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PALEONTOLOGY - ARCHAEOLOGY - HISTORY

CULTURAL RESOURCES ASSESSMENT REPORT FOR THE NORTH CATHEDRAL CITY IMPROVEMENTS PROJECT, PHASE I, CATHEDRAL CITY, RIVERSIDE COUNTY, CALIFORNIA

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BLM Fieldwork Authorization: 66.66 16-15
Sites: P-33-009498
USGS Quadrangle: Cathedral City
Acres: Total 29.7; BLM 4.18; Agua Caliente 1.56
Key Words: Negative survey, Cahuilla

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MANAGEMENT SUMMARY

The Coachella Valley Water District (CVWD) proposes regional storm water improvements that would convey storm water flows from north of the Union Pacific Railroad (UPRR) track in a southerly direction to the Whitewater River Stormwater Channel (WWRDC). The Project Area is located in the City of Cathedral City, Riverside County, California south of Interstate 10.

The project area is largely undeveloped desert within the traditional tribal territory of the Cahuilla. Known historic use is limited to a railroad in the northern Project Area.

A search for archaeological and historical records was completed at the Eastern Information Center (EIC). One cultural resource was previously recorded within the Project Area, CA-RIV-6381H (P-33-009498), the Union Pacific Railroad) traverses the Project Area at the northern extent of the Project Area and is an active rail line. A total of three cultural resources were previously documented within a one-mile search radius. These consist of one prehistoric site, one historic-era archaeological site and one historic-era structure.

The CVWD sent out tribal consultation letters to seven tribal organizations under the provisions of the California Environmental Quality Act. The Agua Caliente Band of Cahuilla Indians responded within the 30 day period. The tribe requested the presence of an approved Native American Cultural Resource Monitor during all ground disturbing activities. The tribe requested the record search which was provided on June 30, 2016. The tribe then requested a copy of the survey results which was also provided on June 30, 2016. No further communications were received.

A search of the sacred lands file was requested by Cogstone staff from the Native American Heritage Commission (NAHC) on August 8, 2015. On September 11, 2015 Cogstone received a response from the NAHC indicating that the Sacred Lands File search was negative for the Project Area and provided a list of two individuals from the Agua Caliente Band of Cahuilla Indians to contact. The Tribe was consulted by the Coachella Valley Water District and thus no additional contact was made.

Cogstone conducted an intensive pedestrian survey of the 29.7 acre Project Area. The survey was negative for cultural resources within the APE excepting the railroad and railroad bridge. The entire Project Area is located on the unconsolidated sandy sediments from the Morongo washes. Intact subsurface resources are not anticipated.

If unanticipated archaeological discoveries are made during construction, all work must halt until the find can be evaluated by a qualified Archaeologist. The Coachella Valley Water District shall notify the Agua Caliente Band of any prehistoric features or sites, including human remains, discovered and afford them the opportunity to consult. If human remains are unearthed during excavation, state law requires that all work stop pending notification and evaluation by the County Coroner.

INTRODUCTION

PURPOSE OF STUDY

This study analyzes potential adverse impacts on cultural resources of the proposed construction of the North Cathedral City Improvements Project in the Cathedral City (City), Riverside County, California (Figure 1). The project will be subject to the California Environmental Quality Act (CEQA), with the Coachella Valley Water District (CVWD) serving as the CEQA lead agency. In addition, the project will be subject to the National Environmental Policy Act (NEPA) since proposed improvements would affect U.S. Bureau of Land Management (BLM) property; as such, BLM will serve as the NEPA lead agency.

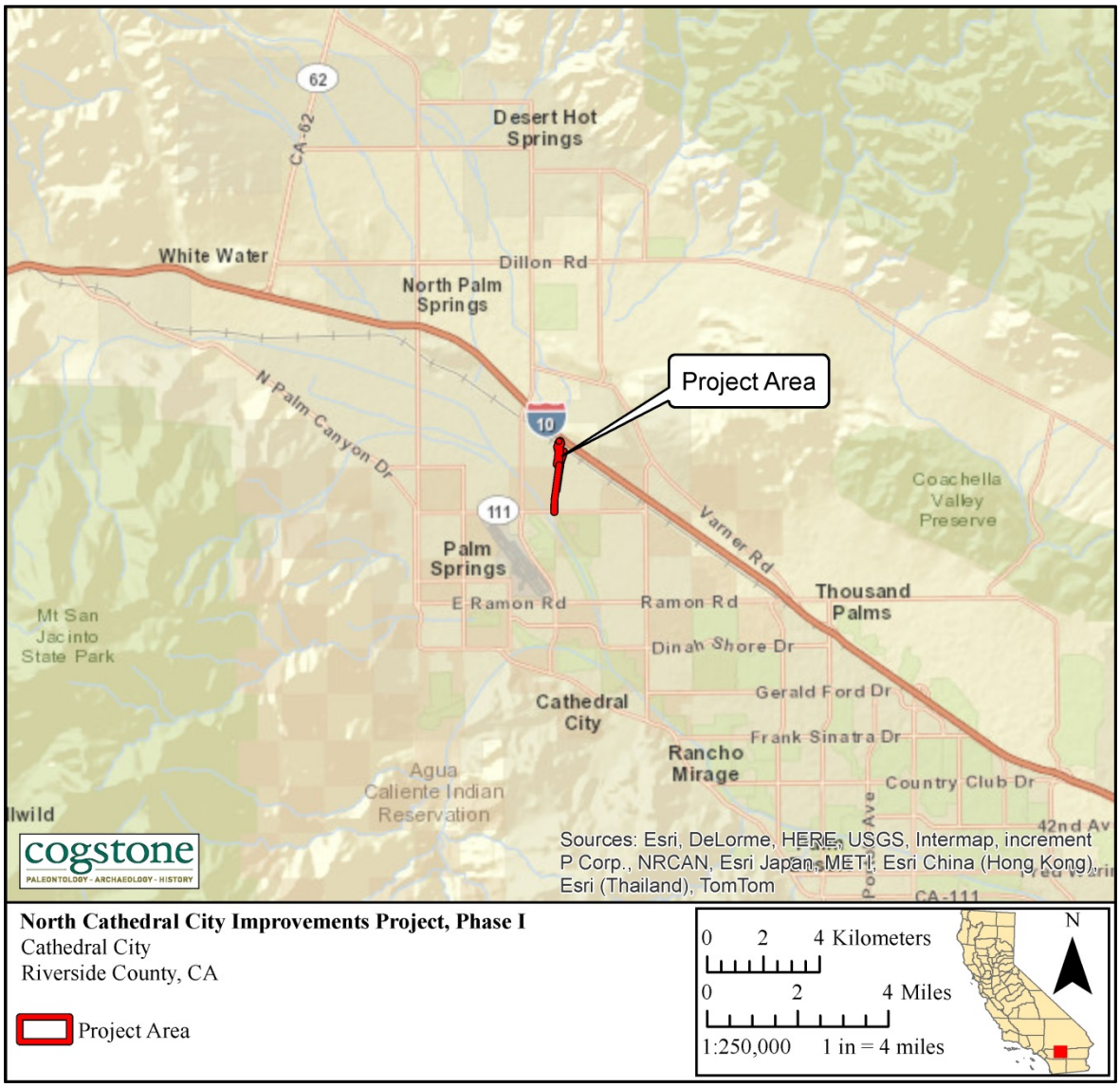

Figure 1. Project Vicinity Map

PROJECT LOCATION

The Project is located in the City of Cathedral City (City), Riverside County, California on the Cathedral City 7.5 minute USGS quadrangle, with in Section 32; Township 3 South Range 5 East and Section 5; Township 4 South; Range 5 East. Specifically, the proposed 29.7 acre Project is located within the northeastern portion of the City, approximately 300 feet southwest of Interstate 10 (I-10) and 0.8 miles of Gene Autry Road (Figure 2). A Union Pacific Railroad alignment traverses the northern portion of the Project Area, south of and parallel to the I-10. The majority of the Project Area is vacant and undeveloped. Single-family residential and golf course uses exist south and southeast of the Project Area.

PROJECT DESCRIPTION

The Coachella Valley Water District (CVWD) proposes regional storm water improvements that would convey storm water flows from north of the Union Pacific Railroad (UPRR) track in a southerly direction to the Whitewater River Stormwater Channel (WWRDC) (Figure 3). Currently, there is a UPRR bridge crossing at the Project site; the bridge was constructed and backfilled to allow for future construction of the North Cathedral City Stormwater Master Plan under the railroad to provide a connection to the WWRSC. Flows under the bridge have been precluded until the channel improvements and slope lining (east overbank) downstream of the bridge were ready to be constructed. As such, the Project would include improvements to safely and reliably convey flows beneath the bridge, reducing floodplain impacts for tributary areas to the Project site, including the North City Extended Specific Plan. Key components to the Project include concrete channel lining, bridge improvements, earthen channel grading, and slope protection (Figure 4).

Concrete Channel Lining: The project would include concrete channel lining both upstream and downstream of the UPRR bridge location. Channel lining would extend approximately 500 feet upstream of the bridge, and a berm would be graded on the east bank to direct flows through the bridge crossing. Downstream of the bridge, channel lining would extend approximately 300 feet. The concrete lined portion of the channel would be at an approximate three percent grade.

Bridge Improvements: The proposed project would include excavation, concrete lining of the bridge undercrossing, and other required improvements (e.g. bracing). The project would lower the invert of the bridge approximately 2.5 feet from the flowline, which would meet UPRR's clearance requirements for bridges. The bottom width of the bridge undercrossing would be approximately 200 feet.

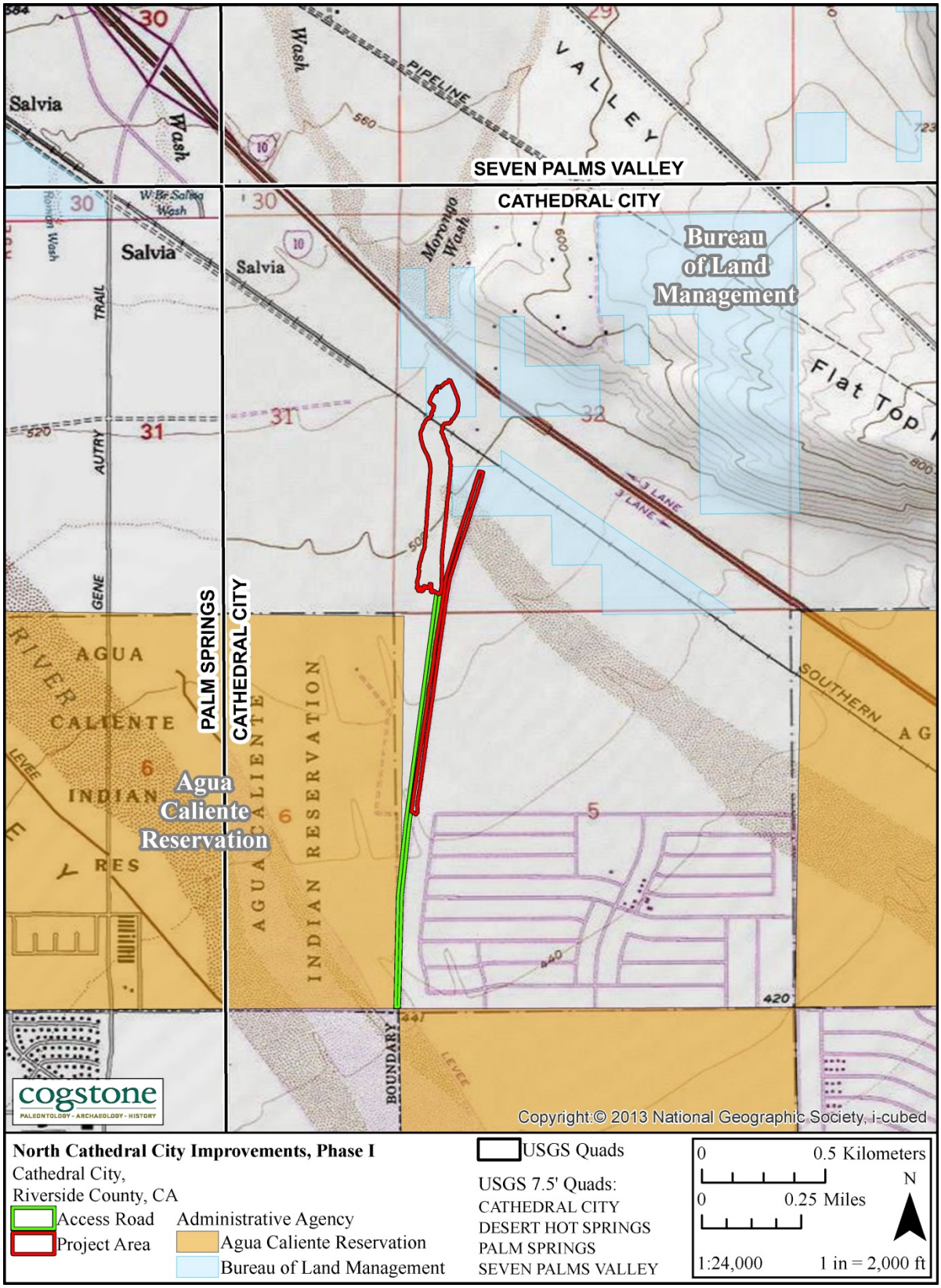

Figure 2. Project Location Map

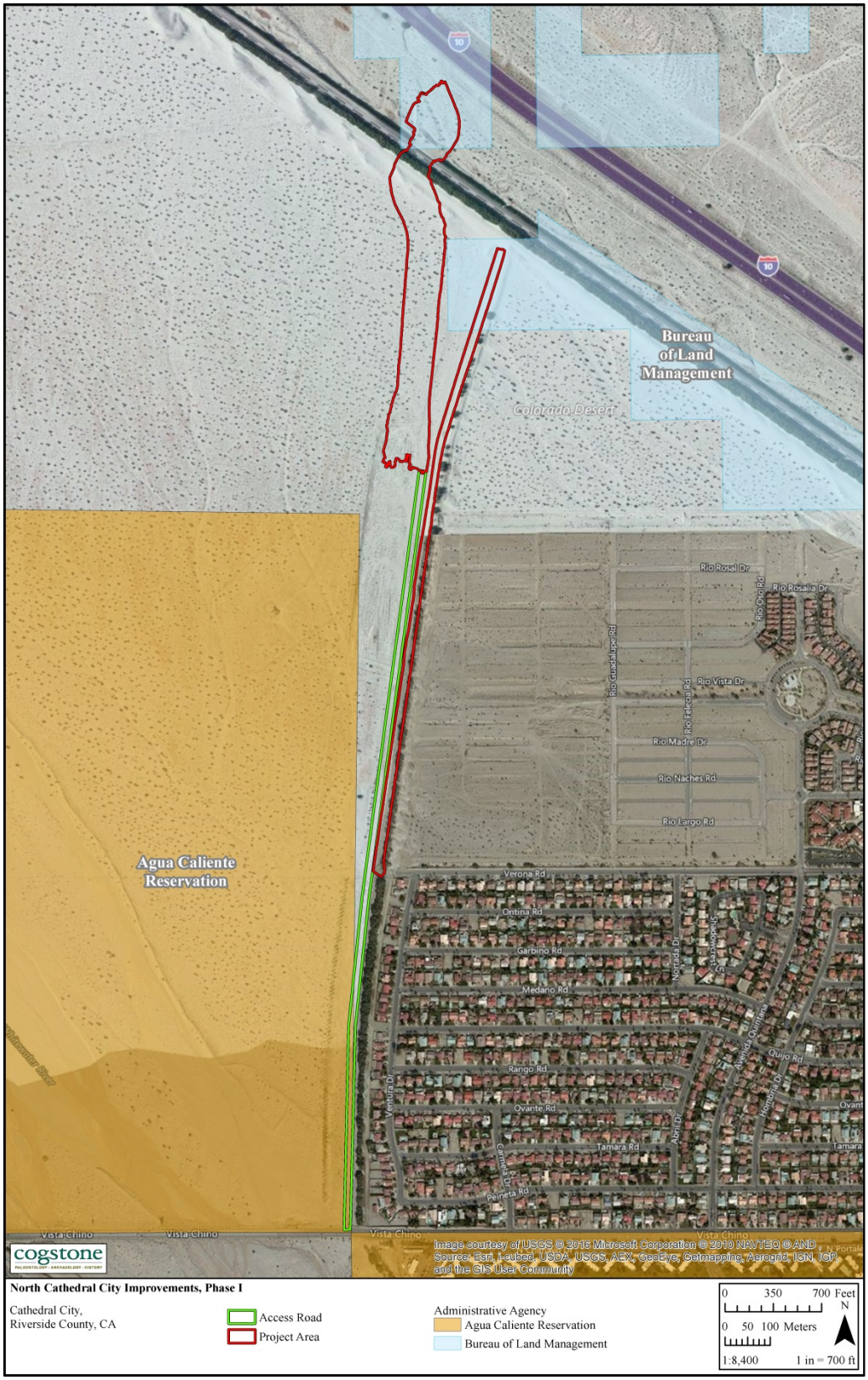

Figure 3. Project Area of Potential Effects Map

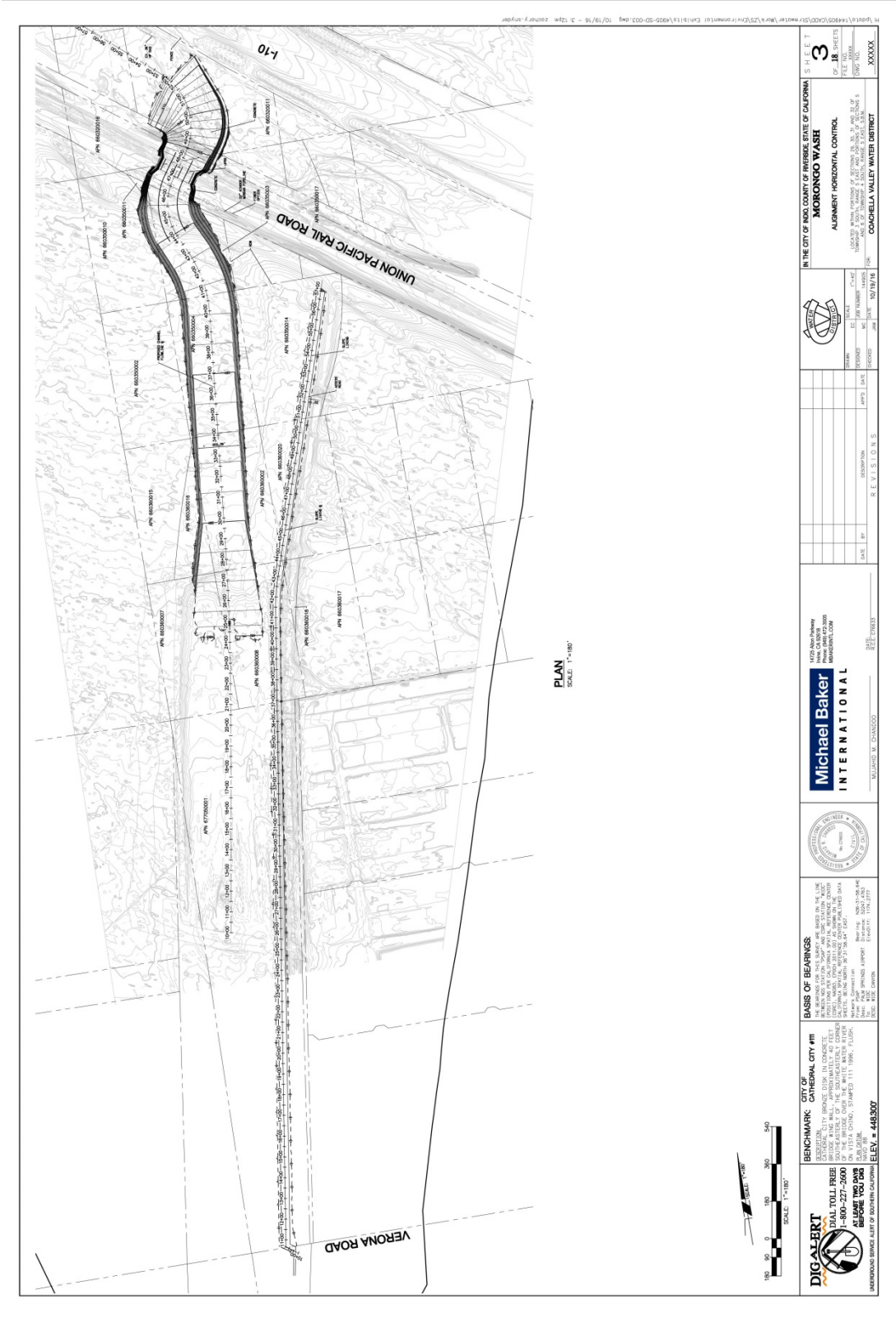

Figure 4. Project plan

Earthen Channel Grading: The proposed project would grade a new earthen channel south of the bridge and concrete channel lining improvements described above. This channel would be graded at a one percent slope until it meets existing grade. The earthen channel would be approximately 200 feet wide with 3:1 side slopes.

