CULTURAL RESOURCE ASSESSMENT

FOR THE SHIFLER

MINING AND RECLAMATION PROJECT

YOLO COUNTY, CALIFORNIA

Prepared by

Peak & Associates, Inc.
3941 Park Drive, Suite 20-329
El Dorado Hills, CA 95762
(916) 939-2405

Prepared for

Teichert Aggregates
3500 American River Drive
Sacramento, CA 95864-5805

January 2015
(Job #12-060)

INTRODUCTION

Teichert Aggregates (Teichert) is proposing an aggregate mining and reclamation project on an approximately 320-acre site (Project Area), within rural Yolo County.

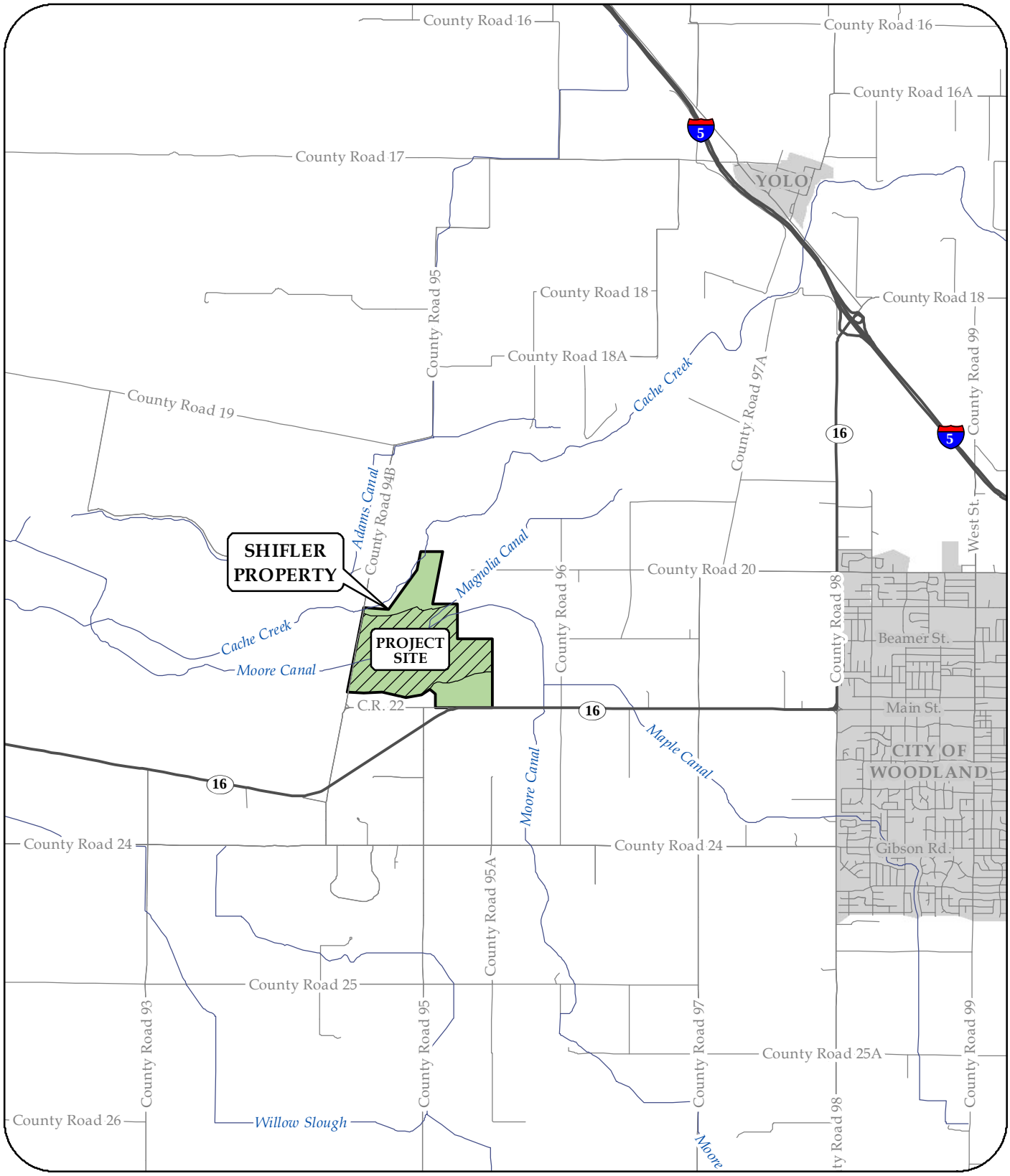
The Project Area is located approximately three miles west of the City of Woodland, in unincorporated Yolo County. The site is generally bounded by County Road 94B to the west, Cache Creek to the north, and County Road 22 to the south (Figure 1). Moore Canal, a water conveyance structure owned and operated by the Yolo County Flood Control and Water Conservation District (YCFCWCD), bisects the Project Site from west to east. The Project Area is currently in agricultural use.

Surrounding land uses include Teichert's Woodland Processing Plant site to the northeast; agricultural land to the east; the Monument Hill Memorial Park cemetery and rural residential uses to the south; the Yolo Fliers Club golf course, Watts-Woodland Airport, and Wild Wings residential subdivision and golf course to the southwest; and Teichert's existing Storz mining site and the Cache Creek Nature Preserve to the northwest (Figure 1).

Teichert is proposing to conduct an aggregate (sand and gravel) mining operation on the Project Area. Mining would occur in a series of steps. First, overburden would be removed to expose the aggregate deposit. This will be accomplished using a variety of equipment including scrapers, motor graders and bull dozers. The overburden will be stockpiled in setback areas until required for reclamation. Aggregate material will then be harvested using scrapers and dozers. The mined material will be transported via electric-powered conveyor to Teichert's Woodland Plant.

The proposed mining would occur at a minimum of 200 feet from Cache Creek. As part of the mining operation, Moore Canal would be relocated along the western and northern boundary of the Project Area. Mining would occur over a period of between 20 and 30 years, depending upon market demand. Once mining is complete, Teichert proposes to reclaim the mining area for agricultural and habitat uses, including seasonal pond, riparian oak woodland, riparian wetland and grassland.

