).

CULTURAL RESOURCES IDENTIFICATION METHODS

The results of the SSJVIC records search and correspondence, Native American Heritage Commission Sacred Lands File search, archaeological survey, and archaeological site sensitivity analysis are presented below.

SOUTHERN SAN JOAQUIN VALLEY INFORMATION CENTER

On February 11, 2026, Michael Baker International requested a priority records search from the SSJVIC located at CSUB. The SSJVIC is part of the California Historical Resources Information System (CHRIS), an affiliate of the California Office of Historic Preservation (OHP) and the State Historic Resources Commission, and is the official state repository of cultural resources records and reports for Kern County. The records search request included the entirety of the CSUB main campus and a quarter-mile radius. The SSJVIC fulfilled the records search request on February 11, 2026, and gave clarifying information in series of emails on February 18, 2026.

Michael Baker International supplemented this search with available online databases maintained by federal and state repositories. As part of the records search, the following federal and California inventories were reviewed:

- NRHP (National Park Service 2020)
- California Inventory of Historic Resources (OHP 1976)
- California Points of Historical Interest (OHP 2026b)

- California Historical Landmarks (OHP 2026b)
- Built Environment Resources Directory for Kern County (OHP 2026a). The directory includes resources reviewed for eligibility for the NRHP and the California Historical Landmarks programs through federal and state environmental compliance laws, and resources nominated under federal and state registration programs, including the NRHP, California Register, California Historical Landmarks, and California Points of Historical Interest.

Previous Studies

The records search revealed that 15 studies have taken place within the CSUB campus or a 0.25-mile records search radius (Table 2). Of the 15 studies, only one (KE-02280) took place on campus. None of the project site, and less than 1 percent of the main CSUB campus, has been subjected to previous formal archaeological study.

TABLE 2: PREVIOUS STUDIES WITHIN 0.25 MILES OF THE CSUB MAIN CAMPUS.

Author	Report No.	Date	Title/Description	Overlaps the Project Site?
Napton, L. Kyle and Greathouse, E.A.	KE-00707	1988	Cultural Resource Investigation of the Proposed Kern River Parkway Project, City of Bakersfield, Kern County, California	No
Schiffman, Robert A.	KE-01211	1986	Archaeological Investigation of Sand Creek Golf Course, Kern County, California	No
Sutton, Mark Q. and Pruett, Catherine Lewis	KE-01601	1989	An Archaeological Survey of Sections 6 and 7, T.30S, R.27E for Oceanic, Inc.	No
Duke, Curt	KE-02280	1999	Cultural Resource Assessment for Pacific Bell Mobile Services Facility CV 011-01, Kern County, CA	No
Billat, Lorna	KE-02727	2000	Nextel Communications Wireless Telecommunications Service Facility - Fresno, Kern, and Tulare Counties	No
Herbert, Rand F.	KE-02807	1993	Historic Resource Evaluation Report: Tier 1, Route Adoption on Route 58 Between I-5 and State Route 99	No
Price, Barry A.	KE-03715	1978	Cultural Resources Survey for the Kern Delta Water District Cross River Pipeline. Kern County, California	No
Flint, Sandra S., McDougall, Dennis P., Jernigan, Kathleen, and Anderson, Lisa	KE-03726	1979	Cultural Resources Surveys for the Kern Delta Water District Water Banking and In-Lieu Water Supply Project, Kern County, California	No

Author	Report No.	Date	Title/Description	Overlaps the Project Site?
Hudlow, Scott M.	KE-04345	1979	A Phase I Cultural Resource Survey For Stockdale Highway / Coffee Road Property, City of Bakersfield, California	No
Loftus, Shanonn	KE-04551	1980	Cultural Resource Records Search and Site Survey AT&T Site BKLC40 (8017) Ming & Gosford 8201 Camino Media Bakersfield, Kern County, California 93311	No
Loftus, Shannon	KE-04551A	1980	Historic Architectural Resource Inventory and Assessment AT&T Site BKCL40 (8027) Ming & Gosford, 8201 Camino Media, Bakersfield, Kern County, California 93311	No
McCarthy-Reid, Amy	KE-05038	1980	06-KER-SR58 Centennial Corridor Project Re-validation #5 Proposed Park-and-Ride Facility and Retention Basin	No
McCarthy-Reid, Amy	KE-05038A	1980	06-KER-58 Re-validation #8 Abandonment of E&B Oil Facility and Retention Basin Redesign	No
Kay, Michael	KE-05038B	1977	Kit Fox Sump Habitat Project	No
Whitley, David S., Carey, Peter A., and Azpitarte, Robert	KE-05452	1984	Class III Inventory/Phase I Survey, Kern River Channel Maintenance Project, Kern County, California	No