Slope Protection: Concrete slope protection would be placed at the east overbank of the channel. The existing overbank is located approximately 800 feet southeast of the existing UPRR bridge. A row of tamarisk trees exists at the top of the existing slope, and the concrete slope protection improvements would occur immediately west of the trees (i.e., the trees would be protected in place). The slope protection would extend for a length of approximately 4,800 linear feet.

The proposed project has been sized to convey flows associated with the 100 year storm event, both alone and in conjunction with future Phase 2 improvements that would enhance storm water conveyance beneath I-10. No future modifications at the project site would be required to achieve 100-year storm capacity.

The proposed drainage improvements would extend from approximately 500 feet north of the UPRR alignment to approximately 6,300 feet south of the UPRR alignment, for a total length of approximately 6,800 linear feet. Construction would occur as a single phase and is anticipated to last approximately 9 months. Site access would be provided via Vista Chino, located approximately 0.5 mile south of the project site. All staging activities would occur within the proposed grading footprint for the drainage facility, or within the footprint of the proposed temporary access road.

AREA OF POTENTIAL EFFECTS

The horizontal extent is the entire 29.7 Project Area, including the drainage channel, slope protection and access road (refer to Figure 3). The vertical depth of disturbance is estimated at 12.5 feet.

PROJECT PERSONNEL

Cogstone Resource Management Inc. (Cogstone) conducted the cultural resource study. Samantha Schell served as the Task Manager. Ms. Schell has 20 years of experience in cultural resource management in California and holds a B.A. in Anthropology from the University of California, Berkeley. Sherri Gust was the Principal Investigator, supervised all work and wrote the regulatory environment, ethnography, prehistory, findings and recommendations sections. Gust has a M.S. in Anatomy (Evolutionary Morphology) from the University of Southern

California, a B.S. in Anthropology from the University of California at Davis and over 35 years of experience in California.

Megan Wilson conducted the records search and wrote the historic setting, sources consulted and survey results sections. Ms. Wilson holds an M.A. in Anthropology from California State University, Fullerton. Ms. Wilson is an RPA and has over five years of experience in Southern California archaeology.

André Simmons prepared the GIS maps throughout this report. Simmons has a M.A. in Anthropology from California State University Fullerton, a GIS certification, and over six years of experience in California archaeology and paleontology.

Lindsay Porras conducted the archaeological field survey. She holds a B.A. in Anthropology from the University of Nevada Reno, and has over six years of experience in archaeology. Short resumes of staff are provided (see Appendix A).

BACKGROUND

PREHISTORIC SETTING

The latest cultural revisions for the Project area define traits for time phases of the Greven Knoll Pattern of the Encinitas Tradition applicable to inland San Bernardino, Riverside, Los Angeles, and Orange counties (Sutton and Gardner 2010). This pattern is subsequently replaced in the Project area by the Peninsular Pattern of the Palomar Tradition later in time (Sutton 2011; Table 1).

Greven Knoll sites tend to be located in the inland valley areas such as the Project Area. These inland people apparently did not switch from the use of manos and metates to the use of pestles and mortars that is seen in coastal sites dating to approximately 5,000 years ago, possibly reflecting their closer relationship with desert cultural peoples who did not exploit acorns. The Greven Knoll toolkit is dominated by manos and metates throughout its 7,500 year extent. In Phase I, other typical characteristics were pinto dart points for atlatls or spears, charmstones, cogged stones, absence of shell artifacts, and flexed position burials. In Phase II, Elko dart points for atlatls or spears and core tools are observed along with increased indications of gathering. In Phase III, stone tools including scraper planes, choppers and hammerstones are added to the tool kit, and yucca and plant seeds are staple foods, animals bones are heavily processed (broken and crushed to extract marrow), and burials tend to be marked by stone cairns (Table 1; Sutton and Gardner 2010).

Early Peninsular sites tend to be near sources of fresh water in valleys. The former Lake Cahuilla played a major role in the prehistory of the Colorado Desert. As detailed above, Lake Cahuilla formed periodically when the Colorado River broke its channel and flowed into the Salton Trough of the Coachella and Imperial Valleys, forming a large, deep body of fresh water. Sutton (2011) suggests that some San Luis Rey I people of Yuman descent split away and migrated east to the northern Peninsular Ranges and the northern Coachella Valley to exploit Lake Cahuilla, and in so doing became Peninsular I. The Peninsular Pattern then developed through the Peninsular I, II and III phases (Sutton 2011).

The Peninsular I phase is marked by small points for arrows, the appearance of bedrock mortars indicating use of acorns, pottery, the appearance of shell ornaments, and pit cremations are common. Hunting and gathering of terrestrial resources and the exploitation of Lake Cahuilla's lacustrine resources resulted in the development of new technologies for waterfowl decoys and fish traps and/or nets. The Peninsular II phase has some important new material traits including brown ware pottery, ceramic pipes and figurines, and secondary burials in containers. The Peninsular III phase reflects the archaeological signature of the ethnographic groups that had become established in Peninsular I and II phases with the addition of some Euro-American material culture (Sutton 2011).

Table 1. Cultural Patterns and Phases

Phase	Dates B.P.	Material Culture	Other Traits
Greven Knoll I	8,500 to 4,000	Abundant manos and metates; Pinto dart points for atlatls or spears; charmstones, cogged stones, and discoidals rare; no mortars or pestles; and general absence of shell artifacts.	No shellfish; hunting important; flexed inhumations; and cremations rare.
Greven Knoll II	4,000 to 3,000	Abundant manos and mutates; Elko dart points for atlatls or spears; core tools; late discoidals; few mortars and pestles; and general absence of shell artifacts.	No shellfish; hunting and gathering important; flexed inhumations; and cremations rare.
Greven Knoll III (formerly Sayles complex)	3,000 to 900	Abundant manos and mutates; Elko dart points for atlatls or spears; scraper planes, choppers, and hammerstones; late discoidals; few mortars and pestles; and general absence of shell artifacts.	No shellfish; yucca and seeds as staples; hunting important but animal bones also processed; flexed inhumations beneath rock cairns; and cremations rare.
Peninsular I	900 to 750	Appearance of small points (Cottonwood points &, Desert Side-notched) for arrows; shaft straighteners; pottery; few stone ornaments or stone pipes; appearance of shell ornaments; use of obsidian glass from Coso, Obsidian Butte,	Adoption of a lacustrine-based subsistence system; movement of people into the northern Coachella Valley from the interior valleys as Lake Cahuilla filled; establishment of major residential bases along the Lake Cahuilla shoreline; and

		Bagdad, and unknown sources; and use bedrock metates but few mortars and pestles.	primary pit cremations.
Peninsular II	750 to 300	Addition of brown ware pottery, ceramic pipes and figurines; use of same obsidian sources; and the use of stone fish traps as levels of Lake Cahuilla fluctuated and eventually declined.	Lacustrine based subsistence; and the appearance of the Peninsular Funerary Complex, with secondary cremations placed in ceramic "containers" and associated mourning ceremonies.
Peninsular III	300 to 150	Continued use of Cottonwood and Desert Side-notched points; brown ware and buff ware pottery; primary use of Obsidian Butte as an obsidian source; addition of new figurine types and cultigens such as melons and squash, and the introduction of Euro-American material culture (e.g., glass beads and metal tools).	Adoption of terrestrial-based subsistence system; full-time villages near springs; movement of some people west into the northern Peninsular Ranges as Lake Cahuilla became desiccated; use of domesticated species obtained from Colorado River Yumans and Euro-Americans; primary pit cremation as the principal mortuary practice; and retention of mourning ceremonies.

Note: Adapted from Sutton and Gardner 2010 and Sutton 2011

ETHNOGRAPHY

By the Late Prehistoric period, the Coachella Valley was home to affiliated peoples known as the Cahuilla. They occupied the San Gorgonio Pass (referred to as the Pass Cahuilla), San Jacinto and Santa Rosa Mountains (Mountain Cahuilla), and the Coachella Valley and the northern end of Imperial Valley (Desert Cahuilla; Figure 4). The Cahuilla are linked to other Takic language family groups such as the Serrano and Luiseño, and share many aspects of culture and religion with those tribes.

These peoples spoke the Cahuilla language but each person's primary identity was linked to clan lineage and moiety, rather than tribal affiliation. The two moieties of the Cahuilla were *Istam* (coyote) and *Tuktum* (wild cat). Affiliation was inherited from the father's moiety and members of one moiety had to marry into the other group. Each clan was an independent, politically autonomous land-holding unit (Bean 1972, 1978; Strong 1929).

In addition to lineage residence areas and clan territory owned in common with other clan members, each lineage had ownership rights to various food collecting and hunting areas. Individuals also "owned" specific areas rich in plant resources, as well as hunting grounds, rock quarry locations, and sacred spots used only by shamans, healers, and ritual practitioners.

Cahuilla clans varied in size from several family groups to those composed of several thousand people. Clans were generally situated so that each lineage or community was located near a

reliable water source and in proximity to significant food resources. Within each community, house structures were spatially placed at some distance from each other. Often a community would spread over a mile or two in distance with each nuclear and extended family having homes and associated structures for food storage and shaded work places (ramadas) for tool manufacture and food processing. Each community also contained a house clan leader.

In more recent times, a ceremonial house (*kishumnawat*) was placed within each community, and most major religious ceremonies of the clan were held there. In addition, house and ceremonial structures, storage granaries, sweat houses, and song houses (for recreational music) were present. Usually an area within one to three miles contained the bulk of materials needed for daily subsistence, although territories of a given clan might be larger, and longer distances were traveled to get precious exotic resources, usually found in the higher elevations of the surrounding mountains.

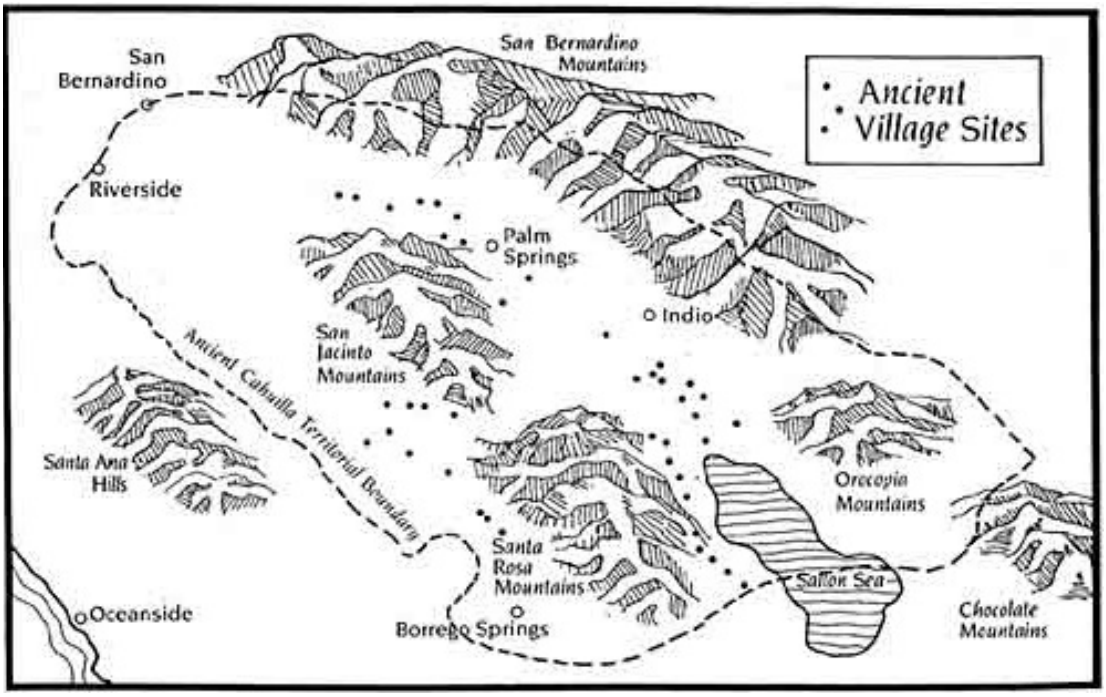

Figure 3. Cahuilla Territory (Heizer 1978)

While most daily secular and religious activities took place within the community, there were locations at some distance from the community where people camped for extended periods to harvest acorns or piñon nuts. Throughout the area, there were sacred places used primarily for rituals, intergroup or inter-clan meetings, caches for sacred materials, and locations for use by shamans or medicine men. Generally, hilly, rocky areas, cave sites, or walled cave sites were used for temporary camping, storage of foods, fasting by shamans, and as hunting blinds.

Between the mid-1500s and the 1800s, the Cahuilla were variously contacted by Spanish explorers, then Mexican ranchers, and later American settlers. By the mid-1800s, the Cahuilla were fully exposed to new peoples with new cultural ways, opportunities, and constraints. In the 1860s, several epidemics devastated the Cahuilla population and the increasing contact with Europeans continued to have a major impact on their traditional lifeway. Survivors of decimated Cahuilla clans joined villages that were able to maintain their ceremonial, cultural, and economic institutions (Bean 1978).

The Cahuilla were influenced by contact with the Patayan peoples of the lower Colorado River area. The Patayan were of the Yuman language family and introduced both floodplain agriculture, the use of ceramics, and bow-and-arrow technology to the Cahuilla approximately 1500 years ago. The Cahuilla were observed by early European explorers and settlers growing small plots of corn, pumpkin, melon, watermelon, barley, and wheat where there were reliable water sources (Schaefer and Laylander 2007: 253).

HISTORICAL SETTING

The Cahuilla retained control of their ancestral lands longer than most California tribes as they were somewhat distant from the established Spanish Missions. The first regular incursion into Cahuilla territory was Hank Brown's wagon road in the 1850s along what is now the route of Interstate 10 (Lech 2004:137-8).

Because of competing economic and political considerations, however, it was not until the mid-1870s that a serious push to settle the Coachella Valley occurred when the Southern Pacific Railroad transected the western Colorado Desert through the Coachella Valley. This route connected the San Gorgonio Pass to the town of Yuma, Arizona, via the eastern shore of the Salton Sink. Within a decade, the Federal Government gave all the odd-numbered sections of land in the Coachella Valley to the Southern Pacific Railroad, which completed its line through the desert to the Pacific Ocean in 1877. The Southern Pacific later became the UPRR. When President U.S. Grant established the Cahuilla Indian Reservations beginning in 1875, only the even-numbered sections were still available, thus creating the present Reservation checkerboard pattern. At the same time, ancestral Cahuilla lands were being granted to American settlers and Cahuilla peoples were being moved onto reservations (Agua Caliente Band of Indians n.d.). Development was very slow and towns were small in size until relatively recently; however, residential and commercial development is reaching new peaks during the current decade (Lech 2004:142).

PROJECT AREA HISTORY

Cathedral City was initially formed to provide affordable housing as an alternative to upscale Palm Springs. Founded in 1925, the community was named after nearby Cathedral Canyon to the south. East Palm Canyon Drive (State Route 111), known locally at the time as Broadway, was upgraded and paved in 1927 and became the core of Cathedral City's downtown commercial district with the construction of motels and restaurants. The opening of two casinos, the Dune Club and the 139 Club, was able to draw visitors from the Palm Springs area during the 1930s. During the 1940s and early 1950s, Cathedral City became a bedroom community for military installations in the greater Coachella Valley and the population grew rapidly.

Residential development continued to expand south of the original boundaries and west along East Palm Canyon Road and north to the Ramon Road corridor during the mid-1950s. During this time, the U.S. Government passed the "Baby Homestead Act," which allowed individuals to patent five-acre parcels. As a result, residents of the Los Angeles basin looking for desert retreats made Cathedral City, and additional cities along State Route 111, the fastest growing communities in the Coachella Valley. Cathedral City incorporated in 1981 and by 2001, was the third largest city in the Coachella Valley (Terra Nova Planning & Research, Inc. 2002).

The historical settlement pattern is reflected in land patents granted by the Government Land Office, which show that the Southern Pacific Railroad Company was granted patents in 1905 for the southern portion of the Project Area; however, the earliest patent was not granted to individuals until 1958 (Table 4; BLM n.d.). Forty-eight, five-acre tract, "Baby Homestead" land patents were granted to individuals between 1958 and 1964. The 1960 historical topographic map of Cathedral City shows development of homesteads north of the Project Area, north of I-10 and is outside the immediate area of the Project Area. The 1973 topographic map shows housing development adjacent to the southern portion the Project Area, along the eastern boarder of the access road. The 2002 aerial indicated additional development was started directly north of the 1973 development.

SOURCES CONSULTED

RECORDS SEARCH

Megan Wilson, a Cogstone staff archaeologist, performed a search for archaeological and historical records on August 5, 2015 at the Eastern Information Center of the California Historical Resources Inventory System (CHRIS). The record search covered a one-mile radius around the APE.

The results of the records search indicated that two prior studies included portions of the Project Area, while an additional 11 studies have been completed previously within a one-mile radius of the Project Area (Table 2). The previous studies within the one-mile radius included one completed within a 0.25-mile radius of the Project Area, three between a 0.25-0.5-mile radius, and seven within a 0.5-1 mile radius

Table 2. Previous Studies within one-mile radius of Project Area

Report No. RIV-	Author	Title	Year	Quad	Distance from Project
284	Weaver, Richard A.	Cultural Resources Identification-Sundesert Nuclear Project	1997	Cathedral City	.5 mi
1277	Ritter, Eric W.	Initial Archaeological Field Investigations for the San Gorgonio Pass Wind Program	1981	Cathedral City	1 mi
2350	Apple, R.M. and J.E Wooley	MCI Rialto to El Paso Fiber Optics Project-Intensive Cultural Resource Survey-San Bernardino and Riversides Counties, California	1988	Cathedral City	1 mi
2961	Duffield, Anne and Gale Broeker	Flat Top Mountain Land Exchange, Parts I and II T3S R5E, SBBM	1990	Cathedral City	In PA
3877	Dillon, Brian D.	Archaeological Assessment of the Satellite Wastewater Treatment Facility, A 40-Acre Property Near Palm Springs, Riverside County, CA	1994	Cathedral City	.5 mi
5420	Goodwin, Riordan, and Robert Reynolds	Cultural Resources Assessment, Gene Autry Trial Widening Project, City of Palm Springs, Riverside county, CA	2003	Desert Hot Springs and Seven Palms Valley	1 mi
5525	Goodwin, Riordan	Historic an Archeological Property Survey Report for the Gene Autry Trail Railroad Bridge Widening Project, City of Palm Springs, Riverside County, CA	2005	Desert Hot Springs and Seven Palms Valley	1 mi
5851	Love, Bruce, Bai Tang,	Identification and Evaluation of Historical Properties, Fairway Outdoor	2001	Palm Springs	1 mi

Report No. RIV-	Author	Title	Year	Quad	Distance from Project
	Michael Hogan, and Mariam Dahdul	Advertising Signboard Sites, on Gene Autry Trail, City of Palm Springs, Riverside County, CA			
6258	Chambers Group	Cultural Resources Survey Report	2006	Cathedral City and Desert Hot Springs	In PA
6738	Alexanrowicz, John Stephen	An Historical Investigation of the Martin Land Exchange, Riverside County, CA	2006	Cathedral City	Adjacent
8981	DeCarlo, Mathew M., Scott C. Justus, and William T. Eckhart	Summary Class III Cultural Resource Inventory, Proposed Southern California Edison Devers-Palo Verde 2 500kV Transmission Line Project, Riverside County, California	2013	Cathedral City, Desert Hot Springs, Seven Palms Valley	1 mi
5696	Kind, Aaron	A Class III, Cultural Resources Inventory for the DOPE	2005	Cathedral City	1 mi
1099	Berryman, Stanley R. and Mary Lou Hewett	Results of the Palm Springs Archaeological Survey, Section 8, Township 4 South, Range 5 East	1979	Cathedral City	1 mi

The results of these studies indicated that one cultural resource has been previously recorded within the Project Area. CA-RIV-6381H (P-33-009498), the Union Pacific Railroad (previously the Southern Pacific Railroad) traverses the northern extent of the Project Area and is an active rail line. A new rail bridge (UPRR 592.05) was constructed within the project area in 2006 and thus all components associated with the bridge are not historic (UPRR 2006).

