Results of the Historical Resources Investigation of the Southwest Village Specific Plan San Diego, California PRJ-0614791

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NATIONAL ARCHAEOLOGICAL DATA BASE INFORMATION

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Acronyms and Abbreviations

ADRP	Archaeological Data Recovery Program
AMSL	above mean sea level
APE	area of potential effect
APN	Assessor's Parcel Number
BGS	below ground surface
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
City	City of San Diego
cm	centimeter
CRHR	California Register of Historical Resources
CSVR	Consultant Site Visit Record
DPR	Department of Parks and Recreation
ECORP	ECORP Consulting, Inc.
EVA	emergency vehicle access
FAR	fire-affected rock
FEIR	final environmental impact report
GPS	Global Positioning System
HRG	Historical Resources Guidelines
HRR	Historic Resources Regulations
MLD	Most Likely Descendent
mm	millimeter
MMC	Mitigation Monitoring Coordinator
NAHC	Native American Heritage Commission
OMCP	Otay Mesa Community Plan
PRC	Public Resources Code
SCIC	South Coastal Information Center
SDAC	San Diego Archaeological Center
SDMC	San Diego Municipal Code
Specific Plan	Southwest Village Specific Plan
SR-905	State Route 905
STP	shovel test pit
USGS	U.S. Geological Survey
VPHCP	Vernal Pool Habitat Conservation Plan

1.0 Management Summary

This report summarizes the results of the historical resources field and archival investigation for the Southwest Village Specific Plan (Specific Plan) project, including both project-level and program-level components. The project-level areas include approximately 218 acres within Phase 1, Phase 2, and a portion of the Phase 4 development areas of the Specific Plan, namely within Planning Areas 7 through 20. The project-level components additionally address project access including extension of Beyer Boulevard and Caliente Avenue, and off-site infrastructure improvements related to transportation, emergency vehicle access, water, and sewer. Areas proposed for restoration were also evaluated including a vernal pool restoration area, a coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) habitat restoration area, an Otay tarplant (*Deinandra conjugens*) and native grassland restoration area, and a wetland restoration area where project mitigation would be implemented. Portions of the primitive trails and trail restoration area evaluated include a 100-foot restoration corridor around proposed project-level primitive trail alignments.

The report also includes a program-level analysis of the potential for impacts to historical resources within portions of the Specific Plan to be developed in future phases including Planning Areas 1 through 6, 21, 22, and 24 through 27. The program-level analysis additionally addresses a conceptual primitive trail alignment proposed outside of the Specific Plan.

The Specific Plan and associated project-level components are located within the Otay Mesa area of the city of San Diego. The survey area is approximately 271.09 acres in size. The project-level analysis areas (including portions of the Specific Plan, associated project-level components, and restoration areas) total approximately 218 acres while potential future development areas evaluated at the program-level total approximately 130.73 acres. The infrastructure improvement areas were not surveyed due to the developed nature of these areas and lack of visibility. Caliente Avenue north of Central was not surveyed during this investigation due to access issues; however, survey results from a previous survey were used for the project-level analysis. The total for these non-surveyed areas equals 7.26 acres.

A record search of the archaeological databases was requested from the California Historical Resources Information System, South Coastal Information Center at San Diego State University (SCIC). The SCIC lists a total of 125 cultural resources within the one-mile search radius of the project, of which 22 are within the Specific Plan boundary. Two resources within the Specific Plan boundary (CA-SDI-8,645 and CA-SDI-16,704) are within the program-level analysis area and were not part of the survey area (Planning Areas 4 and 5). The survey area included 20 resources within the Specific Plan in addition to seven resources outside the Specific Plan and are as follows, moving roughly from west to east, include CA-SDI-20,343, CA-SDI-10,206, P-37-037600, P-37-037601, CA-SDI-22,448, CA-SDI-10,512, CA-SDI-10,514, P-37-028467, CA-SDI-10,515, CA-SDI-10,522, CA-SDI-10,523, CA-SDI-10,524, CA-SDI-10,516, CA-SDI-16,705, CA-SDI-16,706, CA-SDI-17,517, CA-SDI-17,518, CA-SDI-17,519, CA-SDI-17,520, CA-SDI-17,521, CA-SDI-17,522, CA-SDI-17,523, CA-SDI-17,524, CA-SDI-10,811, CA-SDI-10,810, CA-SDI-8,642, and CA-SDI-8,644. Additionally, two resources (CA-SDI-11,079 and CA-SDI-6,941) are mapped in the infrastructure improvement areas but were not part of the survey area due to the developed nature of those project areas.

The survey identified cultural material at all the five previously recorded sites within Planning Areas 8 through 10. CA-SDI-10,516, CA-SDI-10,524, and CA-SDI-16,705 were tested by ECORP Consulting, Inc. (ECORP) in 2005 and were determined not to be significant historical resources (Mason and Bouscaren 2005). The identification of artifacts at these sites is not sufficient to alter the determinations made by the ECORP evaluations.

The two remaining previously recorded cultural resources within Planning Areas 8 through 10 are CA-SDI-10,522 and CA-SDI-10,523. Cultural material was observed at the mapped location of both sites. Neither of these sites was included in the 2005 ECORP report. ASM Affiliates tested CA-SDI-10,522 in 1990 and determined that the site was not a significant historical resource. When the recommended test for classification as an artifact scatter proposed by Gallegos et al. (1998)–at least four contiguous 10-by-10-meter units with a minimum of three artifacts per unit (i.e., three artifacts in 100 square meters)–is applied to the material found by the RECON Environmental, Inc. (RECON) survey at CA-SDI-10,523, it does not qualify under the definition of an artifact scatter.

The only previously recorded resource within Planning Areas 11 through 14, CA-SDI-10,514, was not relocated; however, 4 cores and 15 flakes were mapped outside the recorded boundary between it and CA-SDI-10,512. ECORP determined that the portion of CA-SDI-10,514 within the project boundaries was not a significant historical resource (Mason and Bouscaren 2005). When the recommended test for classification as a site proposed by Gallegos et al. (1998) is applied to the portion of the site on the mesa top, CA-SDI-10,514 does not qualify under the definition of an artifact scatter. If the average per 100 square meters is applied, the core site has only 0.47 artifacts per 100 square meters average, much less than the minimum of 12 artifacts needed to be designated an artifact scatter; therefore, this resource is considered a non-site.

Artifacts were observed at the three previously recorded sites within the vernal pool restoration area: CA-SDI-17,519, CA-SDI-17,520, and CA-SDI-10,810. All three of these sites were tested in 2004–2005 and recommended not to be significant historical resources by ECORP (Mason and Bouscaren 2005). Artifacts were observed at the previously recorded site within the cactus wren habitat restoration area: CA-SDI-20,343. When the recommended test for classification as a site proposed by Gallegos et al. (1998) is applied to this site, CA-SDI-20,343 does not qualify under the definition of an artifact scatter and is considered a non-site.

No previously recorded sites were identified within the primitive trails and trails restoration area or the Otay tarplant/native grassland restoration area. Material was observed at two of the three recorded sites within Planning Areas 15 through 18: CA-SDI-10,810, and CA-SDI-17,523. No cultural material was observed at or adjacent to the mapped location of CA-SDI-17,524. These three sites were tested in 2004-2005 and recommended not significant historical resources by ECORP (Mason and Bouscaren 2005).

Material was observed at four of the eight recorded sites within Planning Areas 15 through 20: CA-SDI-10,810, CA-SDI-16,706, CA-SDI-17,518, and CA-SDI-17,523. No cultural material was observed at or adjacent to the mapped location of CA-SDI-17,517, CA-SDI-17,521, CA-SDI-17,522, and CA-SDI-17,524. Four of the above sites were tested in 2004-2005 and recommended not significant historical resources by ECORP. CA-SDI-17,518, on the other hand, was determined to be a significant historical resource by ECORP based on the presence of fire-affected rock (FAR) and one marine shell fragment (Mason and Bouscaren 2005). When the recommended test for classification as a habitation site proposed by Gallegos et al. (1998) is applied, CA-SDI-17,518 does not qualify as a habitation site with a subsurface density of 100 artifacts per square meter; only 20 subsurface artifacts were recovered. Therefore, RECON does not recommend CA-SDI-17,518 eligible for the California Register of Historical Resources (CRHR) under criterion 4 because the low-density artifact recovery and limited represented artifact types do not provide enough data to answer regional research questions.

Material was found at two of the eight recorded resources within the proposed Beyer Boulevard extension, CA-SDI-10,514 and CA-SDI-10,206. No cultural material was observed at the mapped locations of CA-SDI-10,512, CA-SDI-10,515, P-37-037600, P-37-037601 or P-37-028467. CA-SDI-22,448 had been visited by RECON archaeologists for a different project recently and was not revisited. As noted above, CA-SDI-10,514 was tested by ECORP in 2005 and was determined not to be a significant historical resource (Mason and Bouscaren 2005). The identification of artifacts at this site is not sufficient to alter the determinations made by the ECORP evaluations. When Gallegos et al.'s criteria for an artifact scatter is applied to these resources, CA-SDI-10,512 and CA-SDI-10,515 do not qualify as artifact scatters, while CA-10,206 and CA-22,448 do qualify.

CA-SDI-22,448 was evaluated for significance under California Environmental Quality Act (CEQA) and City of San Diego (City) guidelines during the current investigation. RECON excavated two units at CA-SDI-22,448 and collected four surface artifacts. The excavation revealed that the cultural deposit was very sparse and extended down to the 20-centimeter (cm) level before hitting subsoil clays. The lack of midden-like soils in association with the hearth features suggests that the site was not occupied over a long period of time. Recovery included nine flaked lithic artifacts and ten pieces of debitage. Because the low-density artifact recovery and limited artifact types does not provide enough data to answer regional research questions, CA-SDI-22,448 is recommended not a significant historical resource.

CA-SDI-10,206 was evaluated for significance under CEQA and City guidelines during the current investigation. RECON excavated six units and collected 962 surface artifacts. The excavation revealed that the subsurface cultural deposit was sparse and extended down to the 20 cm level, in most cases, before hitting subsoil clays. The lack of midden-like soils suggests the site was not occupied over a long period of time and therefore not a habitation site. Recovered artifacts suggest that the site likely functions as a second- and third-stage tool manufacturing location. Because low-density artifact recovery and limited artifact types do not provide enough data to answer regional research questions, CA-SDI-10,206 is not recommended as a significant historical resource.

No previously recorded resources are within the Phase 4 area which includes the Caliente Avenue extension, south of Central Avenue and portions of Planning Area 7.

Thirty-three previously unrecorded resources were found within the survey area (Table S-1). A total of 17 resources were encountered within Planning Areas 8 through 20; four within the vernal pool restoration area, one within the cactus wren habitation restoration area, one within the primitive trails and trails restoration area, seven within the Beyer Boulevard extension and three resources within Phase 4. In addition, a small number of isolated flakes were observed during the surveys. The flakes are considered part of the "archaeological noise" discussed in the Management Plan for Otay Mesa Prehistoric Resources (Gallegos et al. 1998) and were not recorded. No new resources were recorded within the restoration areas for Otay tarplant/native grassland and wetlands.

Table S-1 Management/Mitigation Summary							
P Number	Trinomial	Resource Type	Tested	Significance	Specific Plan Location[1]	Impact Significance	Mitigation
37-010206	CA-SDI-10,206	Lithic Scatter	By RECON	Not significant	Beyer Boulevard	Not significant	None
37-010512	CA-SDI-10,512	Lithic Scatter	Non-site, N/A	Not significant	Beyer Boulevard	Not significant	None
37-010515	CA-SDI-10,515	Lithic Scatter	Non-site, N/A	Not significant	Beyer Boulevard	Not significant	None
37-037597	CA-SDI-22,448	Lithic Scatter	By RECON	Not significant	Beyer Boulevard	Not significant	None
37-039763	CA-SDI-23,232	Lithic Scatter	By RECON	Not significant	Beyer Boulevard	Not significant	None
37-039765	CA-SDI-23,234	Lithic Scatter	By RECON	Not significant	Beyer Boulevard	Not significant	None
37-039766	CA-SDI-23,235	Lithic Scatter	By RECON	Not significant	Beyer Boulevard	Not significant	None
37-039767	CA-SDI-23,236	Lithic Scatter	By RECON	Not significant	Beyer Boulevard	Not significant	None
37-028467	N/A	Isolate	N/A	Not significant	Beyer Boulevard	Not significant	None
37-037600	N/A	Isolate	N/A	Not significant	Beyer Boulevard	Not significant	None
37-037601	N/A	Isolate	N/A	Not significant	Beyer Boulevard	Not significant	None
37-038925	N/A	Isolate	N/A	Not significant	Beyer Boulevard	Not significant	None
37-038926	N/A	Telephone Pole	N/A	Not significant	Beyer Boulevard	Not significant	None
37-039762	N/A	Isolate	N/A	Not significant	Beyer Boulevard	Not significant	None
37-008642	CA-SDI-8,642	Lithic Scatter	By ASM Affiliates	Not significant	Central Avenue	Not significant	None
37-026735	CA-SDI-17,523	Lithic Scatter	By ECORP	Not significant	Planning Areas 15 through 18	Not significant	None
37-026736	CA-SDI-17,524	Lithic Scatter	By ECORP	Not significant	Planning Areas 15 through 18	Not significant	None
37-038485	N/A	Isolate	N/A	Not significant	Planning Areas 15 through 18	Not significant	None
37-038486	N/A	Isolate	N/A	Not significant	Planning Areas 15 through 18	Not significant	None
37-038487	N/A	Isolate	N/A	Not significant	Planning Areas 15 through 18	Not significant	None
37-038488	N/A	Isolate	N/A	Not significant	Planning Areas 15 through 18	Not significant	None
37-010516	CA-SDI-10,516	Lithic Scatter	By ECORP	Not significant	Planning Areas 8 through 10	Not significant	None
37-010522	CA-SDI-10,522	Lithic Scatter	By ASM Affiliates	Not significant	Planning Areas 8 through 10	Not significant	None
37-010523	CA-SDI-10,523	Lithic Scatter	Non-site, N/A	Not significant	Planning Areas 8 through 10	Not significant	None
37-010524	CA-SDI-10,524	Lithic Scatter	By ECORP	Not significant	Planning Areas 8 through 10	Not significant	None
37-025213	CA-SDI-16,705	Lithic Scatter	By ECORP	Not significant	Planning Areas 8 through 10	Not significant	None
37-037532	N/A	Lithic Scatter	Non-site, N/A	Not significant	Planning Areas 8 through 10	Not significant	None
37-037533	N/A	Lithic Scatter	Non-site, N/A	Not significant	Planning Areas 8 through 10	Not significant	None
37-010514	CA-SDI-10,514	Lithic Scatter	By ECORP	Not significant	Planning Areas 11 through 14, Beyer Boulevard	Not significant	None
37-039055/ NDY0430-02	CA-SDI-22,939	Lithic Scatter	By Tierra Environmental	Not significant	Planning Areas 11 through 14	Not significant	None
37-037535	N/A	Isolate	N/A	Not significant	Planning Areas 11 through 14	Not significant	None
37-037536	N/A	Isolate	N/A	Not significant	Planning Areas 11 through 14	Not significant	None
37-037568	N/A	Isolate	N/A	Not significant	Planning Areas 11 through 14	Not significant	None
37-037569	N/A	Isolate	N/A	Not significant	Planning Areas 11 through 14	Not significant	None
37-037570	N/A	Isolate	N/A	Not significant	Planning Areas 11 through 14	Not significant	None

