Appendix E

ADDENDUM TO
CLASS III INVENTORY/ PHASE I SURVEY

Draft

ADDENDUM TO CLASS III INVENTORY/ PHASE I SURVEY, PIXLEY GROUNDWATER BANKING PROJECT, PIXLEY, TULARE COUNTY, CALIFORNIA

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MANAGEMENT SUMMARY

An intensive Class III inventory/Phase I cultural resources survey was conducted for the South Valley Water Banking Authority (SVWBA) Pixley Groundwater Banking Project, near Pixley, Tulare County, California. As originally planned in 2014, the project consisted of the construction of approximately 6.5-linear miles of pipelines, a 580-acre recharge basin, turn-out/return structures, regulating basin, lateral pipelines, and five in-lieu wells (ASM Affiliates 2016). In 2016, the project was modified to include the construction of up to 160-acres of additional recharge basin(s). This addendum report documents a Class III inventory/Phase I cultural resources survey for the 2016 modification to the Project study area. It was undertaken to provide compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 USC 306108; 36 CFR Part 800), and the California Environmental Quality Act (CEQA).

The location and design of one or more recharge basins for the 2016 modified Project have not yet been determined and will in part be based on environmental analysis. Any such proposed basins will however be located within one or more of three 160-acre properties. These three properties, totaling 480-acres, constituted the study area for the 2016 modified Project. They fully incorporate the Area of Potential Effect (APE) and buffers for any future proposed basins, and they are immediately adjacent to components of, and thus the study area for, the initial 2014 Project design. Once constructed, they will be tied-in to existing Pixley Irrigation District (PID) water conveyance features and systems or features that will be constructed as components of the initial 2014 project design.

A records search of site files and maps was conducted in 2014 at the Southern San Joaquin Valley Archaeological Information Center (IC), California State University, Bakersfield. The records search was conducted for the defined project area, as well as an additional half-mile buffer beyond the original project boundaries, covering both the original 2014 and modified 2016 study areas. The IC investigations determined that the combined 2014 and 2016 study area had not been previously surveyed in its entirety and that no cultural resources were known or had been recorded within it. A search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was also completed in 2014, and no sacred sites or traditional cultural places had been identified within or adjacent to the combined study area.

The Class III inventory/Phase I survey fieldwork for the modified Project study area was conducted in October and November 2016. Access permission could only be obtained for two of the three 160-acres properties, with the third not surveyed. A total of 320-acres of the 480-acres modified Project study area total were then inventoried. NHPA Section 106 compliance, accordingly, was conducted pursuant to 36 CFR 800.4(b)(2), which allows for a phased process for identification and evaluation. Compliance with NHPA Section 106 involving the identification and evaluation of historic properties on the unsurveyed 160-acres property shall be completed and duly reported when access to that property is permitted by the property owners.

A segment of Deer Creek, a historic resource first identified, recorded, and evaluated during the initial 2014 – 2015 Pixley Groundwater Banking Project survey, is located within the modified Project study area and was documented during the 2016 survey. Deer Creek has been determined

not NRHP/CRHR eligible or significant by SHPO however (BUR_2016_0302_001). No other historic properties are present within the surveyed study area. Based on these findings, any construction of the modified Pixley Groundwater Banking Project within the surveyed 320-acres portion of the study area does not have the potential to result in adverse effects or impacts to historical resources or historic properties. A determination of no significant impact under CEQA and no historic properties present and no adverse effect under Section 106 is recommended.

1. INTRODUCTION

An intensive Class III inventory/Phase I cultural resources survey was conducted for the South Valley Water Banking Authority (SVWBA) Pixley Groundwater Banking Project, near Pixley, Tulare County, California. As originally planned in 2014, the project consisted of the construction of approximately 6.5-linear miles of pipelines, a 580-acre recharge basin, turn-out/return structures, regulating basin, lateral pipelines, and five in-lieu wells. In 2016, the project was modified to include the construction of up to 160-acres of additional recharge basin(s) (ASM Affiliates 2016; Figure 1a, 1b, 1c). This addendum report documents a Class III inventory/Phase I cultural resources survey for the 2016 addition to the Project study area. It was undertaken to provide compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 USC 306108; 36 CFR Part 800), and the California Environmental Quality Act (CEQA).