The project site lies within the southwestern corner of Rancho Rio Jesus Maria Township (extended sections 27 and 28, Township 10 north, Range 1 east), mapped on the Woodland 7.5' USGS topographic quadrangle (Figures 1 and 2).



TEICHERT AGGREGATES

LEGEND:

Project Site

Property Boundary

0 0.5 1 Miles

The data was mapped for planning purposes only. No liability is assumed for the accuracy of the data shown.

FIGURE 1

PROJECT SITE VICINITY

SHIFLER PROPERTY STUDY AREA
BIOLOGICAL RESOURCES EVALUATION
TEICHERT AGGREGATES

YOLO COUNTY, CALIFORNIA

C. Cornejo 10/10/2012 SHF_BIO_Fig1_SiteMap_8x11_201210.mxd

TEICHERT AGGREGATES

LEGEND:

- Proposed Realigned Moore Canal
- Approximate Mining Area
- Shifler Project Boundary

SOURCE:

- Proposed Realigned Moore Canal & Approximate Mining Area Provided by Cunningham Engineering (2014)
- Orthophoto Provided by Point Co. (April 30, 2010)

0 300 600 Feet

DISCLAIMER:

The data was mapped for planning purposes only. No liability is assumed for the accuracy of the data shown.

FIGURE 2

SITE PLAN

SHIFLER PROPERTY
TEICHERT AGGREGATES
YOLO COUNTY, CALIFORNIA

C. Cornejo 03/31/2014 SHF_Cultural_Fig2_SitePlan_201403.mxd

Melinda Peak served as principal investigator for the project, conducting archival research and preparing the report. Robert Gerry and Michael Lawson (resumes, Appendix 1) conducted the field survey of the project site in September 2012, with a follow-up visit in October 2013 to collect more detail and to assist in the recordation of the ditches. Neal Neuenschwander prepared the site records for the resources.

REGULATORY CONTEXT

Sites identified within the Project Area have been evaluated for eligibility for inclusion on the California Register of Historic Places, per the California Environmental Quality Act (CEQA).

Significance of Cultural Resources under CEQA

For the purposes of CEQA, an historical resource is a resource listed in, or determined eligible for listing in the California Register of Historical Resources. When a project will impact a site, it needs to be determined whether the site is an "historical resource," which is defined as any site which "is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California." ; CEQA requires that, if a project results in an effect that may cause a substantial adverse change in the significance of a cultural resource, alternative plans or mitigation measures must be considered; however, only significant cultural resources must be addressed. CEQA defines a significant historical resource as one which meets the following criteria:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

B. Is associated with the lives of persons important in our past;

C. 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; or

D. Has yielded, or may be likely to yield, information important in prehistory or history. (CEQA Guidelines, § 15064.5)

CULTURAL HISTORY

Archeological Background

The Central Valley region was among the first in the state to attract intensive fieldwork, and research has continued to the present day. This has resulted in a substantial accumulation of data.

In the early decades of the 1900s, E.J. Dawson explored numerous sites near Stockton and Lodi, later collaborating with W.E. Schenck (Schenck and Dawson 1929). By 1933, the focus of work was directed to the Cosumnes locality, where survey and excavation studies were conducted by the Sacramento Junior College (Lillard and Purves 1936).

Excavation data, in particular from the stratified Windmiller site (CA-Sac-107), suggested two temporally distinct cultural traditions. Later work at other mounds by Sacramento Junior College and the University of California, Berkeley, enabled the investigators to identify a third cultural tradition, intermediate between the previously postulated Early and Late Horizons. The three-horizon sequence, based on discrete changes in ornamental artifacts and mortuary practices, as well as on observed differences in soils within sites (Lillard, Heizer and Fenenga 1939), was later refined by Beardsley (1954). An expanded definition of artifacts diagnostic of each time period was developed, and its application extended to parts of the central California coast. Traits held in common allowed the application of this system within certain limits of time and space to other areas of prehistoric central California.

The Windmiller Culture (Early Horizon) was characterized by ventrally-extended burials (with some dorsal extensions) with westerly orientation of heads; a high percentage of burials with grave goods; frequent presence of red ocher in graves; large projectile points, of which 60 percent are of materials other than obsidian; rectangular Haliotis beads; Olivella shell beads (types A1a and L); rare use of bone; some use of baked clay objects; and well-fashioned charmstones, usually perforated.

The Cosumnes Culture (Middle Horizon) displays considerable changes from the preceding cultural expression. The burial mode is predominately flexed, with variable cardinal orientation and some cremations present. There are a lower percentage of burials with grave goods, and ocher staining is common in graves. Olivella beads of types C1, F and G predominate, and there is abundant use of green Haliotis sp. rather than red Haliotis sp. Other characteristic artifacts include perforated and canid teeth; asymmetrical and “fishtail” charmstones, usually not perforated; cobble mortars and evidence of wooden mortars; extensive use of bone for tools and ornaments; large projectile points, with considerable use of rock other than obsidian; and use of baked clay.

Hotchkiss Culture (Late Horizon) -- The burial pattern retains the use of the flexed mode, and there is wide spread evidence of cremation, lesser use of red ocher, heavy use of baked clay, Olivella beads of Types E and M, extensive use of Haliotis ornaments of many elaborate shapes and forms, shaped mortars and cylindrical pestles, bird-bone tubes with elaborate geometric designs, clam shell disc beads, small projectile points indicative of the introduction of the bow and arrow, flanged tubular pipes of steatite and schist, and use of magnesite (Moratto 1984:181-183).

Bennyhoff and Hughes (1984) have presented alternative dating schemes for the Central California Archeological Sequence. The primary emphasis is a more elaborate division of the horizons to reflect what is seen as cultural/temporal changes within the three horizons and a compression of the temporal span. Dating has been problematic for the Central Valley because so much of the work was done before radiocarbon dating was available. This became even

more of a problem when the Central Valley sequence was applied to adjoining geographic areas.