Table S-1 Management/Mitigation Summary							
P Number	Trinomial	Resource Type	Tested	Significance	Specific Plan Location[1]	Impact Significance	Mitigation
37-037571	N/A	Isolate	N/A	Not significant	Planning Areas 11 through 14	Not significant	None
37-037572	N/A	Isolate	N/A	Not significant	Planning Areas 11 through 14	Not significant	None
37-037573	N/A	Isolate	N/A	Not significant	Planning Areas 11 through 14	Not significant	None
37-037574	N/A	Isolate	N/A	Not significant	Planning Areas 11 through 14	Not significant	None
37-037575	N/A	Isolate	N/A	Not significant	Planning Areas 11 through 14	Not significant	None
37-010810	CA-SDI-10,810	Lithic Scatter	By ECORP	Not significant	Vernal Pool Restoration, Planning Areas 15 through 18	Not significant	None
37-025214	CA-SDI-16,706	Lithic Scatter	By ECORP	Not significant	Planning Areas 19 and 20	Not significant	None
37-026729	CA-SDI-17,517	Lithic Scatter	By ECORP	Not significant	Planning Areas 19 and 20	Not significant	None
37-026730	CA-SDI-17,518	Lithic Scatter	By ECORP	Not significant*	Planning Areas 19 and 20	Not significant	None
37-026733	CA-SDI-17,521	Lithic Scatter	By ECORP	Not significant	Planning Areas 19 and 20	Not significant	None
37-026734	CA-SDI-17,522	Lithic Scatter	By ECORP	Not significant	Planning Areas 19 and 20	Not significant	None
37-026731	CA-SDI-17,519	Lithic Scatter	By ECORP	Not significant	Vernal Pool Restoration	Not significant	None
37-026732	CA-SDI-17,520	Lithic Scatter	By ECORP	Not significant	Vernal Pool Restoration	Not significant	None
37-038489	N/A	Isolate	N/A	Not significant	Vernal Pool Restoration	Not significant	None
37-038490	N/A	Lithic Scatter	Non-site, N/A	Not significant	Vernal Pool Restoration	Not significant	None
37-038491	N/A	Isolate	N/A	Not significant	Vernal Pool Restoration	Not significant	None
37-038493	N/A	Lithic Scatter	Non-site, N/A	Not significant	Vernal Pool Restoration	Not significant	None
37-038928	N/A	Isolate	N/A	Not significant	Primitive Trails and Trails Restoration	Not significant	None
37-032101	CA-SDI-20,343	Lithic Scatter	Non-site, N/A	Not significant	Cactus Wren Habitat Restoration	Not significant	None
P-37-040924/ NDY-042524-1	N/A	Lithic Scatter	Non-site, N/A	Not significant	Cactus Wren Habitat Restoration	Not significant	None
37-010805	CA-SDI-10,805	Lithic Scatter	By WESTEC	Not significant	Wetland Restoration	Not significant	None
37-008644	CA-SDI-8,644	Lithic Scatter	By ASM Affiliates	Not significant	Caliente Avenue	Not significant	None
37-039434/ ISO-618-01	N/A	Isolate	N/A	Not significant	Caliente Avenue	Not significant	None
37-039052/ NDY0618-01	CA-SDI-22,936	Lithic Scatter	By RECON	Significant	Caliente Avenue	Significant	Data recovery
NDY-01H		Historic Road	n/a	Not significant	Caliente Avenue	Not significant	None
37-006491	CA-SDI-6941/Loci South of Otay Mesa Road	Lithic Scatter	By Gallegos & Associates	Not significant	Infrastructure Improvement Areas	Not significant	None
37-011079	CA-SDI-11,079	Lithic and Shell Scatter	By ASM Affiliates	Not significant	Infrastructure Improvement Areas	Not significant	None
*Determined not significant based on re-evaluation of ECORP excavation results							

The two newly recorded resources within Planning Areas 8 through 10 are lithic scatters. P-37-037533 includes 10 artifacts and P-37-037532 includes one scraping tool, one core, and two flakes. Neither P-37-037533 nor P-37-037532 qualifies as an artifact scatter under the Gallegos et al. (1998) criteria set forth in the Otay Mesa Management Plan. RECON recommends no testing or other additional fieldwork for these two sites.

The 11 previously unrecorded prehistoric resources found within Planning Areas 11 through 14 are CA-SDI-22,939/NDY0430-02, small artifact scatter, and ten isolated tools/cores (P-37-037535, P-37-037536, and P-37-037568 through P-37-037575, which are isolate tools. CA-SDI-22,939/NDY0430-02 is small artifact scatter consisting of at least two retouched flakes, one scraper, three cores, and 53 flakes. When Gallegos et al.'s (1998) criteria for an artifact scatter are applied, CA-SDI-22,939/NDY0430-02 qualifies as an artifact scatter.

CA-SDI-22,939 was evaluated for significance under CEQA and City guidelines during the current investigation. Tierra Environmental excavated four units and collected 83 surface artifacts. The excavation revealed a sparse subsurface cultural deposit. This shallow deposit and the absence of midden soils indicates that the site was occupied for a limited period. CA-SDI-22,939 can be classified as a location where mainly initial tool manufacture activities occurred, with the mano and the retouched flake providing evidence of limited plant processing activities. CA-SDI-22,939 does not provide enough data to answer regional research questions and is therefore not recommended significant under CEQA.

In the vernal pool restoration area, P-37-038489 and P-37-038491 are single cores, P-37-038490 is a single core with three associated flakes within a 5-square-meter area and P-37-038493 is a core with four associated flakes. These resources do not qualify as significant historical resources.

In the cactus wren habitation restoration area, P-37-040924/NDY-042524-1 is a lithic scatter consisting of 3 cores, 2 scrapers, 1 retouched flake, 28 flakes, and one piece of angular waste. When the Gallegos et al.'s (1998) criteria for an artifact scatter are applied, P-37-040924/NDY-042524-1 does not qualify as an artifact scatter and is considered a non-site.

In the primitive trails and trail restoration area, P-37-038928, is a core fragment that does not qualify as a significant historical resource.

In Planning Areas 15 through 20, P-37-038485 through P-37-038488 are isolated cores/tools, which do not qualify as significant historical resources.

Seven new cultural resources were recorded in the Beyer Boulevard extension: two isolated artifacts, a structure, and four resources (CA-SDI-23,232/NDY-1-0512421, CA-SDI-23,234/NDY-2-0512421, CA-SDI-23,235/NDY-3-0512421, and CA-SDI-23,236/ NDY-4-0512421) that qualify as artifact scatters per Gallegos et al. (1998) criteria. P-37-038925/ BBA-ISO-1 is a fine-grained metavolcanic core; P-37-038926/BBA-ISO-2 is a wooden telephone pole dating to the 1960s; and P-37-039762/ ISO-1-051421 consists of one scraper and four flakes within is a 7-by-7 meter area, which does not qualify it as an artifact scatter per Gallegos et al.'s (1998) criteria.

CA-SDI-23,232/NDY-1-051421 was evaluated for significance under CEQA and City guidelines during the current investigation. RECON excavated two surface scrapes and two shovel test pits (STPs) and collected 95 artifacts. The excavation revealed that the subsurface cultural deposit was sparse and extended down to the 10 cm level, with only two pieces of debitage in the two lower levels of one STP. The lack of midden-like soils suggests that the site was not occupied over a long period of time and therefore not a habitation site. Based on Binford's (1982) model for foraging and gathering societies, CA-SDI-23,232 can be classified as a location, where second- and third-stage tool manufacturing occurred with limited primary reduction. The low-density artifact recovery and limited artifact types at CA-SDI-23,232 do not provide enough data to answer regional research questions; therefore, this resource is not recommended significant under CEQA.

CA-SDI-23,234/NDY-2-051421 was evaluated for significance under CEQA and City guidelines during the current investigation. RECON excavated two surface scrapes and two STPs and collected 37 artifacts. The excavation revealed that the subsurface cultural deposit was sparse and extended down to the 10 cm level. The lack of midden-like soils suggests that the site was not occupied over a long period of time and therefore not a habitation site. Based on Binford's model for foraging and gathering societies, CA-SDI-23,234 can be classified as a location, where primary and second-stage tool manufacturing occurred and possibly some plant and/or hide processing. As with the resource above, the low-density artifact recovery and limited artifact types represented from CA-SDI-23,234 do not provide enough data to answer regional research questions; therefore, this resource is not significant under CEQA.

CA-SDI-23,235/NDY-3-0512421 and CA-SDI-23,236/NDY-4-0512421) were evaluated for significance under CEQA and City guidelines during the current investigation. During the surface collection of these resources, additional surface artifacts were collected which resulted in CA-SDI-23,235 (Locus E) subsuming CA-SDI-23,236 (Locus W). RECON collected 378 surface artifacts from the expanded boundary of CA-SDI-23,235. RECON also excavated four surface scrapes and four STPs in Locus E and two surface scrapes and two STPs in Locus W. A total of 62 artifacts were recovered from the subsurface excavation. The excavation revealed that the subsurface cultural deposit was sparse and extended down to the 20 cm level in some areas. The lack of midden-like soil suggests that the site was not occupied over a long period of time and therefore not a habitation site. Based on Binford's model for foraging and gathering societies, CA-SDI-23,235 can be classified as a location where primary and second-stage tool manufacturing location with limited final-stage reduction. As with the resource above, the low-density artifact recovery and limited artifact types represented from CA-SDI-23,235 and CA-SDI-23,236 do not provide enough data to answer regional research questions; therefore, this resource is not significant under CEQA.

Three cultural resources were recorded within the Phase 4 area which includes the Caliente Avenue extension, south of Central Avenue and portions of Planning Area 7. P-37-039434/ISO-0618-01 is an isolated core and therefore, does not qualify as a historical resource. P-37-040875/NDY-01H is an historic road that does not qualify as a historical resource. CA-SDI-22,936/NDY0618-01 is a lithic scatter that qualifies as an artifact scatter based on the surface component per Gallegos et al.'s (1998) criteria.

CA-SDI-22,936/NDY0618-01 was evaluated for significance under CEQA and City guidelines during the current investigation. RECON collected 1,101 artifacts during the surface collection and recovered 668 artifacts from the excavation of eight units and two STPs. When the recommended test for classification as a habitation site proposed by Gallegos et al. (1998) is applied, CA-SDI-22,936 qualifies as a habitation site based on the subsurface density of 100 artifacts per square meter within the centrally located and less disturbed portion of the site (665 square meters) where over 100 artifacts were recovered from each unit for Units 4, 5, and 7. CA-SDI-22,936, however, lacks a diversity of artifact types, faunal remains (shellfish, bone fragments), and/or hearth features included in the classification of a habitation site; therefore, this resource appears to be more than just an artifact scatter with a subsurface component. Based on Binford's (1982) model for foraging and gathering societies, CA-SDI-22,936 can be classified as a location, where all tool manufacturing stages occurred with a possible focus on making scrapers. The high-density artifact recovery provides enough data to answer regional research questions; therefore, this resource is recommended significant under CEQA. Because CA-SDI-22,936 would be impacted in its entirety, a deviation will need to be considered in accordance with decision Process Four per §143.0260 (a) and §126.0502(d) of the City Municipal Code (SDMC). A recommendation from the Historical Resources Board will be required prior to a planning commission decision, as well as a supplemental finding for historical resources deviation for important archaeological sites.

Portions of P-37-040875/NDY-01H were also found within the southern emergency vehicle access (EVA) road. As noted above, this resource does not qualify as a historical resource.

No new cultural resources were recorded within the infrastructure improvement areas.

Resources categorized as non-sites (those that do not qualify as artifact scatters under Gallegos et al. criteria) and isolated artifacts do not qualify under the CRHR or the City's local register requirements; therefore, the 15 non-sites (including previously recorded and newly recorded) and the 24 isolates are not significant historical resources. Of the remaining 23 resources, 20 resources have been evaluated and recommended not eligible for the CRHR or the City's local register. No mitigation measures are recommended for these resources. Because CA-SDI-22,936 is recommended a significant historical resource and would be impacted, a data recovery program is required to mitigate proposed project impacts to the site to the extent feasible.

RECON recommends cultural resources monitoring for both the project-level and program-level analysis areas because there is the potential for previously unidentified subsurface cultural resources to exist. Because of this, RECON recommends a City-qualified archaeologist and a representative from the Kumeyaay community be present for all project-level components ground disturbing work. If potentially significant historical resources are discovered during grading, then the process outlined in the City's Historical Resources Guidelines (HRG) should be followed.

2.0 Project Description

2.1 Project Location

The proposed project is located in the community of Otay Mesa within the city of San Diego, and more specifically within the Southwest District of the Otay Mesa Community Plan (OMCP), south of State Route 905 (SR-905) and east of Interstate 805 (Figure 1). The proposed project is within Township 18 South, Range 01 West and Township 19 South, Range 01 West, of the U.S. Geological

Survey (USGS) 7.5-minute topographic map, Imperial Beach, California quadrangle (Figure 2) and is presented on the City 800-foot-scale map numbers 138-1749 and 138-1761 (Figure 3). The proposed project is surrounded by residential and commercial development to the north and undeveloped land to the east, west, and south (Figure 4). The City's Multi-Habitat Planning Area and Vernal Pool Habitat Conservation Plan (VPHCP) 100 percent conservation areas occur within and adjacent to the project area (see Figure 4).

2.2 Project Description

The project includes adoption of the Specific Plan, which provides a comprehensive policy framework intended to guide future development within the Southwest Village District of the City OMCP. The Specific Plan would allow up to 5,130 attached and detached residences and will facilitate creation of a new village anchored by up to 175,000 square feet of commercial and retail uses in a mixed-use Village Core (Figure 5). Buildout of the Specific Plan would provide public facilities including dedication of a new elementary school, developed parks in addition to trails, and natural open space and habitat conservation. Habitat conservation areas where no improvements or digging are proposed were not surveyed; however, all restoration areas where ground disturbance would occur were surveyed. Access to the Specific Plan area will be via two main access points, Caliente Avenue to the north and from an extension of Beyer Boulevard to the west, connecting the Specific Plan area to the San Ysidro community.

While the Specific Plan boundary includes 490 acres, the project area includes improvements outside of the Specific Plan boundary, such as additional access improvements for Beyer Boulevard and Caliente Avenue, an EVA road, water, and sewer facilities, as well as trails, and stormwater infrastructure including drainage outfalls.

This historical resources report analyzes implementation of the Specific Plan at both a project-level for phases currently proposed for implementation and at a program-level for future Specific Plan phases (Figure 6). Project-level analysis is provided for implementation of Planning Areas 8 through 20 and portions of Planning Areas 1, 2, and 7 (Figure 7), shown as Phases 1, 2, and 3 on Figure 8. Additional project-level components are located outside of the proposed Specific Plan boundary including primitive trails, an EVA road, drainage outfalls, water and sewer line improvements, and roadway improvements. Habitat restoration areas that involve ground disturbance are also evaluated to ensure impacts of restoration do not adversely affect historical resources (Figure 9).

The Specific Plan would be implemented in phases as detailed in Figure 7, which shows the Planning Areas and their corresponding phase. Implementation of the Planning Areas depicted in Figure 7 may occur in any order as long as services are provided concurrent with development.