A total of three cultural resources have been previously documented within the one-mile search radius (Table 3). These consist of one prehistoric site, one historic-era archaeological site, and one historic-era structure; all are located within 0.5-1 mile radius of the Project Area.

Table 3. Previously Recorded Cultural Resources within one-mile radius of Project Area

Primary Number (P-33-)	Trinomial (CA-RIV-)	Site Description	Year	Quad	Distance from the PA (in miles)
2171	2171	Rock cairn.	1981	Cathedral City	0.5-1
9498	6381 H	Union Pacific Railroad/Southern Pacific Railroad	2015, 2012, 2009, 2005	Cathedral City, Desert Hot Springs, Palm Springs	Within

Primary Number (P-33-)	Trinomial (CA-RIV-)	Site Description	Year	Quad	Distance from the PA (in miles)
22389	none	Julian Hinds-Mirage 220kV, Devers-Mirage 220kV, Devers-San Bernardino No.1220kV, Devers-Vista No. 1 220kV, Mira Loma Vista 220kV, and Chino Mira Loma 2000kV Transmission Lines	2013	Cathedral City, Desert Hot Springs	0.5-1
16948	8834	Former residence of Mr. Robert Darling Davenport	2008	Cathedral City	0.5-1

OTHER SOURCES

In addition, Megan Wilson consulted a variety of sources in June 2016 to obtain information regarding the cultural context of the Project Area (Table 4). Sources included the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), California Historical Resources Inventory (CHRI), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI). Specific information about the Project Area, obtained from historic-era maps and aerial photographs, is presented in the Project Area History section.

Table 4. Additional Sources Consulted

Source	Results
National Register of Historic Places (NRHP; 1979-2002 & supplements)	Negative.
Historic USGS Topographic Maps	The Southern Pacific Railroad (later the Union Pacific Railroad) appears in the Indio 1905 30' USGS topographic map. The 1973 Cathedral City 7.5' USGS topographic map show residential development directly east of the Project Area along the access road.
Historic US Department of Agriculture Aerial Photographs	Residential development appears in the 1972 aerial directly east of the Project Area along the access road.
California Register of Historical Resources (CRHR; 1992-2014)	Negative.
California Historical Resources Inventory (CHRI; 1976-2014)	Negative.
California Historical Landmarks (CHL; 1995 & supplements to 2014)	Negative

Source	Results
California Points of Historical Interest (CPHI; 1992 to 2014)	Negative.
Caltrans Historic Bridge Inventory (2016)	Negative.
Bureau of Land Management (BLM) General Land Office Records	Positive: 48 five-acre “Baby Homestead” land patents issued between 1958 and 1964..

NATIVE AMERICAN CONSULTATION

Seven tribal organizations sent letters to the Coachella Valley Water District requesting consultation under the California Environmental Quality Act, specifically Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014 (AB 52). The Coachella Valley Water District sent requests for consultation to all seven tribal organizations on June 9, 2016. The Agua Caliente Band of Cahuilla Indians responded within the 30 day period (Appendix B).

On June 15, 2016, Victoria Harvey on behalf of the Agua Caliente Band of Cahuilla Indians indicated that although the Project Area is located outside of their tribal reservation, it is located within the Tribe's Traditional Use Area (TUA). Ms. Harvey requested the presence of an approved Native American Cultural Resource Monitor during all ground disturbing activities. Ms. Harvey also requested a cultural resources inventory of the Project Area by a qualified archaeologist prior to development (sent 6/30/2016). The Tribe also requested a copy of the cultural resources assessment report when it completed. On June 30, 2016 Ms. Harvey requested clarification regarding the Project name, noting it had been changed from the Morongo Wash Project to the North Cathedral City Improvements Project, Phase I. She also requested a survey report. Confirmation of the Project name change and a digital version of a survey report were sent June 30, 2016.

A search of the sacred lands file was requested by Cogstone staff from the Native American Heritage Commission (NAHC) on August 8, 2015. On September 11, 2015 Cogstone received a response from the NAHC indicating that the Sacred Lands File search was negative for the Project Area and provided a list of two individuals from the the Agua Caliente Band of Cahuilla Indians to contact. The Tribe was consulted by the Coachella Valley Water District and thus no additional contact was made.

TRIBAL CULTURAL RESOURCES

No prehistoric tribal cultural resources are documented within the project area.

SURVEY

METHODS

The cultural resources survey is important in a project's environmental assessment phase to identify if resources are present and if so, verify the exact location of each identified cultural resource, the condition or integrity of the resource, and the proximity of the resource to areas of other areas of cultural resources sensitivity. Lindsay Porras, Cogstone Staff Archaeologist, completed an intensive level pedestrian survey of the entire 29.7-acre APE on June 8, 2016. The survey consisted of walking parallel transects spaced at no greater than 15-meter intervals within the APE while closely inspecting the ground surface for prehistoric or historic cultural resources. The entire APE was surveyed, including the drainage channel and slope protections areas as well as the access road.

All undeveloped ground surface areas within the APE were examined for artifacts (e.g. flaked stone tools, tool-making debris, stone milling tools or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Ground disturbances (e.g., cutbanks, ditches, animal burrows, etc.) were visually inspected.

RESULTS

Ground surface visibility was good (90%) for the majority of the Project Area (Figure 6). Visibility along the boundary of the Union Pacific Railroad Bridge was poor (10%) due to a mesquite thicket (Figure 7). However, the majority of the Project Area contains sparse desert scrub vegetation (Figure 8). The entire APE consists of relatively flat terrain with blown sand dunes and a dry wash bed consisting of sand with coarse pebbles, cobbles, and boulders. Modern refuse was observed throughout the APE (Figure 9). The survey was negative for cultural resources within the APE excepting the railroad and railroad bridge.

Figure 6. Overview of one section of the Project Area, view south

Figure 7. North side of the Union Pacific Railroad Bridge, note mesquite thicket, view west

Figure 8. Overview of southern end of access road, view north

Figure 9. Eastern boundary of Project Area, concentration of modern debris, view north

FINDINGS

Cogstone conducted an intensive pedestrian survey of the 29.7 acre APE. The survey was negative for cultural resources within the APE excepting the railroad. The entire Project Area is located on the unconsolidated sandy sediments from the Morongo washes. Intact subsurface resources are not anticipated.

RECOMMENDATIONS

If unanticipated archaeological discoveries are made during construction, all work must halt until the find can be evaluated by a qualified Archaeologist. The Coachella Valley Water District shall notify the Agua Caliente Band of any prehistoric features or sites, including human remains, discovered and afford them the opportunity to consult. If human remains are unearthed during excavation, state law requires that all work stop pending notification and evaluation by the County Coroner.

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1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In Archaic Prehistory in the Western United States, edited by C. Irwin-Williams, pp. 1-14. *Eastern New Mexico University Contributions in Anthropology* 1(3).

APPENDIX A: QUALIFICATIONS

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

SAMANTHA SCHELL
Archaeologist

EDUCATION

1994 B.A., Anthropology (Physical), University of California, Berkeley

SUMMARY QUALIFICATIONS

Ms. Schell has 20 years of experience in cultural resource management in California. Her wide ranging experience includes both prehistoric and historic period archaeology. Ms. Schell meets national standards in archaeology set by the Secretary of Interior's *Standards and Guidelines for Archaeology and Historic Preservation.* She conducts surveys, monitoring, excavation at the testing and data recovery levels, prehistoric and historical site recording, prehistoric and historical artifact identification and preparation for curation. Ms. Schell has participated in numerous studies and prepared compliance reports. She has conducted archival research at local repositories and collected oral histories from the families associated with California ranches. Ms. Schell, based on her family's central California ranching history, has access the larger network of California ranching families to gather information regarding the ranching history of the project and surrounding areas.

SELECTED PROJECTS

Regional Oral History Office, Bancroft Library, UC Berkeley, Berkeley, CA. The ROHO documents history through carefully researched audio and video interviews and transcribed oral histories. Interviews are conducted with the goal of a full and accurate account of events central to the lives of the interviewee. Ms. Schell worked with researchers in preparation of the interviews, and then synthesized the product through transcribing the recorded interviews.

South Access to Golden Gate Bridge–Doyle Drive P3 Project, FHWA/Caltrans District 4, San Francisco County Transportation Authority, San Francisco, CA. Cultural resources monitoring of road replacement impacting this National Historic Landmark--the Presidio of San Francisco, National Park Service-Golden Gate National Recreation Area. Work areas include the previously demolished Pan Pacific International Exposition buildings from 1915 and Presidio military installation remains. Discoveries have included isolated artifacts, building remains, foundations, wood stave conduits, the Mason Street Railroad tracks, incinerator deposits, portions of the Presidio Ravine Creek Dump, and retaining walls. NHPA Section 106/CEQA compliance. Sub Flatiron. Archaeological Monitor. 2015

Exposition Light Rail Transit Phase II, Exposition Rail Construction Authority/Los Angeles County Metropolitan Transportation Authority, Los Angeles, CA. The project involves extension of the Expo Light Rail system for 8 miles from Culver City to Santa Monica, including construction of seven stations, grade separations, and associated facilities. Much of the project alignment replaces a historic electric railroad known as the Santa Monica Air Line (SMAL) and was constructed in the existing SMAL right-of-way. During monitoring, eighty-two features associated with the rail line and sixty-eight artifacts were recorded. Contributed to Monitoring Report. Sub to URS Corporation. Archaeologist. 2015

Ansel Adams Gallery Complex Rehabilitation Project, Yosemite National Park, Mariposa, CA. Conducted test pits around historic era buildings for foundation improvements. Osteologist/Archeological Technician. 2011

North Area Historic-Era Sites Evaluation, Western Area Power Authority. Tasks included site descriptions, quality control, graphics, and contributions to report production. Archaeologist. 2014

Good Earth Phase II, Good Earth Grocery Store. Conducted test pits around historic era buildings for foundation improvements. Osteologist/Archeological Technician. 2011

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

MEGAN PATRICIA WILSON
Archaeologist/GIS Specialist

EDUCATION

2014 M.A. Anthropology, California State University, Fullerton *cum laude*
2013 GIS Certificate, California State University, Fullerton
2006 B.A., Anthropology, University of California, Los Angeles *cum laude*

SUMMARY QUALIFICATIONS

Ms. Wilson is a Registered Professional Archaeologist and cross-trained paleontologist with 9 years of experience in survey, excavation, and laboratory preparation/curation analysis. Her key research areas include prehistoric subsistence and settlement patterns of coastal southern California, protohistoric and historic archaeology of southern California and the Great Basin, and paleo environmental reconstructions based on archaeological flora and faunal analysis. She is GIS proficient and assists with the digitizing and mapping of spatial data for archaeology projects. Ms. Wilson has five years of experience in southern California archaeology and is an expert in prehistoric and historic Orange County archaeology and artifact identification.

SELECTED PROJECTS

Paradise Valley Specific Plan, Glorious Land Company, unincorporated Riverside County, CA. The project involves construction of a master-planned community. Of the 5, 000-acre project area, 1,800 acres are slated for development, leaving the remaining 3,200 acres as open space. Coordination with the BLM was required regarding off-site power and fiber optic lines situated on federal lands. Conducted records search and archive research. Cogstone also conducted NAHC consultation, archaeological and paleontological resources survey and Project mapping for inclusion in the Supplemental Phase I Cultural Resources Assessment Report. Archaeologist 2014

I-15 Limonite Interchange Improvement, County of Riverside/Caltrans District 8, Jurupa Valley/Eastvale, Riverside County, CA. Prepared GIS maps for inclusion in a Paleontological Mitigation Plan (PMP). Sub to Dokken Engineering. GIS Specialist. 2015

Dune Palms Bridge, Project Design and Environmental Documents, La Quinta, Riverside County, CA. The project involved replacing a low water crossing spanning the Coachella Valley Storm Water Channel at Dune Palms Road. Conducted record search, sacred lands search, and NAHC consultation. Cogstone also conducted an intensive field survey, Project mapping, and prepared a Historic Properties Survey Report (HPSR) with appended Archaeological Survey Report (ASR) to support the PA&ED/PSR/PS&E documents. In addition, the project is located within known boundaries of prehistoric Lake Cahuilla, which has previously produced significant fossils. Cogstone conducted a paleontological sensitivity analysis and prepared a Paleontological Identification Report (PIR). Sub to Parsons Brinckerhoff. Archaeologist. 2014

Temecula Park and Ride at I-15, Caltrans District 8, Temecula, Riverside County, CA. Conducted records search, sacred land search, NAHC consultation, and created all project maps for inclusion in Historic Property Survey Report (HPSR) and Archaeological Survey Report (ASR). This project involved the construction of a park and ride area. Sub to Michael Baker/RBF. Archaeologist. 2014

WECC Path 42, Southern California Edison, Thousand Palms, Riverside County, CA. Updated maps and graphics for inclusion in a cultural resources monitoring compliance report documenting activities associated with the construction and demolition of tower and guard structures for the Devers-Mirage Circuit. GIS Specialist. 2014

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

SHERRI GUST, RPA

Project Manager & Principal Investigator, Paleontology and Archaeology

EDUCATION

1994 M.S., Anatomy (Evolutionary Morphology), University of Southern California, Los Angeles
1979 B.S., Anthropology (Physical), University of California, Davis

SUMMARY QUALIFICATIONS

Ms. Gust has more than 35 years of experience in cultural and paleontological resources management. She is a Registered Professional Archaeologist and Qualified Principal Paleontologist. Gust has extensive experience managing large linear energy and transportation projects and is an experienced peer reviewer. Ms. Gust holds California statewide BLM permits for cultural and paleontology. She is a certified/qualified principal archaeologist and paleontologist in all southern California cities and counties that maintain lists.

PRIOR PROJECTS

WECC Path 42 Transmission Line Upgrades, Southern California Edison, Palm Springs area, Riverside County, CA. Managed cultural and paleontological resources Phase I studies for 14.5 mile transmission line segment on BLM and private lands. Co-author of both the Paleontological and the Cultural Resources Assessment Reports. Project Manager and Principal Investigator. 2011-2012

SeaWest Mountainview IV Transmission Line, Southern California Edison, unincorporated Palm Springs area, Riverside County, CA. Managed cultural and paleontological resources Phase I studies for construction of an overhead transmission line and underground fiber optic connections line on privately held and BLM lands. Co-author of both the Paleontological and the Cultural Resources Assessment Reports. Project Manager and Principal Investigator. 2011

High Desert Corridor, Caltrans Districts 7 & 8, Los Angeles and San Bernardino Counties, CA. Managed work to complete the Caltrans cultural and paleontological documents for a proposed new 63 mile long freeway and rail line from SR 14 in Palmdale to SR 18 in Apple Valley. The documents produced to date are Historical Properties Survey Report, Archaeological Survey Report, Historical Resources Evaluation Report, Extended Phase I Testing Report and combined Paleontological Identification and Evaluation Report. Project Manager and Principal Investigator. 2013-present

Ground Water Regional Replacement and Recharge Project (R3), Mojave Water Agency, San Bernardino County, CA. Managed Phase I cultural and paleontological work for proposed construction of 64,083 linear feet of water pipeline and associated facilities. Work was performed under Section 106 due to funding from the American Recovery and Reinvestment Act through the Bureau of Reclamation. Personally negotiated burial agreement with San Manuel Band of Mission Indians. Co-authored the Cultural and Paleontological Assessment report including a Cultural Resources Treatment Plan and Paleontological Resources Management Plan. Project Manager and Principal Investigator. 2010-2012

Oro Grande Wash Recharge Project, Mojave Water Agency, Hesperia and Victorville, San Bernardino County, CA. Managed Phase I cultural and paleontological work for proposed construction of 19,000 linear feet of water pipeline and associated facilities including recharge basins on 22 acres. Work was performed under Section 106 due to funding from the American Recovery and Reinvestment Act through the Bureau of Reclamation. Co-authored the Cultural and Paleontological Assessment report including a Paleontological Resources Management Plan. Project Manager and Principal Investigator. 2010-2011

State Route 138 Widening from Interstate 15 to State Route 18, Caltrans District 8, Los Angeles and San Bernardino Counties, CA. Managed paleontological studies to support a 21 mile road widening project from Cajon Junction to Palmdale. Managed and co-authored work to produce a combined Paleontological Identification and Evaluation Report with Paleontological Monitoring Plan. Project Manager and Principal Investigator. 2008-2009

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

ANDRÉ-JUSTIN C. SIMMONS
Archaeologist/Cross-trained Paleontologist & GIS Supervisor

EDUCATION

2014 M.A., Anthropology: Specializing in Anthropological Archaeology, California State University, Fullerton
2012 Certificate in Geographic Information Systems, California State University, Fullerton
2010 B.A., Anthropology and History, California State University, Fullerton, graduated *cum laude*

SUMMARY QUALIFICATIONS

Mr. Simmons is a qualified archaeologist and cross-trained paleontologist with extensive field experience in survey, monitoring, faunal analysis, and excavation. He exceeds the qualifications required by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*. Further, he is certified in Geographic Information Systems (GIS) and specializes in ESRI's ArcGIS software. Mr. Simmons is responsible for supervising GIS data collection and management, geospatial analysis, and the production of GIS maps and databases for large and small-scale projects. His key research interests include settlement patterns and use of space among Paleoindians, the American Southwest, early historic and prehistoric California, and historical Mexico. He has over six years of experience in California Archaeology and paleontological monitoring along with more than 24 hours of paleontology training and over four years of GIS experience.

