

PHASE I HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY

INDUSTRIAL LIME PRODUCTION PLANT PROJECT

**Near the Community of Trona
San Bernardino County, California**

For Submittal to:

County of San Bernardino
Land Use Services, Land Development Division
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San Bernardino, CA 92415

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April 2, 2019
CRM TECH Contract No. 3435

Title: Phase I Historical/Archaeological Resources Survey: Industrial Lime Production Plant Project, near the Community of Trona, San Bernardino County, California

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USGS Quadrangle: Trona East and Trona West, Calif., 7.5’ quadrangles (Sections 7, 8, and 18, T25S R43E, Mount Diablo Baseline and Meridian)

Project Size: Approximately 61.6 acres and 1.8 miles of utility line rights-of-way

Keywords: Northern Mojave Desert; Isolate 36-063304, dacite flake; no “historical resources” found

MANAGEMENT SUMMARY

Between January and April 2019, CRM TECH performed a cultural resources study on the area designated for the proposed Industrial Lime Production Plant Project near the unincorporated community of Trona, San Bernardino County, California. The project area includes approximately 61.6 acres of vacant land in Assessor's Parcel Number (APN) 0485-031-12 and approximately 1.8 linear miles of utility line rights-of-way, located on the northwest side of the community, within Sections 7, 8, and 18 of T25S R43E, Mount Diablo Baseline and Meridian.

The study is a part of the environmental review process for the proposed construction of the plant on APN 0485-031-12, an electrical distribution line leading east from the plant site, and a natural gas pipeline leading south. The County of San Bernardino, as the lead agency for the project, required the study pursuant to the California Environmental Quality Act (CEQA). The purpose of this study is to provide the County with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or around the project area.

In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out a systematic field survey of the entire project area. The results of the records search indicate that an isolated lithic flake of prehistoric origin was recorded in the project area in 1989 and was subsequently designated 36-063304 in the California Historical Resources Inventory. During the field survey, however, the artifact could not be located.

Isolates like 36-063304, or localities with fewer than three artifacts, by definition do not qualify as archaeological sites due to the lack of contextual integrity and the resulting inability to yield important data. As such, they do not constitute potential "historical resources" and require no further consideration. In conclusion, no potential "historical resources" were encountered within or adjacent to the project area throughout the course of the study.

No further cultural resources investigation is recommended for the proposed project unless construction plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered inadvertently during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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INTRODUCTION

Between January and April 2019, CRM TECH performed a cultural resources study on the area designated for the proposed Industrial Lime Production Plant Project near the unincorporated community of Trona, San Bernardino County, California (Figure 1). The project area includes approximately 61.6 acres of vacant land in Assessor's Parcel Number (APN) 0485-031-12 and approximately 1.8 linear miles of utility line rights-of-way, located on the northwest side of the community, within Sections 7, 8, and 18 of T25S R43E, Mount Diablo Baseline and Meridian (Figures 2, 3).

The study is a part of the environmental review process for the proposed construction of the plant on APN 0485-031-12, an electrical distribution line leading east from the plant site, and a natural gas pipeline leading south (Figures 2, 3). The County of San Bernardino, as the lead agency for the project, required the study pursuant to the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of this study is to provide the County with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or around the project area.

In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out a systematic field survey of the entire project area. The following report is a complete account of the methods, results, and final conclusion of the study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

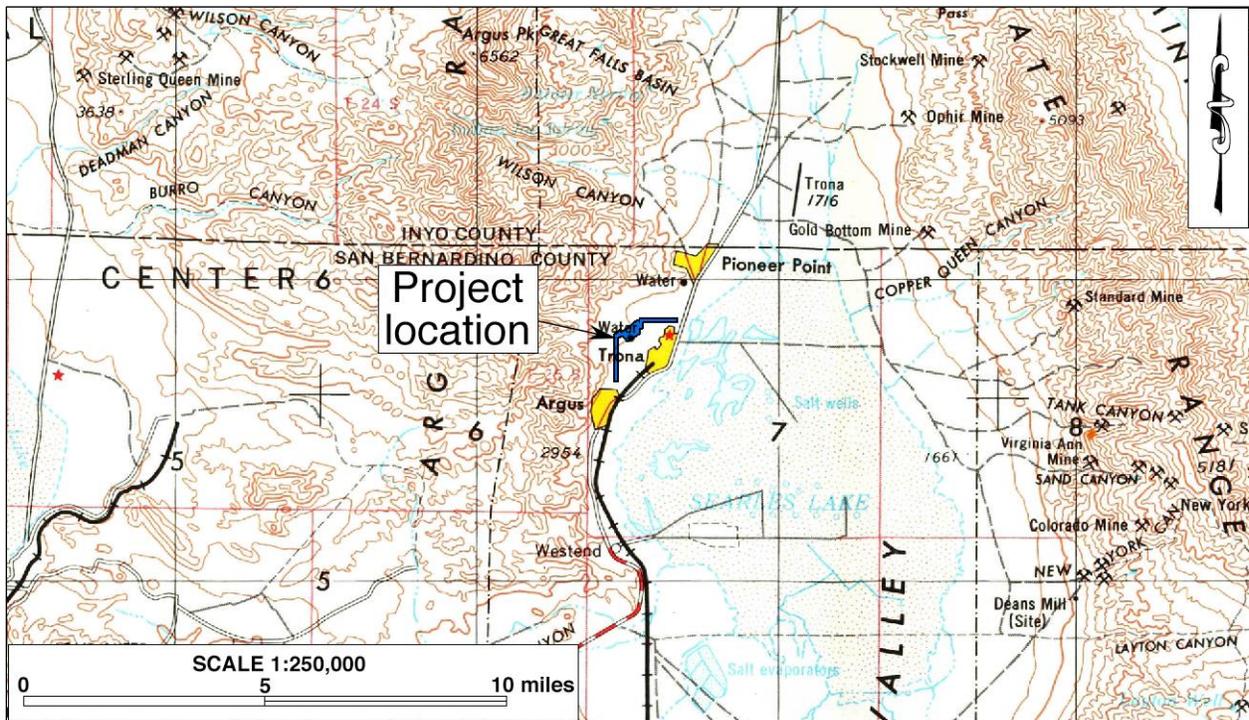


Figure 1. Project vicinity. (Based on USGS Trona, Calif., 30'x60' quadrangle [USGS 1969])