This study was conducted by ASM Affiliates, Inc., of Tehachapi, California, from October to December 2016. David S. Whitley, Ph.D., RPA, served as principal investigator, with Shannon Davis, M.A., RPH, and Jennifer Gorman, M.P.H., RPH, as Architectural Historians. Peter A. Carey, M.A., RPA, and Rob Azpitarte, B.A., Associate Archaeologists, conducted the fieldwork with the assistance of Jeff Stephens, B.A., and Mercedes Bandimere, B.A, Assistant Archaeologists. All project supervisory personnel meet the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (36 CFR 61).

This manuscript constitutes an addendum to the original Class III Inventory/Phase I survey (ASM Affiliates 2016; see Appendix D). The reader is referred to that document for background studies, including historic contexts. This addendum includes a description of the modified Project and study area; results of the archival records search; field methods and results; National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) eligibility determinations; and NHPA and CEQA recommendations.

1.1 PROJECT DESCRIPTION, APE AND STUDY AREA

The Pixley Groundwater Banking Project, as originally planned in 2014, consisted of the construction of approximately 6.5-linear miles of pipelines, a 580-acre recharge basin, turn-out/return structures, regulating basin, lateral pipelines, and five in-lieu wells. The Area of Potential Effect (APE) consists the area of potential ground surface disturbance resulting from the construction of project features and improvements, including access and staging areas (36 CFR 800.16(d)). The initial study area for the 2014 Project consisted of the horizontal APE plus buffers to allow for minor "as-built" construction modifications. This totaled about 724-acres (ac) in size (Figure 1). The vertical APE, based on maximum depth of proposed grading in the recharge basin, is 6-feet.

The modified Project will consist of the construction of up to 160-ac of recharge basin(s). The location and design of one or more of these recharge basins have not yet been determined and will in part be based on environmental analysis. Any such basins will however be located within one or more of three 160-ac properties, known as the Empire, McAnland and Merritt properties. These

three properties, totaling 480-ac, comprise the current study area. The proposed recharge basin(s) will be tied-in to existing PID water conveyance features and systems, or features already planned for construction as components of the 2014-2015 project. Specifically, any recharge basin constructed within the Empire or McAnland properties would be connected to the existing Harris Ditch while any basin within the Merritt property would be linked to the 48-inch (in) concrete pipe and attendant in-lieu service area pipelines proposed by the original 2014-2015 project. The Harris Ditch was built by the PID in 1981 (ASM Affiliates 2016).

Although as yet undetermined, the horizontal size and location of this modified Project APE, including buffers, staging and lay-down areas, will be wholly contained within the current 480-acres study area. The vertical APE for the project is 6-feet, the maximum depth of excavation for the recharge basin(s). No other ground surface disturbance will occur.