SELECTED PROJECTS

WECC Path 42, Southern California Edison, Riverside County, CA. Conducted a cultural resources records search and field survey for a 14.5 mile transmission line segment near Thousand Palms. Archaeological/ Paleontological Technician. 2011-2012

Eldorado-Ivanpah Transmission Project, Southern California Edison, Eldorado, NV to Ivanpah, CA. Performed paleontological monitoring for project that involves construction of 195 miles of new transmission lines and associated fiber optic lines across BLM and private lands. Paleontological Monitor. 2012-2013

Devers-Mirage 115 KV System Split Project, Southern California Edison, Riverside County, CA. Performed archaeological and paleontological monitoring during construction activities associated with maintaining and upgrading the electrical systems of Cathedral City, Indian Wells, Palm Desert, Palm Springs, Rancho Mirage, Thousand Palms and unincorporated Riverside County. Archaeological/Paleontological Monitor. 2011-2012

Leatherneck Substation Project, Southern California Edison, San Bernardino County, CA. Prepared GIS maps for a cultural resources survey and subsequent survey report for ten pulling stations near Twenty-Nine Palms. GIS Technician. 2012

Fogarty Substation, Southern California Edison, Riverside County, CA. Performed archaeological and paleontological monitoring during ground disturbing activities in Lake Elsinore. A historic glass fragment and prehistoric shells were recovered. Archaeological/Paleontological Monitor. 2010-2011

SR 99 Arboleda Drive Freeway Project, Caltrans District 10, Merced County, CA. Conducted paleontological resources monitoring, fossil recovery, and fossil preparation for a 5-mile segment. Prepared GIS report maps. Some 128 localities and 1,667 fossils recovered in five months of excavation for detention basins. Paleontology & GIS Technician. 2012

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

LINDSAY PORRAS
Cross-Trained Paleontologist/ Archaeologist

EDUCATION

2004 B.A., Anthropology, University of Nevada, Reno

SUMMARY QUALIFICATIONS

Porras is a qualified archaeologist and cross-trained paleontologist with extensive field and laboratory experience. She earned her Bachelor's degree in Anthropology from the University of Nevada, Reno, with a minor in Cultural Anthropology. Porras has six years of experience as a dual or paleo monitor for Cogstone and more than 72 hours of paleontology training.

SELECTED PALEONTOLOGY TRAINING

2009 Paleontology Orientation Training (8 hrs). Included basic geology, sedimentology, recognizing fossils and jacketing fossils.
2009 Paleontology field trip to study Inland Empire paleontological sediments, practice jacketing fossils and review minimum data collection requirements which included portions led by an outside paleontologist and geologist (8 Hrs)
2011 Western Association of Vertebrate Paleontologists Field Trip to Simi Valley (8 hrs). Travel to and inspection of classic paleontological localities in the Sespe and other formation of Simi Valley.

SELECTED PROJECTS

Perris Valley Line, Metrolink, Riverside County Transportation Commission, Riverside County, CA. The project is a 24-mile extension of the Metrolink 91 Line. Conducting paleontological and archaeological monitoring for construction of four new stations, upgrading associated track and utility relocations to extend the Metrolink connection from Riverside through Moreno Valley to Perris. Sub to HDR Engineering. Field Technician. 2013-2016

Eldorado-Ivanpah SCE Transmission Line, CA & NV. Paleontology Field Technician. Conducted paleontological survey and monitoring of construction activities for installation of 71 miles of SCE electrical lines and associated telecommunications from Eldorado, NV to Ivanpah, CA across both BLM and private lands. 2010-2013

Ranchero Road-BNSF Grade Separation, San Bernardino County. Paleontology Field Technician. Conducted paleontological resources monitoring and spot checking during ground disturbing activities in native sediments greater than five feet deep for a project that involved construction of an underpass for Ranchero Road beneath the BNSF Railroad line to connect the two halves of Ranchero Road in Hesperia. 2011-2013

Yucca Valley Community Park Project, San Bernardino County. Archaeology & Paleontology Field Technician. Performed a paleontological and cultural resources field survey for a 5-acre community park project in the City of Yucca Valley. 2012

Devers-Mirage 115kV System Split Project, Riverside County. Archaeology & Paleontology Field Technician. Conducted paleontological and archaeological resources monitoring during TSP augering for improvements to the SCE Garnet Substation in the Palm Springs area. 2012

State Route 91 Project, Riverside County. Paleontology Field Technician. Conducted paleontological monitoring of sensitive sediments during HOV lane construction along a 6 mile segment of State Route 91 in the City of Riverside. 2012

Tehachapi Renewable Transmission Project, Segments 1- 3, Southern California Edison, Los Angeles and Kern Counties, CA. Performed paleontological monitoring during ground disturbing activities, recovered fossils and artifacts. Performed supplemental surveys and site recordation. Paleontological Monitor. 2008-2009

APPENDIX B: NATIVE AMERICAN CONSULTATION

STATE OF CALIFORNIA — Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX

September 11, 2015

Megan Wilson
1518 W. Taft Ave.
Orange, CA 92865

Sent by Email: mwilson@cogstone.com
Number of Pages: 3

RE: Morongo Wash Project, Cathedral City USGS Quadrangle, Riverside County

Dear Ms. Wilson:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. Please note that the intent above reference codes is to mitigate impacts to tribal cultural resources, as defined, for California Environmental Quality Act (CEQA) projects.

As of July 1, 2015, Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
   - If the probability is low, moderate, or high that cultural resources are located in the APE.
   - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and

- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:
   - Any report that may contain site forms, site significance, and suggested mitigation measurers.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. A SFL file check was completed for the APE given with negative results.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and

5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand well help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: rob.wood@nahc.ca.gov.

Sincerely,

Rob Wood
Associate Governmental Program Analyst

Native American Heritage Commission
Tribal Consultation List
Riverside County
September 11, 2015

Agua Caliente Band of Cahuilla Indians
Jeff Grubbe, Chairperson
5401 Dinah Shore Drive Cahuilla
Palm Springs , CA 92262
lfreogoz@aguacaliente-nsn.gov
(760) 325-3400

Agua Caliente Band of Cahuilla Indians THPO
Patricia Garcia, Tribal Historic Perservation Officer
5401 Dinah Shore Drive Cahuilla
Palm Springs , CA 92264
ptuck@aguacaliente-nsn.gov
(760) 699-6907

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 Resources Code and Section 5097.98 of the Public Resources Code.
This list is applicable only for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 and 21080.3.2 Morongo Wash Project, Cathedral City USGS Quadrangle, Riverside County.

Established in 1918 as a public agency
Coachella Valley Water District

Directors:
John P. Powell Jr., President - Div. 3
Peter Nelson, Vice President - Div. 4
G. Patrick O'Dowd - Div. 1
Ed Pack - Div. 2
Cástulo R. Estrada - Div. 5

Jim Barrett, General Manager
Robert Cheng, Assistant General Manager
Sylvia Bermudez, Clerk of the Board

Best Best & Krieger LLP, Attorneys

June 9, 2016

File: 0121.312
0110.06

«Tribe»
«Contact_Person_»
«Address»
«City_State_Zip»

Dear Recipient:

RE: Assembly Bill (AB) 52 Consultation - North Cathedral City Improvements, Phase I Project, Cathedral City, Riverside County

The Coachella Valley Water District (CVWD) is conducting AB-52 consultation for the North Cathedral City Improvements, Phase I Project (project). Please consider this letter and preliminary project information as the initiation for AB52 Consultation for Tribal Cultural Resources under the California Environmental Quality Act (CEQA), Public Resources Code (PRC)§21080.3.1; AB 52 (Gatto, 2014). See the enclosed attachments: Site Vicinity Map, Project Components Map and Conceptual Site Plan.

CVWD Environmental Services Department staff would like to meet with you to discuss this project and AB52 compliance at your earliest convenience. Please respond within 30 days if you would like to consult on this project.

The CVWD proposes regional stormwater improvements that would convey stormwater flows from north of the Union Pacific Railroad (UPRR) tracks in a southerly direction to the Whitewater River Stormwater Channel (WWRSC). Currently, there is a UPRR bridge crossing at the project site; the bridge was constructed and backfilled to allow for future construction of the North Cathedral City Stormwater Master Plan under the railroad to provide a connection to the WWRSC. Flows under the UPRR bridge have been precluded until the channel improvements and slope lining (east overbank) downstream of the bridge were ready to be constructed. As such, the project would include improvements to safely and reliably convey flows beneath the bridge, reducing floodplain impacts for tributary areas to the project site, including the North City Extended Specific Plan. Key components of the project include concrete channel lining, bridge improvements, earthen channel grading, and slope protection. Exhibits depicting project location and proposed improvements are included with this letter.

If you have any questions regarding the project or content of this letter, please contact Luke Stowe, Environmental Supervisor at (760) 398-2651, extension 2545.

Sincerely,

Steve Bigley
Director of Environmental Services

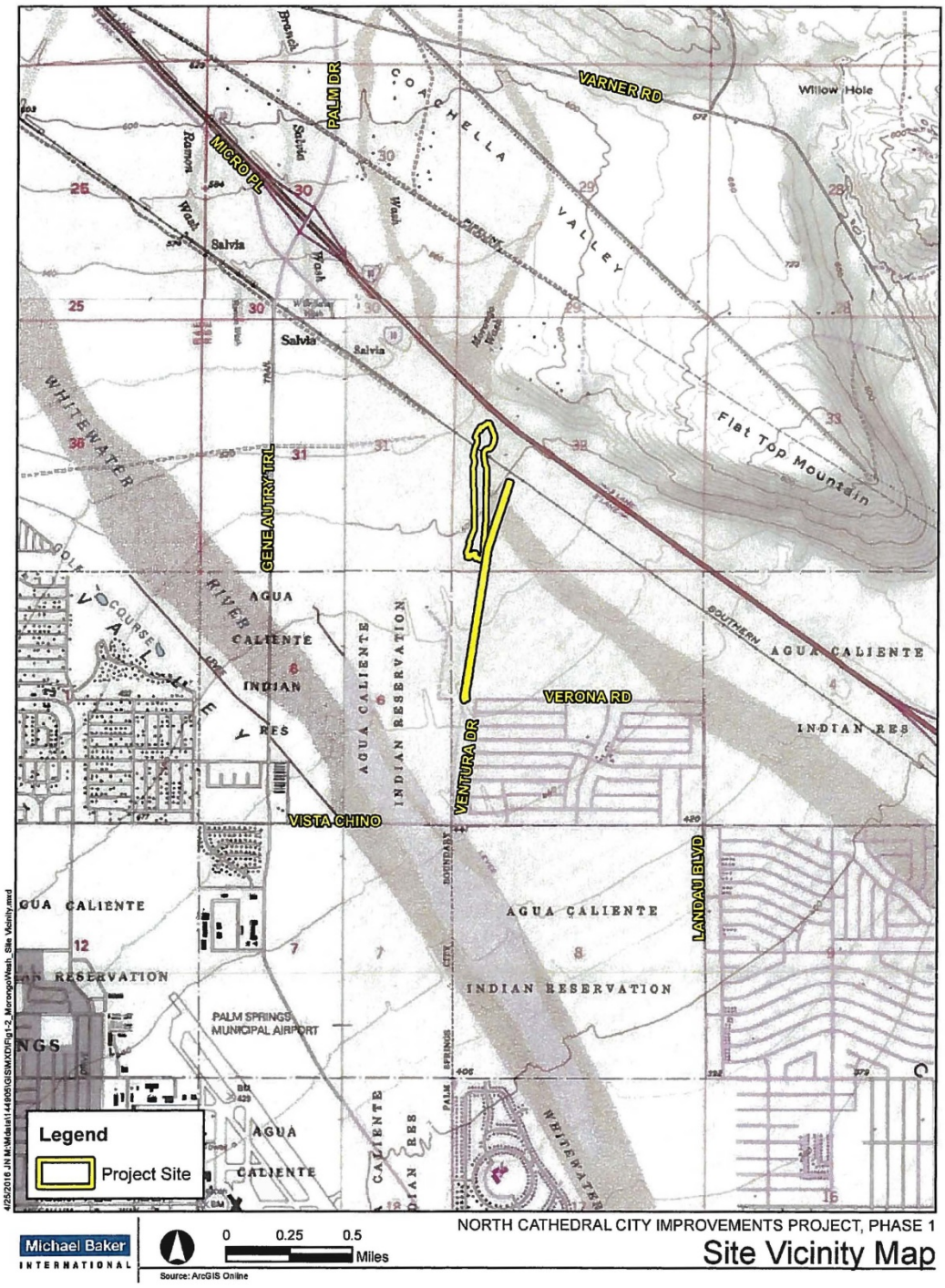
Enclosures/3/as

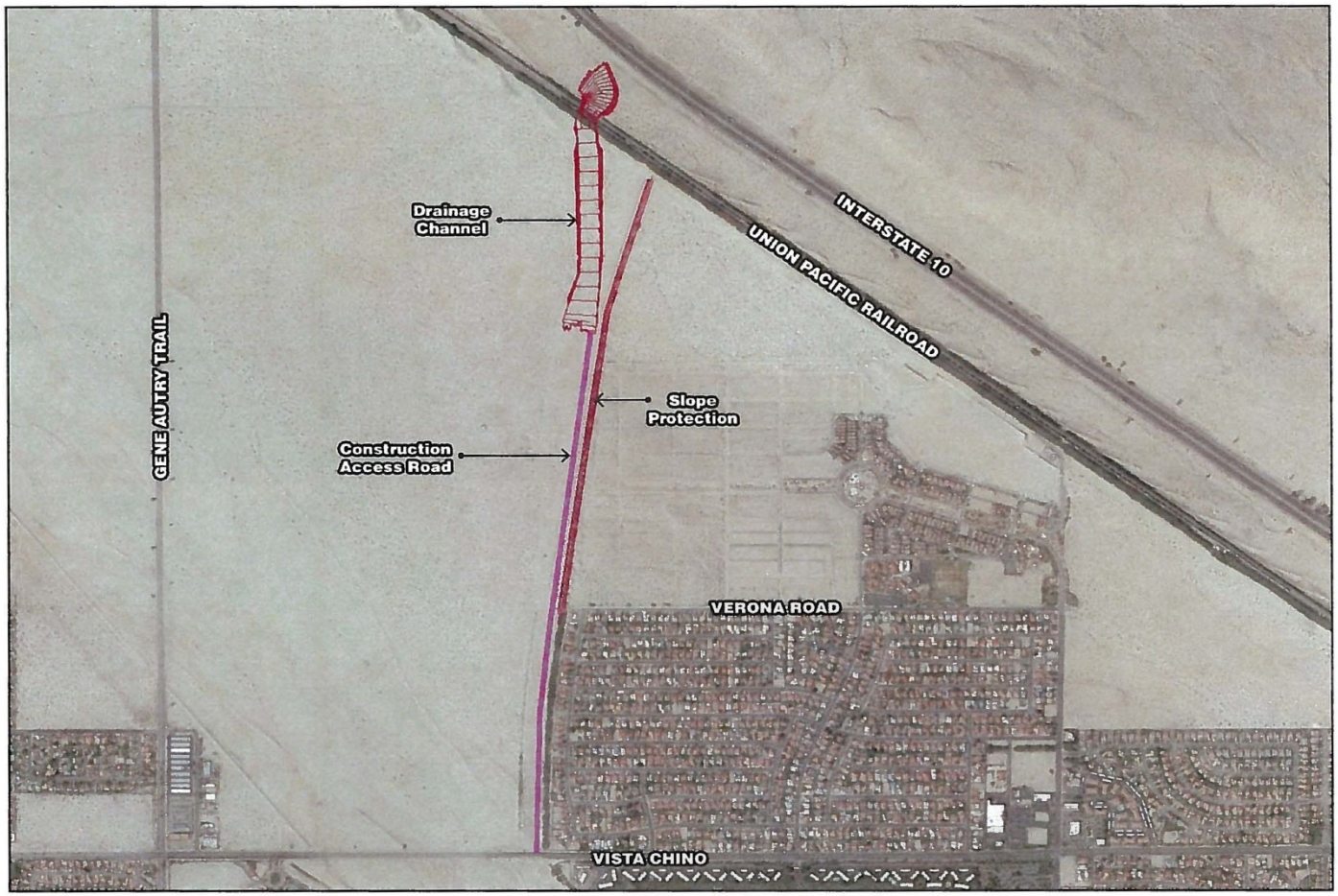
EM:jl/ENV SVCS/ENV/2016/June/AB52 N Cat City SW Improvement Project.docx

MAILED JUN - 9 2016 CVWD

EC: Elizabeth Meyerhoff (with enclosures)
Luke Stowe (w/enclosures)
Steve Bigley (w/enclosures)
Dan Charlton (w/enclosures)

EM: jl/ENV SVCS/ENV/2016/June/AB52 N Cat City SW Improvement Project.docx


VARNER RD
PALM DR
MICRO PL
COACHELLA VALLEY
Willow Hole
Flat Top Mountain
WHITEWATER
GENE AUTRY TRL
AGUA CALIENTE INDIAN RESERVATION
SOUTHERN AGUA CALIENTE INDIAN RES
VERONA RD
VENTURA DR
VISTA CHINO
LANDAU BLVD
PALM SPRINGS MUNICIPAL AIRPORT
Legend
Project Site
0 0.25 0.5 Miles
Source: ArcGIS Online
Michael Baker INTERNATIONAL
NORTH CATHEDRAL CITY IMPROVEMENTS PROJECT, PHASE 1
Site Vicinity Map



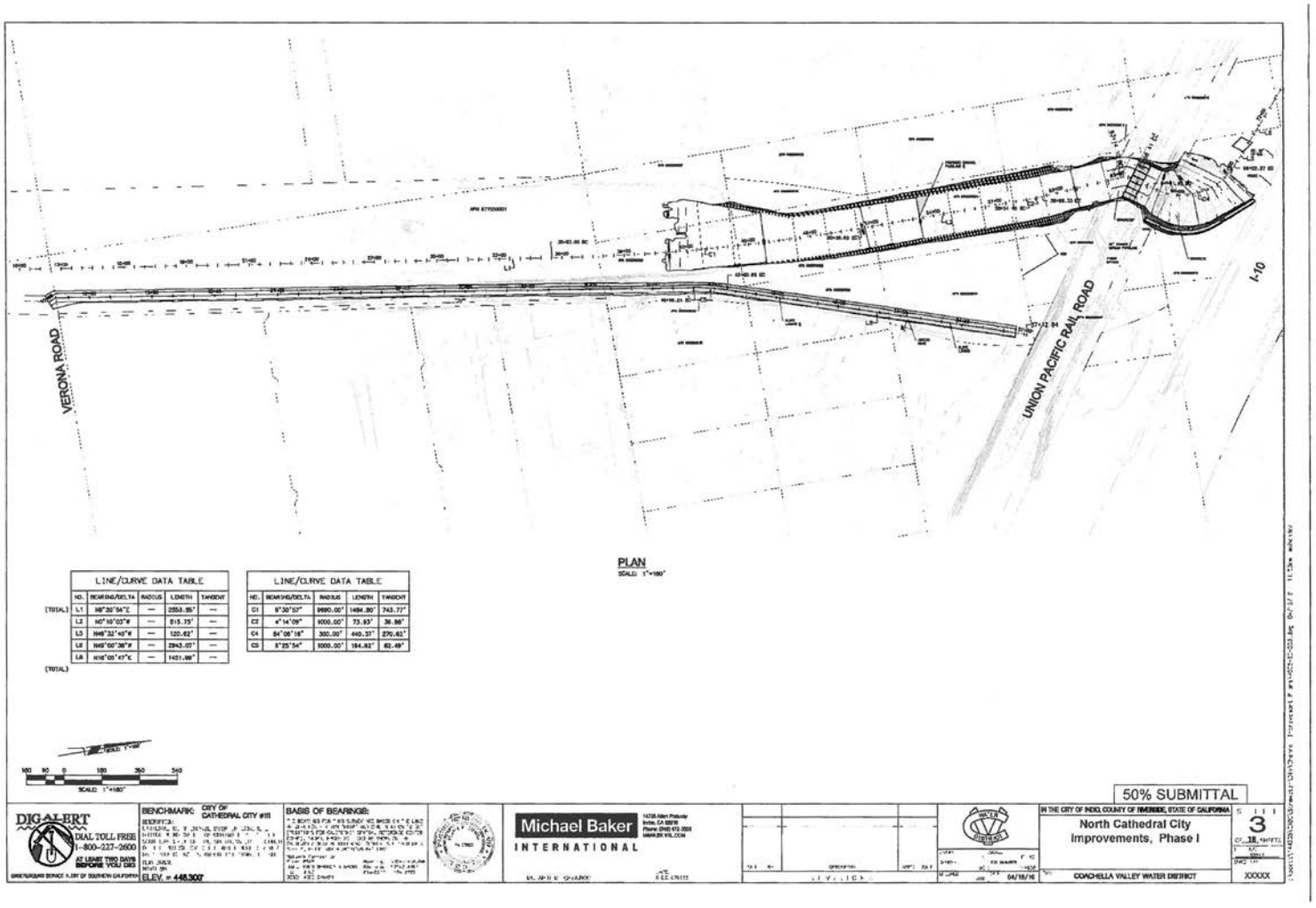
Michael Baker INTERNATIONAL

NOT TO SCALE

Source: Google Earth 2016

NORTH CATHEDRAL CITY IMPROVEMENTS PROJECT, PHASE 1

Project Components


VERONA ROAD
UNION PACIFIC RAIL ROAD
I-10
PLAN
LINE/CURVE DATA TABLE
LINE/CURVE DATA TABLE
50% SUBMITTAL
DIG ALERT
DIAL TOLL FREE
1-800-227-2600
AT LEAST TWO DAYS BEFORE YOU DIG
BENCHMARK: CITY OF CATHEDRAL CITY #11
ELEV. = 446.307
BASIS OF BEARINGS:
Michael Baker
INTERNATIONAL
04/18/16
IN THE CITY OF INDIO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
North Cathedral City Improvements, Phase I
3
COACHELLA VALLEY WATER DISTRICT
XXXXX

AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

03-007-2015-002

June 15, 2016

[VIA EMAIL TO:lstowe@cvwd.org]
Coachella Valley Water District
Mr. Luke Stowe
PO Box 1058
85-995 Avenue 52

Re: AB 52 Consultation for the North Cathedral City Improvements, Phase I Project, Cathedral City, Riverside County

Dear Mr. Luke Stowe,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Morongo Wash Improvement project. The project area is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area (TUA). For this reason, the ACBCI THPO requests the folllowing:

*The presence of an approved Native American Cultural Resource Monitor(s) during any ground disturbing activities (including archaeological testing and surveys). Should buried cultural deposits be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of the Interior's Standards and Guidelines) to investigate and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Officer and the Agua Caliente Tribal Historic Preservation Office.