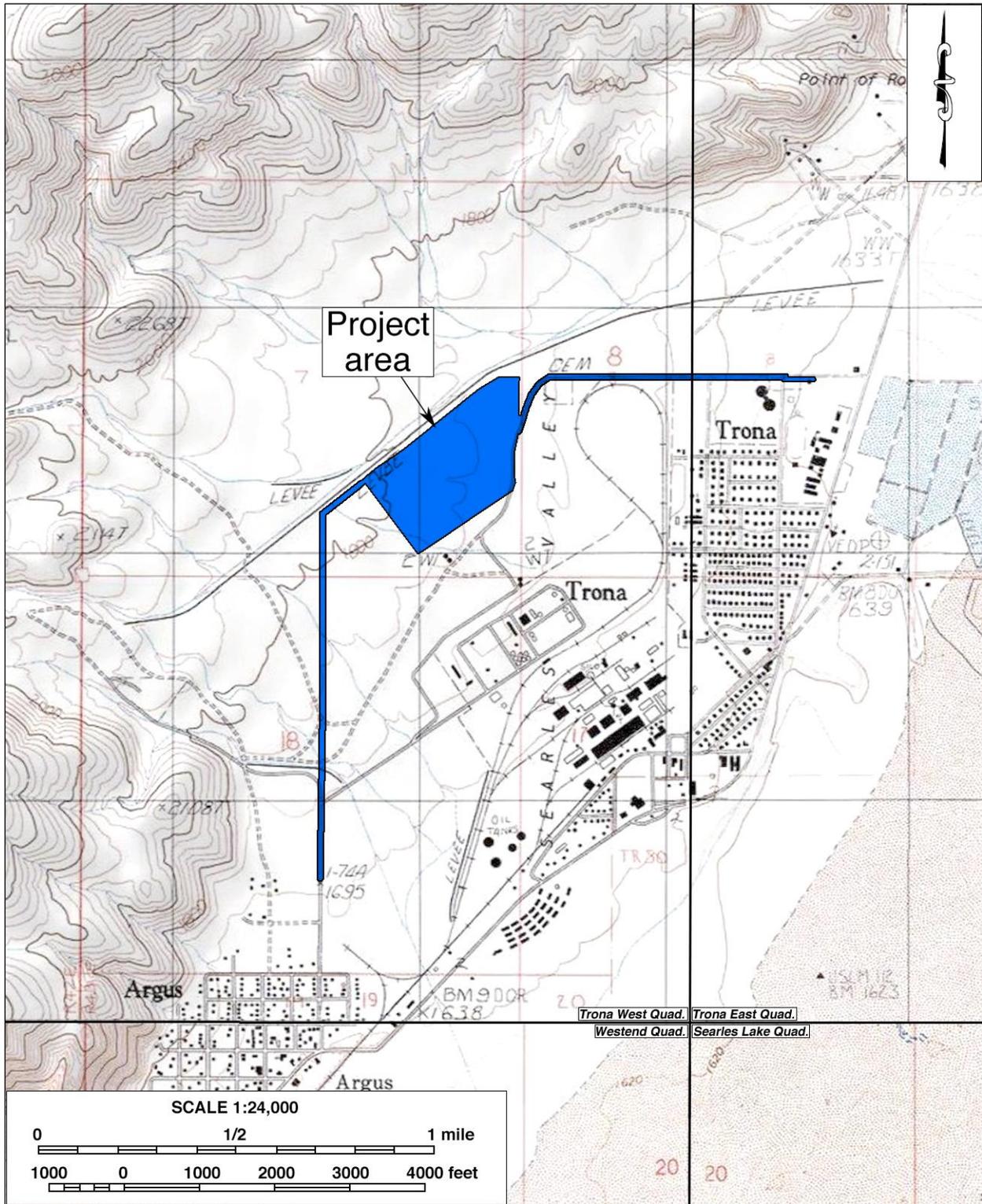


Figure 2. Project area. (Based on the USGS Searles Lake, Trona East, Trona West, and Westend, Calif., 7.5' quadrangles [USGS 1973a; 1973b; 1982; 1983])



Figure 3. Aerial view of the project area. (Based on Google Earth imagery)

SETTING

CURRENT NATURAL SETTING

The small industrial town of Trona is situated on the northwestern side of Searles Lake, a dry lakebed at the northern end of the Searles Valley, which is an arid desert basin nestled between the Argus and Slate Mountain Ranges, in the northern portion of the Mojave Desert. Typical of the eastern California desert country, the climate and environment of the Searles Valley area are characterized by extremes in temperature and aridity, with the average high temperature in summer reaching over 105° Fahrenheit, the average low temperature in winter dropping to approximately 33° Fahrenheit, and an average annual rainfall below four inches.

The main project site is located to the northwest of Trona and on the southeast side of Robert Road (Figure 3). From the plant site, the proposed power line alignment extends east within the right-of-way of Athol Street and along the northern edge of Trona, while the gas line route extends south along an unnamed dirt road, across an open field, and finally along First Street towards the neighboring community of Argus. Both Athol Street and First Street are paved public roadways. Elevations in the project area range approximately from 1,660 feet to 1,830 feet above mean sea level.

Currently, the main project site serves as a landfill for the disposal of ash from a local coal-burning power plant (Figure 4). The ash piles, buried with soil, occupy more than 95 percent of the parcel and rise as much as 20 feet above the original ground surface in most areas. The only undisturbed ground on the property are found along the eastern, southeastern, and southwestern boundaries. The soil in these areas consists of a coarse alluvial sand and gravel mixture. The sparse vegetation growth in these areas consisted mainly of the typical small desert shrubs.



Figure 4. Current natural setting of the main project site. (Photograph taken on February 6, 2019; view to the north.)

CULTURAL SETTING

Prehistoric Context

In order to understand the progress of Native American cultures prior to European contact, archaeologists have devised chronological frameworks on the basis of artifacts and site types that date back some 12,000 years. Currently, the chronology most frequently applied in the Mojave Desert divides the region's prehistory into five periods marked by changes in archaeological remains, reflecting different ways in which Native peoples adapted to their surroundings. According to Warren (1984) and Warren and Crabtree (1986), the five periods are as follows: the Lake Mojave Period, 12,000 years to 7,000 years ago; the Pinto Period, 7,000 years to 4,000 years ago; the Gypsum Period, 4,000 years to 1,500 years ago; the Saratoga Springs Period, 1,500 years to 800 years ago; and the Protohistoric Period, 800 years ago to European contact.