Previously Recorded Resources

The records search revealed seven resources located within the CSUB main campus or a 0.25-mile radius (Table 3). Of these, five resources are located on campus, and of those five, only two are formally recorded. The five resources on campus are described more fully below. None of these resources overlaps the project site.

TABLE 3: RESOURCES LOCATED WITHIN 0.25 MILES OF THE CSUB MAIN CAMPUS.

Primary Number	Trinomial	Name/ Description	Evaluation / OHP Status Code	On Campus/ Within Project Site?
None	None	Sparse lithics	Unevaluated: not formally recorded.	Yes/No
None	None	Sparse lithics	Unevaluated: not formally recorded.	Yes/No
None	None	Expended core	Unevaluated: not formally recorded.	Yes/No
P-15-003850	CA-KER-003850	Fenenga Site – teaching site constructed 1992-1993 consisting of fire affected rock, pottery, ground stone, obsidian flakes, rhyolite core and flakes, and large faunal bones	6Z: Found ineligible for NR, CR or local designation through survey evaluation.	Yes/No

Primary Number	Trinomial	Name/ Description	Evaluation / OHP Status Code	On Campus/ Within Project Site?
P-15-007994	None	Arvin-Edison Canal; Arvin-Edison Water Storage District North Canal	6Y: Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or local listing.	No
P-15-008010	None	Carrier Canal/Gates	6Y: Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or local listing.	Yes/No
P-15-017768	None	Pacific Gas & Electric Path 15 Transmission Tower (BKCL40)	6Y: Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or local listing.	No

P-15-008010 – Carrier Canal/Gates

This resource consists of three gates associated with the Carrier Canal. The canal was first constructed in 1872, but was rebuilt and enlarged in the 1960s (JRP Historical Consulting Services 1993). The three gates were documented in association with improvements to State Highway 58 and determined ineligible for the NRHP through the Section 106 process (OHP 2026a).

P-15-003850 – CA-KER-003850 – Fenenga Site

This resource is a mock archaeological site constructed in the 1990s as a teaching site. According to its New Deposit/Redeposit Record, it was “Made by CSUB field classes in 1992 and 1993.” It consists of fire affected rock, pottery, ground stone, obsidian flakes, large mammal bones, and a rhyolite core and flakes. A rock fire ring was also created at the site. Prior to the creation of the site, the site location and a 20-meter buffer was surveyed to ensure that no genuine archaeological sites would be contaminated by the deposit. However, the form does not document whether the artifacts used to create the site were genuine aboriginal artifacts or replicas (Woods 1993). It is named the Fenenga Site, presumably after Gerrit Fenenga, an archaeologist who served on the faculty of CSUB for nine years in the 1990s (Foster and Betts 2004: 110).

Informal Resources

In addition to the formally recorded resources, there are 3 “informal” resources identified on campus. Two of these resources are sparse lithic scatters, and the third is an isolated core. All three were identified by SSJVIC Assistant Coordinator Jeremy E. David and entered into the CHRIS spatial database, but none were formally recorded.

According to an email from Mr. David:

I believe 2 of these informal resources are likely related to KER-3850, the ‘Fenenga Site’. There is a large dispersed lithic scatter of rhyolite, calcedony, chert, and obsidian to the west and SW of the site. Further, there are back dirt piles here that could contain cultural materials, as I’ve found fist sized obsidian nodules next to them. It should be noted that

since I first discovered these nodules, wild grasses have grown in and kit fox surveyors have been active in the field and I have not been able to relocate them since. [...] I found an isolated expended chert core to the SE of KER-3850, also next to a back dirt pile.