*A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.

* When the report for the survey is completed we would like to have a copy.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760)699-6981. You may also email me at vharvey@aguacaliente.net.

Cordially,

V. Harvey

5401 DINAH SHORE DRIVE, PALM SPRINGS, CA 92264
T 760/699/6800 F 760/699/6924 WWW.AGUACALIENTE-NSN.GOV

AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

Victoria Harvey
Archaeological Monitoring Coordinator
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

5401 DINAH SHORE DRIVE, PALM SPRINGS, CA 92264
T 760/699/6800 F 760/699/6924 WWW.AGUACALIENTE-NSN.GOV

AGUA CALIENTE BAND OF CAHUILLA INDIANS
TRIBAL HISTORIC PRESERVATION

03-007-2015-002

June 30, 2016

[VIA EMAIL TO:lstowe@cvwd.org]
Coachella Valley Water District
Mr. Luke Stowe
PO Box 1058
85-995 Avenue 52

Re: AB 52 Consultation for the North Cathedral City Improvements, Phase I Project, AKA the Morongo Wash Improvement Project

Dear Mr. Luke Stowe,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Morongo Wash Improvement project. The project area is not located within the boundaries of the ACBCI Reservation. However, it is within the Tribe's Traditional Use Area (TUA). For this reason, the ACBCI THPO requests the folllowing:

*The presence of an approved Native American Cultural Resource Monitor(s) during any ground disturbing activities (including archaeological testing and surveys). Should buried cultural deposits be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of the Interior's Standards and Guidelines) to investigate and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Officer and the Agua Caliente Tribal Historic Preservation Office.

Thank you for providing this information via the email sent June 30, 2016, by Megan Wilson at Cogstone RMI. However, we already have the record search information that was provided on a CD was sent October 2015.

The request sent on June 15, 2016 to the Coachella Valley Water District for a "Cultural Resources Inventory" was for an intensive pedestrian survey of the APE since we were unclear if that had been completed based upon information received in October 2015. We would much appreciate a copy of the survey report to have a better understanding of the cultural resources inventory, the survey, of the APE.

Also, I noticed in the letter from Cogstone dated last September the project was called the Morongo Wash Improvement Project yet now it is North Cathedral City Improvements, Phase I Project. Which name is preferred?

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760)699-6981. You may also email me at vharvey@aguacaliente.net.

5401 DINAH SHORE DRIVE, PALM SPRINGS, CA 92264
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AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

Cordially,

V. Harvey

Victoria Harvey
Archaeological Monitoring Coordinator
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

5401 DINAH SHORE DRIVE, PALM SPRINGS, CA 92264
T 760/699/6800 F 760/699/6924 WWW.AGUACALIENTE-NSN.GOV

Megan Wilson

From:	Megan Wilson
Sent:	Thursday, June 30, 2016 2:50 PM
To:	Harvey, Victoria (TRBL) (vharvey@aguacaliente.net)
Subject:	Cultural resources inventory for the North Cathedral City Improvements, Phase I Project, Cathedral City, Riverside County
Attachments:	records search summary.docx; P-33-2171.pdf; P-33-16948.pdf; ACBMI.pdf

Good afternoon Ms. Harvey,
Cogstone Resource Management is assisting the Coachella Valley Water District with their AB 52 consultation.

On June 15, 2016 you had requested a cultural resources inventory for the North Cathedral City Improvements, Phase I Project, Cathedral City, Riverside County.
Attached is a summary as well as two associated site records.

There are two other historic resources, the Southern Pacific Railroad (P-33-09498) that is located within the PA and the Julian Hinds-Mirage 220kV, Devers-Mirage 220kV, Devers-San Bernardino No.1220kV, Devers-Vista No. 1 220kV, Mira Loma Vista 220kV, and Chino Mira Loma 2000kV Transmission Lines (p-33-022389) which is located within a one mile radius of the Project Area. I would be happy to mail you a copy of these records-they are very large and can't be emailed easily, please let me know.

A survey of the Project Area was conducted and no cultural resources were observed. If you would like, I can provide a survey summary and photos.

Megan Wilson, M.A., R.P.A.
Archaeologist & GIS Technician
Cogstone
Paleontology, Archaeology and History
1518 W Taft Ave, Orange, CA 92865-4157
714-974-8300 ex. 108
MWilson@cogstone.com

Native American Group/Individual	**Date(s) and Method of First Contact Attempt**	**Response**
Agua Caliente Band of Cahuilla Indians Jeff Grubbe, Chairperson and Agua Caliente Band of Mission Indians, Patricia Garcia, THPO	June 9th, 2016, certified mail	On June 15, 2016, Victoria Harvey on behalf of the Agua Caliente Band of Cahuilla Indians indicated that although the Project Area is located outside of their tribal reservation, it is located within the Tribe's Traditional Use Area (TUA). Ms. Harvey requested the presence of an approved Native American Cultural Resource Monitor during all ground disturbing activities. Ms. Harvey also requested a cultural resources inventory of the Project Area by a qualified archaeologist prior to development (sent 6/30/2016). The Tribe also requested a copy of the cultural resources assessment report when it completed. On June 30, 2016 Ms. Harvey requested clarification regarding the Project name, noting it had been changed from the Morongo Wash Project to the North Cathedral City Improvements Project, Phase I, . She also requested a survey report. Confirmation of the Project name change and a digital version of a survey report were sent June 30, 2016.
Augustine Band of Mission Indians Amanda Vance, Chairperson	June 9th, 2016, certified mail	No Response.
Cabazon Band of Mission Indians Doug Welmas, Chairperson	June 9th, 2016, certified mail	No Response.
Morongo Band of Mission Indians Raymond Huaute, Cultural Resources Manager	June 9th, 2016, certified mail	No Response.
Soboba Band of Mission Indians, Joseph Ontiveros, cultural resources Director	June 9th, 2016, certified mail	No Response.
Torres-Martinez Desert Cahuilla Indians Michael Mirelez, Cultural Resources Coordinator	June 9th, 2016, certified mail	No Response.
Twenty-nine Palms Band of Mission Indians, Darrell Mike, Tribal Chairman	June 9th, 2016, certified mail	No Response.

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

PALEONTOLOGICAL RESOURCES ASSESSMENT REPORT FOR THE NORTH CATHEDRAL CITY IMPROVEMENTS PROJECT, PHASE I, CATHEDRAL CITY, RIVERSIDE COUNTY, CALIFORNIA

Prepared for:
Coachella Valley Water District
75515 Hovley Lane East
Palm Desert, CA 92211

Under contract to:
Michael Baker International
14725 Alton Parkway, Irvine, CA 92618

Authors:
Sherri Gust and Ashley Leger

Principal Investigator:
Sherri Gust
Qualified Principal Paleontologist

December 2016

Project Number: 3244
Type of Study: Paleontological Resources Assessment with Survey
BLM Permit: CA-16-05P
BLM Fieldwork Authorization: PFR-16-01
Localities: None within the project boundaries
Acres: Total 29.7; BLM 4.18; Agua Caliente 1.56
USGS Quadrangle: Cathedral City 7.5
Key Words: Holocene alluvium and gravels, PFYC 2 – low potential for fossils

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EXECUTIVE SUMMARY

The Coachella Valley Water District (CVWD) proposes regional storm water improvements that would convey storm water flows from north of the Union Pacific Railroad (UPRR) track in a southerly direction to the Whitewater River Stormwater Channel (WWRDC). The Project Area is located in the City of Cathedral City, Riverside County, California south of Interstate 10.

The project area is mapped as Holocene alluvial sediments which are too young to contain fossils. Record searches were completed by the Western Science Center and by Cogstone staff in online databases and published materials. No fossil localities are known within a one-mile radius of the project area and no fossils are known within the boundaries of Cathedral City.

An intensive pedestrian survey of the project area was conducted on June 8, 2016. No fossils were observed during the survey. During the survey, there was generally good exposure in most areas. Surficial sediments consist primarily of unconsolidated windblown sands and dry wash bed comprised of sands with coarse pebble, cobble and boulders.

Only Late Holocene sediments are anticipated to be impacted by the proposed maximum depth of cut of 12.5 feet below current ground surface. These sediments are too young to contain fossils. There is a possibility that Pleistocene sediments may be encountered during deeper excavation and might contain fossils.

If unanticipated fossils are unearthed during construction, work should be halted in that area until a qualified paleontologist can assess the significance of the find. Work may resume immediately a minimum of 50 feet away from the find. This procedure should be included in the Worker Environmental Awareness Program (WEAP) training provided to construction personnel.

INTRODUCTION

PURPOSE OF STUDY

This study analyzes potential adverse impacts on paleontological resources of the proposed construction of the North Cathedral City Improvements Project in the Cathedral City (City), Riverside County, California (Figure 1). The project will be subject to the California Environmental Quality Act (CEQA), with the Coachella Valley Water District (CVWD) serving as the CEQA lead agency. In addition, the project will be subject to the National Environmental Policy Act (NEPA) since proposed improvements would affect U.S. Bureau of Land Management (BLM) property; as such, BLM will serve as the NEPA lead agency.

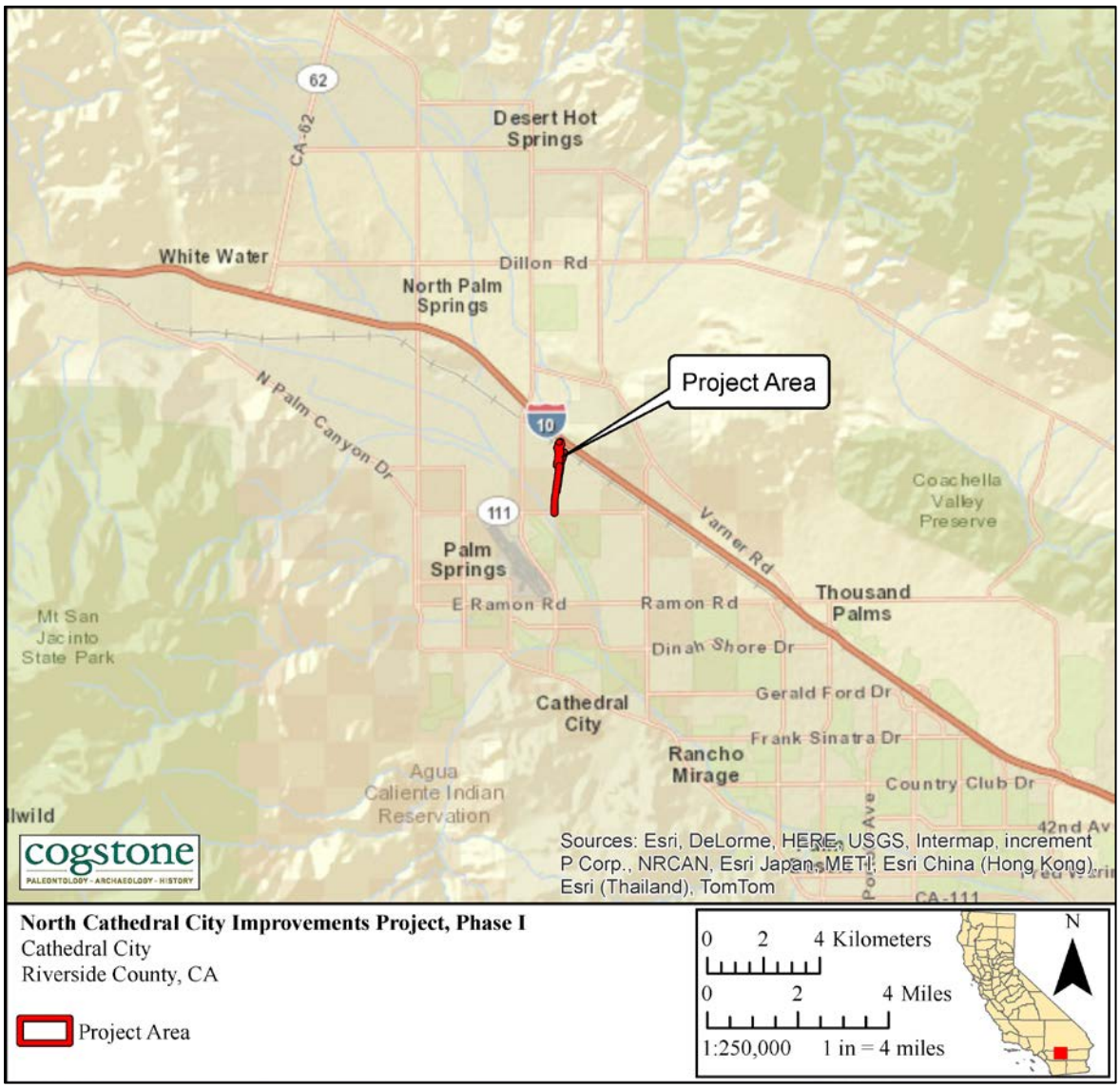

Figure 1. Project vicinity

PROJECT LOCATION

The Project Area is located in the City of Cathedral City (City), Riverside County, California on the Cathedral City 7.5 minute USGS quadrangle, with in Section 32; Township 3 South Range 5 East and Section 5; Township 4 South; Range 5 East. Specifically, the proposed 29.7 acre Project is located within the northeastern portion of the City, approximately 300 feet southwest of Interstate 10 (I-10) and 0.8 miles of Gene Autry Road. A Union Pacific Railroad alignment traverses the northern portion of the Project Area, south of and parallel to the I-10. The majority of the Project Area is vacant and undeveloped. Single-family residential and golf course uses exist south and southeast of the Project Area.

PROJECT DESCRIPTION

The Coachella Valley Water District (CVWD) proposes regional storm water improvements that would convey storm water flows from north of the Union Pacific Railroad (UPRR) track in a southerly direction to the Whitewater River Stormwater Channel (WWRDC) (Figure 2). Currently, there is a UPRR bridge crossing at the Project site; the bridge was constructed and backfilled to allow for future construction of the North Cathedral City Stormwater Master Plan under the railroad to provide a connection to the WWRSC. Flows under the bridge have been precluded until the channel improvements and slope lining (east overbank) downstream of the bridge were ready to be constructed. As such, the Project would include improvements to safely and reliably convey flows beneath the bridge, reducing floodplain impacts for tributary areas to the Project site, including the North City Extended Specific Plan. Key components to the Project include concrete channel lining, bridge improvements, earthen channel grading, and slope protection (Figure 3).

Concrete Channel Lining: The project would include concrete channel lining both upstream and downstream of the UPRR bridge location. Channel lining would extend approximately 500 feet upstream of the bridge, and a berm would be graded on the east bank to direct flows through the bridge crossing. Downstream of the bridge, channel lining would extend approximately 300 feet. The concretelined portion of the channel would be at an approximate three percent grade.

Bridge Improvements: The proposed project would include excavation, concrete lining of the bridge undercrossing, and other required improvements (e.g. bracing). The project would lower the invert of the bridge approximately 2.5 feet from the flowline, which would meet UPRR's clearance requirements for bridges. The bottom width of the bridge undercrossing would be approximately 200 feet.

Figure 2. Project aerial

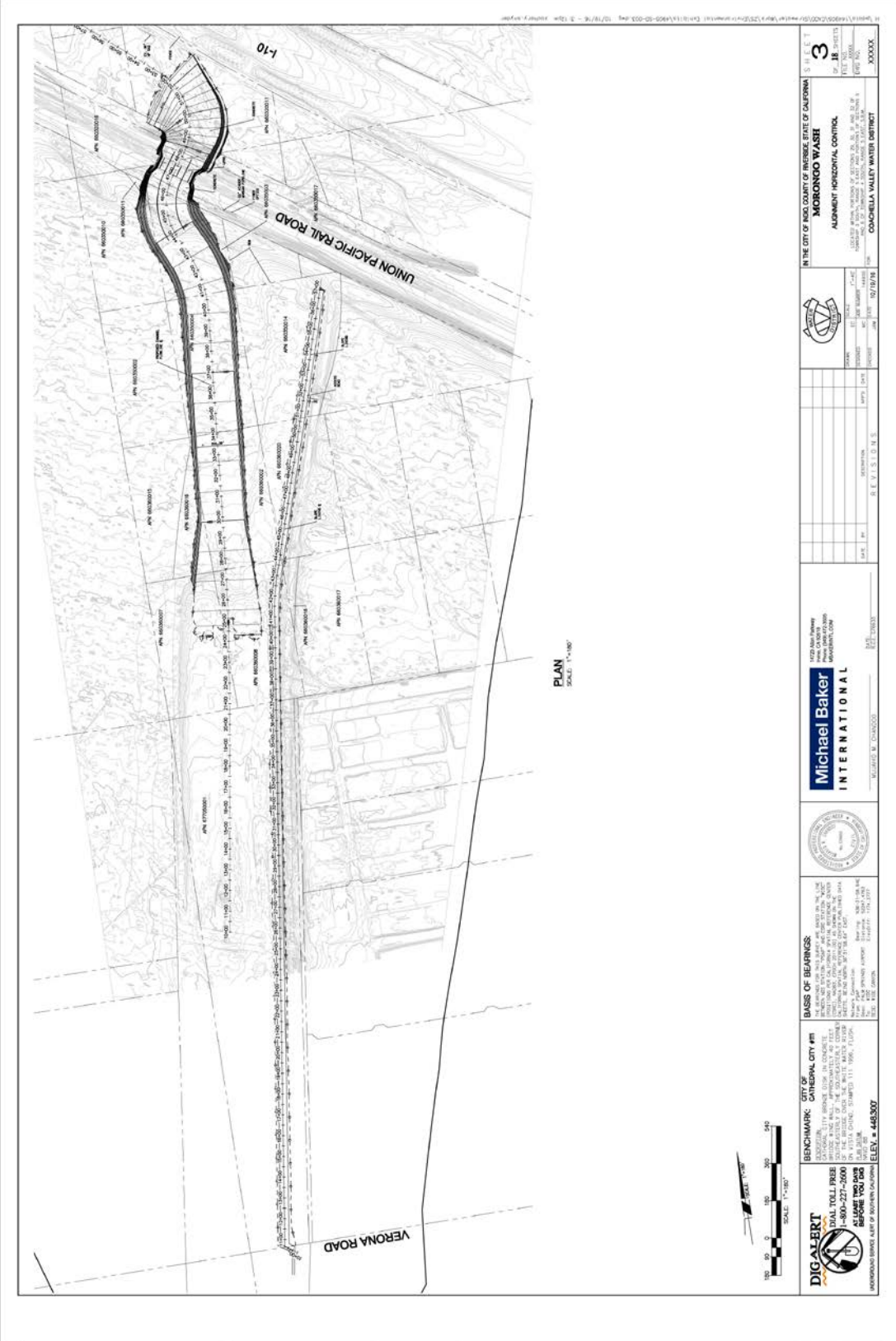

Figure 3. Project plan

Earthen Channel Grading: The proposed project would grade a new earthen channel south of the bridge and concrete channel lining improvements described above. This channel would be graded at a one percent slope until it meets existing grade. The earthen channel would be approximately 200 feet wide with 3:1 side slopes.