More recently, Hall (2000) presented a slightly different chronology for the region, also with five periods: Lake Mojave (ca. 8000-5500 B.C.), Pinto (ca. 5500-2500 B.C.), Newberry (ca. 1500 B.C.-500 A.D.), Saratoga (ca. 500-1200 A.D.), and Tecopa (ca. 1200-1770s A.D.). According to Hall (*ibid.*:14), small mobile groups of hunters and gatherers inhabited the Mojave Desert during the Lake Mojave sequence. Their material culture is represented by the Great Basin Stemmed points and flaked stone crescents. These small, highly mobile groups continued to inhabit the region during the Pinto Period, which saw an increased reliance on ground foods, small and large game animals, and the collection of vegetal resources, suggesting that "subsistence patterns were those of broad-based foragers" (*ibid.*:15). Artifact types found in association with this period include the Pinto points and *Olivella* species spire-lopped beads.

Distinct cultural changes occurred during the Newberry Period, in comparison to the earlier periods, including "geographically expansive land-use pattern...involving small residential groups moving between select localities," long-distance trade, and diffusion of trait characteristics (Hall 2000:16). Typical artifacts from this period are the Elko and Gypsum Contracting Stem points and Split Oval beads. The two ensuing periods, Saratoga and Tecopa, are characterized by seasonal group settlements near accessible food resources and the intensification of the exploitation of plant foods, as evidenced by groundstone artifacts (*ibid.*:16).

Hall (2000:16) states that "late prehistoric foraging patterns were more restricted in geographic routine and range, a consequence of increasing population density" and other variables. Saratoga Period artifact types include Rose Spring and Eastgate points as well as Anasazi grayware pottery. Artifacts from the Tecopa Period include Desert Side-notched and Cottonwood Triangular points, buffware and brownware pottery, and beads of the Thin Lipped, Tiny Saucer, Cupped, Cylinder, steatite, and glass types (*ibid.*).

Ethnohistoric Context

The ethnography of the Searles Valley region has been summarized in several previous studies in the vicinity (Irwin 1979; Lerch 1985; McKenna and Hatheway 1989). According to Lerch (1985:3-4):

Prehistoric cultural chronologies spanning more than 12,000 years have been proposed for the desert region, and some researchers assert that the human occupancy of the region surrounding pluvial lakes

such as Searles Lake and Panamint Lake dates back as far as 45,000 years... The study area is located near the ethnographic boundary between the Kawaiisu Indians, a Numic-speaking tribe whose territory extended from the Tehachapi area eastward into the desert and the Panamint Shoshoni, or Koso, another Numic group who ranged from Indian Wells Valley northward and eastward. To the west in the Sierra Nevada lived the Tubatulabal, who spoke a related language.

In an earlier report, Irwin (1979:5-6) offers a more detailed discussion of the prehistoric Native Americans in the vicinity:

The Panamint Indians were hunters and gatherers. Males hunted mammals such as the big horn, rabbits, rodents and reptiles such as the chuckwalla. The group's main dependence was on plant products including pinon nuts, mesquite beans, seeds from desert shrubs, greens and wild fruits. There is no provable evidence of irrigation prior to Contact.

Seasonal mobility was required. In the hot summers the Panamint people relocated to cooler uplands whereas winters were spent in the valley at the mouths of canyons and preferably within reasonable distance of hot springs. Indian Ranch at the mouth of Hall Canyon and north of the hot springs was an ideal setting. During spring the hungry group foraged for greens. In the late summer and fall pinenuts were harvested in great quantities.

The Panamint family of Shoshones made visits to other areas such as Death Valley, Hunter Mountain and Millspaugh... Intermarriages took place between the various families from different regions such as Saline, Panamint and Death Valley. For these reasons we can postulate that the Panamints were linguistically more closely related to the Cosos, Saline, and Death Valley peoples rather than the Kawaiisus or Southern Paiutes to the south. There no doubt were contacts with Kawaiisu or Southern Paiute speakers, however ethnographic evidence suggests closer links with Death Valley and the Cosos.

Historic Context

Chemical mining in the area on and around Searles Lake has long been the focus and catalyst for development in the project vicinity. The chemical-rich brine and crystals found at the dry lakebed first came to the attention of prospector John Wemple Searles in 1862, but mining did not start until a decade later when Searles and his partners organized the San Bernardino Borax Mining Company and built a processing plant at present-day Trona (Belden and Walker 1962:3-4). The Borax Mining District was established around the same time, fueling a small mining rush (*ibid.*:7; McKenna and Hatheway 1989:26-27). The boom was unsustainable due to difficulties in transportation and the lack of a dependable water supply. In 1898, after Searles' death, the San Bernardino Borax Mining Company, by then a subsidiary of Francis M. "Borax" Smith's Pacific Coast Borax Company, ceased operation (Belden and Walker 1962:4, 6-8, 10).

The Searles Lake mining industry was at a standstill until 1908, when the California Trona Company purchased John Searles' old facilities from the Pacific Coast Borax Company and began harvesting soda ash (McKenna and Hatheway 1989:28). Under the California Trona Company and its successors, the American Trona Company and the American Potash and Chemical Corporation, the Searles Lake mining industry experienced a new era of revival and boom. Focus of the production was no longer confined to borax and soda ash, but gradually shifted to potash and a variety of other chemicals extracted from the lake brine (Belden and Walker 1982:17; McKenna and Hatheway 1989:29). In the decades since then, the California Trona Company changed its name and ownership

several times, and a succession of other chemical mining enterprises came and went on the shoreline of Searles Lake, but the chemical mining and processing operations have continued to the present day.

The boom also ushered in an overall growth spurt in the Searles Valley. The Trona Railway was completed in 1914, and a string of communities sprang up along its tracks (Cole 1984:9-10). Trona grew from a small hamlet of about 35 buildings in 1890 into a true company town by 1930, with a number of “town-like amenities” constructed in the mid-1910s by the American Trona Company (*ibid.*; McKenna and Hatheway 1989:31, 33). About two miles southeast of Trona, the village of Borosolvay was built between 1916 and 1917 as the result of a joint venture between the Pacific Coast Borax Company and the Solvay Process Company of Syracuse, New York (Knight 1949).