If these resources are associated with CA-KER-003850, then they were most likely deposited in the 1990s at the same time that the teaching site was created, in which case, while they may be either reproductions or genuine aboriginal artifacts, they do not represent an aboriginal archaeological site. However, these resources are located well outside the mapped boundary both of CA-KER-003850 and the 20-meter buffer the CA-KER-003850 site form notes was surveyed to ensure no archaeological sites would be impacted by the creation of the teaching site.

The third informal resource is also a sparse lithic scatter. Mr. David continues:

Just south of the new humanities building and north of the pond is a dirt lot where I have found another sparse scatter of a few flakes and a projectile frag. It is difficult to be certain if this scatter is a secondary deposition from gravel fill (located approximately 200' to the west), or if it represents a primary deposit, but given the proximity to the river and other similar sites, it isn't a big stretch. [...] I collected some of the flakes and point frag from the dirt lot, as well as the expended core, because of their locations in high traffic areas and fear that nothing would ever be done about these sites.

Finally, Mr. David reported a fourth resource, not included in the CHRIS database:

There is a water retention basin on the corner of Student Way and Southwest Dr. where I have found obsidian flakes eroding out of the side wall about a foot down from the surface (the campus routinely scrapes the side walls and bottoms of the basins, which has been done since the discovery), which leads me to believe there may be a subsurface deposit.

The complete records search results, including correspondence with Mr. David, are included as confidential Attachment 3.

NATIVE AMERICAN HERITAGE COMMISSION

The California Native American Heritage Commission maintains a confidential Sacred Lands File documenting burial sites and other locations of concern to California Native American tribes. On February 19, 2026, Michael Baker requested the Sacred Lands File be searched for the project site.

The NAHC responded to the request in a letter dated March 26, 2026, indicating that results of the Sacred Lands File search were negative. The NAHC provided a list of recommended tribal contacts who might have knowledge of resources in the project site (Attachment 4).

FIELD SURVEY METHODS AND RESULTS

On February 13, 2026, Michael Baker archaeologist Marc Beherec, PhD, RPA, conducted a field survey of the project site.

The entire project site was walked over in transects spaced 15 meters apart.

The project site is partially occupied by a practice soccer field (**Photograph 1**). Access roads lead to that practice field. South of the practice field is a fenced-in area. The site is otherwise undeveloped.

At the time of the survey, all parts of the project site were densely covered with vegetation (**Photograph 2 and Photograph 3**). Visibility of the ground surface within all parts of the project site was generally less than 5 percent. Soil was primarily visible in the access roads, the cut banks of a remnant of the James Canal, and back dirt from animal dens. Careful attention was paid to the visible soil in all these locations. In some cases, the back dirt from animal burrows was spread out with a trowel to look for artifacts, ecofacts, and archaeological features.

Visible disturbances to the site include grading and preparation of the practice soccer field; in-ground irrigation systems; remnants of the James Canal; and, in the northern part of the project area, a manhole labeled "BKFD SEWER." An access road bladed along the east side of the project site likely impacted the project site. The project site is also heavily bioturbated by ground squirrels and possibly other burrowing animal activity.

Small quantities of recent trash and construction debris consisting of broken concrete and asphalt littered the project site, particularly in the environmentally sensitive area south of the practice field.



PHOTOGRAPH 1: THE PRACTICE SOCCER FIELD WITHIN THE PROJECT SITE, VIEW SOUTH.



PHOTOGRAPH 2: THE NORTHERN PART OF THE PROJECT SITE, OUTSIDE THE PRACTICE FIELD, VIEW NORTHEAST.



PHOTOGRAPH 3: THE FENCED-IN PART OF THE PROJECT SITE SOUTH OF THE PRACTICE FIELD, VIEW NORTHWEST.

James Canal

Approximately 70 feet of the historic James Canal alignment was located within the project site, which flowed from the northeast to the southwest in this location.

Just outside the east end of the project site, the James Canal was completely destroyed by the construction of the Arvin-Edison Canal and its associated access road.