Slope Protection: Concrete slope protection would be placed at the east overbank of the channel. The existing overbank is located approximately 800 feet southeast of the existing UPRR bridge. A row of tamarisk trees exists at the top of the existing slope, and the concrete slope protection improvements would occur immediately west of the trees (i.e., the trees would be protected in place). The slope protection would extend for a length of approximately 4,800 linear feet.

The proposed project has been sized to convey flows associated with the 100 year storm event, both alone and in conjunction with future Phase 2 improvements that would enhance storm water conveyance beneath I-10. No future modifications at the project site would be required to achieve 100-year storm capacity.

The proposed drainage improvements would extend from approximately 500 feet north of the UPRR alignment to approximately 6,300 feet south of the UPRR alignment, for a total length of approximately 6,800 linear feet. Construction would occur as a single phase and is anticipated to last approximately 9 months. Site access would be provided via Vista Chino, located approximately 0.5 mile south of the project site. All staging activities would occur within the proposed grading footprint for the drainage facility, or within the footprint of the proposed temporary access road.

The horizontal extent of the Project Area is the entire 29.7 Project Area, including the drainage channel, slope protection and access road. The vertical depth of disturbance is estimated at 12.5 feet.

PROJECT PERSONNEL

Cogstone Resource Management Inc. (Cogstone) conducted the paleontological resources studies. Brief resumes are attached (Appendix A). Kim Scott served as the Task Manager for the project and supervised the work. Scott has a M.S. in Biology with an emphasis in paleontology from California State University, San Bernardino, a B.S. in Geology with an emphasis in paleontology from the University of California, Los Angeles, and over 20 years of experience in California paleontology and geology.

Sherri Gust served wrote portions of the report. Gust has a M.S. in Anatomy (Evolutionary Morphology) from the University of Southern California, a B.S. in Anthropology from the University of California at Davis and over 35 years of experience in California.

Dr. Ashley Leger wrote portions of this report. She has a Ph.D. in Geology and Geological Engineering with an emphasis in Vertebrate Paleontology from the South Dakota School of Mines and Technology and a B.S. in Geology from Northwest Missouri State University. Dr. Leger has over 9 years of Pleistocene paleontological experience and specializes in North American proboscideans.

Dr. John Harris reviewed this report for quality control. He has a Ph.D. in Geology from the University of Bristol (U.K.), an M.A. in Geology from the University of Texas, Austin, a B.S. (Hons) in Geology from the University of Leicester (U.K.). Dr. Harris has more than 45 years of experience in Cenozoic paleontology and specializes in terrestrial vertebrate species from Rancho La Brea (California) and Africa.

André Simmons prepared the GIS maps throughout this report. Simmons has a M.A. in Anthropology from California State University Fullerton, a GIS certification, and over six years of experience in California archaeology and paleontology.

Lindsay Porras, a cross-trained paleontologist, performed the survey. Porras holds a B.A. in Anthropology from the University of Nevada Reno, more than 64 hours of paleontology training, and has over six years of dual archaeology and paleontology experience in southern California.

REGULATORY ENVIRONMENT

FEDERAL LAWS AND REGULATIONS

NATIONAL ENVIRONMENTAL POLICY ACT

NEPA directs federal agencies to use all practicable means to "Preserve important historic, cultural, and natural aspects of our national heritage…". If the presence of a significant environmental resource is identified during the scoping process, federal agencies and their agents must take the resource into consideration when evaluating project effects. Consideration of paleontological resources may be required under NEPA when a project is proposed for development on federal land, or land under federal jurisdiction. The level of consideration depends upon the federal agency involved.

ANTIQUITIES ACT

The Antiquities Act states, in part: That any person who shall appropriate, excavate, injure or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, shall upon conviction, be fined in a sum of not more than five hundred dollars or be imprisoned for a period of not more than ninety days, or shall suffer both fine and imprisonment, in the discretion of the court.

Although there is no specific mention of natural or paleontological resources in the Act itself, or in the Act's uniform rules and regulations [Title 43 Part 3, Code of Federal Regulations (CFR)], "objects of antiquity" has been interpreted to include fossils by the National Park Service, the Bureau of Land Management, the Forest Service, and other Federal agencies.

PALEONTOLOGICAL RESOURCES PRESERVATION ACT

The Paleontological Resources Preservation Act (Public Law 111-011, Title VI, Subtitle D on Paleontological Resources Preservation) requires the Secretaries of the Interior and Agriculture to manage and protect paleontological resources on Federal land using scientific principles and expertise. The law affirms the authority for many of the policies the Federal land managing agencies already have in place for the management of paleontological resources such as issuing permits for collecting paleontological resources, curation of paleontological resources, and confidentiality of locality data. It only applies to Federal lands. It provides authority for the protection of significant paleontological resources on Federal lands including criminal and civil penalties for fossil theft and vandalism.

STATE LAWS AND REGULATIONS

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA states that: It is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required are intended to assist public agencies in systematically identifying both the significant effects of proposed project and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.

CEQA declares that it is state policy to: "take all action necessary to provide the people of this state with...historic environmental qualities." It further states that public or private projects financed or approved by the state are subject to environmental review by the state. All such projects, unless entitled to an exemption, may proceed only after this requirement has been satisfied. CEQA requires detailed studies that analyze the environmental effects of a proposed project. In the event that a project is determined to have a potential significant environmental effect, the act requires that alternative plans and mitigation measures be considered.

If paleontological resources are identified as being within the proposed project study area, the sponsoring agency must take those resources into consideration when evaluating project effects. The level of consideration may vary with the importance of the resource.

PUBLIC RESOURCES CODE

Section 5097.5: No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands (lands under state, county, city, district or public authority jurisdiction, or the jurisdiction of a public corporation), except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

Section 30244: This section requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands.

CALIFORNIA ADMINISTRATIVE CODE, TITLE 14, SECTION 4307

This section states that “No person shall remove, injure, deface or destroy any object of paleontological, archeological or historical interest or value.”

PALEONTOLOGICAL RESOURCES SIGNIFICANCE CRITERIA

Only qualified, trained paleontologists with specific expertise in the type of fossils being evaluated can determine the scientific significance of paleontological resources. Fossils are considered to be significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;

2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;

3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;

4. The fossils demonstrate unusual or spectacular circumstances in the history of life;

5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer 2003, Springer et al. 2004).

BACKGROUND

GEOLOGICAL SETTING

Cathedral City is located in the northwestern portion of the Salton Trough which is a tectonic depression about five million years old. The Santa Rosa Mountains consist of rock units of Mesozoic age (66 million years and older) and the other raised elements including Edom Hill and Flat Top Mountain are composed of Pleistocene (1.6 million to 11,000 years old) rock units. The valley floor is composed of Holocene (11,000-present) sediments. [City of Cathedral City 2002]

STRATIGRAPHY

The proposed project area is mapped at the surface as Late Holocene alluvial wash deposits and eolian/dune deposits (Lancaster, Hayhurst and Bedrossian 2012; Figure 4). Nearby are older sediments which might be present at depth and include young alluvial valley sediments, very old alluvial fan deposits and the Ocotillo Formation.

ALLUVIAL WASH DEPOSITS

These unconsolidated sands and gravels were deposited in recently active channels of streams and rivers. These sediments are less than 11,700 years old and are too young to contain fossils.

EOLIAN AND DUNE DEPOSITS

These are unconsolidated, generally well-sorted wind-blown sand which can occur as sheet sand or as dunes. These sediments are less than 11,700 years old and are too young to contain fossils.

SEDIMENTS POTENTIALLY PRESENT BELOW THE SURFACE

Young alluvial valley deposits are unconsolidated to slightly consolidated clay, silt, sand and gravel along steam valleys and alluvial flats and are too young to contain fossils. Very old alluvial fan deposits consist of moderately well-consolidated, highly dissected boulder, cobble, gravel, sand and silt deposits and are late to middle Pleistocene in age. The Pleistocene Ocotillo Formation forms Flat Top Mountain and consists of grey to brown, poorly indurated fanglomerates. Pleistocene sediments range between 11,700 years and 2.5 million years old and may contain fossils.

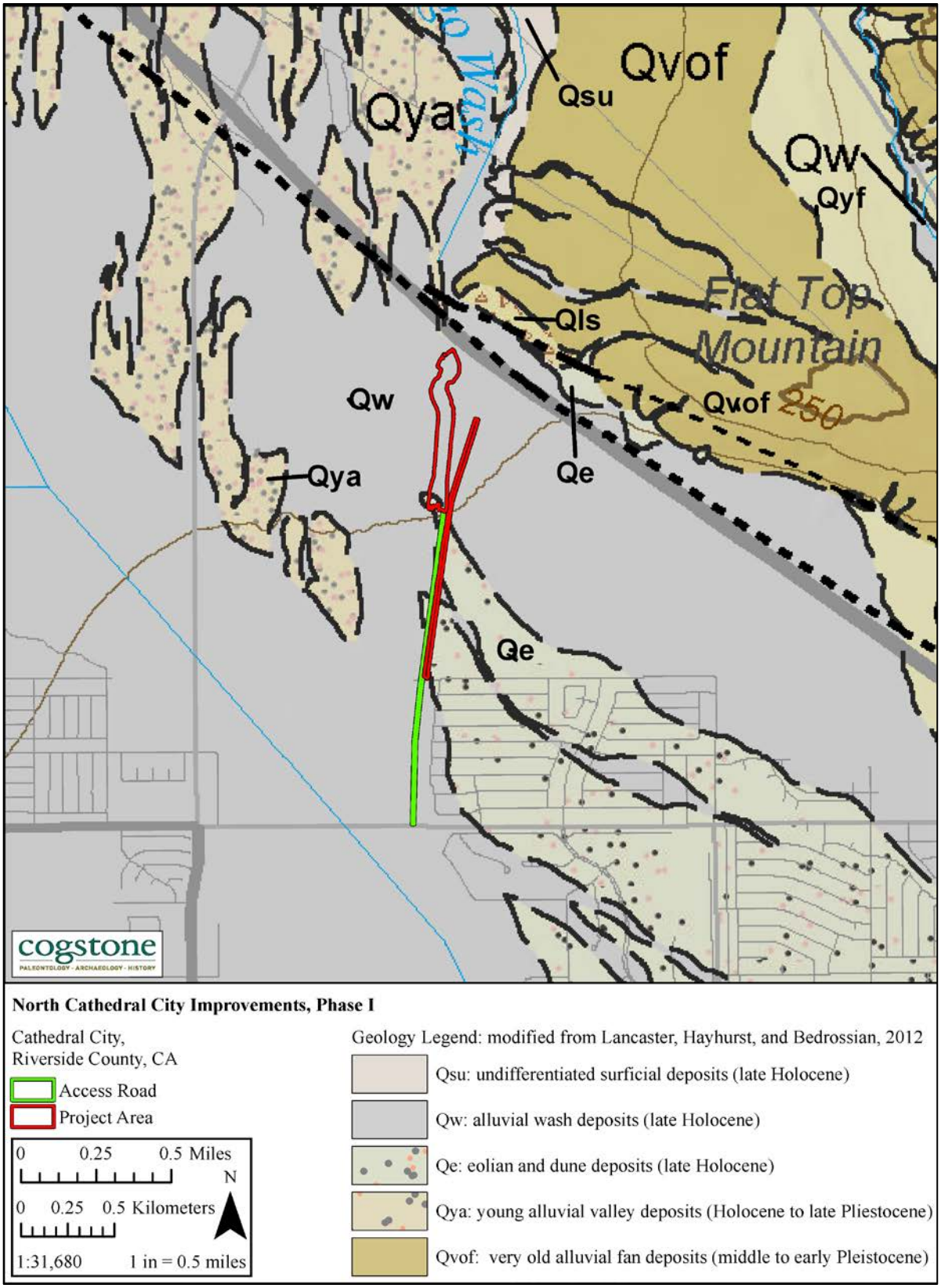

Figure 4. Project geology

RECORD SEARCHES

A record search of the project area within a one mile radius was requested from the Western Science Center (Appendix B). Online records from the University of California Museum of Paleontology (UCMP 2016) and the Paleobiology Database (PBDB 2016) were searched for fossil records as well as print sources (Hay 1927; Jefferson 1991a, 1991b, 2003).

The search indicated that there are no fossils known within one mile of the Project Area. No fossils are known within the boundaries of Cathedral City.

The only nearby fossil from Quaternary older alluvial sediments is an extinct horse (*Equus* sp.) found at an unknown depth from the Morongo Grade (Jefferson 1991b; the grade is a sloping roadway north of Interstate 10). The Ocotillo Formation has produced the remains of mammoth and extinct horse (*Mammuthus* sp., *Equus* sp.; Jefferson 2003).

PALEONTOLOGICAL FIELD RECONNAISSANCE

The paleontological resources survey of a project's environmental assessment phase verifies the exact location of previously identified paleontological resource, searches for new fossil localities, and reviews the potential for the sediments to contain fossil resources. Surface sediments and existing disturbances (e.g., water eroded cut banks, graded access roads, and berms) were examined to review the deeper sediments and to look for fossils.

Lindsay Porras, Cogstone cross-trained paleontologist, completed an intensive pedestrian survey of the undeveloped ground surface areas of the project area on June 8, 2016. No fossils were observed during the survey.

During the survey, there was generally good exposure in most areas. In other areas, desert scrub, mesquite and a housing community reduced visibility. Surficial sediments consist primarily of unconsolidated windblown sands and dry wash bed comprised of sands with coarse pebble, cobble and boulders (Figures 5 and 6). The best exposure occurred in a small sidewall along the wash (Figure 7).

Figure 5. Sands in Morongo Wash

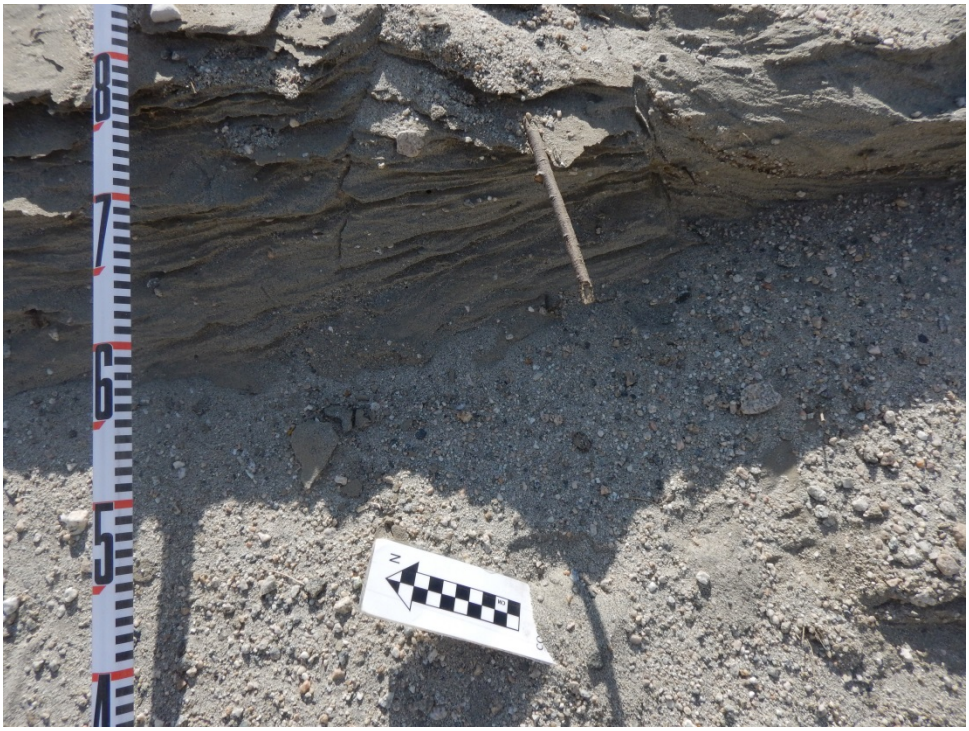

Figure 6. Sands and pebbles in Morongo Wash

Figure 7. A small section of the wash sidewall

PALEONTOLOGICAL SENSITIVITY

A multilevel ranking system was developed by professional resource managers within the Bureau of Land Management (BLM) as a practical tool to assess the sensitivity of sediments for fossils. The Potential Fossil Yield Classification (PFYC) system (BLM, 2007; Appendix C) has a multi-level scale based on demonstrated yield of fossils. The PFYC system provides additional guidance regarding assessment and management for different fossil yield rankings.

Occurrences of fossil resources are closely tied to their geologic source (e.g., formations or members that contain them). The probability for finding significant fossils in a project area can be broadly predicted from previous records of fossils recovered from the geologic units present in and/or adjacent to the study area.

Using the PFYC system, geologic units are classified as to the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts. This ranking applies to the geological unit but is not intended to be applied to specific paleontological localities or small areas within units. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher PFYC value; instead, the relative abundance of localities is intended to be the major determinant for the value assignment. For this project, geological setting and fossil localities were considered in determining paleontological sensitivity according to PFYC criteria.

Holocene deposits are too young to contain fossils and are ranked as low (PFYC 2) potential. Pleistocene alluvial sediments (PFYC 3) may contain fossils should they be encountered (Table 1).

Table 1. Paleontological Sensitivity Rankings

Rock Units	**5 very high**	**4 high**	**3a moderate; patchy**	**3b moderate; undemonstrated**	**2 low**	**1 very low**
Alluvial wash deposits					X	
Eolian and Dune deposits					X	
Young alluvial valley sediments					X	
Very Old Fan deposits			X			
Ocotillo Formation			X			

FINDINGS AND RECOMMENDATIONS

Only Late Holocene sediments are anticipated to be impacted by the proposed maximum depth of cut of 12.5 feet below current ground surface. These sediments are too young to contain fossils. There is a possibility that Pleistocene sediments may be encountered at depth and might contain fossils.

If unanticipated fossils are unearthed during construction, work should be halted in that area until a qualified paleontologist can assess the significance of the find. Work may resume immediately a minimum of 50 feet away from the find. This procedure should be included in the Worker Environmental Awareness Program (WEAP) training provided to construction personnel.