Further to the south, two other company towns came into being in the late 1910s: Westend, at the plant of the West End Chemical Company, which was established by “Borax” Smith in 1918, and what is now South Trona, at the plant of the Burnham Chemical Company, established by G.B. Burnham in 1919 (Knight 1949:18; NACC n.d.). Closer to Trona, the community of Argus formed in the 1920s-1930s independent of the chemical mining companies, and the townsite was officially surveyed by the U.S. General Land Office in 1934 (GLO 1935; Brush 1996). Although not technically a company town, soon Argus also took upon itself the function of providing housing, commercial services, and entertainment to workers at Trona and other plants (Knight 1949:4; Brush 1996).

RESEARCH METHODS

HISTORICAL/ARCHAEOLOGICAL RESOURCES RECORDS SEARCH

On January 16 and February 20, 2019, CRM TECH archaeologist Ben Kerridge completed the records search at the South Central Coastal Information Center (SCCIC), located on the campus of California State University, Fullerton. During the records search, Kerridge examined maps and records on file at the SCCIC for previously identified cultural resources and existing cultural resources reports within a one-mile radius of the project area. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or San Bernardino County Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

HISTORICAL BACKGROUND RESEARCH

Historical background research for this study was conducted by CRM TECH historians Bai “Tom” Tang and Terri Jacquemain. Sources consulted during the research included published literature in local and regional history, U.S. General Land Office (GLO) land survey plat maps dated 1918-1935, United States Geological Survey (USGS) topographic maps dated 1915-1983, and aerial photographs taken in 1994-2017. The historic maps are collected at the Science Library of the University of California, Riverside, and the California Desert District of the U.S. Bureau of Land Management, located in Moreno Valley. The aerial photographs are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

NATIVE AMERICAN PARTICIPATION

On January 24, 2019, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. Following the NAHC's recommendations and previously established consultation protocol, on February 5 CRM TECH further contacted six local tribes recommended by the NAHC via U.S. mail and electronic mail to solicit additional information on potential Native American cultural resources in the project vicinity. The correspondence between CRM TECH and the Native American representatives is attached to this report as Appendix 2.

FIELD SURVEY

On February 6 and 22, 2019, CRM TECH archaeologist Daniel Ballester carried out the field survey of the project area. The relatively undisturbed land along the perimeters of the main project site were surveyed by walking a series of parallel southwest-northeast transects spaced 10 meters (approximately 30 feet) apart, while the rest of the parcel, covered by ash piles, was surveyed at less intensity, along parallel 30-meter (approximately 100-foot) transects. Several cobbles encountered during the survey were carefully inspected for any evidence of human alterations.

The proposed natural gas pipeline alignment was also surveyed on foot by walking two transects placed on either side of the project centerline and roughly 15-20 feet apart, as dictated by the existing land uses. The power line alignment, lying entirely within the Athol Street right-of-way, was surveyed at a reconnaissance level from a motor vehicle through visual inspection of the ground surface and occasional spot-checking on foot.

Using these various methods, the entire project area was systematically and carefully surveyed for any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years or older). Visibility of the native ground surface was excellent (90-100 percent) along the perimeters of the main project site and along the unpaved segment of the natural gas pipeline alignment, but was extremely poor (virtually 0 percent) over the rest of the main project site and along the paved roadways due to the presence of the ash deposit and the road pavement.

RESULTS AND FINDINGS

HISTORICAL/ARCHAEOLOGICAL RESOURCES RECORDS SEARCH

Records on file at the SCCIC indicate that at least eight previous cultural resources studies completed between 1985 and 2000 covered various portions of the project area (Figure 5). One of these, completed in 1989 for an expansion of the ash disposal facility, included the main project site in its entirety and recorded an isolate—i.e., a locality with fewer than three artifacts—of prehistoric origin in the eastern portion of the parcel (McKenna and Hatheway 1989; #1061893 in Figure 5). Designed 36-063304 in the California Historical Resources Inventory, the isolate was described as a 5x4-centimeter (approximately 2x1.5-inch) dacite flake with two utilized edges (*ibid.*:45). At the conclusion of that study, the isolate was found not to be a “significant resource” (*ibid.*:68).

No other cultural resources were previously identified within or adjacent to the project boundaries. As all of the existing studies involving the project area are now at least 19 years old, they are considered to be outdated for the statutory-compliance purposes today, and a systematic re-survey of the project area was deemed necessary for this study. Outside the project area but within a one-mile radius, SCCIC records show 14 other previous cultural resources studies on various tracts of land and linear features (Figure 5). As a result, 11 historical/archaeological sites and 9 additional isolates have been recorded within the scope of the records search.

Among these additional cultural resources, three of the sites and five of the isolates were of prehistoric origin. The nearest among these was Site 36-003848, which consisted of a collection of milling stones and projectile points found just to the north of Athol Street. The other two sites, 36-003846 and 36-003847, consisted of similar artifacts and were recorded further to the north and the east. The five isolates, all recorded during the 1989 survey, also represented lithic artifacts such as flakes, drills, and projectile point fragments.

The other eight sites and four isolates dated to the historic period and included the Trona Railway, the Old Guest House Museum, a campsite, a foundation, two power transmission lines, and scattered refuse items. The nearest among them is the Trona Railway (36-008547; circa 1914), which lies roughly 70 feet south of Athol Street at the nearest point and remains in use today. Since Isolate 36-063304 was the only cultural resource recorded within or adjacent to the project boundaries, none of the other isolates or sites requires further consideration during this study.

HISTORICAL BACKGROUND RESEARCH

Historic maps consulted for this study suggest that the project area is relatively low in sensitivity for cultural resources from the historic period. As Figures 6-8 illustrate, although various infrastructure features associated with the Searles Lake mining industry, such as roads and pipelines, were observed across the linear portions of the project area as early as the 1910s, no evidence of any settlement or development activities were noted within the project boundaries throughout the 1910s-1940s era.

By the mid-1990s, the two paved roadways in the project area, Athol Street and First Street, were both present, and the ash disposal facility was evidently in operation in the easternmost portion of the main project site (NETR Online 1994; Google Earth 1994). Over the next 15 years, the operation gradually expanded to encompass the entire parcel, as it does today (NETR Online 1994-2009; Google Earth 1994-2009). Since then, no significant changes in land use have been observed in or near the project area (NETR Online 2010; 2012; Google Earth 2010-2017).