Additional radiocarbon dates have been obtained in recent years and applied to a more sophisticated cultural sequence based on the work of Fredrickson, Bennyhoff and others. Rosenthal, White and Sutton (2007) have presented one version of the results, as summarized below.

The first chronological period is the Paleo-Indian Period from 11,550 to 8550 calendar years BC. Due to the degree of alluviation in the Central Valley, artifacts of this period are rarely found and usually reported only as isolated finds.

The Lower Archaic (8550 to 5550 BC) is relatively well known in foothill contexts, but information from the valley floor is limited to one excavation of an intact cultural deposit (KER-116 at Buena Vista Lake) and numerous surface finds around the former shoreline of Tulare Lake. The tool kit included large projectile points of the Western Stemmed series as well as crescents.

In the Middle Archaic (5550 to 550 BC) definite differences have been observed between the foothill way of life and the valley floor. In this era riverine oriented villages are well established and an elaborate material culture develops. The Windmiller Culture, described above, is characteristic of the latter portion of the Middle Archaic.

The Upper Archaic (550 BC to AD 1100) corresponds to a climate change to a wetter and drier climate than the previous period. Although there are very distinct changes in material culture in some areas (see Cosumnes Culture above), this is an area where a variety of cultural expressions occur, including the survival of traits characteristic of the Middle Archaic in portions of San Joaquin and Merced counties, even while adjacent areas had an entirely different material culture. The valley floor settlements show evidence of lengthy occupation, extensive trade relationships and an economy emphasizing resources that could be harvested in mass.

Emergent Period (AD 1100 to contact) is essentially an intensification of the previous ways of life. It witnesses the introduction of the bow and arrow into California, which was a critical point in the era of study when the cross-dating of artifacts was the only way to place archeological cultures in time. However, this is now seen as just one characteristic of a period when most subsistence technologies were improved and complex societies developed. Fishing, in particular, became a very intensive subsistence pursuit.

Ethnographic Background

The Patwin occupied the southern Sacramento Valley west of the Sacramento River from the town of Princeton, north of Colusa, south to San Pablo and Suisun bays. Patwin territory extended approximately 90 miles north to south and 40 miles east to west. Distinction is made between the River Patwin, who resided in large villages near the Sacramento River, especially

between Colusa and Knights Landing, and the Hill Patwin, whose villages were situated in the small valleys along the lower hills of the Vaca Mountains and Coast Range, with concentrations in Long, Indian, Bear, Capay, Cortina and Napa valleys (Johnson 1978: 350; Powers 1877: 218). The term "Patwin" refers to the people belonging to the many small contiguous independent political entities in this area who shared linguistic and cultural similarities. Hill and River Patwin dialects are grouped into a North Patwin language, separate from South Patwin, spoken by people who live near present-day Knight's Landing and Suisun. Together, these are classified as southern Wintuan and belong to the Penutian language family as do the languages of the Miwok and Nisenan peoples living nearby (Johnson 1978: 350, 359; Kroeber 1925: 351-354).

Politically, the Patwin were organized in small tribes or tribelets, each consisting of a primary village with satellite villages. Tribelets were autonomous and differed from other such units in minor cultural variations. Dialects might encompass several tribelets. Territories were vaguely defined, but included fishing and gathering areas used by the group. In each village, a leader or chief administered subsistence ventures, such as hunting or gathering, and presided over ceremonies. Social and economic activities were divided among families within a village, with certain families responsible for different specialties such as trapping ducks, collecting salt, making foot drums, or performing particular dances or shamanistic rituals (Johnson 1978: 354-355).

Patwin territory includes the riverine environment of tule marshes, vines and brush near the Sacramento River, the flat grasslands dotted with oak groves, and the hills and small valley of the Coast Ranges. The villages situated on low bluffs near the river were often very large; in 1848, General Bidwell estimated at least 1000 residents at *Koru*, near Colusa (Powers 1877: 219). In the hills, the Patwin settled in the small valleys, particularly along Cache and Putah creeks, where large populations were reported. The plains were least hospitable; there, villages were sparse because of the seasonal flooding in winter and lack of reliable water sources during the dry months. As Powers described:

> In winter there was too much water on them, in summer none at all, and aborigines had no means of procuring an artificial supply. Besides there was no wood on them, and the overflowed portions in early summer breed millions of accursed gnats, which render human life a burden and weariness. Hence they were compelled to live beside water-sources, except during certain limited periods in the winter, when they established hunting-camps out on the plains (Powers 1877: 219).

Kroeber noted that the Patwin responded to these seasonal changes by shifting their habitation sites:

> The valley people evidently had their permanent villages on the river itself -- that is, in the marsh belt -- but appear to have left this during the dry half of the year to live on the adjacent plains, mostly by the side of tributaries. The upland people built their winter homes where the streams issue on these creeks, and in

> summer moved away from the main water courses into the hills or mountains (Kroeber 1925: 354).

Within a village, the Patwin constructed earth-covered semi-subterranean structures. The Hill Patwin used a circular floor plan while the River Patwin favored an elliptical shape. Four types of building occurred in a predictable pattern: the ceremonial dance house was placed a short distance to the north or south of the village, the sudatory or sweat house was positioned to the east or west of the dance house, and the menstrual hut was built on the edge of the village, farthest from the dance house. Family dwellings could be erected anywhere within the community. Family lodges were built by one's paternal relatives while the other structures were the product of a communal effort. They used readily available materials, forming a framework of saplings, and covering the walls and roof with mud and brush (Johnson 1978:357-358; Powers 1877: 220-221).