REFERENCES CITED

BLM
2007 Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands. Online at http://www.blm.gov/pgdata/etc/medialib/blm/ut/natural_resources/cultural/paleo/Paleontology_Documents.Par.97864.File.dat/IM2008-009_att1%20-%20PFYC%20System.pdf

City of Cathedral City
2002 General Plan Geotechnical Element. Accessed online July 6, 2016. http://www.cathedralcity.gov/Search2.aspx?request=general+plan&maxFiles=25

Hay, O. P.
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1991b A Catalogue of late Quaternary Vertebrates from California: Part two, Mammals. *Natural History Museum of Los Angeles, Technical Report* #7.
2003 A catalogue of Blancan and Irvingtonian vertebrates and floras from Arizona, southern California, Nevada, Utah, and northwestern Mexico; unpublished manuscript dated January 29.

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2012 *California Geological Survey Special Report 217, Plate 24: Preliminary Geologic Map of Quaternary Surficial Deposits in Southern California: Palm Springs 30' X 60.'* California Department of Conservation, Sacramento.

PBDB (PaleoBiological database)
2016 Online records search of the University of California, Berkeley paleontology database. Accessed June 2016.

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1992 Preliminary report on the stratigraphy and vertebrate fauna of the Middle Pleistocene Ocotillo Formation, Borrego Badlands, Anza Borrego Desert State Park, California. *SBCMA Quarterly* 39(2)25-26.

Scott, E. and K. Springer
2003 CEQA and fossil preservation in southern California. *The Environmental Monitor*, Winter: 4-10, 17.

Scott, E., K. Springer, and J. C. Sagebiel
2004 Vertebrate paleontology in the Mojave Desert: the continuing importance of 'follow through' in preserving paleontologic resources, p. 65-70, in M. W. Allen and J. Reed (eds.), T*he human journey and ancient life in California's Deserts: Proceedings from the 2001 Millennium Conference*. Maturango Museum Publication No. 15, Ridgecrest, California, USA.

UCMP (University of California Museum of Paleontology)
2016 Online collections search at http://www.ucmp.berkeley.edu/neomap/use.html. Accessed June 2016.

APPENDIX A: QUALIFICATIONS

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

SHERRI GUST
Project Manager and Qualified Principal Paleontologist

EDUCATION

1994 M.S., Anatomy (Evolutionary Morphology), University of Southern California, Los Angeles
1979 B.S., Anthropology (Physical), University of California, Davis

SUMMARY QUALIFICATIONS

Gust has more than 35 years of experience in California, acknowledged credentials for meeting national standards, and is a certified/qualified principal paleontologist in all California cities and counties that maintain lists. She is a Member of the Society of Vertebrate Paleontology, Society for Economic Sedimentology and Paleontology, and others. Gust holds current statewide BLM paleontology permits in California and Nevada. She has special expertise in the identification and analysis of human, animal and fossil bone.

SELECTED PROJECTS

Double Date Facility, Coachella, Riverside County, CA. Managed paleontological and cultural resources monitoring for construction of new date processing facility. Provided monitoring compliance report. Principal Investigator. 2015

Perris Valley Metrolink Improvement Project, Riverside to Perris, Riverside County, CA. Managed paleontological and cultural resources monitoring for construction of Metrolink Improvements. Ensured completion of daily and monthly updates. Principal Investigator. 2014-2015

Line D Project, Riverside County Flood Control and Water Conservation District, Hemet, Riverside County, CA. Managed paleontological spot checks and monitoring for construction of water line improvements. Provided monitoring compliance report. Principal Investigator. 2014-2015

Temecula Park & Ride at I-15, Caltrans District 8, Temecula, Riverside County, CA. The City of Temecula proposes to construct a park and ride area for commuters interested in participating in ridesharing. Managed determination of an Area of Potential Effects, preparation of a Historic Property Survey Report, and an Archaeological Survey Report. Principal Investigator. 2015

Dune Palms Road Low Water Crossing Replacement Project, La Quinta, Riverside County, CA. The City proposes to replace an outdated bridge with an all-weather bridge. Managed determination of an Area of Potential Effects, preparation of a Historic Property Survey Report, and an Archaeological Survey Report. Principal Investigator. 2015

Paradise Valley Specific Plan, Glorious Land Company, unincorporated Riverside County, CA. The project involves construction of a planned community near Indio on 2,151. Prepared Cultural and Paleontological Resources Assessment; after project changes provided additional record search and survey and updated report. Principal Investigator. 2011-2015

Heacock Channel Improvement Project, Moreno Valley, Riverside County, CA. Managed cultural and paleontological resources assessments for 50 acres of channel improvements. Principal Investigator. 2014

Mira Loma Beach Street Storm Drain Improvements, Mira Loma, Riverside County, CA. Authored paleontological mitigation plan. Managed paleontological resources monitoring. Provided monitoring compliance report. Principal Investigator. 2014

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

JOHN HARRIS
Paleontology Practice Leader

EDUCATION

1970 Ph.D., Geology with paleontology emphasis, University of Bristol (U.K.)
1967 M.A., Geology with paleontology emphasis, University of Texas, Austin
1964 B.S., Geology, University of Leicester (U.K.)

SUMMARY QUALIFICATIONS

Dr. Harris has more than 40 years of experience in Cenozoic paleontology and specializes in vertebrate species from Rancho La Brea, California, and Africa. He is Chief Curator Emeritus at the Natural History Museum of Los Angeles County, an adjunct professor, Department of Geology and Geophysics, University of Utah, (1996-present), a Visiting Associate in Geology, Division of Geological and Planetary Sciences, Caltech , and an Honorary Member of the Society of Vertebrate Paleontology. Dr. Harris is well-known for his research on the Plio-Pleistocene ungulates associated with early humans and for his contributions to our understanding of the biota from the La Brea tar pits. He has more than 90 scientific publications including four edited books.

SELECTED PROJECTS

Grove Avenue Corridor, Caltrans District 8, Los Angeles San Bernardino County, CA. Paleontology Practice Leader. Interchange Improvement Project in Ontario. Quality Control and Revisions for the Combined Paleontological Identification and Evaluation Report with Paleontological Mitigation Plan. 2015

Interstate 10 Grove Avenue Interchange, Caltrans District 8, Los Angeles San Bernardino County, CA. Paleontology Practice Leader. Corridor Specific Plan in Ontario. Quality Control and Revisions for the Combined Paleontological Identification and Evaluation Report with Paleontological Mitigation Plan. 2015

SR99 at Avenue 12 Interchange, Caltrans District 6, Madera County, CA. Paleontology Practice Leader. Project was monitoring of excavations; fossils recovered. Quality Control and Revisions for the Paleontological Monitoring Report. 2015

SR178 at Morning Drive Interchange Improvements, Thomas Roads Improvement Program/ Caltrans District 6, Bakersfield, CA. Monitoring for six mile roadway improvements project. Paleontology Practice Leader. Quality Control and Revisions for the Paleontological Monitoring Report. 2015

SR99 at Olive Avenue Traffic Signals and Ramp Metering, Caltrans District 6, Fresno County, CA. Paleontology Practice Leader. Project was monitoring of excavations. Quality Control and Revisions for the Paleontological Monitoring Report. 2015

I-680 North Segment Express Lane Conversion, Contra Costa Transportation Authority/ Caltrans District 4, Walnut Creek, CA. Paleontology Practice Leader. Project to expand lanes including underground utilities. Quality Control and Revisions for the Combined Paleontological Identification and Evaluation Report with Paleontological Mitigation Plan. 2015

1200 S. Figueroa Mixed-Use, Jamison Development, Los Angeles, CA. Paleontology Practice Leader. Project was monitoring of large scale excavations up to 30 ft. deep. Quality Control and Revisions for the Paleontological Monitoring Memo. 2015

North-South Pipeline, CPUC, San Bernardino and Riverside Counties, CA. Paleontology Practice Leader. Proposed project will install large diameter natural gas pipeline through Cajon Pass. Review and Data Gap Analysis. 2015

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

KIM SCOTT
Principal Paleontologist

EDUCATION

2013 M.S., Biology with a paleontology emphasis, California State University, San Bernardino
2000 B.S., Geology with paleontology emphasis, University of California, Los Angeles

SUMMARY QUALIFICATIONS

Scott has more than 20 years of experience in California paleontology and geology. She is a qualified geologist and field paleontologist with extensive survey, monitoring and fossil salvage experience. In addition, she has special skills in fossil preparation (cleaning and stabilization) and preparation of stratigraphic sections and other documentation for fossil localities. Scott serves as company safety officer and is the author of the company safety and paleontology manuals.

SELECTED PROJECTS

Palm Avenue Grade Separation, Caltrans District 8, San Bernardino County. Directed the assessment of paleontological resources for proposed grade separation of the Burlington Northern Sante Fe (BNSF) Railroad tracks at Palm Avenue and Route 66. Co-authored a combined Paleontological Identification/Evaluation Report. Field Director. 2013

State Route 91 HOV Project, Caltrans District 8, Riverside. Co-authored a combined Paleontological Identification/Evaluation Report and Paleontological Mitigation Plan for the SR 91 High Occupancy Vehicle Lane Addition between Adams St. and the 60/91/215 Interchange in Riverside. Managed monitoring during construction. Co-author of Paleontological Monitoring Report (PMR). Paleontology Field and Lab Director. 2011-2014

Ranchero Road-BNSF Grade Separation, City of Hesperia, Hesperia. Directed paleontological resources monitoring for the duration of all ground disturbing activities in native sediments greater than five feet deep. Field Director and Report Co-author. 2011-2013

Avenue 52 Grade Separation, Caltrans District 8, Coachella, Riverside County. Performed paleontological record searches, background research, reconnaissance survey, and co-authored PIR/PER. Paleontology Field and Lab Director. 2012

Merced Freeway Project, Caltrans District 10, Merced. Alternated 2 week rotations performing direction of fossil recovery and field preparation of fossils for 5 mile segment of State Route 99 south of Merced. Some 128 localities and 1667 fossils recovered in five months of excavation for detention basins. Contributed to final report. Field / Lab Director and Report Contributor. 2012

Geospatial Paleontology Database, Caltrans District 6, 9, and 10. Conducted paleontological research for 15 counties in central and eastern California for paleontological screening tool. Paleontology Researcher. 2011-2012

Tehachapi Renewable Transmission Project, Segments 1-3, Southern California Edison, Los Angeles and Kern counties. Co-authored paleontological resources management plans and directed paleontological monitoring for construction of new electrical transmission facilities. Paleontology Field and Lab Director and Report Co-author. 2007-2009

El Casco Substation Project, Southern California Edison, Riverside County. Performed preconstruction mitigation measures and prepared portions of Paleontological Resources Treatment Plan. Field and Lab Director and Report co-author. 2009

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PALEONTOLOGY - ARCHAEOLOGY - HISTORY

ASHLEY LEGER
Paleontological Field Director

EDUCATION

2016 Ph.D. Geology and Geological Engineering with vertebrate paleontology emphasis, South Dakota School of Mines and Technology
2009 B.S., Geology, Northwest Missouri State University, graduated *magna cum laude*

SUMMARY QUALIFICATIONS

Dr. Leger has more than 9 years of experience in Cenozoic paleontology and specializes in Pleistocene megafauna and North American proboscideans. She is a member of the Geological Society of America, the Society of Vertebrate Paleontologists, the American Association of Petroleum Geologists, American Institute of Professional Geologists, the Society for Sedimentary Geology, Society of Economic Geologists, and the South Dakota Archaeological Society. Dr. Leger is also a recipient of the O.R. Grawe Award for Missouri's outstanding geologists.

SELECTED PUBLICATIONS

Leger, A.M. (2016). Standards for proboscidean cranial metrics and analysis of regional variation in the Columbian Mammoth (*Mammuthus* columbi) and insular dwarfism of the Pygmy Mammoth (*Mammuthus* exilis). Doctoral Dissertation, South Dakota School of Mines and Technology, Rapid City, South Dakota.

Leger, A.M., Agenbroad, L.D., and Price, M.H. (2015). Documenting possibilities of regional variation of the Columbian Mammoth (*Mammuthus columbi*) using morphometric analysis of cranial and dental metrics from specimens across the United States. *GSA Abstracts with Programs, 47*(6).

Leger, A.M., and Agenbroad, L.D., (2011), Comparative analysis of cranial measurements with dental ages of the Columbian Mammoth (*Mammuthus columbi*). *SDAS Island in the Plains Program, 19*(1).

Leger, A.M., Agenbroad, L.D., and Pope, J.P. (2009). Comparative analyses of cranial measurements with dental ages of the Columbian Mammoth (*Mammuthus columbi*) from the Mammoth Site of Hot Springs, South Dakota. *GSA Abstracts with Programs, 41*(2).

Leger, A.M., and Pope, J.P., (2008). Recognition of a sea level fluctuation preserved in the high-stand systems tract of the Mid-Hartford Limestone (Lower Topeka Cyclothem) in the Iowa Shelf Region, northern midcontinent. *GSA Abstracts with Programs, 40*(5).

Pope, J.P., Leger, A.M., and Britton, L. (2008). Recognition and significance of minor sea level changes in Pennsylvanian cyclothems of the northern midcontinent Iowa Shelf Regiona. *GSA Abstracts with Programs, 40*(5).

Leger, A.M., and Pope, J.P. (2007). Possible high-order Milankovitch Cycles preserved in the high-stand systems tract (Holt Shale Member) of the Topeka Formation (Virgillian, Upper Pennsylvanian) of northern midcontinent North America. *GSA Abstracts with Programs, 38*(3).

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

ANDRÉ-JUSTIN C. SIMMONS
Archaeologist/Cross-trained Paleontologist & GIS Supervisor

EDUCATION

2014 M.A., Anthropology: Specializing in Anthropological Archaeology, California State University, Fullerton
2012 Certificate in Geographic Information Systems, California State University, Fullerton
2010 B.A., Anthropology and History, California State University, Fullerton, graduated *cum laude*

SUMMARY QUALIFICATIONS

Mr. Simmons is a qualified archaeologist and cross-trained paleontologist with extensive field experience in survey, monitoring, faunal analysis, and excavation. He exceeds the qualifications required by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*. Further, he is certified in Geographic Information Systems (GIS) and specializes in ESRI's ArcGIS software. Mr. Simmons is responsible for supervising GIS data collection and management, geospatial analysis, and the production of GIS maps and databases for large and small-scale projects. His key research interests include settlement patterns and use of space among Paleoindians, the American Southwest, early historic and prehistoric California, and historical Mexico. He has over six years of experience in California Archaeology and paleontological monitoring along with more than 24 hours of paleontology training and over four years of GIS experience.

SELECTED PROJECTS

WECC Path 42, Southern California Edison, Riverside County, CA. Conducted a cultural resources records search and field survey for a 14.5 mile transmission line segment near Thousand Palms. Archaeological/ Paleontological Technician. 2011-2012

Eldorado-Ivanpah Transmission Project, Southern California Edison, Eldorado, NV to Ivanpah, CA. Performed paleontological monitoring for project that involves construction of 195 miles of new transmission lines and associated fiber optic lines across BLM and private lands. Paleontological Monitor. 2012-2013

Devers-Mirage 115 KV System Split Project, Southern California Edison, Riverside County, CA. Performed archaeological and paleontological monitoring during construction activities associated with maintaining and upgrading the electrical systems of Cathedral City, Indian Wells, Palm Desert, Palm Springs, Rancho Mirage, Thousand Palms and unincorporated Riverside County. Archaeological/Paleontological Monitor. 2011-2012

Leatherneck Substation Project, Southern California Edison, San Bernardino County, CA. Prepared GIS maps for a cultural resources survey and subsequent survey report for ten pulling stations near Twenty-Nine Palms. GIS Technician. 2012

Fogarty Substation, Southern California Edison, Riverside County, CA. Performed archaeological and paleontological monitoring during ground disturbing activities in Lake Elsinore. A historic glass fragment and prehistoric shells were recovered. Archaeological/Paleontological Monitor. 2010-2011

SR 99 Arboleda Drive Freeway Project, Caltrans District 10, Merced County, CA. Conducted paleontological resources monitoring, fossil recovery, and fossil preparation for a 5-mile segment. Prepared GIS report maps. Some 128 localities and 1,667 fossils recovered in five months of excavation for detention basins. Paleontology & GIS Technician. 2012

APPENDIX B: RECORDS SEARCH

WESTERN SCIENCE CENTER

June 24, 2016

Cogstone
Megan Wilson, M.A., R.P.A
1518 W. Taft Ave.
Orange, CA 92865

Dear Ms. Wilson,

This letter presents the results of a record search conducted for the North Cathedral City Improvements, Phase I Project site in Cathedral City, Riverside County, California. The project site is located along the south side of Interstate 10, in Section 5 of Township 4 South, Range 5 East, and Section 32 of Township 3 South, Range 5 East, of the Cathedral City USGS 7.5 minute quadrangle.

The geologic units underlying this project are mapped primarily as alluvial wash and valley deposits dating from the Holocene and late Pleistocene period, as well as a small portion of Holocene dune deposits (Lancaster, Hayhurst & Bedrossian, 2012). Alluvial units are considered to be of high paleontological sensitivity, and while the Western Science Center does not have localities within the project location or within a 1 mile radius, we do have numerous fossil localities that presented significant paleontological finds within similarly mapped Holocene and Late Pleistocene alluvial units. This includes paleontological specimen associated with the Desert Center Harvest Solar Project (Raum, Aron, & Reynolds, 2014) and the Diamond Valley Lake Project in Hemet . Both project were mapped in similar alluvial units and consisted of thousands of fossil localities, and over 250,000 Pleistocene fossil specimens.

Any fossils recovered from the project area would be scientifically significant. Excavation activity associated with development of the project area would impact the paleontologically sensitive alluvial units and it is the recommendation of the Western Science Center that a paleontological resource mitigation program be put in place to monitor, salvage, and curate any recovered fossils associated with the current study area.

If you have any questions, please feel free to contact me at dradford@westerncentermuseum.org

Sincerely,

Darla Radford
Collections Manager

2345 Searl Parkway ♦ Hemet, CA 92543 ♦ phone 951.791.0033 ♦ fax 951.791.0032 ♦ WesternScienceCenter.org

Note: the Desert Center project was in Chuckwalla Valley, CA.
Raum, J., Aron, G. L., and Reynolds, R. E. 2014. Vertebrate fossils from Desert Center, Chuckwalla Valley, California. In R. E. Reynolds (Ed.), Not a Drop Left to Drink, California State University Desert Studies Center 2014 Desert Symposium: 68-70. http://nsm.fullerton.edu/dsc/images/DSCdocs/2014Notadroplefttodrink.pdf

APPENDIX C: SENSITIVITY RANKING CRITERIA

PFYC Description (BLM, 2007)	PFYC Rank
Very Low. The occurrence of significant fossils is non-existent or extremely rare. Includes igneous or metamorphic and Precambrian or older rocks. Assessment or mitigation of paleontological resources is usually unnecessary.	1
Low. Sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant nonvertebrate fossils. Includes rock units too young to produce fossils, sediments with significant physical and chemical changes (e.g., diagenetic alteration) and having few to no fossils known. Assessment or mitigation of paleontological resources is not likely to be necessary.	2
Potentially Moderate but Undemonstrated Potential. Units exhibit geologic features and preservational conditions that suggest fossils could be present, but no vertebrate fossils or only common types of plant and invertebrate fossils are known. Surface-disturbing activities may require field assessment to determine appropriate course of action.	3b
Moderate Potential. Units are known to contain vertebrate fossils or scientifically significant nonvertebrate fossils, but these occurrences are widely scattered and of low abundance. Common invertebrate or plant fossils may be found. Surface-disturbing activities may require field assessment to determine appropriate course of action.	3a
High. Geologic units containing a high occurrence of significant fossils. Fossils must be abundant per locality. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability. If impacts to significant fossils can be anticipated, on-the-ground surveys prior to authorizing the surface disturbing action will usually be necessary. On-site monitoring or spot-checking may be necessary during construction activities.	4
Very High. Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils. Vertebrate fossils or scientifically significant invertebrate fossils are known or can reasonably be expected to occur in the impacted area. On-the-ground surveys prior to authorizing any surface disturbing activities will usually be necessary. On-site monitoring may be necessary during construction activities.	5

Established in 1918 as a public agency
Coachella Valley Water District

Directors:
John P. Powell Jr., President - Div. 3
Peter Nelson, Vice President - Div. 4
G. Patrick O'Dowd - Div. 1
Ed Pack - Div. 2
Cástulo R. Estrada - Div. 5

Jim Barrett, General Manager
Robert Cheng, Assistant General Manager
Sylvia Bermudez, Clerk of the Board

Best Best & Krieger LLP, Attorneys

June 9, 2016

File: 0121.312
0110.06

«Tribe»
«Contact_Person_»
«Address»
«City_State_Zip»

Dear Recipient:

RE: Assembly Bill (AB) 52 Consultation - North Cathedral City Improvements, Phase I Project, Cathedral City, Riverside County

The Coachella Valley Water District (CVWD) is conducting AB-52 consultation for the North Cathedral City Improvements, Phase I Project (project). Please consider this letter and preliminary project information as the initiation for AB52 Consultation for Tribal Cultural Resources under the California Environmental Quality Act (CEQA), Public Resources Code (PRC)§21080.3.1; AB 52 (Gatto, 2014). See the enclosed attachments: Site Vicinity Map, Project Components Map and Conceptual Site Plan.