NATIVE AMERICAN PARTICIPATION

In response to CRM TECH's inquiry, the NAHC reported in a letter dated January 28, 2019, that the Sacred Lands File identified no Native American cultural resources in the project area but recommended that local Native American groups be contacted for further information. For that purpose, the NAHC provided a list of potential contacts in the region (see Appendix 2). Upon receiving the NAHC's reply, CRM TECH sent written requests for comments to all six tribal organizations on the referral list (see Appendix 2). For some of the tribes, CRM TECH contacted

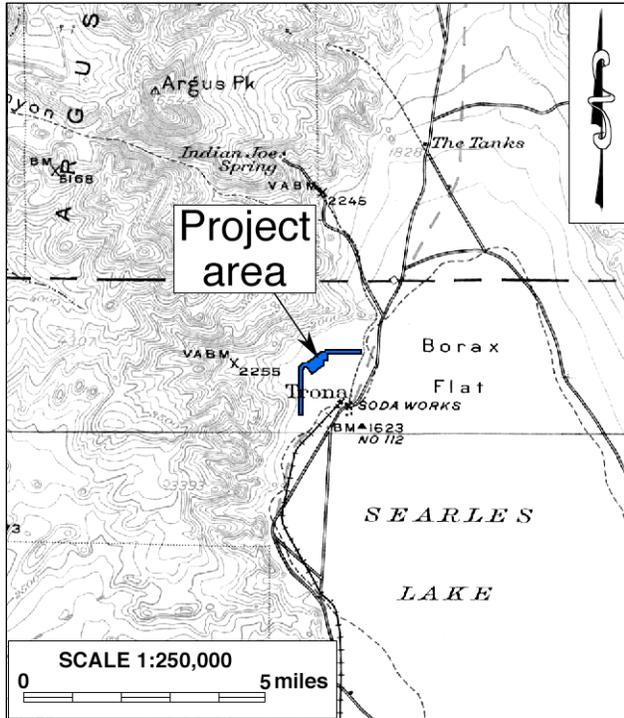


Figure 6. The project area and vicinity in 1911-1913. (Source: USGS 1915)

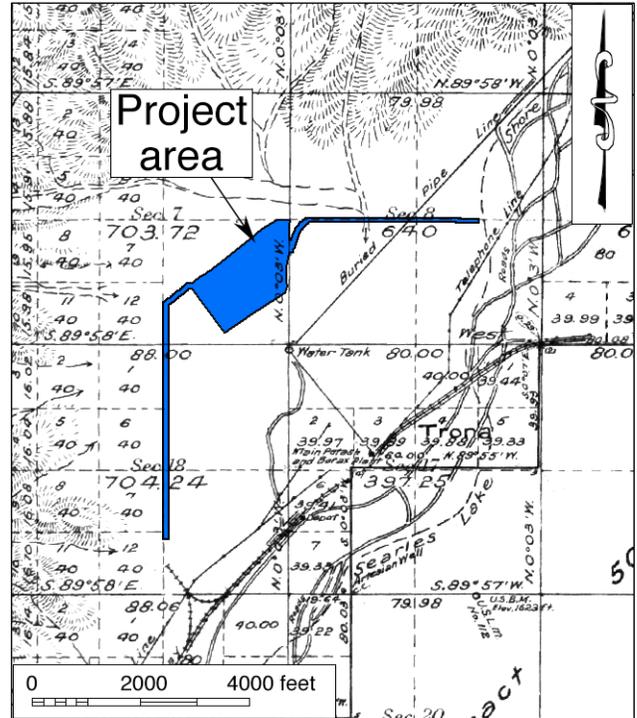


Figure 7. The project area and vicinity in 1918. (Source: GLO 1918)

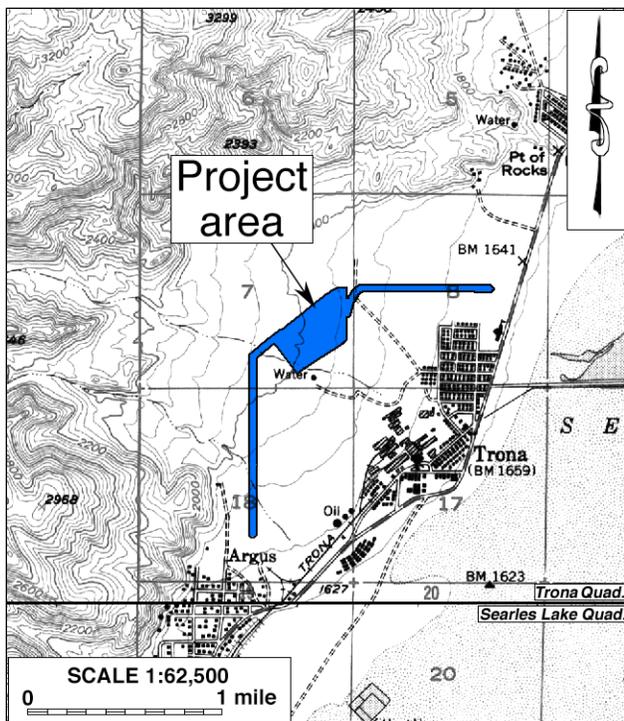


Figure 8. The project area and vicinity in 1946-1949. (Source: USGS 1949; 1950)

the designated spokespersons on cultural resources issues in lieu of the individuals on the referral list, as recommended in the past by tribal government staff. The six tribal representatives contacted during this study are listed below:

- Robert Robinson, Chairperson, Kern Valley Indian Community;
- Travis Armstrong, Tribal Historic Preservation Officer, Morongo Band of Mission Indians;
- Donna Yocum, Chairperson, San Fernando Band of Mission Indians;
- Jessica Mauck, Cultural Resources Analyst, San Manuel Band of Mission Indians;
- Mark Cochran, Chairperson, Serrano Nation of Mission Indians;
- Robert L. Gomez, Chairperson, Tubatulabals of Kern Valley.