At the far eastern end of the project site, the James Canal is backfilled and was barely discernable among the dense vegetation then covering the project site. Just inside the project site, the canal is visible as a slight depression. Inside the project site, the canal has been heavily impacted by deliberate backfilling, collapse and backfilling due to lack of maintenance, vegetation growth, and extensive ground squirrel activity. However, the canal continues beyond the project site to the southwest, where the alignment was more easily discernable because the portion of the inactive canal outside the project site is less backfilled and therefore more visible in the landscape (Photograph 4).

The most open parts of the canal, southwest of the project site, reveal it to consist of a U-shaped unlined earthen ditch with sheer side walls. The maximum depth of the canal is approximately 5 feet. The maximum width of the canal measures approximately 20 feet wide.

No features of the canal other than the unlined ditch were visible at the time of the survey.

The James Canal was documented on a DPR 523 series record available in Attachment 5.



PHOTOGRAPH 4: JAMES CANAL SEGMENT OVERVIEW, VIEW SOUTHWEST.

BURIED ARCHAEOLOGICAL SITE SENSITIVITY ANALYSIS

The project site has a low sensitivity for buried archaeological resources at the surface, increasing to moderate with depth.

The project site is located in the southern San Joaquin Valley, approximately 2.5 miles west of the Old Kern River, and slightly over 0.5 miles south of the current bed of the Kern River. Before it was tamed in

the late nineteenth and early twentieth centuries, the Kern River would have frequently shifted its bed through this area, which would have been occupied by knolls and marshes. The Yowlumne tribe of the Southern Valley Yokuts are documented to have occupied the village of Woilo in what is today Bakersfield. Because of the area's rich resources, it might be expected to have been intensively used in precontact and early post contact times. Soils maps and geologic maps indicate that Holocene alluvium overlies the entire project area. This alluvium, which can reach considerable depths, has the potential to bury archaeological resources. While there are no formally documented precontact resources on the CSUB campus or within the 0.25-mile buffer, this is most likely due to the lack of archaeological study so far given to the region. There are "informal" resources on campus, some of which may be deposits associated with the university's past as an archaeological teaching campus, or which may be archaeological sites requiring additional study. However, the project site's history of human disturbance reduces its sensitivity at shallow depths.

The area has a history of intensive disturbance. The Bakersfield area was drained of its marshes beginning in the nineteenth century in order to prepare it for agriculture. An active canal and access road borders the project site to the east, and remnants of the James Canal cut across the south end of the project site. Historical maps show the CSUB campus covered by a network of canals, levees, and berms, most of which are no longer visible today. The earth-moving required to excavate the canals and build up the berms would have required substantial ground disturbance. Further, the project site was actively farmed at least into the 1970s, and part of the project site was later leveled and planted for the playing field. These activities would have disturbed the project site to unknown depths near surface. The excavations and grading needed for reclamation and farming can reasonably be assumed to have destroyed any archaeological deposits that may have existed within the project site at shallow depths.

Based on the results of the archival research and past surveys, there is low potential that unknown archaeological resources will be encountered at shallow depths during ground-disturbing activities for the project due to past ground disturbance. However, deeper excavations may extend into undisturbed alluvial deposits. These deposits have a moderate potential to hide intact significant archaeological sites.

EVALUATION

The following includes an evaluation of the James Canal for its eligibility for the California Register of Historical Resources.

California Register Criterion 1 – Research did demonstrate that the James Canal was associated with the growth and expansion of agriculture in the Bakersfield area. The canal was constructed in 1871 as part of the response to agricultural expansion south of the Kern River. While the construction of the canal was important to expanding access to and control of water southwest of the Kern River, the canal was not the first to be constructed in the area. It was just a small part of an expanding system of water infrastructure and was not directly significantly associated with the increased development of the area, nor directly or significantly associated with general agricultural development at the state or national level. The James Canal is not known to have made a significant contribution to other broad patterns of local, regional, state, or national culture and history. The James Drain Canal is a remnant of an ubiquitous unlined canal found throughout the region since the late nineteenth century. As such, the James Canal does not meet the significance threshold for listing in the California Register under Criterion 1.