Natural resources flourished in Patwin territory. They gathered seeds and plant foods and hunted game animals on the plains, shot or netted ducks and other migratory water fowl in the thick tule marshes, and netted salmon and other fish in the rivers and streams. Some of these activities were conducted by groups or families assigned to particular resource areas by a village chief. Acorns were a staple in the Patwin diet. Two types of Valley oak and, rarely, live oak acorns were gathered at communally-owned groves (Johnson 1978: 355). Common practice was to store abundant quantities of acorns in tall granaries to assure against hunger in years of poor harvest. Kroeber observed a Patwin granary more than eight feet tall and three feet in diameter (Heizer and Elsasser 1980:99). Women prepared the bitter crop by pulverizing the acorns, then leaching out the bitter tannic acid before making bread or acorn soup. At privately-owned gathering tracts on the plains, families gathered seeds, including sunflower, alfilaria, clover, bunchgrass, wild oat and yellow-blossom. The Patwin also collected a variety of bulbs, nuts, roots and berries, including buckeye, pine nuts, juniper berries, manzanita berries, blackberries, wild grapes, brodiaea bulbs, and tule roots. To obtain salt, the Patwin scraped off rocks that were found near Cortina, burned a grass that grew on the plains or obtained it in trade from the neighboring Pomo (Johnson 1978: 355).

King salmon, silver salmon and steelhead trout that run from the ocean to the fresh-water rivers and streams were an important diet item. Explorers observed Patwin fishing for salmon with a boom net in 1854 (Heizer and Elsasser 1980: Figure 37). The Patwin also caught smaller fish and collected mussels from the river bottom. They attracted wild ducks by setting out realistic decoys, and then drove the fowl into large nets stretched above the marshes. Hunters also netted mud hens, geese and quail. The Suisun tribelet pursued waterfowl in tule rafts (Powers 1877: 220). The Patwin hunted large game, such as tule elk, deer, antelope and bear, and took many varieties of small animals, reptiles, insects and birds either to eat or to use for ceremonial and practical materials (Johnson 1978: 355).

The ceremonial life of the Patwin was centered on the Kuksu cult system, which features one or more secret societies, each with its own dances and rituals. The Kuksu cult occurs among several north central California tribes, but it was more elaborate among the Patwin who possessed three secret societies: the Kuksu, ghost and Hesi types, each with a slightly different purpose. The ghost society stressed initiation, the Kuksu emphasized curing the shamanistic

functions, and the Hesi elaborated on ceremonial dancing (Johnson 1978:353). In addition to ritual duties, shamans were called upon to heal the sick by applying native medicines or by sucking out the offending spiritual cause of the illness. The Patwin generally buried their dead, although the tribelets furthest south may have cremated the deceased. The Patwin near Colusa bent the body, wrapped it with strings of shell money, covered it with an animal skin secured with ropes. They interred the corpse with material goods in a grave situated within a village or within 100 yards of a dwelling or dance house (Kroeber 1925: 359-361).

Pre-contact population is difficult to estimate, but a survey of various sources seems to indicate that the Patwin may have numbered 4,000 before their first encounter with non-Indians. Missionization, punitive military expeditions and fatal confrontations with ranchers took their toll on the populace. John Work's party of trappers from the Hudsons Bay Company came down the Sacramento River in 1832, returning up the river in 1833. They unintentionally introduced a deadly disease to native California and, in their wake, a malaria epidemic swept through the Sacramento Valley. Just four years later, in 1837, smallpox raged through the villages and, as a result of these diseases, up to 75 percent of the Patwin died (Cook 1955). Those who survived these tragedies eventually settled on small reservations or worked as ranch laborers. Throughout the 1800s and 1900s, the population decreased; in 1972, the Bureau of Indian Affairs counted only 11 Patwin in the entire territory. Three reservations--Colusa, Cortina and Rumsey--remain active in former Patwin territory; they are occupied primarily by descendants of Wintun and other groups (Bureau of Indian Affairs 1983; Johnson 1978: 352).

Historical Background

The 1833 malaria epidemic that decimated the Indians in the Central Valley played a major role in defining the post-Contact land use pattern of the Indians of the region, as well as impacting Euro-American economic development. The introduction of malaria to central California *circa* 1831 occurred as a result of expeditions of several fur brigades of the Hudson's Bay Company with infected individuals. The introduction of the disease led to the tremendous epidemic of 1833 that decimated the Indian population of the region. An estimated three-quarter of the total Indian population of the region died from the disease in that year.

The first settler in the Woodland vicinity was Uncle Johnny Morris, who settled near an extensive grove of oaks on the plains south of Cache Creek in November of 1849. He engaged in agricultural pursuits on the rich Cache Creek bottom land and was soon joined by Henry Wycoff and others. Wycoff established the first store in the area. As a town, Woodland really started when Frank S. Freeman purchased 160 acres in 1857 and laid out a town which he envisioned as being the commercial center of the rich agricultural zone that was developing in the area. A post office was established in 1858, at which time the town became Woodland instead of Yolo City, as it had been known until that time (Kyle 1990: 536).

Woodland was selected as the county seat in 1862 and Freeman, ever willing to promote the town, donated a city block for the courthouse. The site continues in this use, but the building was replaced in 1917. Woodland did not suffer a devastating fire as happened to so many

towns of the gold rush era. As a result, there are many fine examples of nineteenth century architecture in the First Street area that have survived and continue in use.

Site Specific History

The Moore Canal System

The Project Area is crossed by a segment of the Moore Canal system, an irrigation system that dates to 1856. Before beginning work on the canal, James Moore purchased 80 acres from the grantee of Rancho Guenosi, the land grant William Gordon had obtained from the Mexican government in 1843. The deed from Gordon for the 850 acres included "the entire and exclusive right to build and erect and keep in repair a dam across Cache Creek." The deed also included the entire and exclusive right to use the waters of the aforesaid "Jesus Maria" or Cache Creek running through Gordon's grant, to the sole use and behoof (sic) of said James Moore, her heirs and assignees forever." The land grant was confirmed by President James Buchanan in 1860 (Wilson 1901).

Moore also purchased 200 acres of the lands of the adjacent Hardy grant from Harbin and the right of way for a ditch across the property. As a result, Moore felt he could claim the rights to water from Cache Creek, and in 1856, began his project. A brush dam was built as well as the headgate and the first section of canal, extending three and a half miles to a tract of land owned by Moore (Wilson 1901). The 1858 Map of Rancho Rio Jesus Maria shows the initial extent of the canal (see site record, Appendix 4).