As of this time, two of the tribal representatives have responded to the inquiry. On behalf of the Morongo Band and the San Manuel Band,

Travis Armstrong and Jessica Mauck stated that their respective tribes had no comments regarding this project. Ms. Mauck further indicated that the project location was outside the San Manual Band's ancestral territory, and Mr. Armstrong similarly deferred to other tribes in the area (see Appendix 2).

Field Survey

The field survey yielded completely negative findings for potential cultural resources, and no buildings, structures, objects, sites, features, or artifacts of prehistoric or historic origin were encountered. The prehistoric lithic flake recorded in 1989 as Isolate 36-063304 could not be found during the survey, and the area around its reported location is now completely covered by ash deposit. The ground surface in most of the project area has been extensively disturbed by the landfill operations and past road construction.

DISCUSSION

The purpose of this study is to identify any cultural resources in the project area and to assist the County of San Bernardino in determining whether or not such resources meet the official definition of "historical resources," as provided in the California Public Resources Code, in particular CEQA. According to PRC §5020.1(j), "'historical resource' includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). Regarding the proper criteria for the evaluation of historical significance, CEQA guidelines mandate that "generally a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) 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.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

In summary of the research results presented above, Isolate 36-063304, consisting of a single prehistoric lithic flake, was recorded in the project area in 1989 but could not be located during this study. Such isolates, or localities with fewer than three artifacts, by definition do not qualify as archaeological sites due to the lack of contextual integrity and the resulting inability to yield important data. As such, they do not constitute potential "historical resources" and require no

further consideration. Since no potential “historical resources” were encountered throughout the course of this study, the present report concludes that no “historical resources” exist within or adjacent to the project area.

CONCLUSION AND RECOMMENDATIONS

CEQA establishes that “a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment” (PRC §21084.1). “Substantial adverse change,” according to PRC §5020.1(q), “means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired.”

As stated above, this study has concluded that no “historical resources,” as defined by CEQA, are present within or adjacent to the project area. Accordingly, CRM TECH presents the following recommendations to the County of San Bernardino:

- The proposed project will not cause a substantial adverse change to any known “historical resources.”
- No further cultural resources investigation will be necessary for the project unless construction plans undergo such changes as to include areas not covered by this study.
- If any buried cultural materials are encountered during earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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 n.d. *Searles Valley Operations*. North American Chemical Company, Trona.
- NETR Online
 1994-2012 Aerial photographs of the project vicinity; taken in 1994, 2005, 2009, and 2010, and 2012. <http://www.historicaerials.com>.
- USGS (United States Geological Survey, U.S. Department of the Interior)
 1915 Map: Searles Lake, Calif. (1:250,000); surveyed in 1911-1913.
 1949 Map: Searles Lake, Calif. (15', 1:62,500); aerial photographs taken in 1946, field-checked in 1949.
 1950 Map: Trona, Calif. (15', 1:62,500); aerial photographs taken in 1947, field-checked in 1949.
 1969 Map: Trona, Calif. (1:250,000); 1957 edition revised.
 1973a Map: Searles Lake, Calif. (7.5', 1:24,000); aerial photographs taken in 1972, field-checked in 1973.
 1973b Map: Westend, Calif. (7.5', 1:24,000); aerial photographs taken in 1972, field-checked in 1973.
 1982 Map: Trona East, Calif. (7.5', 1:24,000), provisional edition; aerial photographs taken in 1976, field-checked in 1977.
 1983 Map: Trona West, Calif. (7.5', 1:24,000), provisional edition; aerial photographs taken in 1976, field-checked in 1977.
- Warren, Claude N.
 1984 The Desert Region. In *California Archaeology*, edited by Michael J. Moratto; pp. 339-430. Academic Press, Orlando, Florida.
- Warren, Claude N., and Robert H. Crabtree
 1986 Prehistory of the Southwestern Area. In *Handbook of North American Indians*, Vol. 11: *Great Basin*, edited by Warren L. d'Azevedo; pp. 183-193. Smithsonian Institution, Washington D.C.
- Warren, Elizabeth von Till, Robert H. Crabtree, Claude N. Warren, Martha Knack, and Richard McCarty
 1981 A Cultural Resources Overview of the Colorado Desert Planning Units. Bureau of Land Management, California Desert District, Riverside.

**APPENDIX 1:
PERSONNEL QUALIFICATIONS**

**PRINCIPAL INVESTIGATOR/HISTORIAN
Bai “Tom” Tang, M.A.**

Education

- 1988-1993 Graduate Program in Public History/Historic Preservation, UC Riverside.
1987 M.A., American History, Yale University, New Haven, Connecticut.
1982 B.A., History, Northwestern University, Xi’an, China.
- 2000 “Introduction to Section 106 Review,” presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994 “Assessing the Significance of Historic Archaeological Sites,” presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

- 2002- Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002 Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997 Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993 Project Historian, Archaeological Research Unit, UC Riverside.
1990 Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992 Teaching Assistant, History of Modern World, UC Riverside.
1988-1993 Research Assistant, American Social History, UC Riverside.
1985-1988 Research Assistant, Modern Chinese History, Yale University.
1985-1986 Teaching Assistant, Modern Chinese History, Yale University.
1982-1985 Lecturer, History, Xi’an Foreign Languages Institute, Xi’an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California’s Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST
Michael Hogan, Ph.D., RPA*

Education

- 1991 Ph.D., Anthropology, University of California, Riverside.
1981 B.S., Anthropology, University of California, Riverside; with honors.
1980-1981 Education Abroad Program, Lima, Peru.
- 2002 Section 106—National Historic Preservation Act: Federal Law at the Local Level.
UCLA Extension Course #888.
- 2002 “Recognizing Historic Artifacts,” workshop presented by Richard Norwood,
Historical Archaeologist.
- 2002 “Wending Your Way through the Regulatory Maze,” symposium presented by the
Association of Environmental Professionals.
- 1992 “Southern California Ceramics Workshop,” presented by Jerry Schaefer.
1992 “Historic Artifact Workshop,” presented by Anne Duffield-Stoll.

Professional Experience

- 2002- Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002 Project Archaeologist/Field Director, CRM TECH, Riverside.
1996-1998 Project Director and Ethnographer, Statistical Research, Inc., Redlands.
1992-1998 Assistant Research Anthropologist, University of California, Riverside
1992-1995 Project Director, Archaeological Research Unit, U. C. Riverside.
1993-1994 Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C.
Riverside, Chapman University, and San Bernardino Valley College.
1991-1992 Crew Chief, Archaeological Research Unit, U. C. Riverside.
1984-1998 Archaeological Technician, Field Director, and Project Director for various southern
California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange
Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural
Diversity.