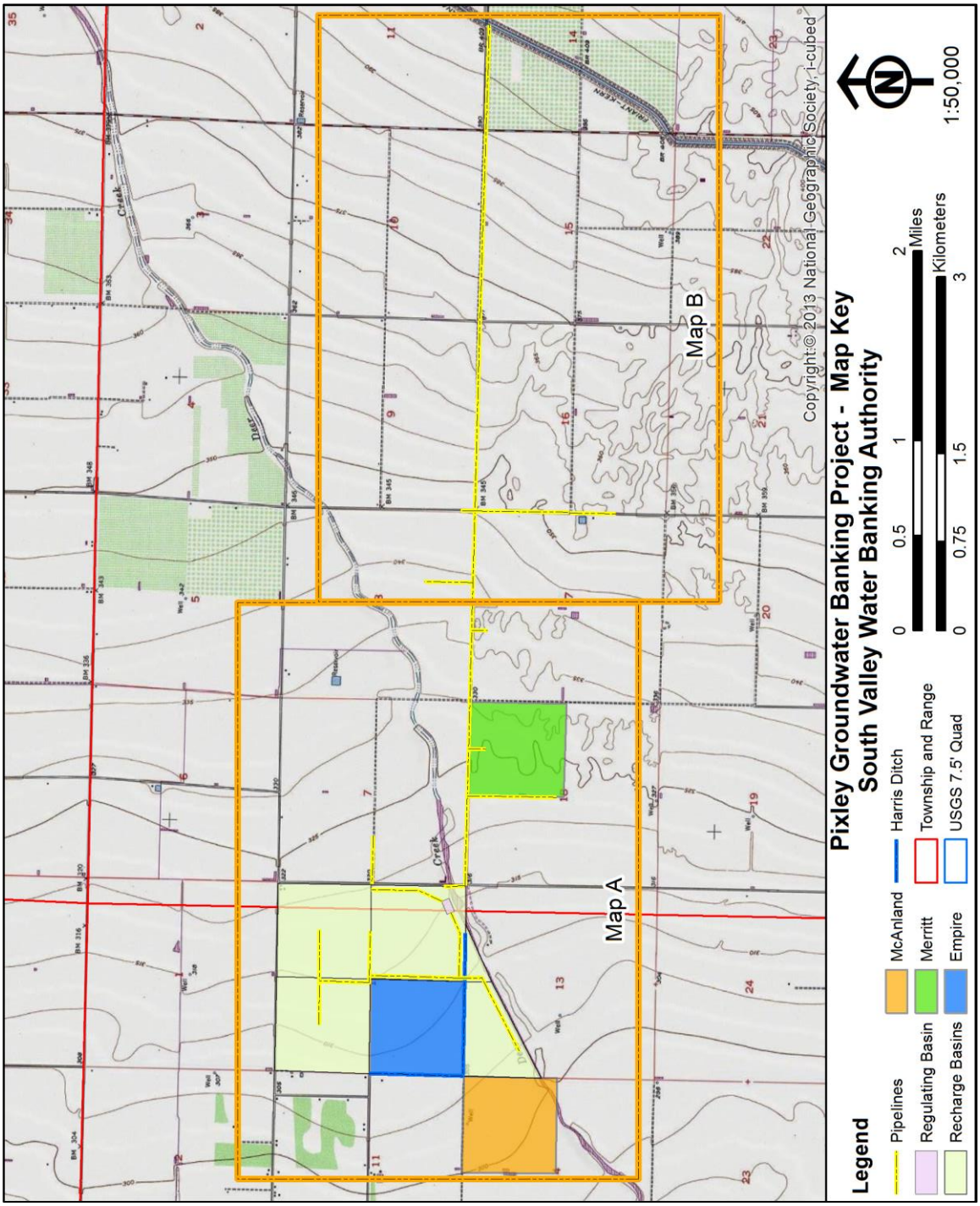

Figure 1a. Location of the Pixley Groundwater Banking Project, Map Key. Includes the original 2014 and modified 2016 study areas, Tulare County, California.