California Register Criterion 2 – To be eligible under Criterion 2, a property must be directly associated with a person’s productive life during the period in which they achieved their significance. Additionally, if multiple properties are linked to the productive life of a significant person, those properties must be compared to determine which best represents the historical contributions of that individual. The James Canal is part of a water infrastructure system established, managed, and utilized by numerous public and private citizens; although these individuals may have contributed to aspects of local and regional history, there is insufficient evidence to establish a substantive connection between their specific contributions and this canal, or that this canal would be the best physical representation of those contributions. Therefore, the James Canal does not meet the significance threshold for listing in the California Register under Criterion 2.

California Register Criterion 3 – The James Canal is an unlined canal and is indistinguishable from other examples of this resource type. It was not the first of its type, nor the most distinguished example of a unlined canal in the region, state, or nation. Its design and construction do not represent a departure from standard construction practices or design for this resource type. The James Canal is not the representative work of a master, nor does it possess high artistic value. Therefore, the James Canal does not meet the significance threshold for listing in the California Register under Criterion 3.

California Register Criterion 4 – The built environment of the subject property is not likely to yield valuable information which will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to significant events, people, or engineering. Therefore, the James Canal does not meet the significance threshold for listing in the California Register under Criterion 4.

Conclusion – Lacking significance, the James Canal is recommended as ineligible for listing in the California Register. It is not a historical resource as defined by CEQA Section 15064.5(a).

Integrity – The James Canal is recommended as ineligible under all four California Register criteria. Therefore, an analysis of integrity is not required.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

PALEONTOLOGY

The project area consists of Holocene-aged alluvial fan deposits, which have a low potential for containing significant paleontological resources at the surface and a moderate potential at depth. Given the findings from the records search and geological context, there is little indication that the project will result in direct or indirect impacts on significant paleontological resources. According to the Society of Vertebrate Paleontology (SVP 2025) guidelines, the project's impact on paleontological resources is considered low but not negligible. While this risk appears low, inadvertent discoveries remain a possibility. As such, Michael Baker presents the following recommendations and best management practices for consideration.

Based on the results of this investigation, no further paleontological resources work is recommended prior to project implementation. However, as required by standard paleontological resource management practices and regulatory compliance, inadvertent discovery protocols should be in place to address any unanticipated finds. The following best management practices should be implemented to ensure compliance with state and federal regulations regarding paleontological resources:

- a. An SVP Qualified Paleontologist shall be retained for the duration of the project and will be on call during grading and other significant ground-disturbing activities.
- Paleontological Principal Investigator (SVP Qualified Paleontologist). Someone with an advanced degree (Master's or Ph.D.) with an emphasis in paleontology plus a minimum of two years (or 50 completed mitigation projects) of demonstrated professional experience and competency with paleontological resource mitigation projects at the level of field supervisor, under the direct supervision of a principal investigator. This experience should include project initiation, fossil discovery and collection, laboratory preparation, fossil inventory, specimen identification, and repository curation. The principal investigator must be able to manage field paleontologists and fossil recoveries, communicate with project personnel, evaluate the scientific significance of fossils, and make decisions regarding impact mitigation. The principal investigator must also be able to ensure field notes and other observations are complete, study area stratigraphy is documented, and fossil localities are accurately indicated on measured stratigraphic sections. Additionally, the principal investigator must have a working knowledge of how fossils and their associated data are used in conducting and publishing professional paleontological research (such as demonstrated by having a record of peer-reviewed paleontological publications) and should participate in professional scientific organizations. The principal investigator must have experience evaluating the significance of unearthed fossils, obtaining necessary permits, and preparing and submitting required progress and final mitigation reports. The principal investigator must have project management experience and knowledge of legal requirements that apply to all aspects of mitigation paleontology. The principal investigator must also be able to evaluate the qualifications of field supervisors and field paleontologists and make responsible project staffing decisions.
 - Field Paleontologist (Monitor). Someone with academic training (college or university degree) with an emphasis in paleontology or demonstrated equivalent experience. Academic training as defined herein must include completed basic coursework in paleontology, geology, and biology. Equivalent experience is defined as a minimum of two years of cumulative professional or non-professional work in laboratory preparation, curation, and/or fieldwork related to paleontology, as well as documented knowledge of the discipline of paleontology. The field paleontologist must be able to safely find, recover, and identify, to a basic level, fossils discovered in undisturbed settings as well as in active excavations at construction sites. The field paleontologist must also be able to identify and describe sedimentary rocks and stratigraphic relationships and be able to effectively communicate information about fossil discoveries, using photographs and written descriptions, to the paleontological principal investigator and/or field supervisor. Individuals who lack sufficient experience to be qualified as field paleontologists can gain the necessary experience by working alongside field paleontologists, field supervisors, or principal investigators.
- b. Should any paleontological resources be discovered during construction or the course of any ground-disturbance activities, all such activities within 100 feet of the find shall halt immediately. At this time, CSU Bakersfield shall consult with the SVP Qualified