Cultural Resources Management Reports

Author and co-author of, contributor to, and principal investigator for numerous cultural resources
management study reports since 1986.

Memberships

* Register of Professional Archaeologists; Society for American Archaeology; Society for California
Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

PROJECT ARCHAEOLOGIST/REPORT WRITER
Ben Kerridge, M.A.

Education

2014 Archaeological Field School, Institute for Field Research, Kephallenia, Greece.
2010 M.A., Anthropology, California State University, Fullerton.
2009 Project Management Training, Project Management Institute/CH2M HILL, Santa Ana, California.
2004 B.A., Anthropology, California State University, Fullerton.

Professional Experience

2015- Project Archaeologist/Report Writer, CRM TECH, Colton, California.
2015 Teaching Assistant, Institute for Field Research, Kephallenia, Greece.
2009-2014 Publications Delivery Manager, CH2M HILL, Santa Ana, California.
2010- Naturalist, Newport Bay Conservancy, Newport Beach, California.
2006-2009 Technical Publishing Specialist, CH2M HILL, Santa Ana, California.
2002-2006 English Composition/College Preparation Tutor, various locations, California.

Papers Presented

- Geomorphological Survey of Tracts T126–T151 to Support Archaeological Shoreline Research Project. Institute for Field Research, Kephallenia, Greece, 2014.
- The Uncanny Valley of the Shadow of Modernity: A Re-examination of Anthropological Approaches to Christianity. Graduate Thesis, California State University, Fullerton, 2010.
- Ethnographic Endeavors into the World of Counterstrike. 74th Annual Conference of the Southwestern Anthropological Association, 2003.

Memberships

Society for California Archaeology; Pacific Coast Archaeological Society.

PROJECT ARCHAEOLOGIST/FIELD DIRECTOR
Daniel Ballester, M.S.

Education

- 2013 M.S., Geographic Information System (GIS), University of Redlands, California.
2007 Certificate in Geographic Information Systems (GIS), California State University, San Bernardino.
1998 B.A., Anthropology, California State University, San Bernardino.
1997 Archaeological Field School, University of Las Vegas and University of California, Riverside.
1994 University of Puerto Rico, Rio Piedras, Puerto Rico.

2002 “Historic Archaeology Workshop,” presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base; presented at CRM TECH, Riverside, California.

Professional Experience

- 2002- Field Director/GIS Specialist, CRM TECH, Riverside/Colton, California.
2011-2012 GIS Specialist for Caltrans District 8 Project, Garcia and Associates, San Anselmo, California.
2009-2010 Field Crew Chief, Garcia and Associates, San Anselmo, California.
2009-2010 Field Crew, ECorp, Redlands.
1999-2002 Project Archaeologist, CRM TECH, Riverside, California.
1998-1999 Field Crew, K.E.A. Environmental, San Diego, California.
1998 Field Crew, A.S.M. Affiliates, Encinitas, California.
1998 Field Crew, Archaeological Research Unit, University of California, Riverside.

PROJECT ARCHAEOLOGIST/NATIVE AMERICA LIAISON
Nina Gallardo, B.A.

Education

- 2004 B.A., Anthropology/Law and Society, University of California, Riverside.

Honors and Awards

- 2000 Dean’s Honors List, University of California, Riverside.

Professional Experience

- 2004- Project Archaeologist, CRM TECH, Riverside/Colton, California.

PROJECT HISTORIAN
Terri Jacquemain, M.A.

Education

- 2004 M.A., Public History and Historic Resource Management, University of California, Riverside.
- M.A. thesis: Managing Cultural Outreach, Public Affairs and Tribal Policies of the Cabazon Band of Mission Indians, Indio, California; internship served as interim Public Information Officer, Cabazon Band of Mission Indians, June-October, 2002.
- 2002 B.S., Anthropology, University of California, Riverside.
- 2001 Archaeological Field School, University of California, Riverside.
- 1991 A.A., Riverside Community College, Norco Campus.

Professional Experience

- 2003- Historian/Architectural Historian/Report Writer, CRM TECH, Riverside/Colton, California.
- Author/co-author of legally defensible cultural resources reports for CEQA and NHPA Section 106;
 - Historic context development, historical/archival research, oral historical interviews, consultation with local communities and historical organizations;
 - Historic building surveys and recordation, research in architectural history; architectural description
- 2002-2003 Teaching Assistant, Religious Studies Department, University of California, Riverside.
- 2002 Interim Public Information Officer, Cabazon Band of Mission Indians.
- 2000 Administrative Assistant, Native American Student Programs, University of California, Riverside.
- 1997-2000 Reporter, *Inland Valley Daily Bulletin*, Ontario, California.
- 1991-1997 Reporter, *The Press-Enterprise*, Riverside, California.

Membership

California Preservation Foundation.

APPENDIX 2

**CORRESPONDENCE WITH
NATIVE AMERICAN REPRESENTATIVES***

* Six local Native American representatives were contacted; a sample letter is included in this report.

SACRED LANDS FILE & NATIVE AMERICAN CONTACTS LIST REQUEST

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916)373-3710
(916)373-5471 (Fax)
nahc@nahc.ca.gov

Project: Proposed Industrial Lime Production Plant Project (CRM TECH No. 3435)

County: San Bernardino

USGS Quadrangle Name: Trona East and Trona West, Calif.

Township 25 South **Range** 43 East **MD BM; Section(s)** 7, 8, 18, and 19

Company/Firm/Agency: CRM TECH

Contact Person: Nina Gallardo

Street Address: 1016 E. Cooley Drive, Suite A/B

City: Colton, CA **Zip:** 92324

Phone: (909) 824-6400 **Fax:** (909) 824-6405

Email: ngallardo@crmtech.us

Project Description: The primary component of the project is to construct the proposed industrial lime production plant on approximately 61.6 acres of partially disturbed land in APN 0485-031-12 and 0.8 mile of power line. The project area is located west of Trona Road and Athol Street in the community of Trona, San Bernardino County, California.