In 1864, the canal was enlarged, the system was extended in two branches, and the grade at the section at the head was changed to secure greater capacity. The system totaled at that time nine miles, with a branch toward Woodland and another branch extended southward (Wilson 1901). After 1864, all extensions and laterals were built by the waters users and owned and maintained by the users (Russell 1940: 72). The 1871 map shows the extent of the system at this point (see site record, Appendix 4).

Moore continued to fight for his water rights through to his death in 1884. One case in 1871 gave rights to a water company organized in Cacheville; Moore appealed and the case ended with a decision by the California Supreme Court reversing the findings (Russell, editor 1940:74).

The system continued to grow with associated expansions built by local groups of farmers to total seventy miles. The canal operated for a number of years with temporary dams, usually carried away by the winter rains. Water users who wanted irrigation water earlier in the season would have to pay higher costs to have the dam installed earlier in the season. A more permanent dam was installed in 1881, but only stayed intact until it was washed away just five years later, either due to defective construction or to neglect and failure to make repairs. After that date the dam was replaced annually until at least 1901 (Wilson 1901).

The Moore Dam and Canal System became the subject of numerous lawsuits over the years, continuing for long after Moore's demise in 1884. So much money was spent in legal actions that the author of a 1901 publication on irrigation from Cache Creek stated:

> In 1886 the permanent dam was washed away. Hampered and hedged about the provisions and limitations of this strange bequest. The trustees have found themselves unable to replace the dam or make much-needed repairs. They have not been able to operate the ditch to the satisfaction of either themselves, the heirs, or the water users. During all these forty-four years since James Moore first began his ditch, nearly half a century, the waters of Cache Creek have been going to waste, and all this outlay of energy and treasure there is nothing to show but these voluminous court records and one mismanaged ditch, irrigating in an ineffectual, unreliable way from 5,000 to 7,000 acres per annum out of a possible 40,000 to 50,000 acres that the natural flow of this stream should water and make fruitful. The physical difficulties to overcome are insignificant. Time after time energy and capital have brushed these aside only to find themselves involved in a maze of endless litigation which leads nowhere and settles nothing (Wilson 1901: 182).

The Moore interests eventually passed into the hands of the Yolo Water and Power Company. This appropriation has passed through the hands of a number of agencies, and is now owned by the Yolo County Flood Control and Water Conservation District.

The Magnolia Canal

The Magnolia Canal is a remnant in part of the Moore Canal. The current course of the ditch in the project area follows roughly the mapped route dating back to 1858. But this portion of the system has been subject to numerous changes. In the 1950s, water was diverted into the ditch directly from Cache Creek (Woodland 1:62,500 USGS topographic map 1953), and is first called by the name "Magnolia Canal." At some point, the water delivery point is changed, and a gate structure built on the Moore Canal and the ditch realigned. The western section between Cache Creek and the existing canal has been abandoned. Other segments have been removed or disturbed by on-going gravel mining along Cache Creek.

RESEARCH

Records of previously recorded cultural resources and cultural resource investigations were examined by the Northwest Information Center of the California Historical Resources Information System for the Project Area (NWIC 12-0128, Appendix 2). The Project Area had never been surveyed in the past. No prehistoric period cultural resources have been recorded within the Project Area.

Three other resources have been recorded in the Project Area vicinity—an oak grove, Monument Hill and the Moore Canal.

A grove of twelve valley oak trees to the northwest of the Project Area has been recorded as part of the 1986 Yolo County Inventory of historic resources, reportedly because the "trees that remain have a special historic and visual appeal." This resource has been assigned a primary number in the statewide system by the NWIC (P-57-132). The site was re-visited by an archeologist in 2007 who updated the form to report the continuing presence of the grove of trees.

Monument Hill was recorded in 1986 as HRI-5/153; a USGS bench mark is located to the south of the Project Area with a cemetery developed around the marker. Apparently, a primary number has not been assigned in the statewide numbering system.

In 2007, a history firm recorded the Moore Canal at a roadway crossing adjacent to the Project Area for a large-scale Caltrans contract. The recordation covered the Highway 16 crossing of the Moore Ditch, and included a map of the larger part of the system, implying recordation of the resource within the Project Area. The site is recorded as CA-YOL-211H (P-57-605).

Additional research on the history of the development and use of the Moore Canal has been conducted at the Yolo County Archives and the California Room of the California State Library, as well as through internet sources including Ancestry.com, the Internet Archive, and the USGS topographic map collection. Sources utilized include maps, published reports, and county histories.

NATIVE AMERICAN CONSULTATION

The Native American Heritage Commission (NAHC) was contacted by Peak & Associates on August 2, 2012, for a check of the sacred lands file and a list of Native Americans who might have information or concerns relative to the project. The individuals and organizations identified by the NAHC were contacted by letter on August 19, 2012. No replies were received. After the survey was completed letters were sent to the same individuals informing them of the negative results of the survey, as regards Native American resources. No replies were received in response to the second round of letters. The following individuals were contacted in both rounds:

Organization	**Contact**
Yocha Dehe Wintun Nation	Marshall McKay, Chairperson Leland Kinter, Native Cultural Renewal Committee Cynthia Clarke, Native Cultural Renewal Committee Reno Franklin, Cultural Resource Director

Wintun Environmental Protection Agency	
Cortina Band of Indians	Charlie Wright, Chairperson
(individual)	Kesner Flores

A third letter was sent to the same individuals on October 2, 2013 (Appendix 3). As a result of this communication, a meeting to view to the Project Area was set for November 19, 2013. A field tour was made of the property, with the meeting attended by James Sarmento and Dillon McKay (Yocha Dehe), Barry Baba (Teichert), and Melinda Peak (Peak and Associates. The Yocha Dehe representatives would like to continue to be involved in future planning of mitigation measures for the property.

FIELD ASSESSMENT

The Project Area was subject to a complete pedestrian survey on August 30, and September 3, 2012 by Robert Gerry and Michael Lawson using 15 meter wide transects. A revisit was made to the Project Area on October 3, 2013 to gather additional information on the ditches.