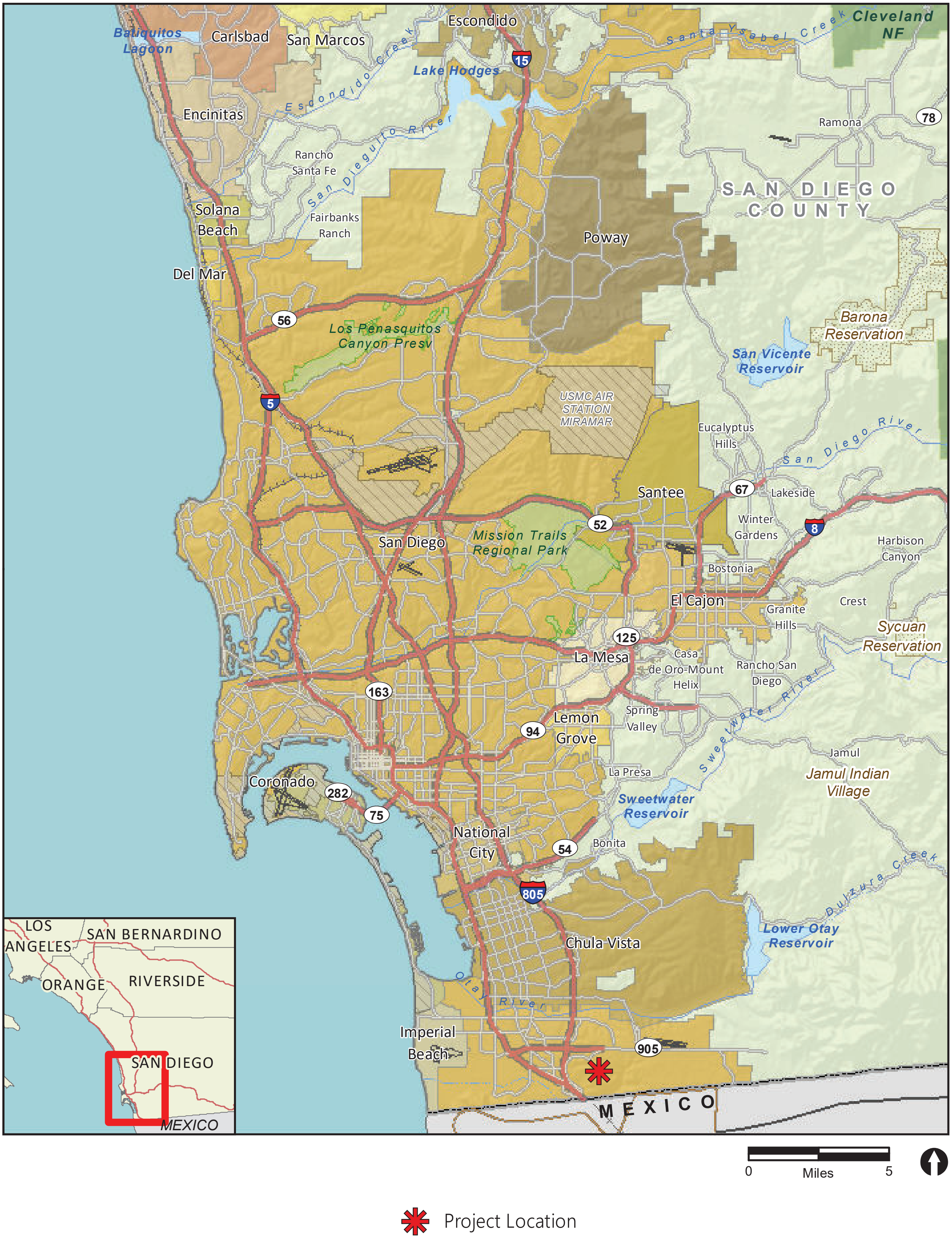
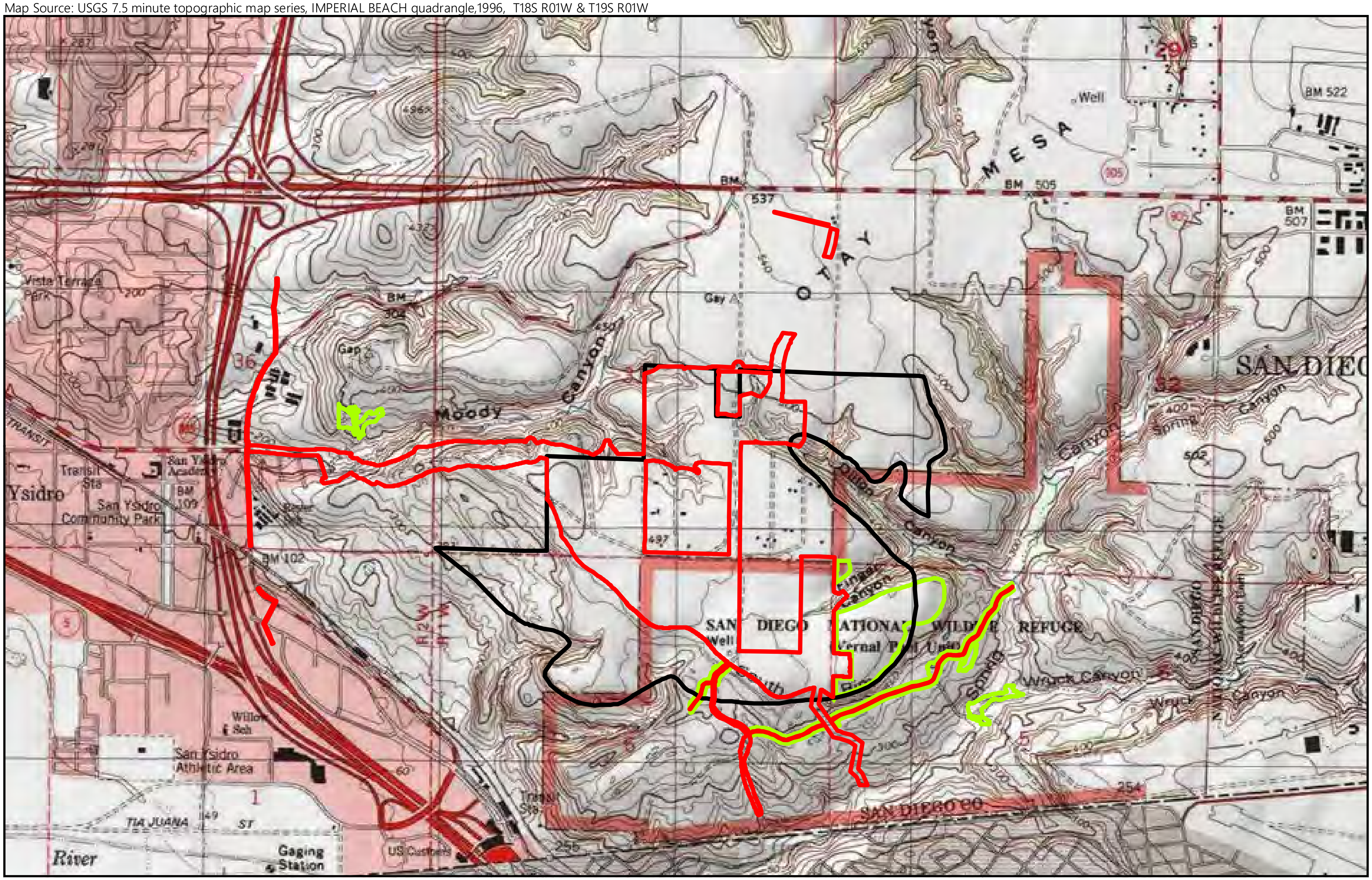


FIGURE 1
Regional Location

RECON

M:\JOBS5\8868\common_gis\Reports\Arctec_SPA\2023\Fig1.mxd 04/11/2023 bma

Map Source: USGS 7.5 minute topographic map series, IMPERIAL BEACH quadrangle,1996, T18S R01W & T19S R01W



Project-level Analysis Area

Specific Plan Boundary

Habitat Restoration Areas

0 Feet 2,000

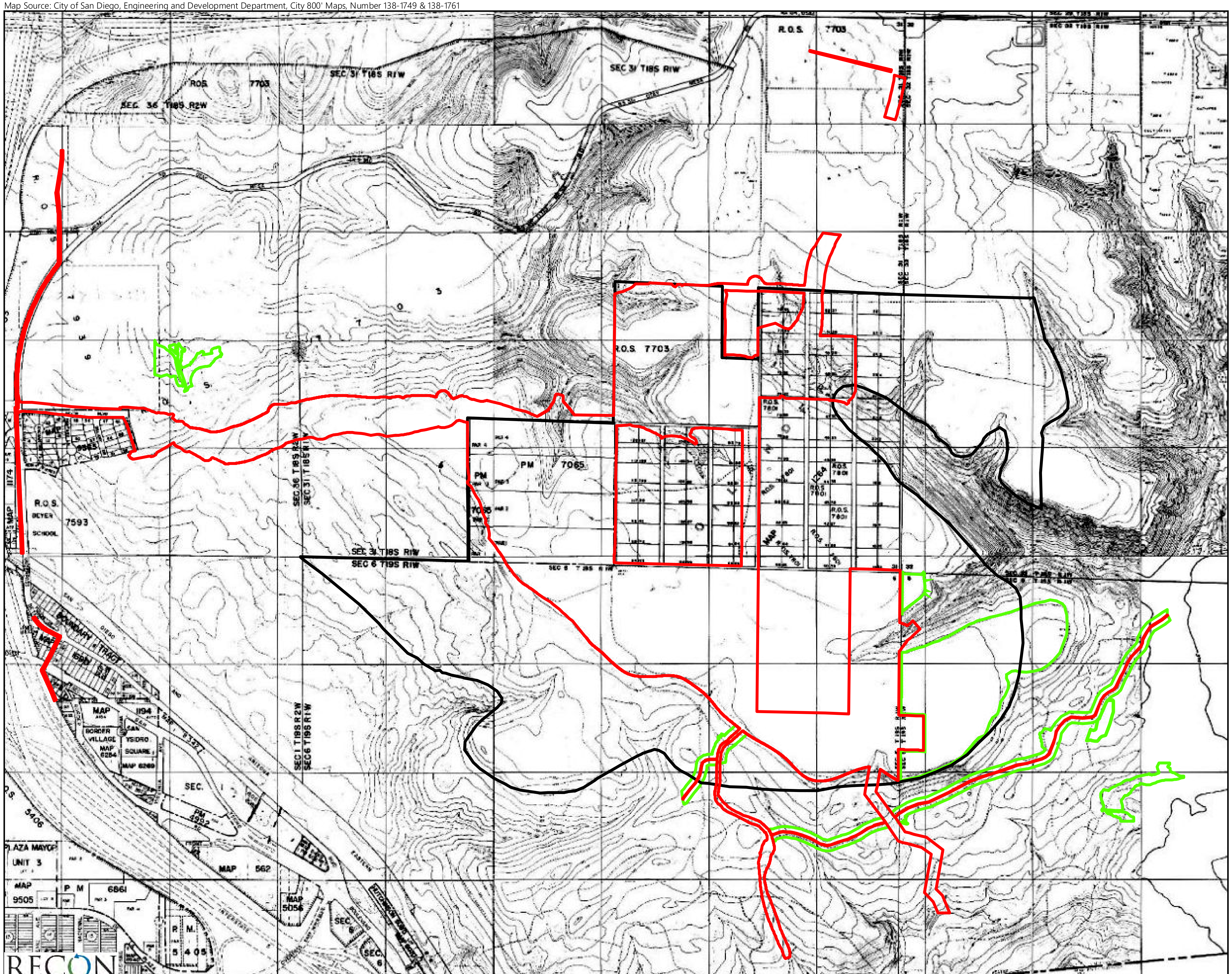
FIGURE 2

Project Location on USGS Map

RECON

M:\JOBS5\8868\common_gis\Reports\Arctec_SPA\2024\Spring\Fig2.mxd 03/08/2024 bma

Map Source: City of San Diego, Engineering and Development Department, City 800' Maps, Number 138-1749 & 138-1761



Project-level Analysis Area

Specific Plan Boundary

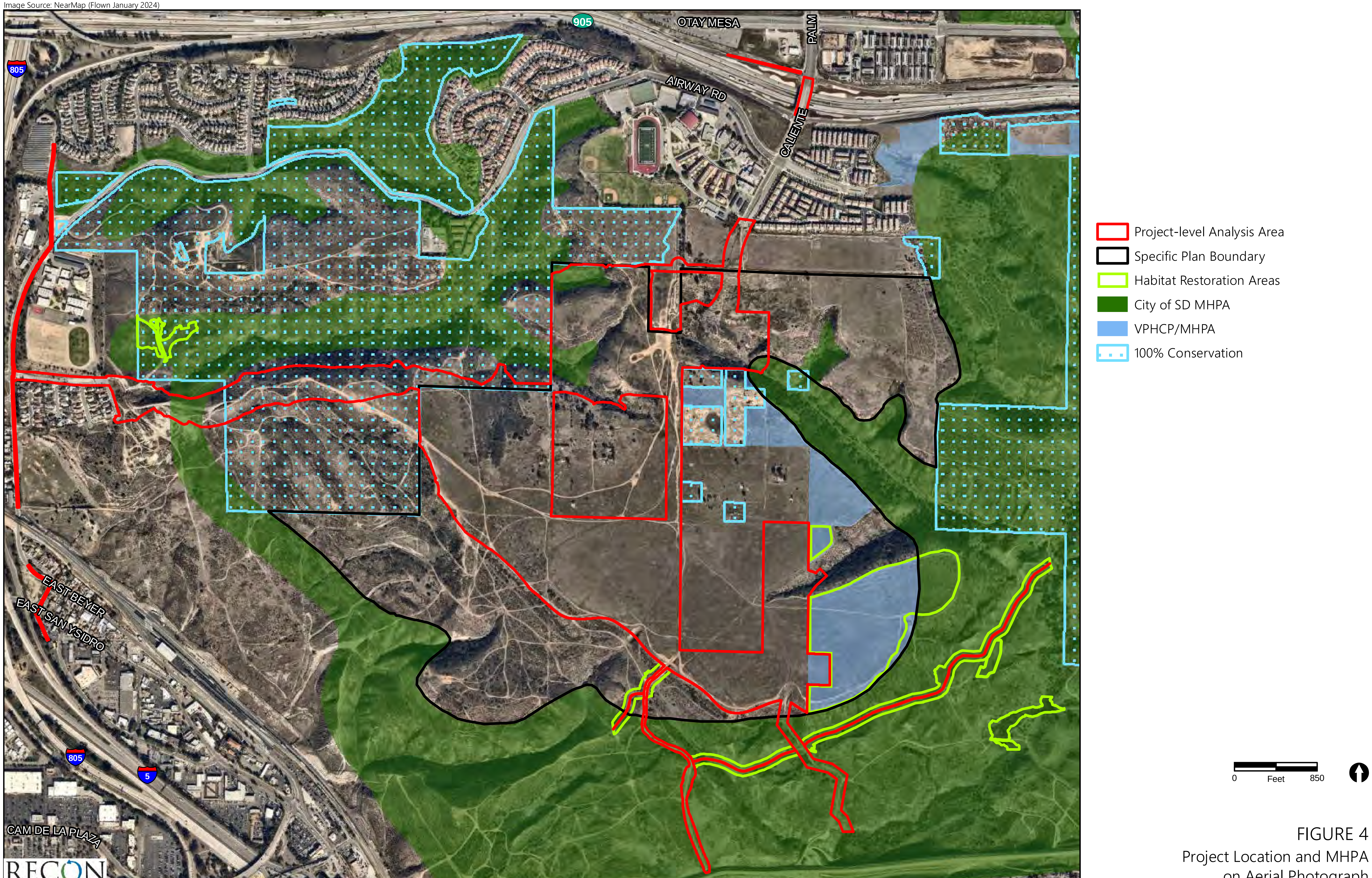
Habitat Restoration Areas

0 Feet 800

FIGURE 3
Project Location on City 800' Map

M:\JOBS5\8868\common_gis\Reports\Arctec_SPA\2024\Spring\Fig3.mxd 03/08/2024 bma

Image Source: NearMap (Flown January 2024)