January 24, 2019

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: <http://www.nahc.ca.gov>
Twitter: @CA_NAHC



January 28, 2019

Nina Gallardo
CRM Tech

VIA Email to: ngallardo@crmtech.us

RE: Proposed Industrial Lime Production Plant Project, San Bernardino County

Dear Ms. Gallardo:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: steven.quinn@nahc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Steven Quinn".

Steven Quinn
Associate Governmental Program Analyst

Attachment

**Native American Heritage Commission
Native American Contact List
San Bernardino County
1/28/2019**

Kern Valley Indian Community

Julie Turner, Secretary
P.O. Box 1010
Lake Isabella, CA, 93240
Phone: (661) 340 - 0032

Kawaiisu
Tubatulabal
Western
Shoshone

San Manuel Band of Mission Indians

Lee Clauss, Director of Cultural Resources
26569 Community Center Drive
Highland, CA, 92346
Phone: (909) 864 - 8933
Fax: (909) 864-3370
lclauss@sanmanuel-nsn.gov

Serrano

Kern Valley Indian Community

Robert Robinson, Chairperson
P.O. Box 1010
Lake Isabella, CA, 93283
Phone: (760) 378 - 2915
bbutterbredt@gmail.com

Kawaiisu
Tubatulabal
Western
Shoshone

Serrano Nation of Mission Indians

Goldie Walker, Chairperson
P.O. Box 343
Patton, CA, 92369
Phone: (909) 528 - 9027

Serrano

Morongo Band of Mission Indians

Denisa Torres, Cultural Resources Manager
12700 Pumarra Rroad
Banning, CA, 92220
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

Cahuilla
Serrano

Tubatulabals of Kern Valley

Robert L. Gomez, Chairperson
P.O. Box 226
Lake Isabella, CA, 93240
Phone: (760) 379 - 4590
Fax: (760) 379-4592

Tubatulabal

Morongo Band of Mission Indians

Robert Martin, Chairperson
12700 Pumarra Rroad
Banning, CA, 92220
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

Cahuilla
Serrano

San Fernando Band of Mission Indians

Donna Yocum, Chairperson
P.O. Box 221838
Newhall, CA, 91322
Phone: (503) 539 - 0933
Fax: (503) 574-3308
ddyocum@comcast.net

Kitanemuk
Serrano
Tataviam

San Manuel Band of Mission Indians

Lynn Valbuena, Chairwoman
26569 Community Center Drive
Highland, CA, 92346
Phone: (909) 864 - 8933
jcoin@sanmanuel-nsn.gov

Serrano

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Industrial Lime Production Plant Project, San Bernardino County.

February 5, 2019

Robert Robinson, Chairperson
Kern Valley Indian Council
P.O. Box 401
Weldon, CA 93283

RE: Proposed Industrial Lime Production Plant Project
Assessor's Parcel Number 0485-031-12
61.6 Acres and 0.83 Linear Mile of Alignment in the Community of Trona
San Bernardino County, California
CRM TECH Contract #3435

Dear Mr. Robinson:

I am writing to bring your attention to an ongoing CEQA-compliance study for the proposed project referenced above. The project entails the construction of an industrial lime production plant on approximately 61.6 acres of partially disturbed land in APN 0485-031-12 and an 0.83-mile power transmission line along Athol Street. The subject property is located west of Trona Road and Athol Street in the community of Trona, San Bernardino County.

For decades, the proposed 61.6-acre project site has been used as an ash disposal site and most of the project area has been heavily disturbed by industrial activities. The accompanying map, based on the USGS Trona East and Trona West, Calif., 7.5' quadrangles, depicts this location in Sections 7 and 8, T25S R43E, MDBM. Previously, in 1989, Hatheway and McKenna recorded an isolated dacite flake within the current project boundaries, just west of Athol Street.

In a letter dated January 28, 2019, the Native American Heritage Commission reports that the sacred lands record search identified no Native American cultural resources within the project area but recommends that local Native American groups be contacted for further information (see attached). Therefore, as part of the cultural resources study for this project, I am writing to request your input on potential Native American cultural resources in or near the project area.

Please respond at your earliest convenience if you have any specific knowledge of sacred/religious sites or other sites of Native American traditional cultural value in or near the project area, or any other information to consider during the cultural resources investigations. Any information or concerns may be forwarded to CRM TECH by telephone, e-mail, facsimile, or standard mail. Requests for documentation or information we cannot provide will be forwarded to our client and/or the lead agency, namely the County of San Bernardino.

We would also like to clarify that, as the cultural resources consultant for the project, CRM TECH is not involved in the AB 52-compliance process or in government-to-government consultations. The purpose of this letter is to seek any information that you may have to help us determine if there are cultural resources in or near the project area that we should be aware of and to help us assess the sensitivity of the project area. Thank you for your time and effort in addressing this important matter.

Respectfully,

Nina Gallardo
Project Archaeologist/Native American liaison

CRM TECH

Email: ngallardo@crmtech.us

Encl.: NAHC response letter and project location map

From: Tribal Historic Preservation Office <thpo@morongo-nsn.gov>
Sent: Tuesday, February 5, 2019 1:35 PM
To: 'ngallardo@crmtech.us'
Subject: RE: NA Scoping Letter for the Proposed Industrial Lime Production Plant Project; APN 0485-031-12, in the Community of Trona, San Bernardino County (CRM TECH #3435)

Hello,

Thank you for your letter regarding the project.

We have no additional information to provide at this time and will likely defer to other tribes in the area once formal government-to-government consultation is initiated by the lead agency for this project.

Thank you for reaching out to our office.

Sincerely,

Travis Armstrong
Tribal Historic Preservation Officer
Morongo Band of Mission Indians
951-755-5259
Email: thpo@morongo-nsn.gov

From: Jessica Mauck <JMauck@sanmanuel-nsn.gov>
Sent: Wednesday, February 6, 2019 12:20 PM
To: ngallardo@crmtech.us
Subject: RE: NA Scoping Letter for the Proposed Industrial Lime Production Plant Project; APN 0485-031-12, in the Community of Trona, San Bernardino County (CRM TECH #3435)

Hi Nina,

This project is outside of Serrano ancestral territory and, as such, SMBMI has no comments to provide.

Thank you,

Jessica Mauck
CULTURAL RESOURCES ANALYST
O: (909) 864-8933 x3249
M: (909) 725-9054
26569 Community Center Drive Highland California 92346