The ground surface of the Project Area was inspected for artifacts, midden or any other indication of site presence. The ground surface, though heavily disturbed by agricultural activities, was easily visible with little vegetation on the surface in most areas. There were no significant impediments to surface visibility.

DPR site forms have been prepared for the segments of the Moore Canal and the segment of the Magnolia Canal within the Project Area, and are included in Appendix 4.

Resource Descriptions

Moore Canal

The resource is a segment of a concrete and earth-lined canal that carries water from Cache Creek to nearby agricultural fields in the area west and southwest of the community of Woodland. The base of the canal averages about ten feet wide and the sides slope up to a cut of about 22 feet wide. The canal varies from between 4 to 6 feet deep. The length of the inspected segment was approximately 5600 feet.

A secondary canal intersects with this canal near the eastern end of the inspected segment. A concrete structure is located at this intersection. The concrete lining was probably added to the canal at about the same time the concrete structure was constructed at the intersection with the other canal, estimated 1950s. The original canal, dug by James Moore in the 1850s, was not concrete lined.

Magnolia Canal

The canal is earth lined and is about five feet wide at its base. The sides slope to a cut of about 19 feet wide, and the canal is about five feet deep. At the southern end, the canal intersects with Moore Canal at a concrete structure. The length of the inspected segment was approximately 750 feet.

The portion of the Magnolia Canal located in the Project Area is estimated to have been constructed during the 1950s.

EVALUATION OF THE RESOURCES

Moore Canal

The project involves the removal of a section of the Moore Canal, partially dating to 1858, and partially dating to the 1864 extension of the main canal. This Canal had been previously described by JRP as being the oldest ditch in Yolo County, and considered to be a significant resource, eligible for the National Register of Historic Places. In addition to being the oldest canal, the canal was involved in setting water rights policy in the State of California.

The canal appears to be significant and eligible for the California Register of Historical Resources under Criterion B1, for its associations with important events and under Criterion B3, as the earliest canal in Yolo County, a county whose agricultural heritage brought about economic success to the region. As the first ditch allowing the seasonal irrigation of many acres of otherwise dry lands useful only for grazing or grain crops, the changes in land use changed the patterns of development of the region. The section of the Moore Canal in the Project Area retains integrity of location (in part), setting, feeling, and association. However, the materials have been changed with the lining of the ditch at some point in the past.

Magnolia Canal

Although the Magnolia Canal is in part the route of the Moore Canal's 1858 system, many alterations have occurred that have damaged the integrity of the resource. This segment of the Moore Canal was cut off and not used for years, but by 1953 was partially brought back into service with water brought by a new canal segment to the Canal segment closer to Cache Creek, and the entire new and old Canal was re-named the "Magnolia Canal."

A later change to the Canal occurred circa 1960-1970, with a gate added on the main Moore Canal within the Project Area to supply water into the Magnolia Canal. The section built circa 1950 from Cache Creek to the old Canal section went into disuse, and is eroded away within the project area. This Canal lacks the association with Moore Canal, and is no longer considered part of the "Moore Canal." Although technically a portion of the ditch was excavated in 1856, much has happened to alter this segment.

The ditch can no longer be considered significant under Section 15064.5 of the CEQA Guidelines because it is no longer associated with important people and events [subsections (A) and (B)]. Its lack of continuous use and major alterations, as well as the re-naming and the alteration of water source, likewise make the ditch ineligible under subsections (C) and (D) of Guidelines Section 15064.5.

EFFECTS OF THE PROPOSED PROJECT

The project will cause the re-location of a section of the Moore Canal and a section of the Magnolia Canal. The Moore Canal removal will impact a "significant" resource believed to be eligible for the CRHR. Removal of the canal will "materially alter in an adverse manner those physical characteristics of [the canal] that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historic Places." (CEQA Guidelines, § 15064.5(b) (2).) Accordingly, the Project will have a potentially significant impact on Moore Canal.

The Magnolia Canal is not considered eligible for the CRHR and, therefore, removal of the Magnolia Canal is not considered an adverse effect under CEQA.

PROPOSED MITIGATION MEASURES

With any surface inspection there is always a remote possibility that previous activities (both natural and cultural) have obscured prehistoric or historic period artifacts or habitation areas, leaving no surface evidence that would permit discovery of these cultural resources. If, during construction activities, unusual amounts of non-native stone (obsidian, fine-grained silicates, basalt), bone, shell, or prehistoric or historic period artifacts are observed, or if areas that contain dark-colored sediment that do not appear to have been created through natural processes are discovered, then work should cease in the immediate area of discovery and a professionally qualified archeologist should be contacted immediately for an on-site inspection of the discovery. If any bone is uncovered that appears to be human, then the County Coroner must be contacted, according to state law. If the Coroner determines that the bone most likely represents a Native American interment, then he must contact the Native American Heritage Commission in Sacramento so that they can identify the most likely descendants.

For the known significant resource, the segment of the Moore Canal, we propose that a series of high resolution photographs be taken of the resource, including any features and general overviews of canal segments that will be removed to document the current appearance, with associated GPS readings. GPS readings will be taken of the linear extent of Moore Canal. Cross-sectional profiles will be recorded at various points along the segments, depending on variations of the width and depth of the feature.

Copies of the photographs of the canal section should then be filed with the Northwest Information Center, the Yolo County Archives, and the Yolo County Flood Control District. If agreeable to all parties, the negatives should also be placed with the Yolo County Archives.

In this case, recordation is the only feasible means of mitigation for this significant effect. According to information provided by the applicant, retention of the canal in its current location would result in a considerable loss of aggregate reserves, which would render the project economically infeasible.

REFERENCES

Beardsley, Richard K.
1954 Temporal and Areal Relationships in Central California Archeology (parts 1 and 11). *University of California Archaeological Survey Reports* 24, 25. Berkeley.

Bennyhoff, James A.
1977 Ethnogeography of the Plains Miwok. *University of California, Davis Publications* 5.