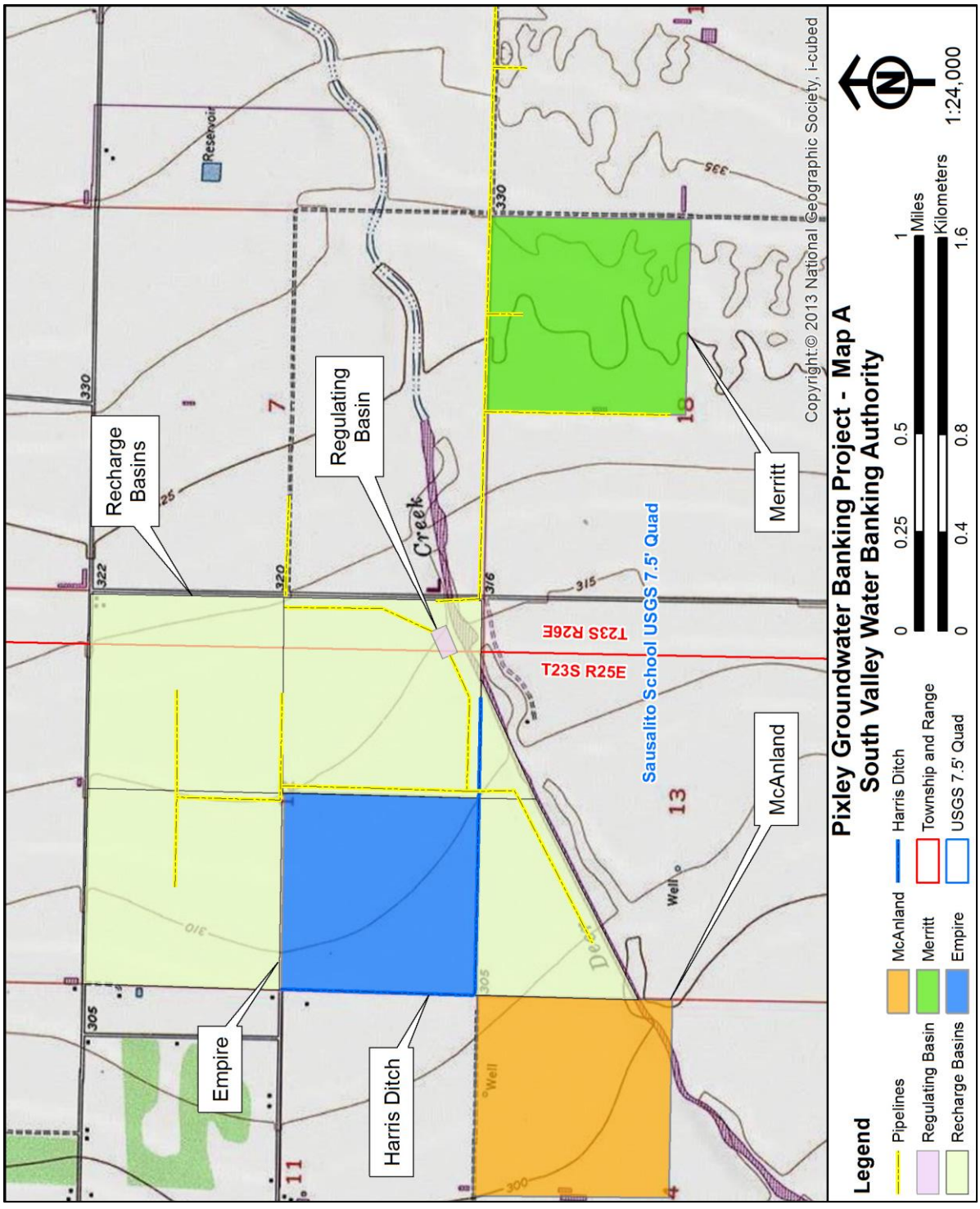

Figure 1b. Location of the Modified Pixley Groundwater Banking Project, Map A, Tulare County, California.

Figure 1c. Location of the Pixley Groundwater Banking Project, Map B, Tulare County, California.

2. ENVIRONMENTAL AND CULTUAL BACKGROUND

2.1 ENVIRONMENTAL BACKGROUND

At the time of the Class III Inventory/Phase I survey, the study area consisted of active farm fields used for orchards and farming facilities (Figure 2a, 2b, 2c, 2d). Although the Modified Project study area currently may be characterized as a dry open valley bottom, it straddles Deer Creek, a natural drainage that was modified in the second half of the twentieth century. Prior to changes resulting from the agricultural development of the area, Deer Creek was a divide between mesic environments to the north and more xeric environments to the south (Preston 1981:80). While Deer Creek was occasionally inundated by floodwaters during heavy spring snowmelt, in most years the drainage would have been perennial in its upper reaches and intermittent lower on its course, within the vicinity of the current study area (Preston 1981:17).

Based on these factors and conditions, the study area is considered to have a low archaeological sensitivity, with little to no potential for subsurface archaeological remains (see ASM Affiliates 2016:7-8).

Figure 2a. McAnland Property east end from center of property, looking north.

Figure 2b. Recently planted trees on McAnland Property, looking southwest.

Figure 2c. Orchard at Merritt Property, looking northeast.

Figure 2d. Harris Ditch overview, looking west.