CVWD Environmental Services Department staff would like to meet with you to discuss this project and AB52 compliance at your earliest convenience. Please respond within 30 days if you would like to consult on this project.

The CVWD proposes regional stormwater improvements that would convey stormwater flows from north of the Union Pacific Railroad (UPRR) tracks in a southerly direction to the Whitewater River Stormwater Channel (WWRSC). Currently, there is a UPRR bridge crossing at the project site; the bridge was constructed and backfilled to allow for future construction of the North Cathedral City Stormwater Master Plan under the railroad to provide a connection to the WWRSC. Flows under the UPRR bridge have been precluded until the channel improvements and slope lining (east overbank) downstream of the bridge were ready to be constructed. As such, the project would include improvements to safely and reliably convey flows beneath the bridge, reducing floodplain impacts for tributary areas to the project site, including the North City Extended Specific Plan. Key components of the project include concrete channel lining, bridge improvements, earthen channel grading, and slope protection. Exhibits depicting project location and proposed improvements are included with this letter.

If you have any questions regarding the project or content of this letter, please contact Luke Stowe, Environmental Supervisor at (760) 398-2651, extension 2545.

Sincerely,

Steve Bigley
Director of Environmental Services

Enclosures/3/as

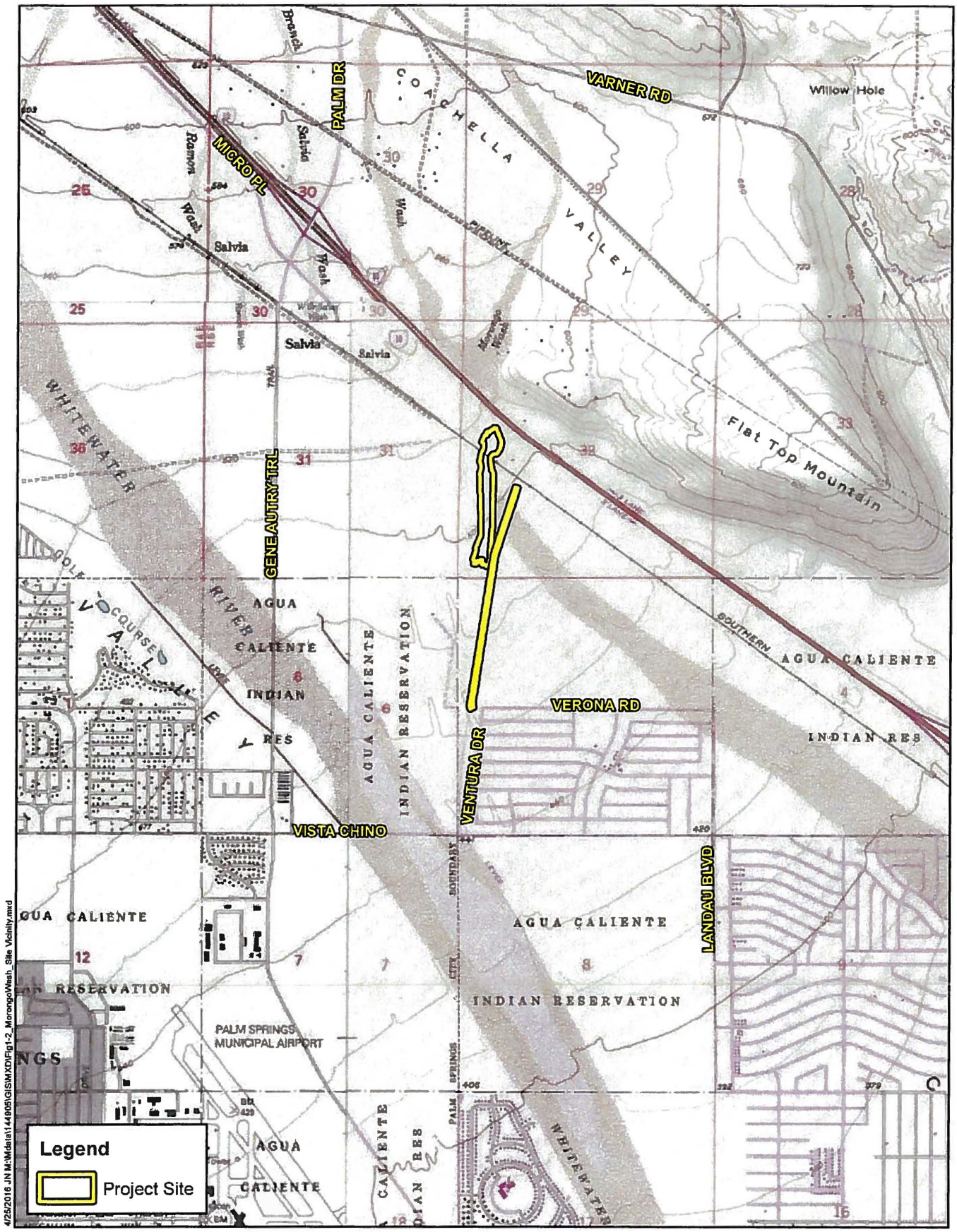
EM:jl/ENV SVCS/ENV/2016/June/AB52 N Cat City SW Improvement Project.docx

MAILED JUN - 9 2016 CVWD

	A	B	C	D	E	F	G
1	**Tribe**	**Contact Person**	**Title**	**Address**	**City, State, Zip**	**Phone**	**Email**
2	Agua Caliente Band of Cahuilla Indians*	Patricia Garcia-Plotkin	Tribal Historic Preservation Director	5401 Dinah Shore Drive	Palm Springs, CA 92264	(760) 699-6807	ACBCI-THPO@aguacaliente.net
3	Agua Caliente Band of Cahuilla Indians*	Katie Croft	Archaeologist	5401 Dinah Shore Drive	Palm Springs, CA 92264	(760) 699-6829	ACBCI-THPO@aguacaliente.net
4	Augustine Band of Cahuilla Mission Indians*	Amanda Vance	Tribal Chairperson	P.O. Box 846	Coachella, CA 92236	(760) 398-4722	
5	Cabazon Band of Mission Indians*	Doug Welmas	Tribal Chairperson	84-245 Indio Springs Parkway	Indio, CA 922203-3499	(760) 342-2593	
6	Cahuilla Band of Indians	Luther Salgado, Sr.	Environmental Director	52701 Hwy 37	Anza, CA 92539	(951) 763-5549	
7	Cahuilla Band of Indians	Andreas Heredia	Cultural Director	52701 Hwy 37	Anza, CA 92539	(760) 423-2773 cell	
8	Los Coyotes Band of Cahuilla and Cupeno Indians	Ray Chapparosa	Tribal Chairperson	P.O. Box 189	Warner Springs, CA 92086	(760) 782-0711	loscoyotestribe@gmail.com
9	Morongo Band of Mission Indians*	Raymond Huaute	Cultural Resource Specialist	12700 Pumarra Road	Banning, CA 92220	(951) 849-8807	
10	Morongo Band of Mission Indians*	Robert Martin	Tribal Chairperson	12700 Pumarra Road	Banning, CA 92220	(951) 849-8807	
11	Ramona Band of Cahuilla Indians	Joseph Hamilton	Tribal Chairperson	P.O. Box 391670	Anza, CA 92539	(951) 763-4105	admin@ramonatribe.com
12	Ramona Band of Cahuilla Indians	John Gomez, Jr.	Cultural Resource Coordinator	P.O. Box 391372	Anza, CA 92539	(951) 763-4105	admin@ramonatribe.com
13	Santa Rosa Band of Cahuilla Indians	John Marcus	Tribal Chairperson	P.O. Box 391820	Anza, CA 92539	(951) 659-2700	
14	Santa Rosa Band of Cahuilla Indians	Gabriella Rubalcava	Environmental Director	P.O. Box 391820	Anza, CA 92539	(951) 659-2700	
15	Soboba Band of Luiseno Indians*	Joseph Ontiveros	Cultural Resources Director	P.O. Box 487	San Jacinto, CA 92581	(951) 654-5544 x4137	jontiveros@soboba-nsv.gov
16	Torres Martinez Desert Cahuilla Indians	Mary Resvaloso	Tribal Chairperson	P.O. Box 1160	Thermal, CA 92274	(760) 397-0300	tmchair@torresmartinez.org
17	Torres Martinez Desert Cahuilla Indians	Alesia Reed	Interim Environmental Coordinator	P.O. Box 1160	Thermal, CA 92274	(760) 397-0300	areed@torresmartinez.org
18	The Torres Martinez Desert Cahuilla Indians	Michael Mirelez	Cultural Resources Coordinator	P.O. Box 1160	Thermal, CA 92274	(760) 397-0300	
19	Twenty-Nine Palms Band of Mission Indians*	Darrell Mike	Tribal Chairman	46-200 Harrison Place	Coachella, CA 92236	(760) 863-2444	
20	Twenty-Nine Palms Band of Mission Indians*	Anthony Madrigal, Jr.	Tribal Historic Preservation Officer	46-200 Harrison Place	Coachella, CA 92236	(760) 775-3259	amadrigal@29palmsbomi-nsn.gov
21							
22	**These tribes have formally requested AB52 consultation with CVWD*						
23	yellow = designated contact person						
24							

EC: Elizabeth Meyerhoff (with enclosures)
Luke Stowe (w/enclosures)
Steve Bigley (w/enclosures)
Dan Charlton (w/enclosures)

EM: jl/ENV SVCS/ENV/2016/June/AB52 N Cat City SW Improvement Project.docx



4/25/2016 JN M:\Mdata\144905\GIS\MXD\Fig1-2_MorongoWash_Site Vicinity.mxd

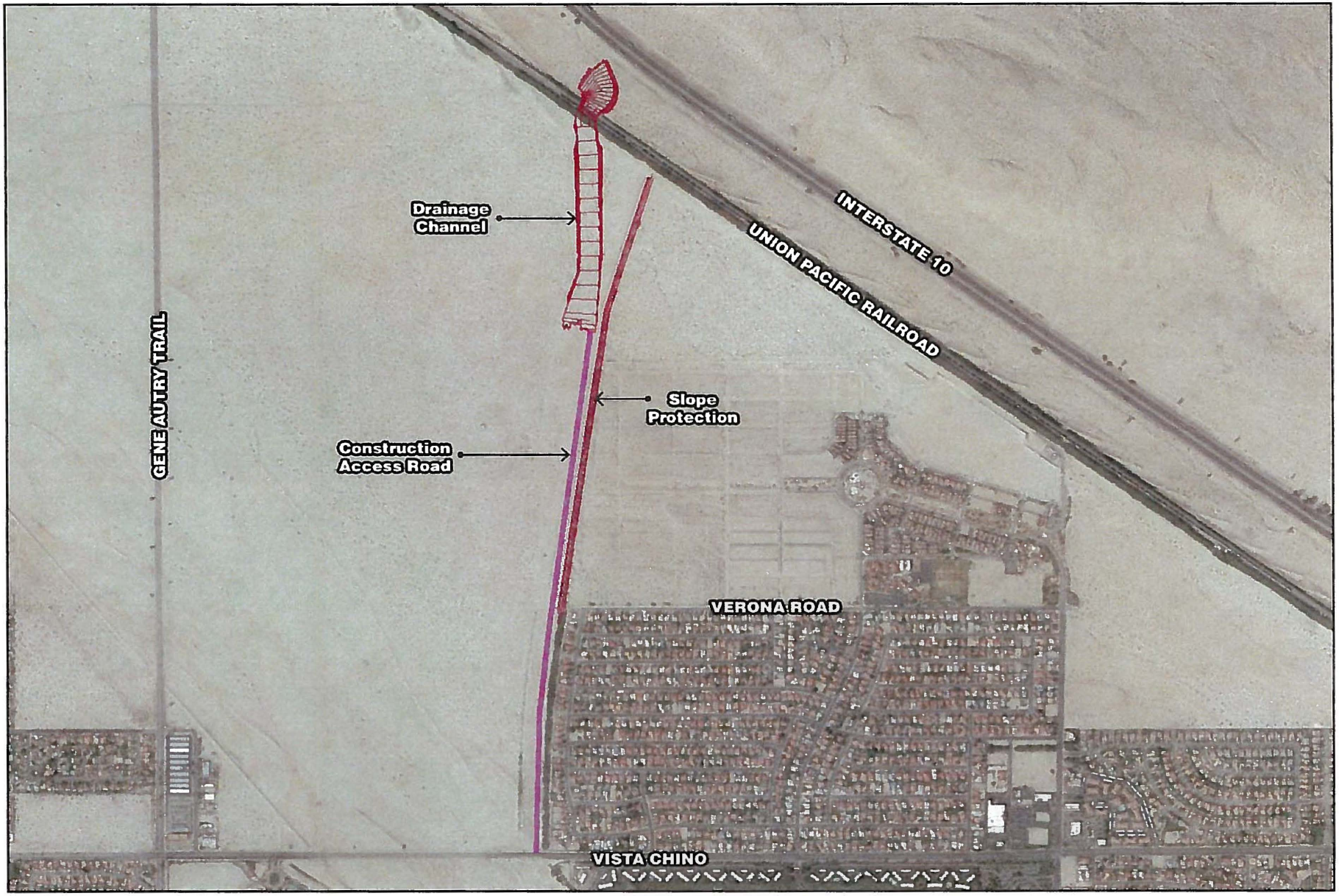
Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: ArcGIS Online

NORTH CATHEDRAL CITY IMPROVEMENTS PROJECT, PHASE 1

Site Vicinity Map



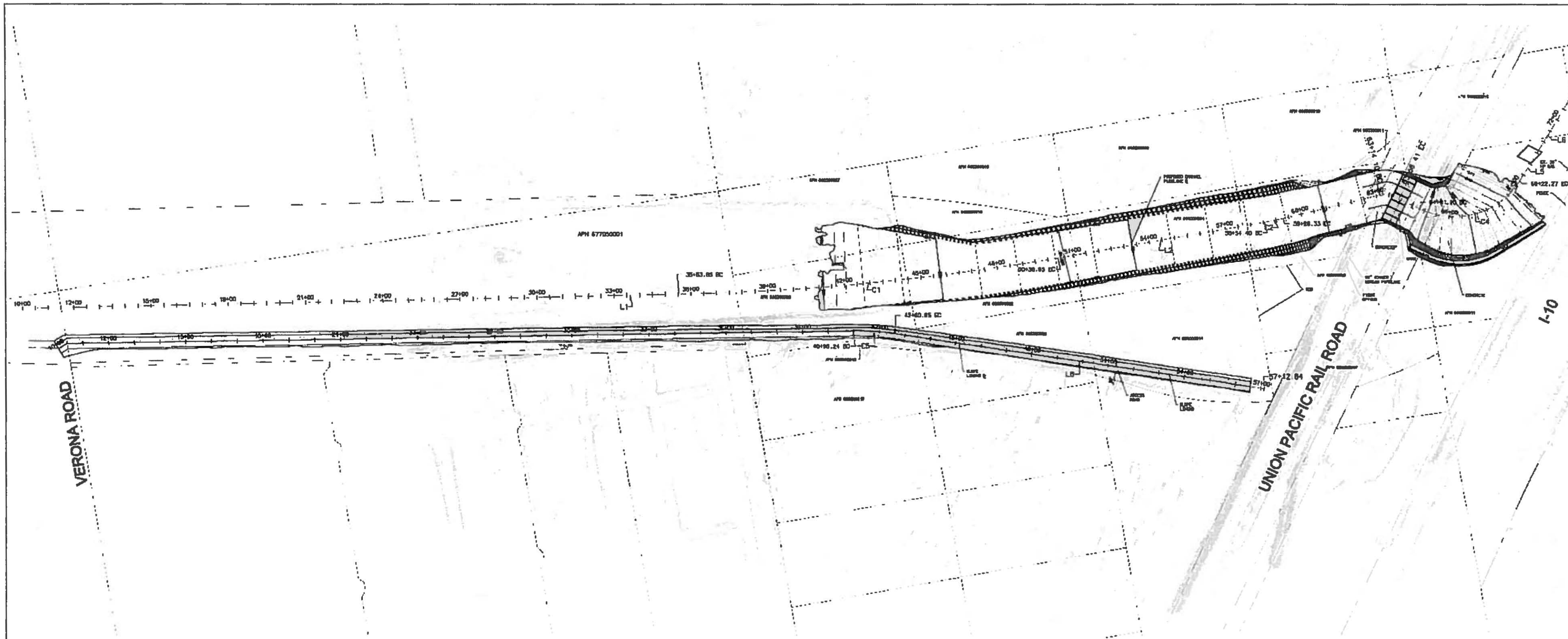
NORTH CATHEDRAL CITY IMPROVEMENTS PROJECT, PHASE 1

Project Components

Michael Baker INTERNATIONAL

NOT TO SCALE

Source: Google Earth 2016



PLAN
SCALE: 1"=180'

LINE/CURVE DATA TABLE					
	NO.	BEARING/DELTA	RADIUS	LENGTH	TANGENT
(TOTAL)	L1	N8°20'54"E	—	2553.85'	—
	L2	N0°10'03"W	—	815.75'	—
	L5	N48°32'40"W	—	120.62'	—
	L6	N49°00'38"W	—	2943.07'	—
	L8	N18°05'47"E	—	1451.89'	—
(TOTAL)					

LINE/CURVE DATA TABLE				
NO.	BEARING/DELTA	RADIUS	LENGTH	TANGENT
C1	8°30'57"	9990.00'	1484.80'	743.77'
C2	4°14'09"	1000.00'	73.93'	36.98'
C4	84°06'16"	300.00'	440.37'	270.62'
C5	9°25'54"	1000.00'	164.62'	82.49'

160 90 0 180 360 540
SCALE: 1"=180'

50% SUBMITTAL

DIG ALERT
DIAL TOLL FREE 1-800-227-2600
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

BENCHMARK: CITY OF CATHEDRAL CITY #111
DESCRIPTION:
ELEV. = 448.300'

BASIS OF BEARINGS:

Michael Baker INTERNATIONAL
14725 Alton Parkway
Irvine, CA 92618
Phone: (949) 472-3505
MBAKERINTL.COM

WATER DISTRICT

DATE 04/19/16

IN THE CITY OF INDIO, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

North Cathedral City Improvements, Phase I

COACHELLA VALLEY WATER DISTRICT

SHEET 3 OF 18 SHEETS

DWG NO. XXXXX