Bennyhoff, James A. and Richard E. Hughes
1984 Shell Beads and Ornament Exchange Networks between California and the Great Basin. In David Hurst Thomas: The Archaeology of Monitor Valley. Regional Synthesis and Implications. *Anthropological Papers of the American Museum of Natural History* 5. New York.

Bureau of Indian Affairs
1983 Tribal Information and Directory. Bureau of Indian Affairs, Sacramento.

Cook, Sherburne F.
1955 The Epidemic of 1830-33 in California and Oregon. *University of California Publications in American Archaeology and Ethnology* 43(3):303-326. Berkeley.

DePue & Company
1879 *The Illustrated Atlas and History of Yolo County, Cal. Containing a History of California from 1513 to 1850, a History of Yolo County from 1825 to 1880, with Statistics ... Portraits of Well-Known Citizens, and the Official County Map.* DePue & Company.

Fredrickson, David A.
1973 *Early Cultures of the North Coast Ranges, California.* Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Heizer, Robert F., and Albert B. Elsasser
1980 *The Natural World of the California Indians*. University of California Press, Berkeley.

Kyle, Douglas E. (editor)
1990 *Historic Spots in California* (fourth edition), by Mildred Hoover, Hero E. Rensch, and Ethel G. Rensch. Previously edited by William Abeloe. Stanford University Press, Palo Alto.

Johnson, Patti J.
1978 Patwin. In: *Handbook of North American Indians*, volume 8, edited by Robert F. Heizer, pp. 350-360. Smithsonian Institution, Washington, D.C.

Kroeber, Alfred L.
1925 Handbook of the Indians of California. *Bureau of American Ethnology Bulletin 78*. Washington, D.C.

Larkey, Joann and Shipley Walters
1987 *Yolo County: Land of Changing Patterns*. Windsor Publications, Northridge.

Lillard, Jeremiah B., Robert F. Heizer and Franklin Fenenga
1939 An Introduction to the Archaeology of Central California. *Sacramento Junior College, Department of Anthropology Bulletin* 2. Sacramento.

Lillard, Jeremiah B. and William K. Purves
1936 The Archeology of the Deer Creek-Cosumnes Area, Sacramento County, California. *Sacramento Junior College, Department of Anthropology Bulletin* 1. Sacramento.

Moratto, Michael J.
1984 *California Archaeology*. Academic Press, New York.

Powers, Stephen
1877 Tribes of California. *Contributions to North American Ethnology* 3. U.S. Geographical and Geological Survey of the Rocky Mountain Region. Washington.

Rosenthal, Jeffrey S., Gregory G. White and Mark Q. Sutton
2007 The Central Valley: A View from the Catbird's Seat. In: *California Prehistory: Colonization, Culture and Complexity,* pp 147-163. Edited by Terry L. Jones and Kathryn A. Klar. Alta Mira Press, New York.

Russell, William O., editor
1940 *History of Yolo County, California: Its Resources and Its People*. Woodland.

Schenck, W. Egbert and Elmer Dawson
1929 Archaeology of the Northern San Joaquin Valley. *University of California Publications in American Archaeology and Ethnology* 25(4).

Schulz, Peter D.
1981 *Osteoarchaeology and Subsistence Change in Prehistoric Central California.* Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Wilson, James M.
1901 "Irrigation Investigations on Creek on Cache Creek." In: *Irrigation Investigations in California*, Bulletin 100. On file, Internet Archive.

Wooldridge, Jesse
1931 *History of the Sacramento Valley, California*. The Pioneer Historical Publishing Company, Chicago.

APPENDIX 1

Resumes

PEAK & ASSOCIATES, INC.
RESUME

MELINDA A. PEAK **January 2015**
Senior Historian/Archeologist
3941 Park Drive, Suite 20 #329
El Dorado Hills, CA 95762
(916) 939-2405

PROFESSIONAL EXPERIENCE

Ms. Peak has served as the principal investigator on a wide range of prehistoric and historic excavations throughout California. She has directed laboratory analyses of archeological materials, including the historic period. She has also conducted a wide variety of cultural resource assessments in California, including documentary research, field survey and report preparation.

In addition, Ms. Peak has developed a second field of expertise in applied history, specializing in site-specific research. She is a registered professional historian and has completed a number of historical research projects. Ms. Peak has been a regular lecturer for courses in the Capital Campus Public History program (California State University, Sacramento), teaching cultural resource law and site-specific research methods.

Through her education and experience, Ms. Peak meets the Secretary of Interior Standards for historian, architectural historian, prehistoric archeologist and historic archeologist.

EDUCATION

M.A. - History - California State University, Sacramento, 1989
Thesis: *The Bellevue Mine: A Historical Resources Management Site Study in Plumas and Sierra Counties, California*
B.A. - Anthropology - University of California, Berkeley

RECENT PROJECTS

Ms. Peak completed the cultural resource research and contributed to the text prepared for the DeSabla-Centerville PAD for the initial stage of the FERC relicensing. She also served cultural resource project manager for the FERC relicensing of the Beardsley-Donnells Project. For the South Feather Power Project and the Woodleaf-Palermo and Sly Creek Transmission Lines, her team completing the technical work for the project.

In recent months, Ms. Peak has completed several determinations of eligibility and effect documents in coordination with the Corps of Engineers for projects requiring federal permits, assessing the eligibility of a number of sites for the National Register of Historic Places. She has also completed historical research projects on a wide variety of topics for a number of projects including the development of navigation and landings on the Napa River, a farmhouse dating to the 1860s, an early roadhouse, Folsom Dam and a section of an electric railway line.

In recent years, Ms. Peak has prepared a number of cultural resource overviews and predictive models for blocks of land proposed for future development for general and specific plans. She has been able to direct a number of surveys of these areas, allowing the model to be tested.