3. ARCHIVAL RECORDS SEARCH

Archival records searches were conducted at the California State University, Bakersfield, Southern San Joaquin Valley Information Center (SSJVIC) and the Native American Heritage Commission (NAHC) *Sacred Lands File* for the 2014 Project study area. These covered the 2016 modified Project study area. As outlined previously (ASM affiliates 2016), no historic or prehistoric cultural resources or tribal cultural resources had been identified within the initial or modified Project study areas.

Although not yet logged into the IC system, the original 2014-2015 Pixley Groundwater Banking study (ASM Affiliates 2016) covered portions of the McAnland property and Deer Creek. It resulted in the identification and recording of three historical cultural resources: portions of Deer Creek, the Friant-Kern Canal, and the Pixley-1 Bridge. A segment of Deer Creek falls within the McAnland property in the modified Project study area. The other two recorded properties are not within or will be effected by the modified Project.

Deer Creek is a water conveyance system that was originally a natural creek. That portion of it within the modified Project study area was channelized after 1958, when the PID was formed. This segment is an earthen channel with elevated berms, installed in the 1970s, that extend along both sides (ibid.)

In addition to these archives, a series of historical publications and maps were examined. These included the 1892 Thompson Map of Tulare County and USGS topographical quadrangles dating from 1929 to 2015 as well as historical aerials on historicaerials.com and Google Earth.

4. METHODS AND RESULTS

The McAnland and Merritt property components of the modified Project study area were intensively surveyed during the 2016 fieldwork. Access permission could not be obtained for the Empire property and it was not surveyed. Following 36 CFR 800.4(b)(2), the identification and evaluation of historic properties on the Empire property shall be completed and duly reported when access to that property is permitted by the property owners. Fieldwork reported in this addendum therefore covered a 320-ac study area, or two-thirds of the modified Project study area.

Survey was conducted with the field crew walking parallel transects spaced at 15-meter intervals across the 320-ac study area, in order to identify surface artifacts, archaeological indicators (e.g., shellfish or animal bone), and/or archaeological deposits (e.g., organically enriched midden soil); tabulation and recording of surface diagnostic artifacts; site sketch mapping; preliminary evaluation of site integrity; and site recording, following the California Office of Historic Preservation Instructions for Recording Historic Resources, using DPR 523 forms.

Special attention was paid to rodent burrow back dirt piles, in the hope of identifying sub-surface soil conditions that might be indicative of archaeological features or remains. No cultural resources were collected during the survey.

The study area was surveyed by ASM Associate Archaeologists Peter Carey, M.A., RPA, and Robert Azpitarte, B.A., and Assistant Archaeologists Jeff Stephens, B.A., and Mercedes Bandimere, B.A. Fieldwork was conducted in October and November 2016. Soils throughout the study area are sandy-silty alluvium with very few lithic clasts, reflecting a soils origin in deltaic processes. The study area consists of existing, previously disturbed unpaved roads, agricultural fields and supporting facilities. Surface visibility was excellent throughout the study area.

During the survey, photographs were taken and all archaeological sites and built-environment resources that appear to have been constructed prior to 1970. GIS data points were taken for all identified historical resources.

4.1 INVENTORY RESULTS

One historical cultural resource, a segment of Deer Creek (Figure 4), was identified within the modified Project study area. No other historical or archaeological resources of any kind were identified in either the Merritt or McAnland properties. This creek segment is located in the southeast corner of the McAnland property. Deer Creek was identified and recorded in the initial 2014 Project survey. A site record update was completed for this additional creek segment, which abuts the original recorded creek area (Confidential Appendix A).

The Harris Ditch borders the northeast corner of the McAnland property and a turn-out would be constructed on this ditch to service any recharge basin that might be built within this component of the Modified Project study area. As documented in the original Project study (ASM Affiliates 2016), the Harris Ditch was constructed in 1981. It represents an example of a common property type and is not notable in its design or construction, and thus is not "exceptionally significant."

The Harris Ditch does not constitute a historical resource and any modification of it would not constitute an adverse effect to a historic property.