RECON

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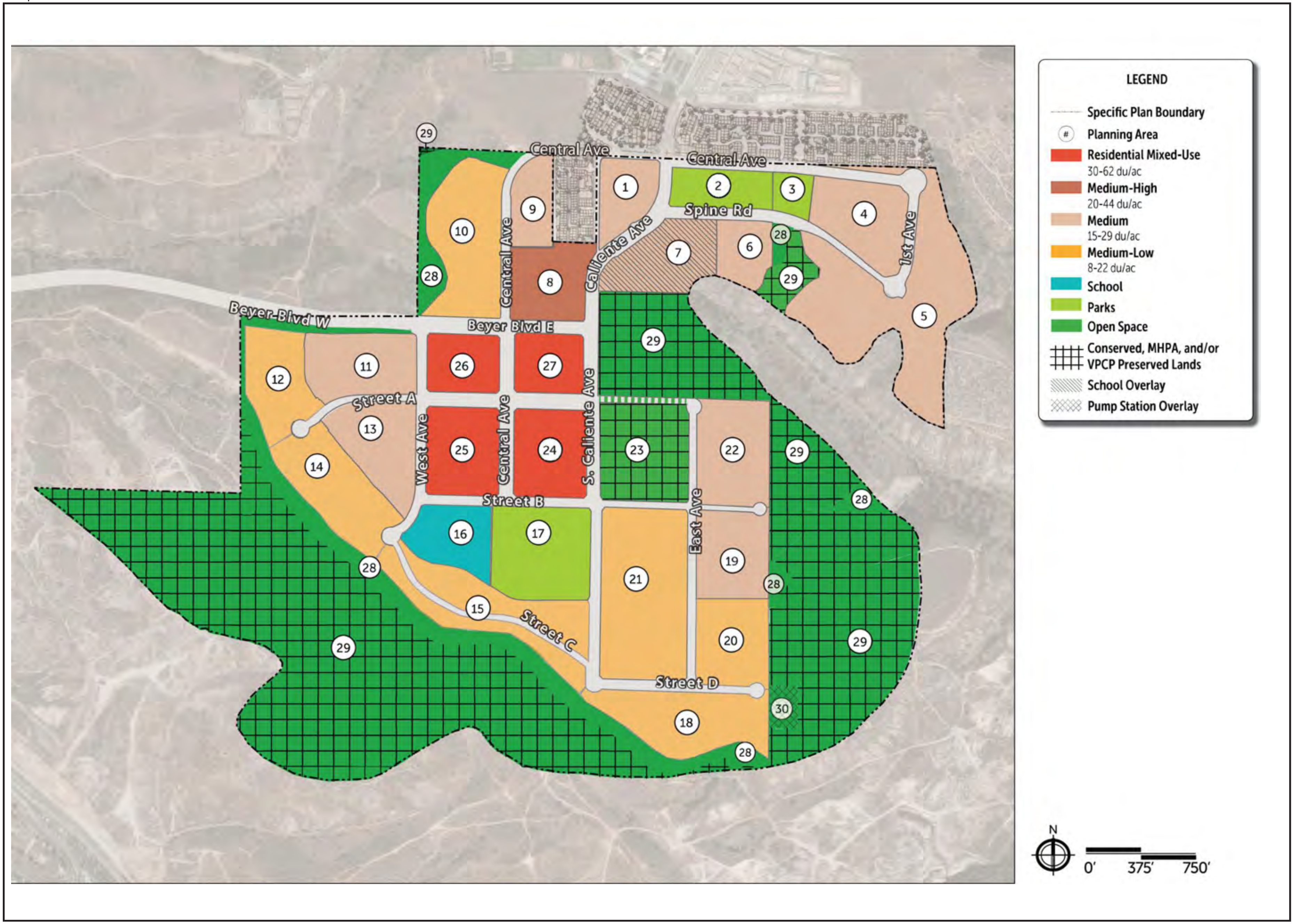
FIGURE 4
Project Location and MHPA
on Aerial Photograph

Map Source: Placeworks



RECON

FIGURE 5

Specific Plan Development Concept

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Image Source: NearMap (Flown January 2024)

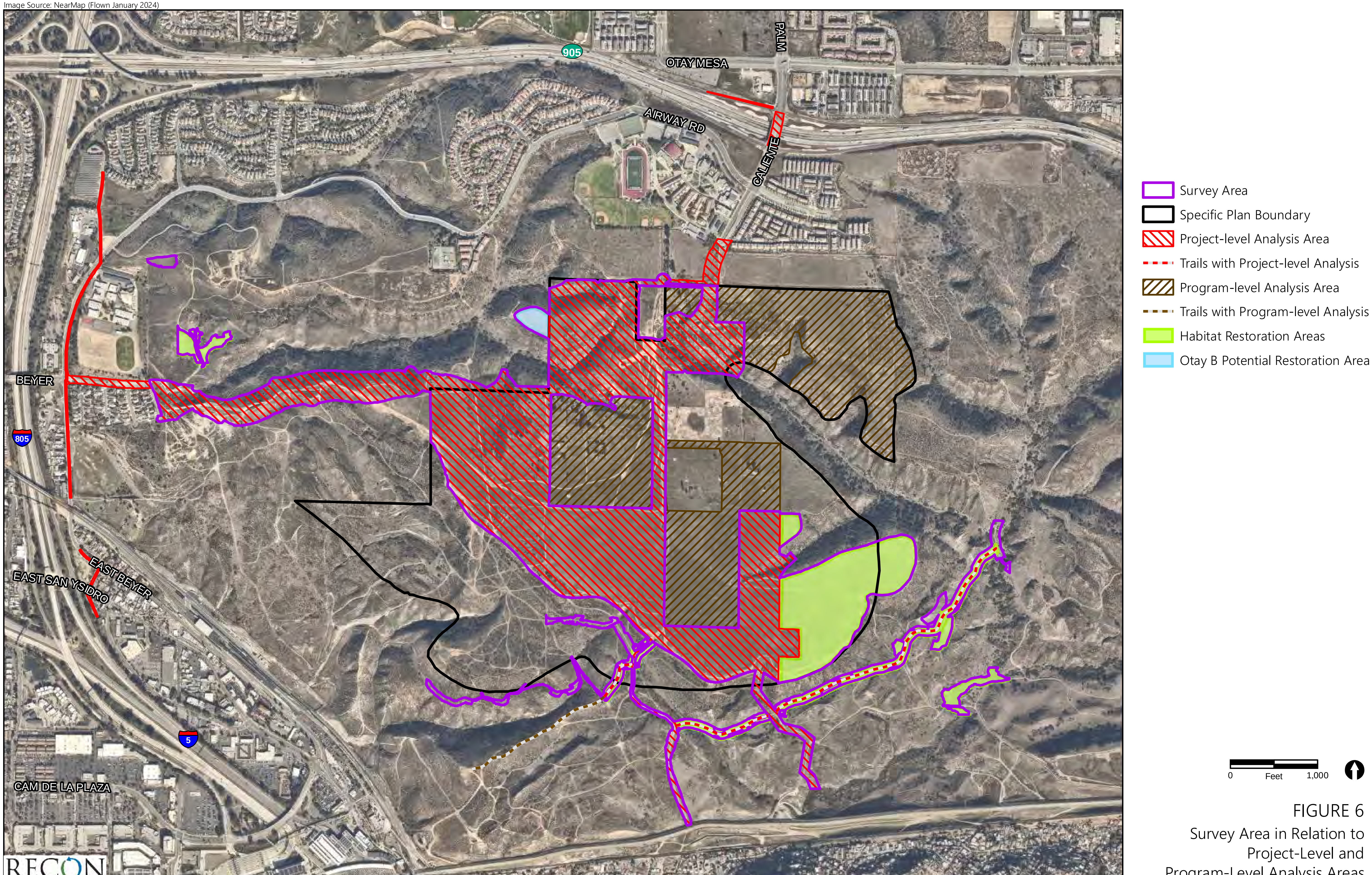


FIGURE 6
Survey Area in Relation to Project-Level and Program-Level Analysis Areas

M:\JOBS5\8868\common_gis\Reports\Arctec_SPA\2024\Spring\Fig6.mxd 05/20/2024 bma

Map Source: Placeworks

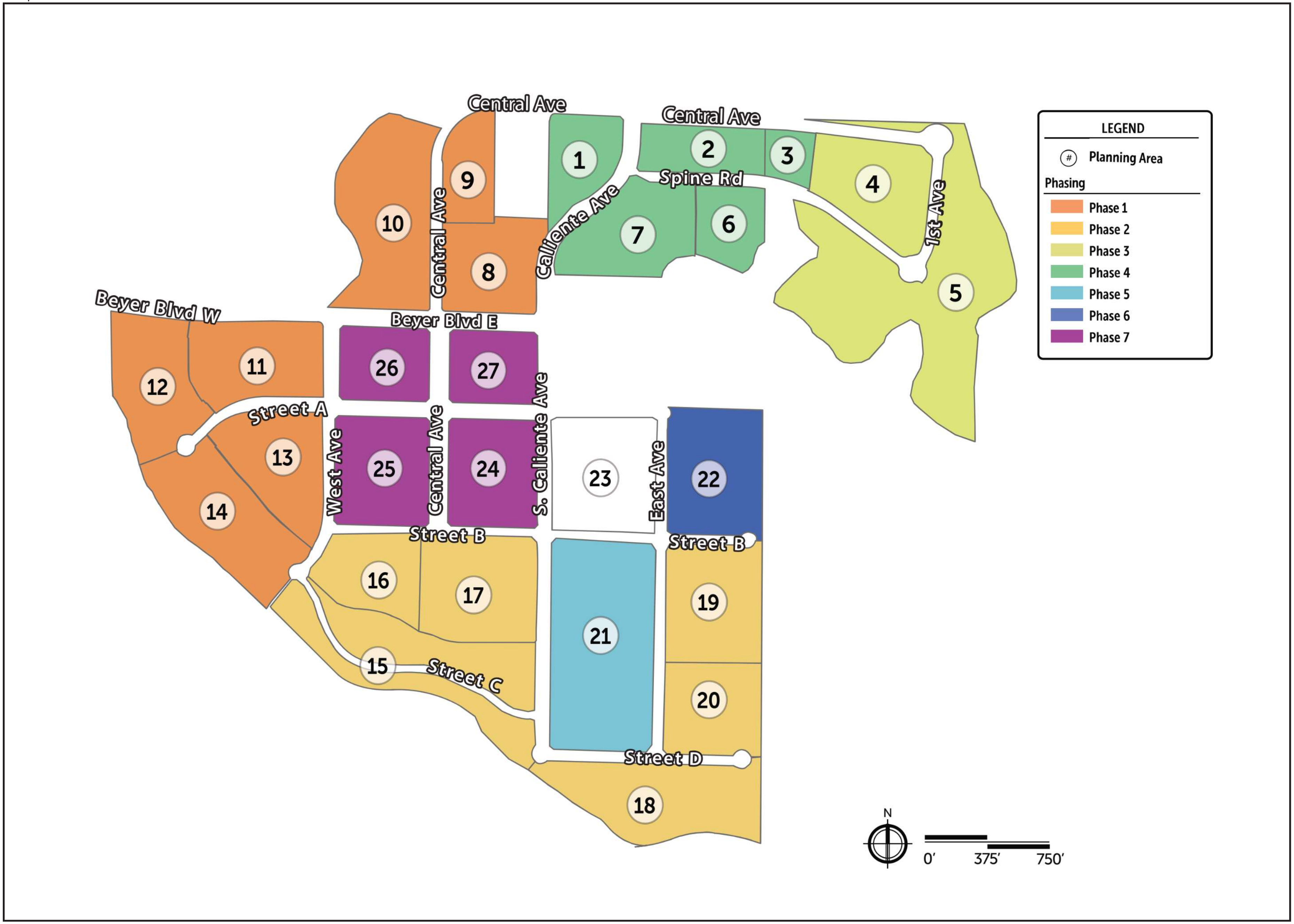


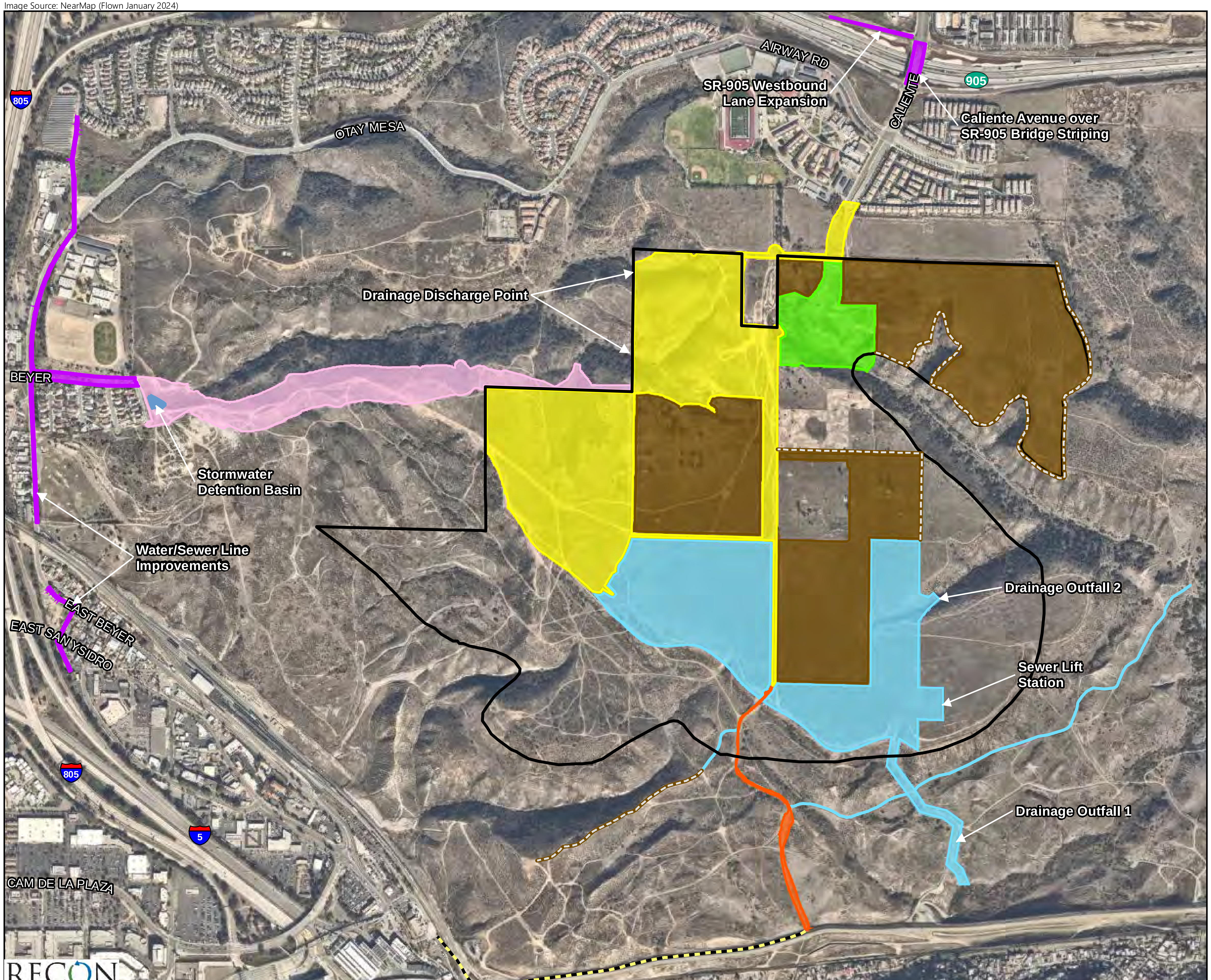
FIGURE 7

Specific Plan Development Phasing

RECON

M:\JOBS5\8868\arc\graphics\Arctec_SPA\2024\Fig7.afdesign 03/08/24 bma

Image Source: NearMap (Flown January 2024)



Specific Plan Boundary
Phase 1
Phase 2
Phase 4
Beyer Boulevard
Off-site Improvements
Emergency Vehicle Access Road
Emergency Vehicle Access Road -
No Improvements Required (Existing Road)
Program-level Analysis Phases 3-7
Program-level Conceptual Trails*

* Program-level Conceptual trails require further evaluation and study to identify final alignments. The identification of conceptual trail alignments graphic does authorize public use of trails.