Paleontologist to assess the significance of the find. The assessment will follow SVP (2025) standards. If any find is determined to be significant, appropriate avoidance measures must be followed unless avoidance is determined to be unnecessary or infeasible by CSU Bakersfield. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted.

- c. If the fossils are determined to be significant, then the SVP-qualified paleontologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures:
 - I. The SVP Qualified Paleontologist shall ensure that all significant fossils collected are cleaned, identified, catalogued, and permanently curated with an appropriate institution with a research interest in the materials as required by the SVP guidelines.
 - II. The SVP Qualified Paleontologist shall ensure that specialty studies are completed, as appropriate, for any significant fossil collected.
 - III. All fossil discoveries will be thoroughly documented, including the documentation of stratigraphic data. The aerial extent and thickness of fossil-bearing deposits will be documented and mapped, and stratigraphic relationships, depositional contacts, structural deformation, and other details will be described and a report of findings created, and
 - IV. The SVP Qualified Paleontologist shall ensure that curation of fossils is completed in consultation with CSU Bakersfield. A letter of acceptance from the curation institution shall be submitted to CSU Bakersfield upon curation.
- d. Recovered fossils will be processed in accordance with accepted professional methods outlined in the *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (SVP 2025). Preparation of fossil specimens will include removal of extraneous matrix using mechanical methods. Weak or porous specimens and broken or damaged specimens may be consolidated or repaired using reversible means. Bulk samples will be washed and sieved. Following preparation, individual fossils will be isolated, identified to the lowest possible taxonomic level and catalogued. Catalogued specimens will be assigned locality and specimen numbers. Formal fossil locality records, including geographic, geologic, taphonomic, and collecting data, will be prepared.
- e. If a significant unanticipated discovery is made, the SVP Qualified Paleontologist may make a recommendation based on the find and future project plans to determine if part-time or full-time paleontological monitoring of future ground disturbance activities is necessary. Ground disturbance refers to activities that would impact subsurface geologic deposits, such as grading, excavation, and boring. Activities taking place in current topsoil or within previously disturbed fill sediments (e.g., clearing, grubbing, pavement rehabilitation) do not require paleontological monitoring. If monitoring is deemed necessary, it shall only be conducted by a SVP Qualified Paleontologist or Monitor as described in the 2025 SVP guidelines. Monitoring may be

then reduced or suspended completely as deemed appropriate by the SVP Qualified Paleontologist, depending on observations made during monitoring.

f. If monitoring is conducted, then the Qualified Paleontologist will prepare a final Paleontological Mitigation Report (PMR). This report will be filed, at a minimum, with the County and the curational facility. This report will include, at a minimum, the following:

- Cover letter
- Title page
- Summary of findings
- Table of contents
- Acknowledgements
- Introduction
- Resource context
- Field and laboratory methods
- Results
- Bibliography
- Geological cross-sections depicting fossil localities and excavated units
- Maps
- Illustrations
- Appendices
- Curation details

ARCHAEOLOGY

The SSJVIC records search, literature and map review, and archaeological survey failed to identify any resources within or overlapping the project site. However, a buried archaeological sensitivity assessment indicates low sensitivity for buried precontact archaeological resources at shallow depths within the project site, transitioning to moderate with depth, due to its history of relatively recent human disturbances.