There are also a series of standing structures within the McAnland property: a warehouse, pump-house, two hay barns, fencing and other minor agriculture related features. Based on an examination of historical USGS topographical quadrangles and Google Earth images, all of these features and structures were built after 1994 and do not constitute historical resources.

The Merritt property currently contains an earthen reservoir. Based on an examination of historical USGS topographical quadrangles and Google Earth images, this was constructed between February 2014 and March 2015, and it does not constitute a historical resource.

4.1.1 Deer Creek

Deer Creek, originally a seasonal drainage, is a water conveyance system that was channelized after 1958 when the Pixley Irrigation District was formed. The portion documented within the McAnland property is approximately 900-feet long and is immediately west of the previously recorded stream section (ASM Affiliates 2016; Figure 3). This newly documented segment is a V-bottomed earthen channel with elevated berms, installed in the 1970s, that extend along both sides. A gravel and dirt road is present on top of the southern berm. The side of southern berm had been recently burned when this segment was documented. Modern glass bottles, plastics, car seat frames, and other refuse, much of which is charred, are present along the southern bank.

4.1.2 Preliminary Assessment of the Empire Property

Phased Section 106 studies conducted pursuant to 36 CFR Part 800.4(b)(2) require a preliminary assessment of the potential for historic properties within any proposed project APE or study area that has not been subjected to formal resource identification efforts. The 160-ac Empire property was not surveyed during this current inventory due to the lack of access permission. Despite the future need for a formal survey of this property to complete Section 106, its potential for historic properties is considered very low due to the following considerations:

- The original 2014-2015 Pixley Groundwater Banking Project cultural resources study (ASM Affiliates 2016) surveyed 630-ac. In combination with the 320-ac covered in the current Modified Project inventory, a total of 950-ac have been surveyed in the immediate vicinity of the Empire property. No pre-contact/Native American resources of any kind have been identified during these field studies, and the geomorphological and environmental location of the projects make the presence of such unlikely.

- Historic properties otherwise identified during this and the previous study are all historical resources: Deer Creek, the Friant-Kern Canal, and the Pixley-1 Bridge. The Empire property is currently an orchard. The Harris Ditch, built in 1981, borders the Empire property on its southern and western sides. No ditches, canals or other components of a water conveyance system are visible within the Empire property when viewed from the Harris Ditch, nor are any such features shown on historical USGS topographical

quadrangles or air photos. No farm structures likewise are visible from the perimeter of the property, or are shown on historical maps of aerials.

The potential for historic properties within the Empire property is therefore considered very low.

Figure 3. Overview of Deer Creek with the McAnland property, looking northeast, with road on top of berm at left.

5. NRHP ELIGIBILITY EVALUATION

Only one cultural resource was encountered during the Modified Project inventory: a segment of Deer Creek.

5.1 DEER CREEK

That segment of Deer Creek recorded during the initial Project study was determined not NRHP eligible by SHPO (BUR_2016_0302_001; Appendix A). A new segment, immediately west/downstream of the originally recorded and evaluated segment, is within the modified Project study area. The section of the Deer Creek documented within the modified Project study area is recommended not NRHP or CRHR eligible individually or as a contributor to a potential historic district under all four NRHP/CRHR criteria.

ASM carefully considered whether or not there was a historic district to which Deer Creek could be a contributing resource under any NRHP or CRHR criteria. The Pixley Irrigation District conveyance system, of which Deer Creek is a part, is not old enough to be considered a historical resource and as such, no eligible historic district was identified to which the creek would be a contributor. A majority of the features of the Pixley Irrigation District conveyance system are less than 50 years old, and as such would have to meet NRHP Criterion Consideration G (or the similar CRHR exceptions) to be eligible. Criterion Consideration G requires that resources constructed less than 50 years ago must be "exceptionally significant" to be eligible. Based on the initial research and historic context for the modified Project, ASM concluded that the Pixley Irrigation District conveyance system is unlikely to be exceptionally significant and therefore should not be treated as a historical resource.