0 Feet 900

FIGURE 8
Grading Phasing

M:\JOBS5\8868\common_gis\Reports\Arctec_SPA\2024\Spring\Fig8.mxd 03/15/2024 bma

Image Source: NearMap (Flown January 2024)

Project-level Analysis Area
Specific Plan Boundary
Habitat Restoration Areas
Otay B Potential Restoration Area
City of SD MHPA

Proposed Trails

Perimeter Trail (Borders Development)
New Trail
Trail Within Existing Disturbance
Emergency Vehicle Access Road
Emergency Vehicle Access Road - No Improvements Required (Existing Road)

0 Feet 900

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FIGURE 9
Trail Network

2.2.1 Program-level Components

The portion of the Specific Plan evaluated at the program-level includes approximately 130.73 acres within the central and eastern portions of the Specific Plan area in addition to 1,764 linear feet of trails. As future projects come forward within the program-level area, they would require additional environmental review and project specific survey efforts to verify existing on-site historical resources, identify project specific impacts, and propose project-specific mitigation. The program-level analysis herein is intended to address potential historical resources impacts at the program-level and provide a mitigation framework for the future development consistent with the OMCP Final Environmental Impact Report (FEIR).

2.2.1.1 Residential and Mixed-use Development

Future residential portions of the Specific Plan evaluated at the program-level include Planning Areas 3 through 6, 21 through 27, and portions of Planning Areas 1, 2, and 7 (see Figures 6 and 7). Mixed-use development is anticipated within Phase 7, which includes Planning Areas 24 through 27, located within the central portion of the Specific Plan area. These program-level areas are under a variety of ownerships and the timing of development is unknown at this time. Future site-specific analysis and survey efforts would be required prior to development within these areas.

2.2.1.2 Infrastructure Improvements

Implementation of the Specific Plan would require a number of infrastructure improvements such as new roadways and water, sewer, drainage, and storm water infrastructure. A pump station in the northeast portion of the Specific Plan area would be required to support future development areas. As detailed in Figure 5, internal roadways would be required to serve future program-level development areas.

2.2.1.3 Program-level Trails

The project includes refinements to the OMCP trail network both within the Specific Plan boundary and within the open space surrounding the Specific Plan area. Changes to the OMCP trail network largely include replacing the OMCP trail network map with a highly conceptual map. Trails associated with the project are shown on Figure 9. A perimeter trail is proposed that would border the development area. Additionally, some primitive trails are proposed through open space areas within existing disturbed alignments. Although minor, ground disturbance may be required to formalize primitive trails. One out and back primitive trail segment, measuring approximately 1,764 linear feet, is identified as part of the program-level trail network just southwest of the Specific Plan area. Other program-level trails include portions of the perimeter trail along the eastern portion of the Specific Plan area.

2.2.2 Project-level Components

Project-level components of the Specific Plan include Phase 1 of the residential development including infrastructure to support Phase 1. Implementation of Phase 1 would include development of up to 920 multi-family (detached and attached) residential units within Planning Areas 8 through 14 (see Figure 7). The supporting infrastructure would include improvements to an existing dirt road to provide a secondary EVA, construction of Beyer Boulevard along with on and off-site water and sewer infrastructure improvements and transportation improvements. The project-level component also includes rough grading within Planning Areas 15 through 20 as shown on Figure 7 to support balanced grading for Phase 1. Rough grading areas that are addressed in this analysis include areas shown on Figure 8 as Phases 2 and 4. This Historical Resources report analyzes implementation of the Specific Plan at a project-level for Planning Areas 8 through 20 and portions of Planning Areas 1, 2, and 7 (see Figure 7), in addition to grading within Phases 1, 2, and 4, the EVA road, Beyer Boulevard, and off-site improvement areas as depicted on Figure 8. The project-level components include implementation of the trail network on Figure 9.

Implementation of Phase 1 would occur in subphases, with the initial phase including development of the first 200 units and construction of a temporary pump station to provide water and sewer service. Access to these first 200 units would be via Caliente Avenue and Central Avenue. Phase 1b includes construction of up to 699 units that would be supported by another temporary sewer pump station and improvements to the EVA road for secondary emergency fire access. The remaining units within Phase 1 would be associated with Phase 1c, which would require Beyer Boulevard to be complete. Grading phasing areas are depicted on Figure 8. The VTM site plan and the extent of the project-level analysis area are depicted on Figure 10. The project-level analysis area includes approximately 218 acres and descriptions of each project-level component are presented in the following sections.

2.2.2.1 Roadway Improvements

Internal to the Specific Plan, implementation of the project-level areas would include construction of internal streets to provide access to the development areas. In addition to the internal roadways, the following improvements would be required outside of the Specific Plan.

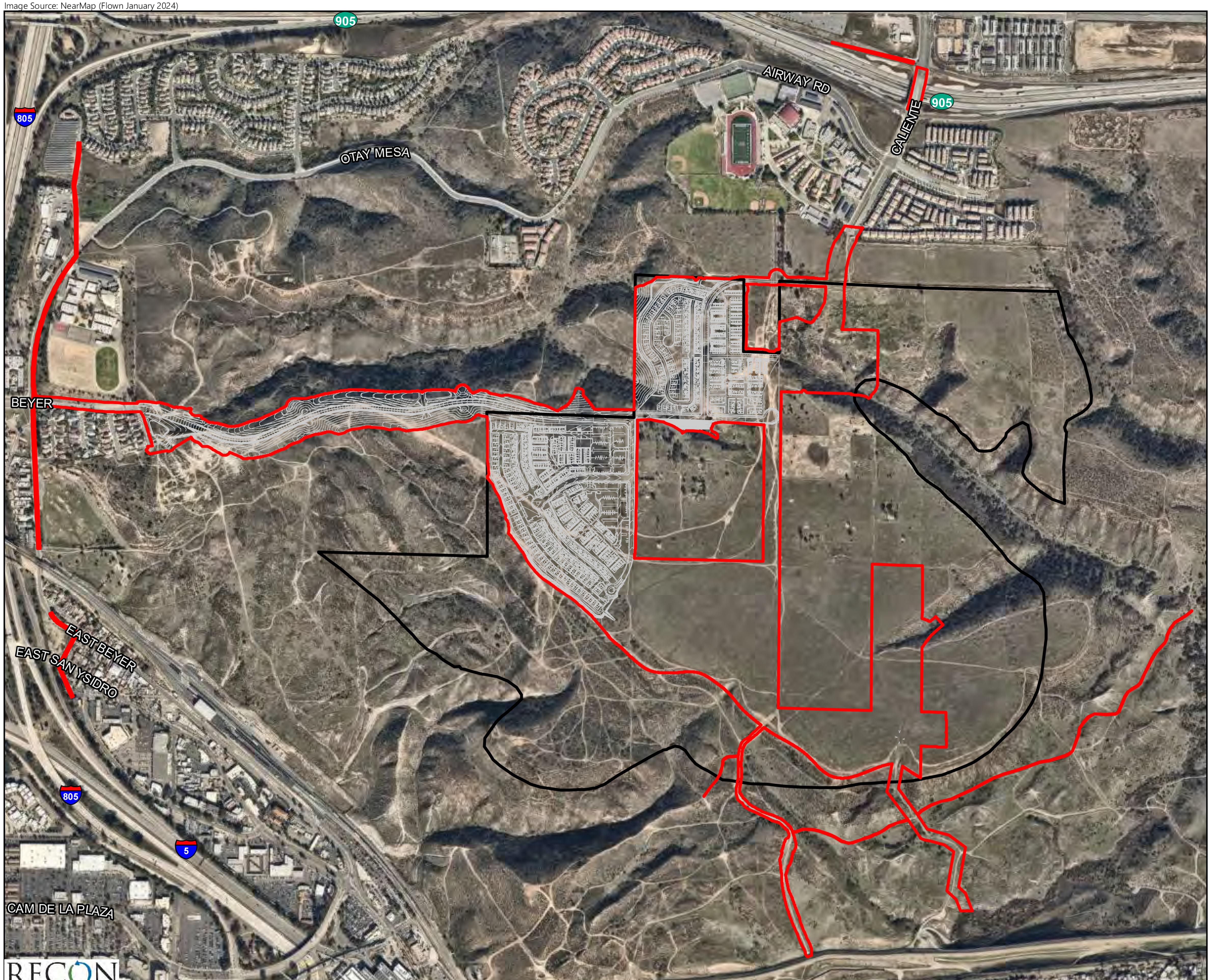
a. Beyer Boulevard Extension

The extension of Beyer Boulevard is proposed as a project-level improvement to provide access from San Ysidro to the Specific Plan area (Figures 11.1 through 11.4).

Beyer Boulevard East

As detailed in the Specific Plan, Beyer Boulevard within the Specific Plan boundary is referred to as Beyer Boulevard East and would be constructed as a modified 4-lane Urban Major.

Image Source: NearMap (Flown January 2024)



Project-level Analysis Area
Specific Plan Boundary
Site Plan

0 Feet 900

FIGURE 10
Site Plan

M:\JOBS5\8868\common_gis\Reports\Arctec_SPA\2024\Spring\Fig10.mxd 03/08/2024 bma

Map Source: CivilSense, Inc.

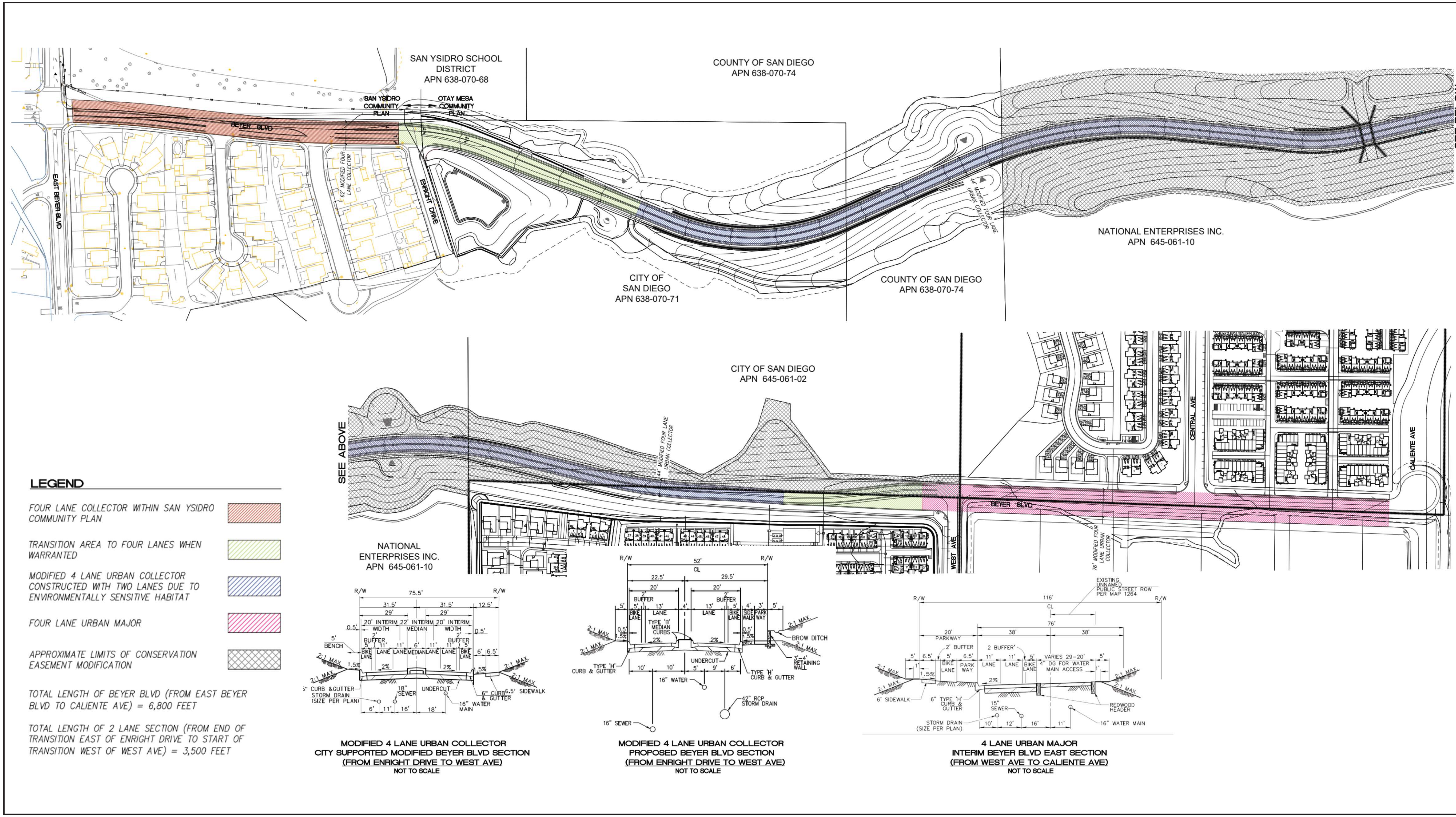
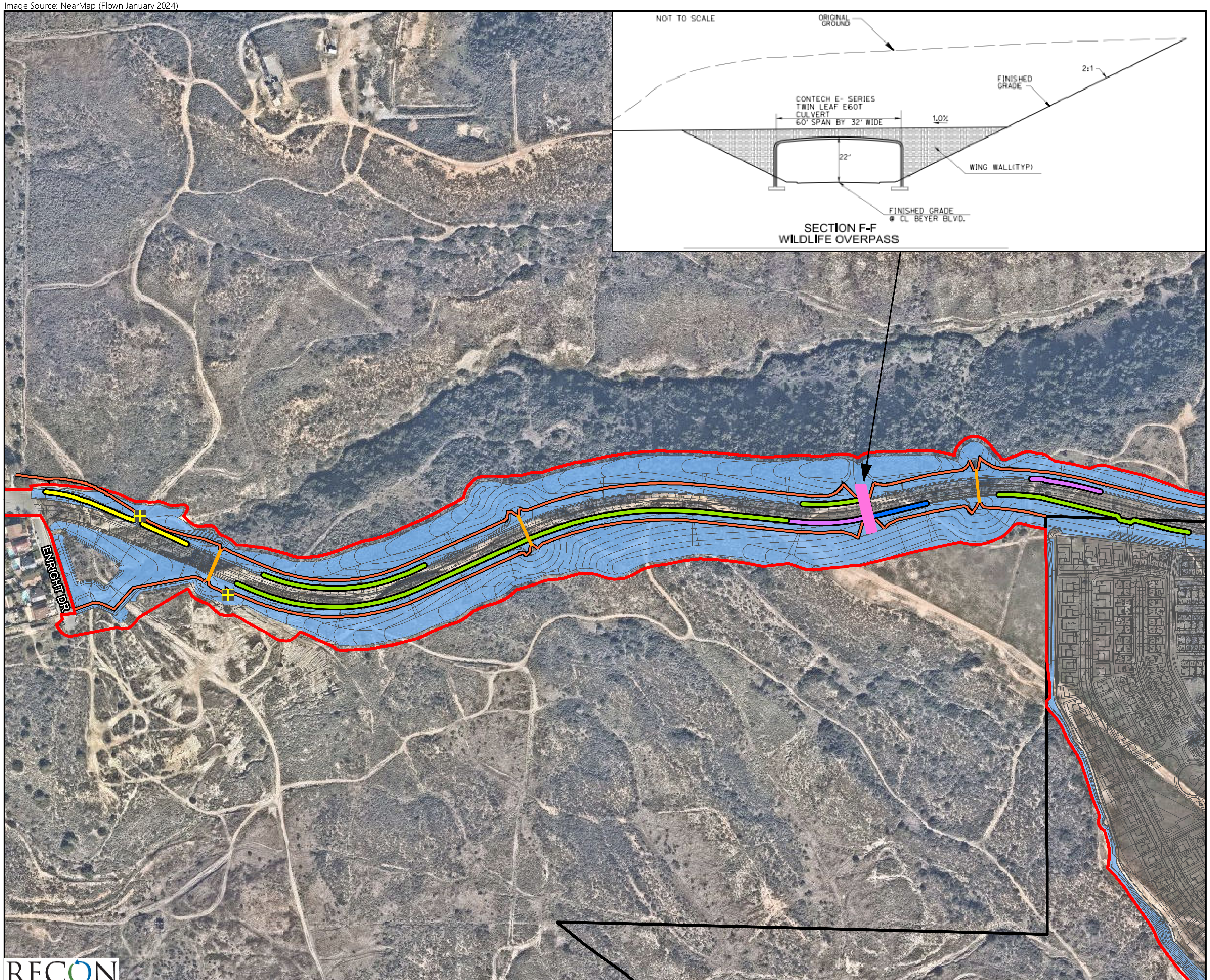


FIGURE 11.1
Beyer Boulevard

Image Source: NearMap (Flown January 2024)



Project-level Analysis Area
Specific Plan Boundary
4-foot Retaining Wall
6-foot Masonry Noise Wall
0 - 8-foot Retaining Wall
12-foot Retaining Wall
SDG&E Access Gate
Wildlife Fence
Critter Crossing Culvert (6' dia.)
Wildlife Overcrossing (32' wide by 60' long)
Site Plan
Manufactured Slopes to be Revegetated with Native Species

0 Feet 300

FIGURE 11.2
Beyer Boulevard Wildlife Crossings, Wildlife Fencing, and Retaining Walls

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Map Source: Leppert Engineering Corp.