Prior to any excavations deeper than approximately 12 inches, it is recommended that CSUB retain a qualified professional archaeologist who meets the Secretary of the Interior's professional qualifications for archaeology. The qualified professional archaeologist shall oversee archaeological monitoring by a qualified archaeological monitor of the necessary ground disturbance within the project site. The archaeological monitor shall observe ground-disturbing activities in all areas with potential to contain significant cultural deposits. If, in the course of monitoring, the qualified professional archaeologist finds that excavations are within disturbed soil, or the sensitivity for buried resources is otherwise low, then archaeological monitoring may be reduced or suspended at the discretion of the qualified professional archaeologist with the approval of CSUB.

If any subsurface cultural resources are encountered during earth-moving activities, regardless of whether work is actively being monitored, it is recommended that all work be halted in the vicinity of the discovery until the qualified professional archaeologist can evaluate the findings and make recommendations. The archaeologist should evaluate the find in accordance with federal, state, and local guidelines, including California PRC Section 21083.2, to assess the significance of the find and identify avoidance or treatment measures as appropriate. Additionally, Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5(e), and PRC Section 5097.98 mandate the process to be

followed in the unlikely event of an accidental discovery of human remains in a location other than a dedicated cemetery.

If a resource is found to be potentially significant and cannot be avoided, then a plan of treatment shall be developed and implemented by the qualified archaeologist in consultation with interested tribes. The site will not be released for work until treatment has been completed to the satisfaction of CSUB.

BUILT ENVIRONMENT

An extant portion of the James Canal was identified during the pedestrian survey. The James Canal was evaluated for the California Register and was found to lack historical significance under all four criteria. As a result, the James Canal is recommended ineligible for the California Register and is not a historical resource, as defined by CEQA Section 15064.5(a). No other built environment resources were identified in the project area.

PREPARER QUALIFICATIONS

This memorandum was prepared by Michael Baker International Senior Archaeologist Marc Beherec, PhD, RPA, Paleontologist Tara Kloess, Senior Paleontologist Peter Kloess, PhD, and Senior Architectural Historian Susan Wood, PhD, and reviewed for quality control by Senior Archaeologist Paige Kohler.

Marc A. Beherec, PhD, RPA, Principal Investigator/Senior Archaeologist, has more than 20 years of experience in prehistoric and historical archaeology and cultural resources management. His experience includes writing technical reports, including the National Environmental Policy Act, National Historic Preservation Act, and CEQA compliance documents. He has supervised and managed all phases of archaeological fieldwork, including survey, Phase II testing and evaluations and Phase III data recovery, and monitoring at sites throughout Southern California. Dr. Beherec meets the Secretary of the Interior's Professional Qualification Standards for prehistory and historical archaeology.

Tara Kloess, BA, Associate Paleontologist, is an experienced professional paleontologist and geologist with over 15 years of experience in the field of paleontology. With multiple years of field, technical, and laboratory experience, she has accrued extensive knowledge managing, fielding, and reporting for paleontology mitigation projects and conducting paleontological research, fossil salvage, and documentation in accordance with state and federal regulations on fossil preservation and mitigation. Her major interests in the field include California Pliocene and Pleistocene megafauna, whale evolution, and environmental reconstruction through sediment stratigraphy. Her strengths include mammalian bone identification, geologic unit identification and fossil collection and preservation methods including fossil jacketing and transport. She has worked on dozens of consulting projects within both the public and private sectors including housing development, Caltrans, PG&E, Southern California Edison, East Bay Municipal Utility District, and other local, state and federal contractors. She has experience recovering a diversity of fossils from project sites across California. She meets the SVP Standards for a Paleontology Monitor and Field Supervisor.

Peter Kloess, PhD, Principal Paleontologist, meets the SVP standards for a Qualified Paleontologist. He has over 20 years of experience in paleontology. His experience includes public and private consultation, field monitoring, excavation, and laboratory research on projects across the western United States, predominantly in California. He has consulting experience with a range of projects, including utility, transmission, construction, transportation, monitoring, and surveys. Additionally, he has recovered a diversity of fossils from project sites, such as invertebrates, small mammals and birds,