Under consideration of individual eligibility, the section of Deer Creek surveyed has the potential for association with events that have made a significant contribution to the broad patterns of history, specifically the Development of Irrigated Agriculture in the San Joaquin Valley, 1852-1964 or Construction of the CVP Engineering and Associated Features, 1937 to 1956. Although Deer Creek was used for irrigable water as early as 1892 to supply the Saucelito Ditch and channelized to serve as a lateral off the Friant-Kern Canal sometime after 1958, as one of thousands of such early creeks and CVP laterals that served a secondary function, Deer Creek does not individually convey an important association with these significant themes (Bailey 2010: 115). As such, Deer Creek is recommended not eligible under NRHP/CRHR Criteria A/1.

No historically significant individuals were identified that were associated with Deer Creek. As such, Deer Creek is recommended not eligible under NRHP/CRHR Criteria B/2.

The segment of Deer Creek surveyed for the modified Project study area has the potential for eligibility under the theme of Technological Innovation in Irrigated Agriculture in California, 1852-1964, or Construction of the CVP Engineering and Associated Features, 1937 to 1956. This theme begins with the earliest technological innovations in agricultural irrigation in California and extends up to a period of 50 years ago. However, Deer Creek does not appear to have unique values; is not a good example of the property type as a secondary feature of a water conveyance

system; is not the earliest, best preserved, largest, or sole surviving example of the water conveyance property type; nor is it a design innovation of evolutionary trends in engineering. Furthermore, the creek has no known association with a figure of acknowledged greatness in the design field or by someone unknown whose workmanship is distinguishable from others by its style and quality. As such, Deer Creek is recommended not eligible under NRHP/CRHR Criteria C/3.

Finally, this segment of Deer Creek is not recommended eligible under NRHP/CRHR Criteria D/4. It is a common property type that does not have the potential to provide information about history or prehistory that is not available through historic research.

6. SUMMARY AND RECOMMENDATIONS

An intensive Class III Inventory/Phase I archaeological survey was conducted for the modified Pixley Groundwater Banking Project study area, located near Pixley, Tulare County, California. This modified Project represents an expansion of the original 2014-2015 Pixley Groundwater Banking Project and study (ASM Affiliates 2016). A records search of site files and maps was conducted at the Southern San Joaquin Valley AIC and a search of the NAHC *Sacred Lands File* was completed. No Native American sacred sites or cultural landscapes had been identified within or immediately adjacent to the modified Project study area, and no archaeological sites had been recorded within the study area.

The Class III inventory/Phase I survey fieldwork for the modified Project study area was conducted in October and November 2016. Access permission could only be obtained for two of the three study properties, with the third (known as the Empire property) not surveyed. NHPA Section 106 compliance, accordingly, was conducted pursuant to 36 CFR 800.4(b)(2), which allows for a phased process for identification and evaluation. This Class III inventory was therefore completed on the other two properties (McAnland and Merritt), or 320-acres of the 480-acres modified Project study area total. Compliance with NHPA Section 106 involving the identification and evaluation of historic properties on the Empire property shall be completed and duly reported when access to that property is permitted by the property owners.

One historical resource, a portion of Deer Creek, was identified and documented during the inventory. A previously recorded segment of Deer Creek had been determined not NRHP/CRHR eligible or significant by SHPO (Appendix D). After documentation and evaluation of the newly recorded segment of Deer Creek, and careful consideration of its ability to reflect the historic contexts with which it is associated, the newly recorded segment is also not recommended as eligible either individually nor as a contributor to a potential historic district for the NRHP nor the CRHR under any of the criteria.

6.1 RECOMMENDATIONS

Any construction or use of the McAnland and Merritt portions of the Modified Pixley Groundwater Banking Project area of concern does not have the potential to result in adverse effects or impacts to historical resources or historic properties. A determination of no significant impact under CEQA and no historic properties affected and no adverse effect under Section 106 are recommended. The Empire property has not been formally surveyed. It is recommended that this property be inventoried and any historic properties be NRHP evaluated to complete NHPA Section 106 compliance once access permission is provided. It is further recommended that an archaeologist be contacted in the unlikely event that archaeological resources are discovered during the construction or use of any lands within the modified Project study area.

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