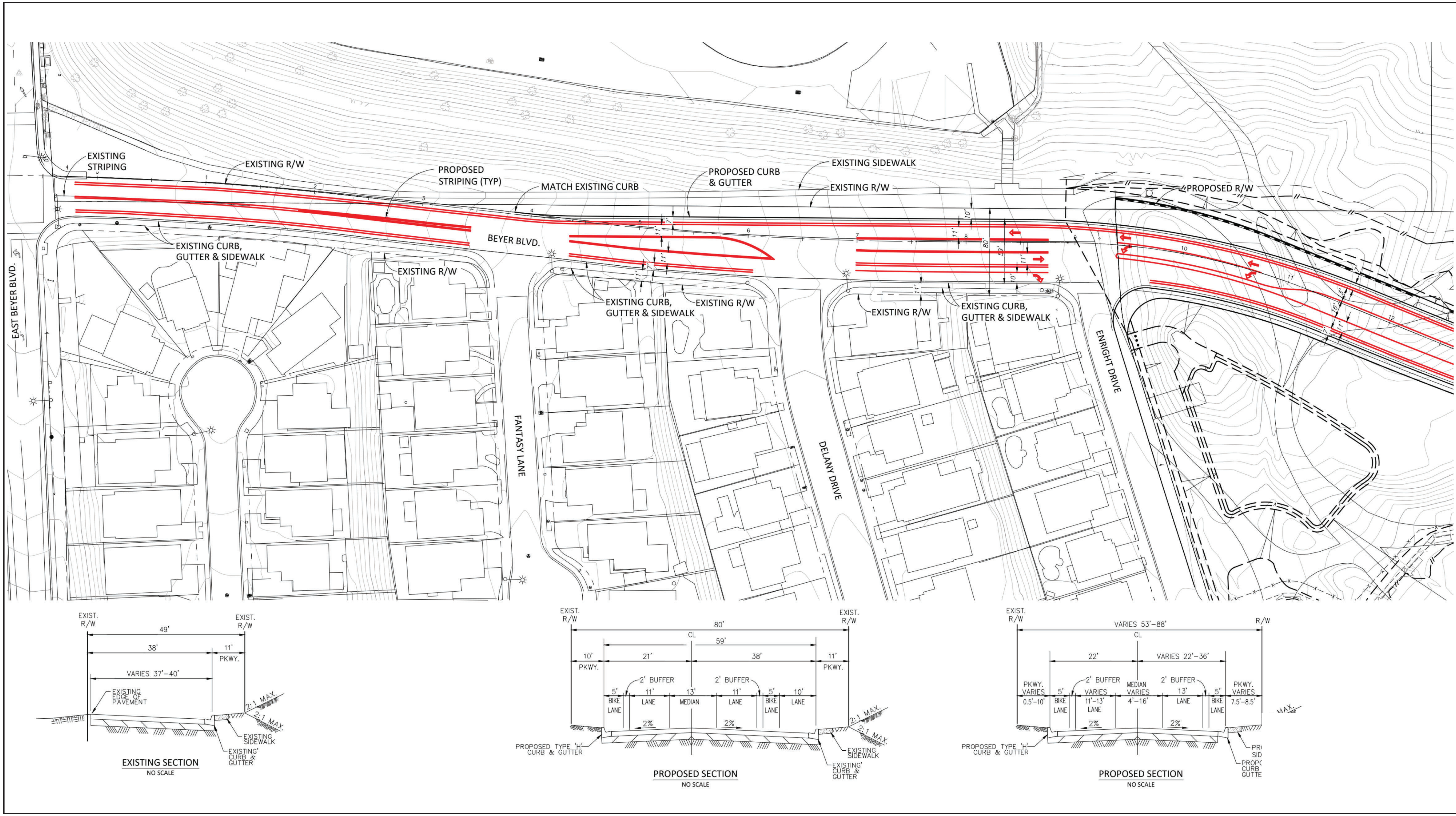
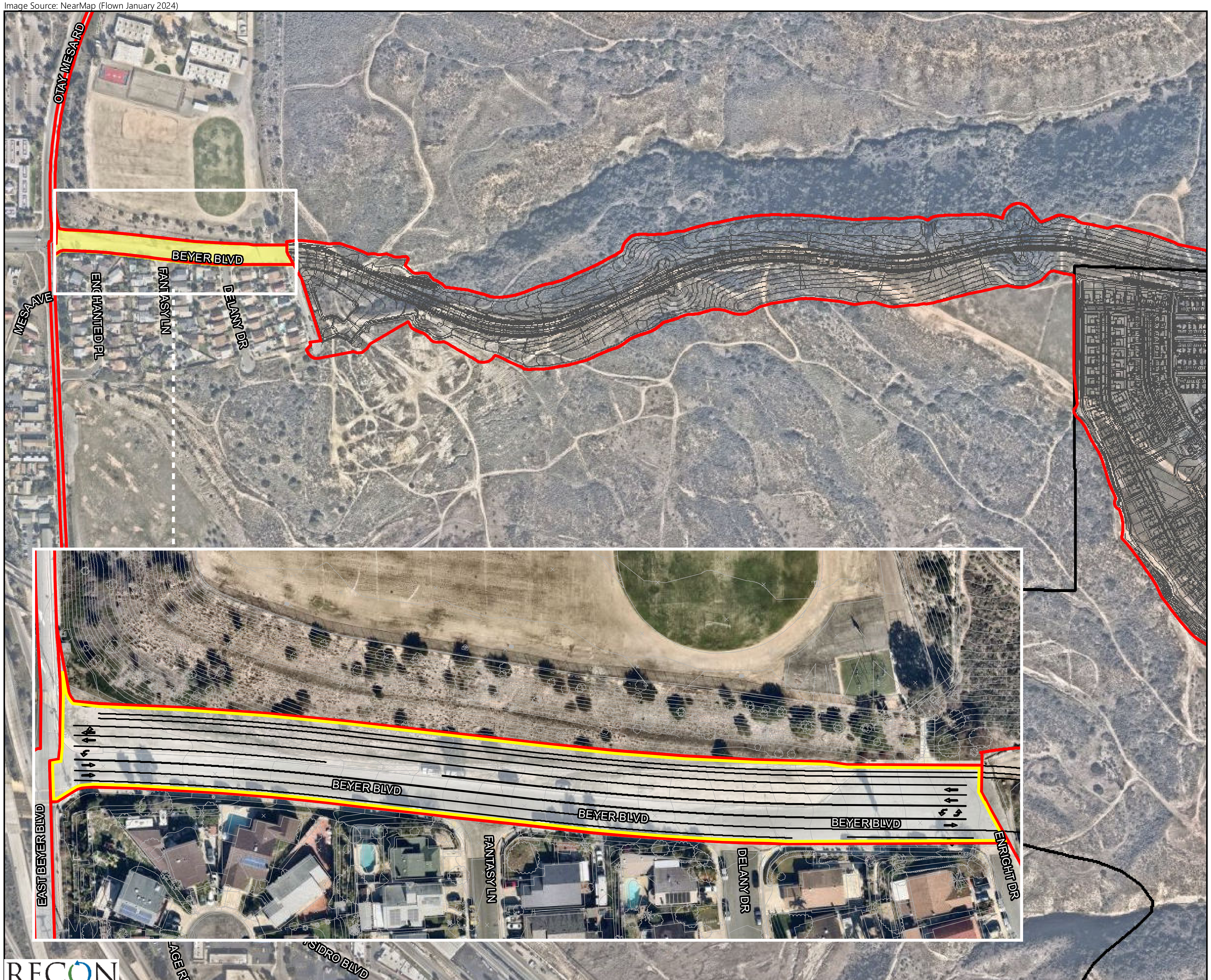


FIGURE 11.3

Beyer Boulevard between Enright Avenue and East Beyer Boulevard - Interim Condition

RECON

Image Source: NearMap (Flown January 2024)



Project-level Analysis Area
Beyer Boulevard Widening
Specific Plan Boundary
Site Plan

0 Feet 400

FIGURE 11.4
Beyer Boulevard Widening between Enright Drive and East Beyer Boulevard - Ultimate Condition

RECON

Beyer Boulevard West

The extension of Beyer Boulevard West of the Specific Plan from Enright Drive to West Avenue is referred to as Beyer Boulevard West, which is planned as a modified 4-lane Urban Collector. Although planned as a modified 4-lane Urban Collector, the roadway is constrained by environmental resources and the Specific Plan specifies that this segment would be built with two instead of four lanes (see Figure 11.1). All manufactured slopes surrounding Beyer Boulevard would be revegetated with native plant species.

A portion of the Beyer Boulevard West segment would pass through conservation easements held by the California Department of Fish and Wildlife (CDFW). The project includes modifying these CDFW conservation easements and providing replacement lands to offset the conservation easement area loss in accordance with Fish and Game Code Section 1348.3. While the final requirements for the proposed land exchange would be determined via the Wildlife Conservation Board process, at this time the project is proposing to provide the preservation of approximately 208 acres of sensitive vegetation communities in exchange for the 15.64 acres of impacted conservation easement area. In addition, a 2.13-acre area within the CDFW conserved Otay B parcel is being considered for restoration opportunities, as discussed in further detail in Section 2.2.2.4.f below.

The proposed Beyer Boulevard West extension incorporates three culverts to allow for wildlife movement in addition to a wildlife overcrossing for larger animals. Wildlife fencing will be installed along the length of Beyer Boulevard on the north and south sides. A number of retaining walls have been incorporated into the roadway design largely to limit habitat impacts. Retaining walls include 4-foot to 12-foot retaining walls along the north and south sides of Beyer Boulevard to minimize impacts to conserved properties (see Figure 11.2). This segment of Beyer Boulevard would need to be complete and operational prior to occupancy of the 700th residential unit.

Beyer Boulevard between Otay Mesa Road and Enright Drive (San Ysidro)

As detailed in Figure 11.3, the current Beyer Boulevard in San Ysidro between Otay Mesa Road and Enright Drive is proposed to be improved with revised striping within the existing right-of-way limits during Grading Phase 1b. This is an interim improvement that would ensure adequate roadway functioning until the final roadway improvement is implemented as part of Phase 4 of the Specific Plan.

The limits of disturbance for this segment assume a wider area in anticipation of the requirement to widen this segment to four lanes to its ultimate improvement width which would require acquisition of right-of-way from the San Ysidro School District. The ultimate Beyer Boulevard improvement between Enright Drive and Otay Mesa Road is depicted on Figure 11.4. Along the northern edge of this segment, an approximately 6,900-linear-foot retaining wall ranging in height from 1 to 16 feet at its highest point would be required. The required timing for this improvement corresponds to implementation of Phase 4 of the Specific Plan prior to issuance of occupancy permits for the 3,301st dwelling unit (after construction of an elementary school and a 17.6 public park), although it may be implemented sooner.

b. Caliente Avenue and Central Avenue

Caliente Avenue is the main access into the Specific Plan area from Otay Mesa. Access to proposed Phase 1a residential development would require construction of Caliente Avenue north of the Specific Plan boundary from its current terminus in Otay Mesa, south to the planned connection with Central Avenue. Phase 1a would include construction of this segment of Caliente Avenue as well as Central Avenue west of Caliente Avenue. Impacts associated with construction of Caliente Avenue from the current terminus in Otay Mesa to Central Avenue were evaluated as part of a previous entitlement called the Candlelight project (City PTS# 30329). As the project would require this segment of roadway for access, the results of the previous historical resources analysis are disclosed in this report. Rough grading around Caliente Avenue south of Central Avenue is evaluated as part of the Phase 4 component.

c. West Avenue and Street A

Internal to the Specific Plan, Phase 1b would also include construction of West Avenue and Street A to provide access to residential development areas.

d. State Route 905 and Caliente Avenue Improvements

The project proposes improvements to the SR-905 and Caliente Avenue interchange. The improvements detailed below shall be completed and operational prior to occupancy of the 201st dwelling unit.

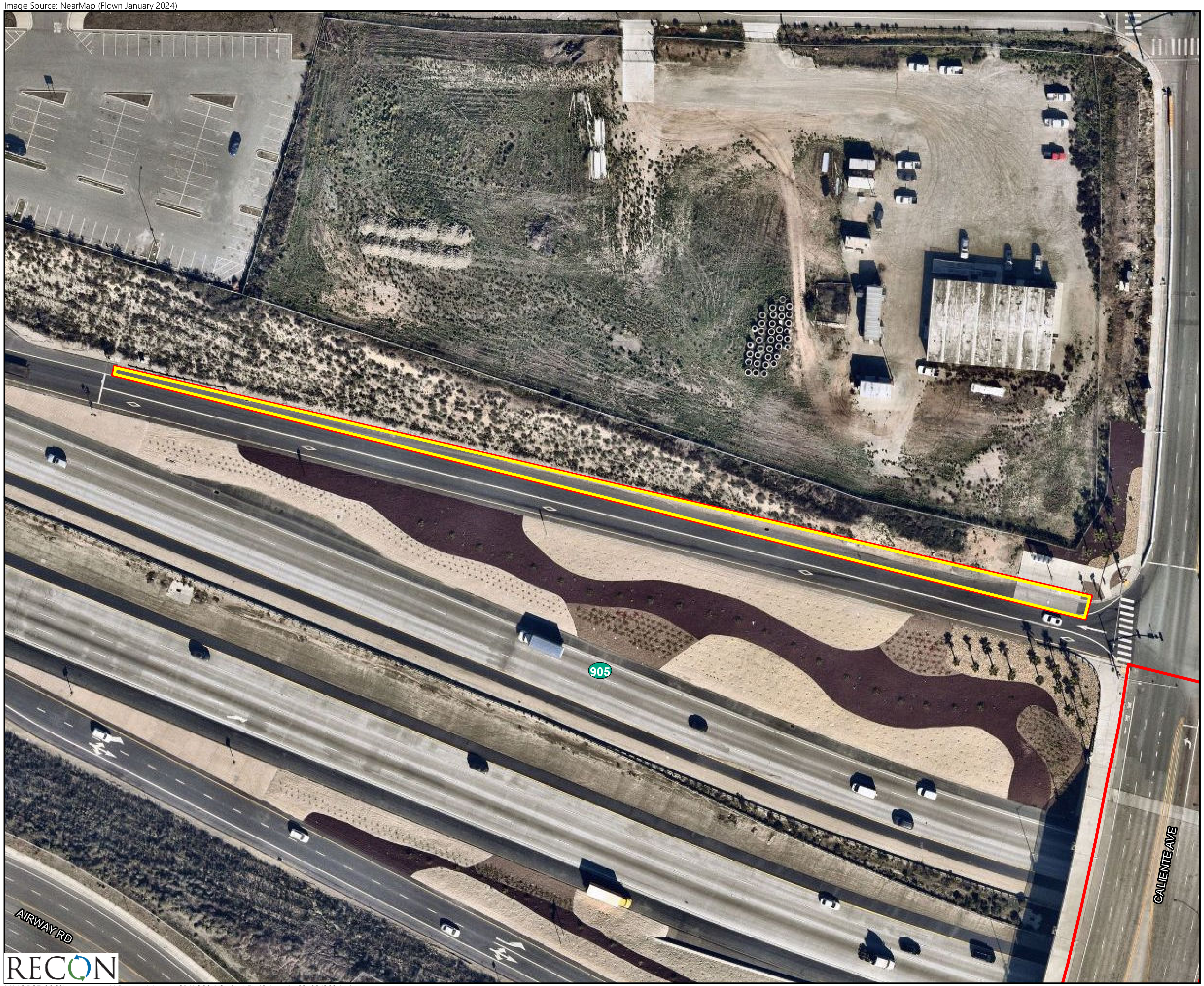
State Route 905 Westbound On-Ramp Widening

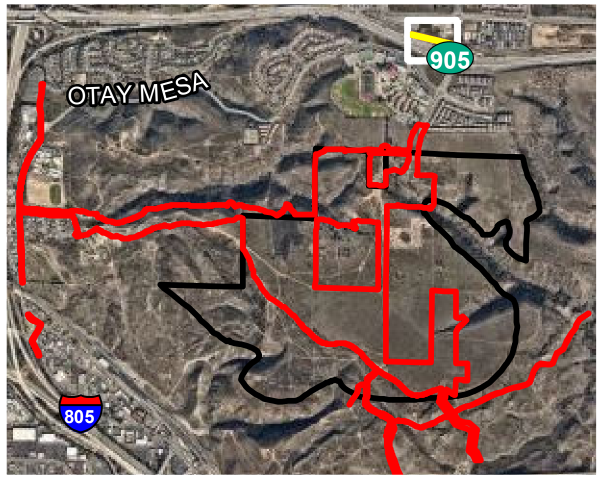
Widening of approximately 775 linear feet of the westbound SR-905 on-ramp at Caliente Avenue is required to ensure adequate roadway operations with implementation of Phase 1 of the project. This improvement involves adding a lane within the existing California Department of Transportation (Caltrans) right-of-way (Figure 12.1).