She served as principal investigator for the multi-phase Twelve Bridges Golf Club project in Placer County. She served as liaison with the various agencies, helped prepare the historic properties treatment plan, managed the various phases of test and data recovery excavations, and completed the final report on the analysis of the test phase excavations of a number of prehistoric sites. She is currently involved as the principal investigator for the Clover Valley Lakes project adjacent to Twelve Bridges in the City of Rocklin, coordinating contacts with Native Americans, the Corps of Engineers and the Office of Historic Preservation.

Ms. Peak has served as project manager for a number of major survey and excavation projects in recent years, including the many surveys and site definition excavations for the 172-mile-long Pacific Pipeline proposed for construction in Santa Barbara, Ventura and Los Angeles counties. She also completed an archival study in the City of Los Angeles for the project. She also served as principal investigator for a major coaxial cable removal project for AT&T.

Additionally, she completed a number of small surveys, served as a construction monitor at several urban sites, and conducted emergency recovery excavations for sites found during monitoring. She has directed the excavations of several historic complexes in Sacramento, Placer and El Dorado Counties.

Ms. Peak is the author of a chapter and two sections of a published history (1999) of Sacramento County, *Sacramento: Gold Rush Legacy, Metropolitan Legacy*. She served as the consultant for a children's book on California, published by Capstone Press in 2003 in the land of Liberty series.

PEAK & ASSOCIATES, INC.
RESUME

ROBERT A. GERRY **January 2015**
Senior Archeologist
3941 Park Drive, Suite 20, #329
El Dorado Hills, CA 95762
(916) 939-2405

PROFESSIONAL EXPERIENCE

Mr. Gerry has forty years of extensive experience in both the public and private sectors. He has directed all types of cultural resource-related projects, including field survey, test excavations, data recovery programs, intensive archival research, cultural resource management and monitoring. He has completed archeological work in most cultural areas of California and in the western Great Basin.

EDUCATION

Graduate studies - Anthropology - California State University, Sacramento
B.A. - Anthropology - University of Illinois, Chicago Circle

RECENT PROJECTS

Mr. Gerry was field director for a cultural resources survey of the Diamond Valley Project in Alpine County, California. The project involved an overview and survey of an extensive plan area, recording and evaluation of resources and presenting the results to local Native Americans and helping to conduct a field tour with them. He also directed field survey of the Van Vleck Ranch, a large property in Sacramento County being put into a conservation easement. He has conducted surveys throughout California related to low income housing development.

He was field director and primary report writer on several linear surveys of considerable length--including the San Joaquin Valley Pipeline (157 miles) for Shell Oil, the Point Arena-Dunnigan fiber optic cable (137 miles) and the Medford, Oregon, to Redding, California fiber optic cable (151 miles), the Oregon and Idaho portions of the Spokane to Boise fiber optic cable, and the San Bernardino to San Diego fiber optic cable, for American Telephone & Telegraph Company. He also assisted on the 170 mile Pacific Pipeline survey on the southern coast of California and conducted several surveys of water pipelines in Riverside County for Eastern Municipal Water District: La Sierra pipeline, Perris Valley, Pico Rivera, Temecula, San Jacinto and their entire recycled water project. Follow-up projects involved well sites, pump stations and other infrastructure improvements.

Mr. Gerry supervised the cultural resources assessments and participated in all field surveys for the studies of water supply facilities for seven wildlife refuges in the Sacramento and San Joaquin Valleys. He has also developed a specialty in bridge replacement evaluations, completing five such studies in Tuolumne County, two in Santa Barbara County, two in Amador County and ten others in various areas of California.

Mr. Gerry has had extensive experience in the recording and evaluation of mining sites in northern California and Nevada for proposed mining undertakings as well as in the course of survey for proposed subdivisions, reservoirs, and other development projects.

Mr. Gerry has directed test excavations for evaluation of significance at a number of sites, both historic and prehistoric. Examples include CA-NAP-261, twelve sites on Naval Petroleum Reserve No. 1, three sites on Russell Ranch in Sacramento County, a midden site near Guinda and a village known through ethnographic literature in Murphys. He conducted test excavations at a known village site adjacent to a quarry in Yolo County to insure it would not be impacted by expanded quarrying.

In the field of historical resources, Mr. Gerry has prepared site records and significance evaluations for numerous historical buildings throughout California. The bulk of these have been single family residences, but industrial, commercial and multi-family residences were also included. He has also directed excavations for evaluation of historical archeological potential and monitored construction work in areas of known historical sensitivity.

PEAK & ASSOCIATES, INC.
RESUME

MICHAEL D. LAWSON
6241 Brantford Way
Citrus Heights, CA 92621
916-765-2441

Professional Experience

Mr. Lawson has 19 years of experience with various private agencies conducting typical fieldwork and laboratory work, as well. Major projects include Twelve Bridges Golf Club and adjacent areas, Clover Valley Lakes, and other smaller projects in several counties.

Survey work includes the following counties: Colusa, Sutter, Yuba, Sacramento, El Dorado, Sierra, Butte, Lake, Fresno, Merced, San Joaquin, Placer, Nevada, Amador, Solano, Tuolumne, Kern, Contra Costa, Sonoma, Kings and Tulare. Additional experience includes mapping and processing field notes and photography. Informal visits in an unpaid capacity include: historic and prehistoric sites in Sacramento, Amador, Placer, Sonoma, Marin, Fresno, Modoc and Lassen.

Other site visits include prehistoric sites in Nevada, Arizona, Oregon, South Dakota, Michigan, Ohio and Texas.

Sites visited in Mexico and Guatemala include: El Ray, Uxmal, Tulum, Escaret, Chitchen-Itza, Carocol, Burial Creek Caves and Tikal.

Mr. Lawson has undertaken extensive survey work throughout the San Joaquin Valley for a number of smaller projects for Peak & Associates. For over a year, he served as lead monitor during the excavations for improvements to Sutter Street in the city of Folsom. He is currently monitoring an excavation for a roadway in El Dorado County

Other recent projects include his participation as a team member on major excavations in San Francisco and Vacaville, involving the removal of Native American interments. Other projects have included historic period excavations. He assisted in an Extended Phase I test in Yuba County, checking for both prehistoric and historic period resources.