Restriping and Signal Modifications within the Caliente Avenue Bridge over State Route 905

Intersection reconfiguration of Caliente Ave/SR-905 westbound ramps is proposed to install a second northbound left turn lane (through re-striping on the bridge over SR-905), construct a second receiving lane to the on-ramp, and restripe the number one left turn lane from 100 feet of storage to 300 feet of storage (Figure 12.2). Traffic signal modifications, designed to the satisfaction of the City Engineer and Caltrans Engineer, may also be required.

Image Source: NearMap (Flown January 2024)





Project-level Analysis Area
Road Widening
Specific Plan Boundary

0 Feet 75

RECON

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FIGURE 12.1
State Route 905 & Caliente Avenue
Westbound On-Ramp

Map Source: Civil Sense, Inc.

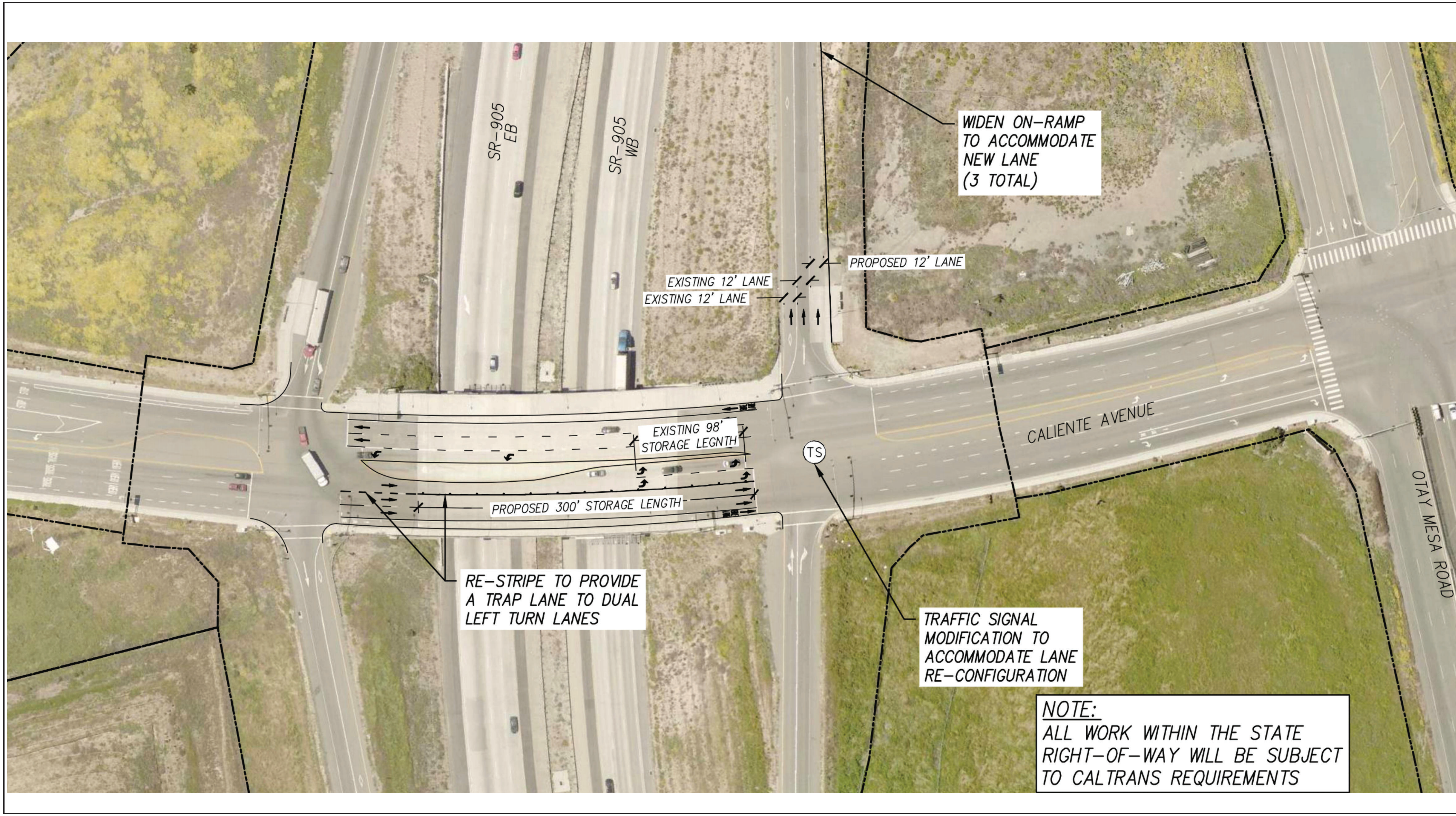

Figure 12.2
Caliente Avenue SR-905 Bridge Restriping and Signal Improvements

RECON
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e. Southern Emergency Vehicle Access Road

The project is subject to the City's Fire Protection and Prevention regulations (SDMC Section 511.0104), which adopted the 2022 California Fire Code, Appendix D, Section D106.2, "Multiple-Family Residential Developments with Significant Fire Risk," which states that multi-family residential projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system. Accordingly, the project requires a secondary access route prior to occupancy of the 200th unit. The secondary emergency access is proposed to be provided through either the construction of Beyer Boulevard or through improving an existing utility road south of the Specific Plan area to an EVA road that meets secondary emergency access requirements (Figure 12.3). The Beyer Boulevard connection is required to be operational prior to the occupancy of the 700th unit for transportation and circulation purposes.

In the event the EVA road is implemented as a component of this project, improvements would involve grading, scraping, and placement of surfacing including concrete, asphalt, and/or decomposed granite or gravel. The road width would be 20 feet wide except in one location where it would narrow to 14 feet to avoid sensitive environmental resources. Grading is required along portions of the road to reduce the steepness and achieve a maximum 15 percent grade. Approximately 1.99 acres of grading would be required with the remaining disturbance limited to scraping the road to achieve a consistently flat surface. Approximately 0.74 acre of the roadway would require concrete surfacing in areas that would be at a 15 percent grade. A 0.12-acre portion of the road would require asphalt due to steep grades, while the remaining portions of the road (approximately 2.09 acres) would be surfaced with decomposed granite or gravel for stabilization. Grading quantities include approximately 6,780 cubic yards of cut and 8,220 cubic yards of fill.

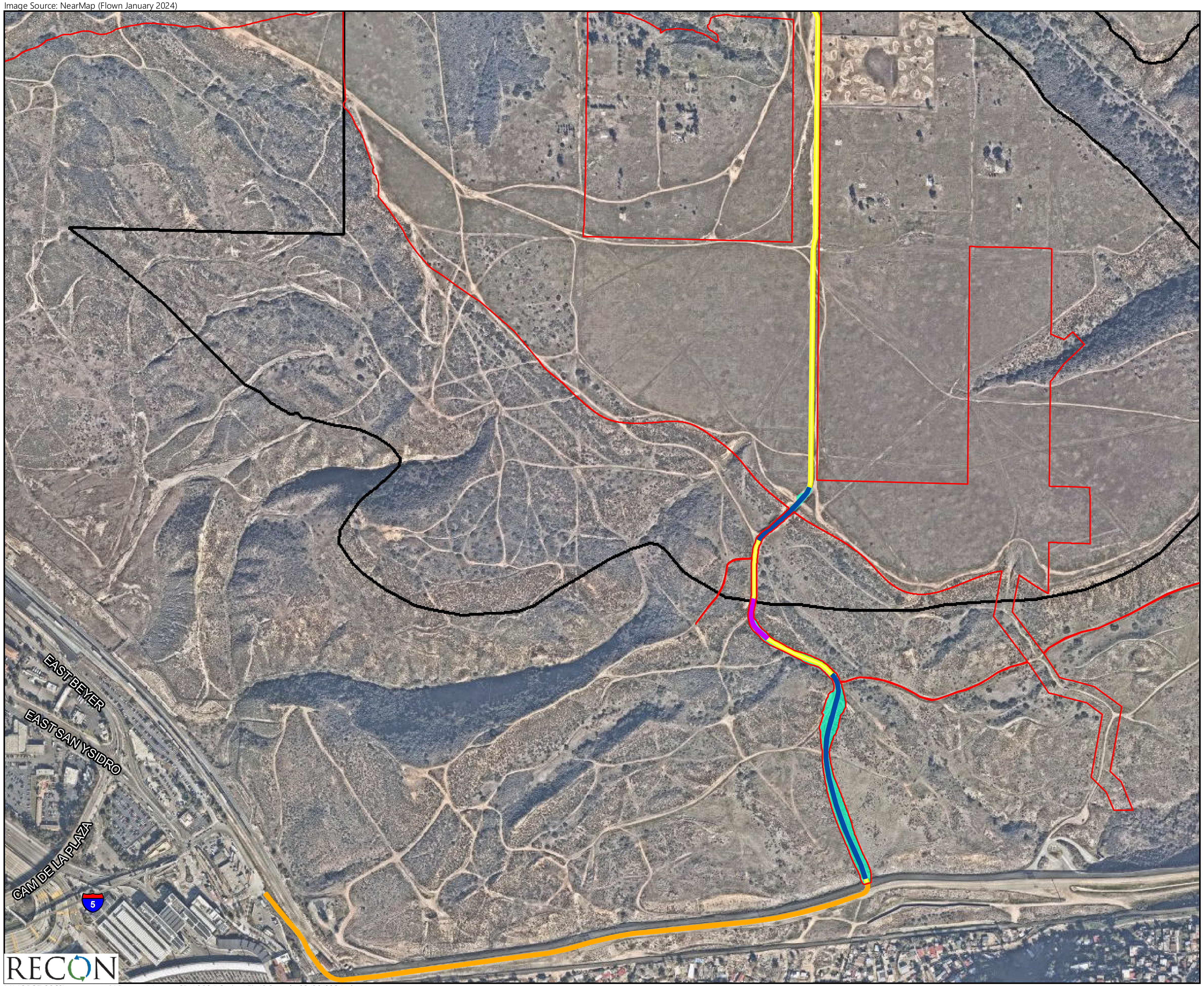
The EVA road would provide secondary emergency only vehicle access for up to the first 699 units within Phase 1. Ultimately, after build-out of Phase 2 residential components and public roadways including South Caliente Avenue, the EVA road access would be provided from the intersection of South Caliente Avenue and D Street. Access to the EVA road would be gated to prohibit public vehicular access; however, pedestrian and non-motorized bicycles would be permitted along the EVA road to allow connection to the proposed primitive trail network.

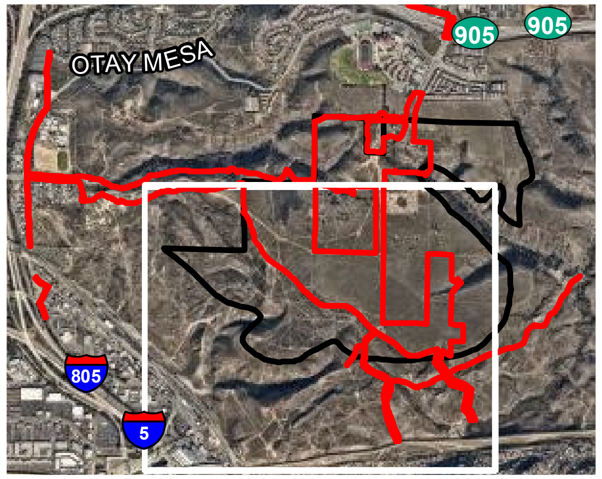
2.2.2.2 Infrastructure Improvements

a. Spring Canyon Drainage Outfall

Implementation of the project requires installation of drainage outfalls that will convey treated water from the mesa top down into the canyon areas. The major drainage outfall is part of the Phase 2 grading area and would convey drainage into Spring Canyon south of the Specific Plan.

Image Source: NearMap (Flown January 2024)





Project-level Analysis Area

Specific Plan Boundary

20-foot Wide Emergency Vehicle Access (EVA)*

Asphalt Paving Required

Concrete Paving Required (15% Grade)

Decomposed Granite/Gravel Surfacing

Existing Access Road

Grading

*Narrows to 14 feet to avoid grading into sensitive resources

Note: The ultimate location of the emergency access route on the top of the mesa is conceptual and may shift within the project-level grading footprint based on need.

0 Feet 550

FIGURE 12.3
Emergency Vehicle Access Road

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b. Water and Sewer Improvements

Water and Sewer Lines and Temporary Pump Stations

Water and sewer line improvements are required to serve the project. Phase 1a of the project would involve installation of a temporary pump station what would connect to a 4-inch private force main to be installed within Central Avenue and Caliente Avenue. The force main within Caliente Avenue would extend north to Airway Road within the existing roadway.

Implementation of Phase 1b would include construction of up to 699 residential units and would require a second temporary pump station in order for development to proceed ahead of permanent water and sewer lines planned in the Beyer Boulevard extension. Ultimately, water and sewer lines would be installed within the footprint of Beyer Boulevard extending west within the proposed Beyer Boulevard extension. West of the extension of Beyer Boulevard, water and sewer line extensions are required to connect to surrounding pipeline and facilities as detailed in Figure 13. As shown, a 16-inch water line connection would extend west within existing Beyer Boulevard in San Ysidro and north within Otay Mesa Road and Otay Mesa Place connecting to the Princess Park Pump Station located at 1740 Masterson Lane. Sewer line improvements would require construction of a pipeline within East Beyer Boulevard and Center Street connecting to existing sewer lines. Construction of water and sewer lines would require installation using a backhoe straddling the new pipeline installation trench, requiring a disturbance width of 20 feet along pipeline installation locations.

Pump Station/Sewer Lift Station

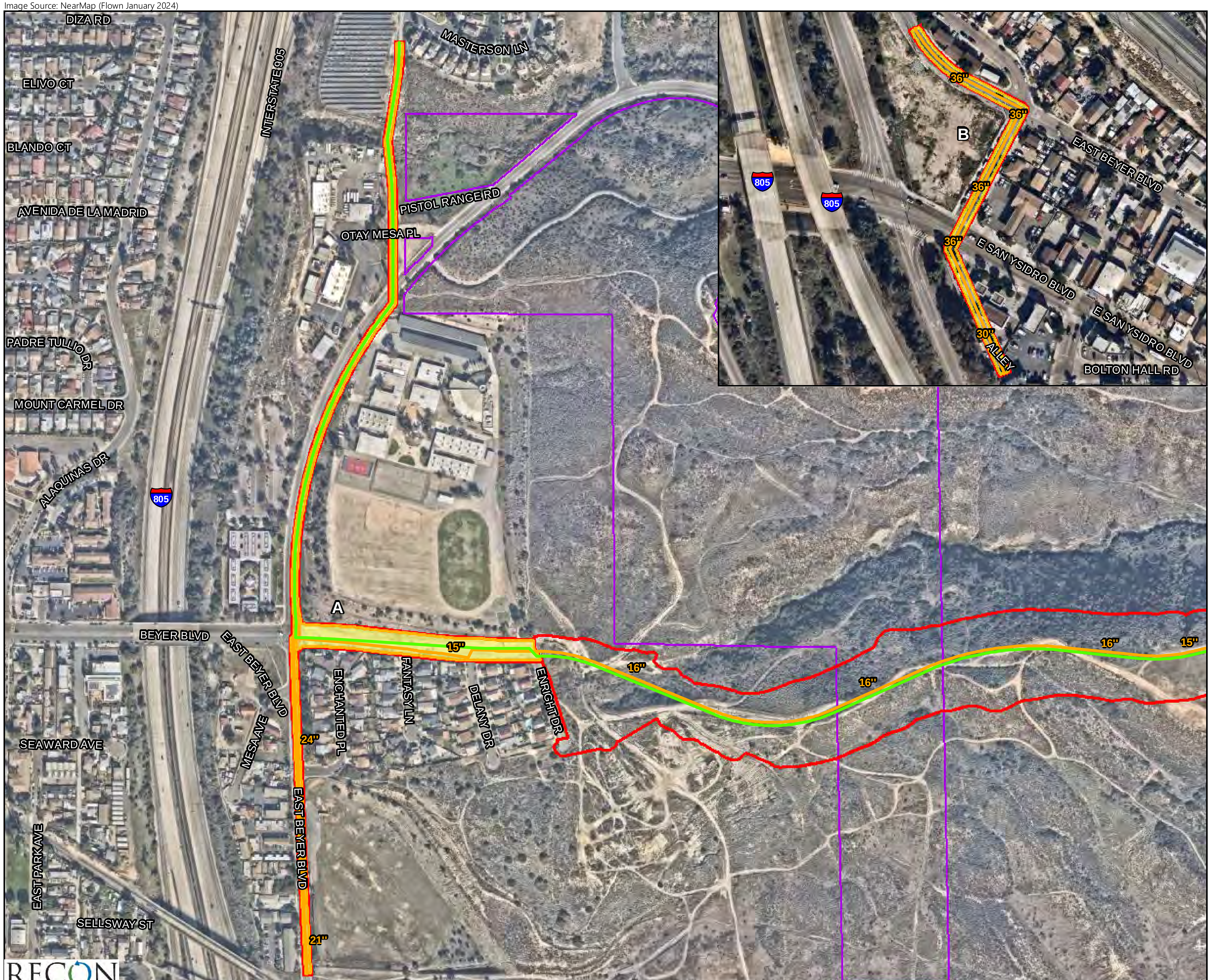
The southeast portion of the Specific Plan area is planned to include a pump station (e.g., sewer lift station) as part of the wastewater infrastructure necessary to support the development of Southwest Village Specific Plan. While the pump station/sewer lift station is not needed to implement Phase 1, the project-level analysis addresses the grading impacts associated with the pump station. The pump station was identified as an allowed use in the VPHCP; therefore, it would be located within the VPHCP preserve and would occupy a maximum of two acres, just east of Planning Area 18. The pump station would be installed as part of Phase 2 of the project, and operations of the pump station are addressed at the program-level.

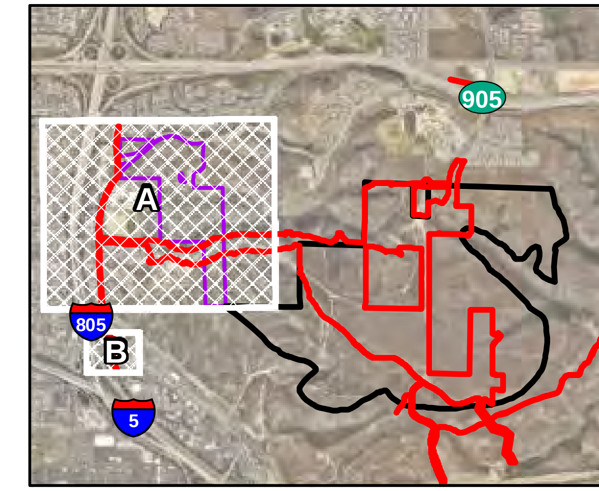
2.2.2.3 Project-level Trail Network

The trails evaluated at the project level are shown on Figure 6. Project-level analysis for the trail network includes those portions of the perimeter trail bordering the edge of the proposed residential development area that are located within the project-level analysis areas. Additionally, primitive trails located largely south of the Specific Plan Area are evaluated at the project level. The overall trails plan is shown on Figure 9.

Approximately one mile of primitive trails is proposed to be improved both within the Specific Plan and south of the Specific Plan boundary. Trail improvements would include trail stabilization, erosion control, and closure of unauthorized trail routes in proximity to proposed formal trail alignments. Primitive trails would be a natural soil/dirt surface for passive recreational use only.

Image Source: NearMap (Flown January 2024)





Project-level Analysis Area

Specific Plan Boundary

Furby North Preserve

Construction Area

Water Line Improvement (16" Pipeline Installation)

Sewer Line Improvement (15" - 36" Pipeline Installation)

Note: Water and Sewer improvements assume a 20-foot disturbance limit

0 Feet 400

FIGURE 13
Off-site Improvements - Water and Sewer Lines

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2.2.2.4 Restoration Areas

As either part of the project design or mitigation for impacts to biological resources, the project includes various habitat restoration efforts. All restoration areas are evaluated in this historical resources report, depicted on Figure 14 and described below.

a. Trail Restoration

In order to close unauthorized trails, restoration of disturbed land and non-native grassland areas within a 100-foot-wide trail corridor (50 feet on each side of the trail) is proposed (see Figure 14). Habitat enhancement would be implemented in areas of disturbed coastal sage scrub, disturbed maritime succulent scrub, and disturbed aquatic resources. Habitat restoration would be implemented in areas of disturbed lands and non-native grasslands. Where needed to protect sensitive resources such as aquatic resources or sensitive plant species, peeler pole fencing would be installed between the trail and sensitive resources.

b. Vernal Pool and Quino Checkerspot Butterfly Habitat Restoration Area

Areas designated as vernal pool preserve by the City's VPHCP would be subject to a restoration effort to enhance and create new vernal pools and Quino checkerspot butterfly habitat within an approximately 33.71-acre area. The restoration effort will involve grading the site to create vernal pools and planting appropriate species for the mitigation effort (see Figure 14).

c. Otay Tarplant and Native Grassland Restoration Area

Impacts to Otay tarplant individuals and native grassland would be mitigated through implementation of an approximately 1-acre proposed Otay tarplant and native grassland restoration area to be located just south of the primitive trail alignment southeast of the Specific Plan area (see Figure 14).

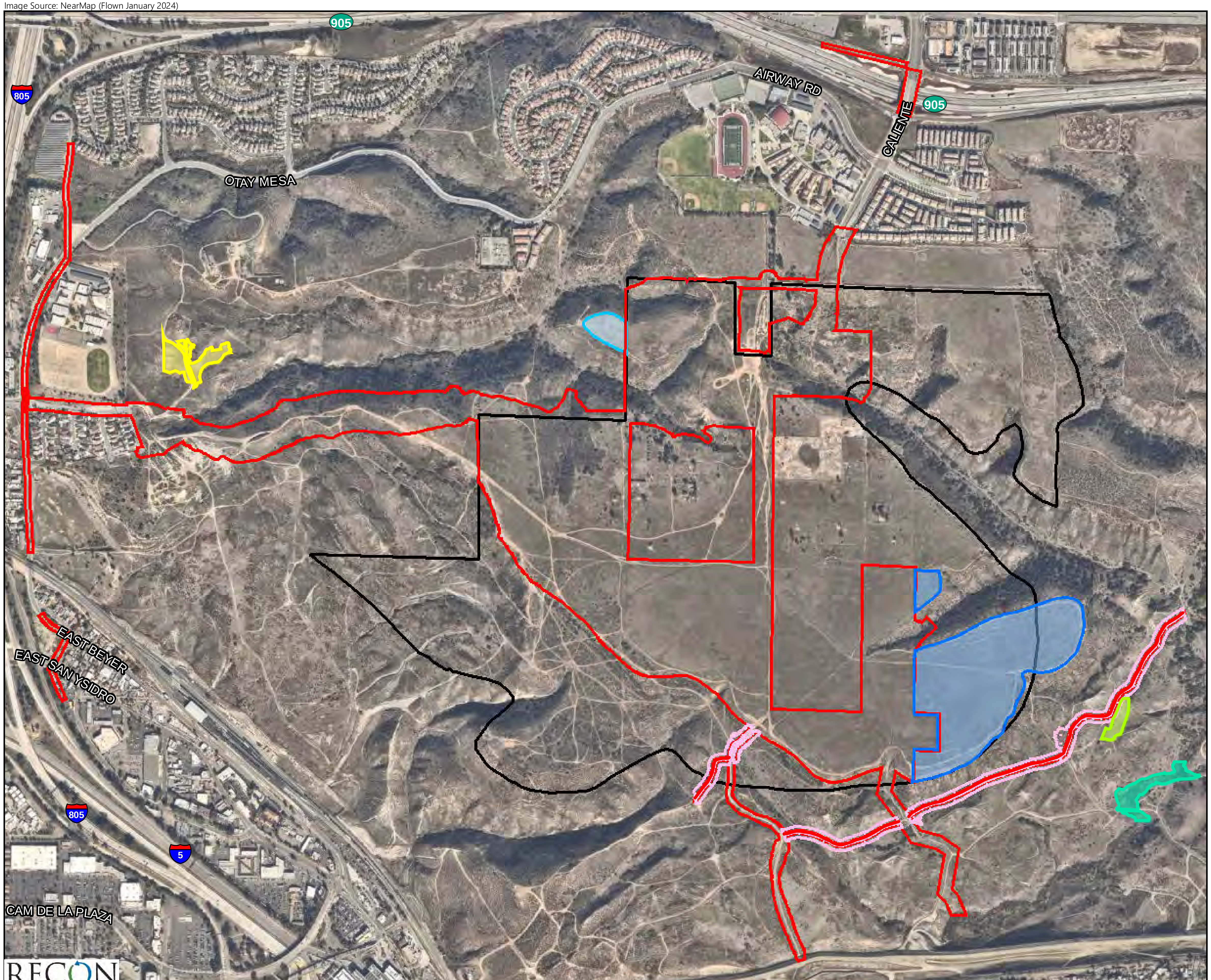
d. Cactus Wren Restoration Area

Habitat restoration supporting coastal cactus wren is proposed within the County of San Diego's Furby North preserve. The restoration effort would involve salvage and translocation of plant species including coast cholla, liveforevers, fish-hook cactus, coastal prickly pear, chaparral prickly pear, our Lord's candle, and Mojave yucca.

e. Wetland Restoration

Wetland restoration within a 2.50-acre area is proposed east of the Specific Plan area within Spring Canyon. The restoration effort would involve treatment and removal of invasive, non-native species and restoration of these areas with native wetland species (see Figure 14).

Image Source: NearMap (Flown January 2024)



Project-level Analysis Area
Specific Plan Boundary
Trail Restoration
Coastal Cactus Wren Habitat Restoration
Otay Tarplant Restoration
Wetland Restoration
Vernal Pool and Quino Checkerspot Butterfly Habitat Restoration
Otay B Potential Restoration Area

0 Feet 900

FIGURE 14
Restoration Areas

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f. Otay B Potential Restoration Area

As mentioned in Section 2.2.2.1.a, a 2.13-acre area within the CDFW conserved Otay B parcel is being considered for restoration opportunities (see Figure 14). While restoration within the City-owned Otay B is not proposed at this time, it is reasonably foreseeable that the project may include restoration of this 2.13-acre area and result in ground disturbance to this area.

2.3 Survey Areas

In order to analyze impacts of implementation of the project, various surveys were completed as detailed below:

- Planning Areas 8 through 10
- Planning Areas 11 through 14
- Planning Areas 15 through 20
- Restoration Areas
    - Primitive trails and trail restoration area (approximately 1 mile of primitive trails and approximately 12.39 acres of restoration within the 100-foot restoration corridor)
    - Otay tarplant and native grassland restoration area (1 acre)
    - Coastal cactus wren habitat restoration area within the Furby North Preserve (1.09 acres)
    - Vernal pool and Quino checkerspot restoration areas (33.71 acres)
    - Wetland Restoration Area (2.50 acres)
    - Potential Conservation Easement Exchange Restoration Area (2.13 acres)
- Beyer Boulevard
- Central Avenue
- Phase 4 including Caliente Avenue, south of Central Avenue and portions of Planning Areas 1, 2, and 7
- EVA road

The infrastructure improvement areas (SR-905, water, and sewer improvements) were not surveyed because of the developed nature of those project areas and lack of visibility The survey area has been divided into the above nine areas to facilitate discussion of the survey results. The total acres surveyed for the project-level analysis totals approximately 271.09 acres.

Planning Areas 8 through 10 consist of a single parcel, identified by Assessor's Parcel Number (APN) 645-061-0400, and portions of APNs 645-071-1400, 645-071-1300, 645-072-0100, 645-072-1400, 645-072-1300, 645-073-0200, 645-073-0100, and 645-073-1400. Planning Areas 11 through 14 are composed of four complete parcels, identified by APNs 645-061-0900, 645-061-0800, 645-061-0700, and 645-061-0600, and parts of APNs 667-010-2200 and 645-061-1200. The primitive trails and trail restoration area consists of portions of parcels 667-010-0600, 667-010-1500, 667-010-3100, and 667-040-1300. The vernal pool restoration area is composed of a portion of parcel 667-040-1300. Cactus wren habitat restoration area consists of a portion of the County of San Diego Furby North Preserve (APN 638-070-7400). The Otay tarplant and native grassland restoration area consists of a portion of APN 667-040-1300. The wetland mitigation is composed of portions of APN 667-040-1300. Planning Areas 15-20 consists of portions of four parcels: 667-010-0600, 667-010-1500, 667-010-2200, and 667-040-1300; and all of parcels 667-010-1900 and 667-010-2000. The Beyer Boulevard extension consists of portions of parcels: 638-070-6800, 638-070-7100, 638-070-7400, 645-061-1000, 645-061-0200, 667-010-0100, and 645-061-1200. The Central Avenue extension consists of portions of parcels 645-060-3200, 645-060-3500, 645-061-0500, 645-074-0100, and 645-074-2600. Phase 4, including the Caliente Avenue extension south of Central Avenue and portions of Planning Areas 1, 2, and 7, consists of portion of parcels 645-0704-2500, 645-074-2400, 645-074-2300, 645-074-2200, 645-074-0500, 654-074-0400, 654-074-0300, 654-074-0200, 654-075-0100, 654-075-0200, 654-075-0300, 654-075-0400, and 654-060-3500. The EVA road consists of parts of APNs 667-010-2900, 667-010-2800, 667-010-1500, 667-010-3100, and 667-010-0600.

2.4 Specific Plan Area Land Ownership

The area within and surrounding the Specific Plan area consists of land owned by various private and public entities as detailed in Figure 15. Tri Pointe Homes is one of the largest landowners in the Specific Plan area, but a number of other private parties' own land within the Specific Plan area.

3.0 Physical and Cultural Setting

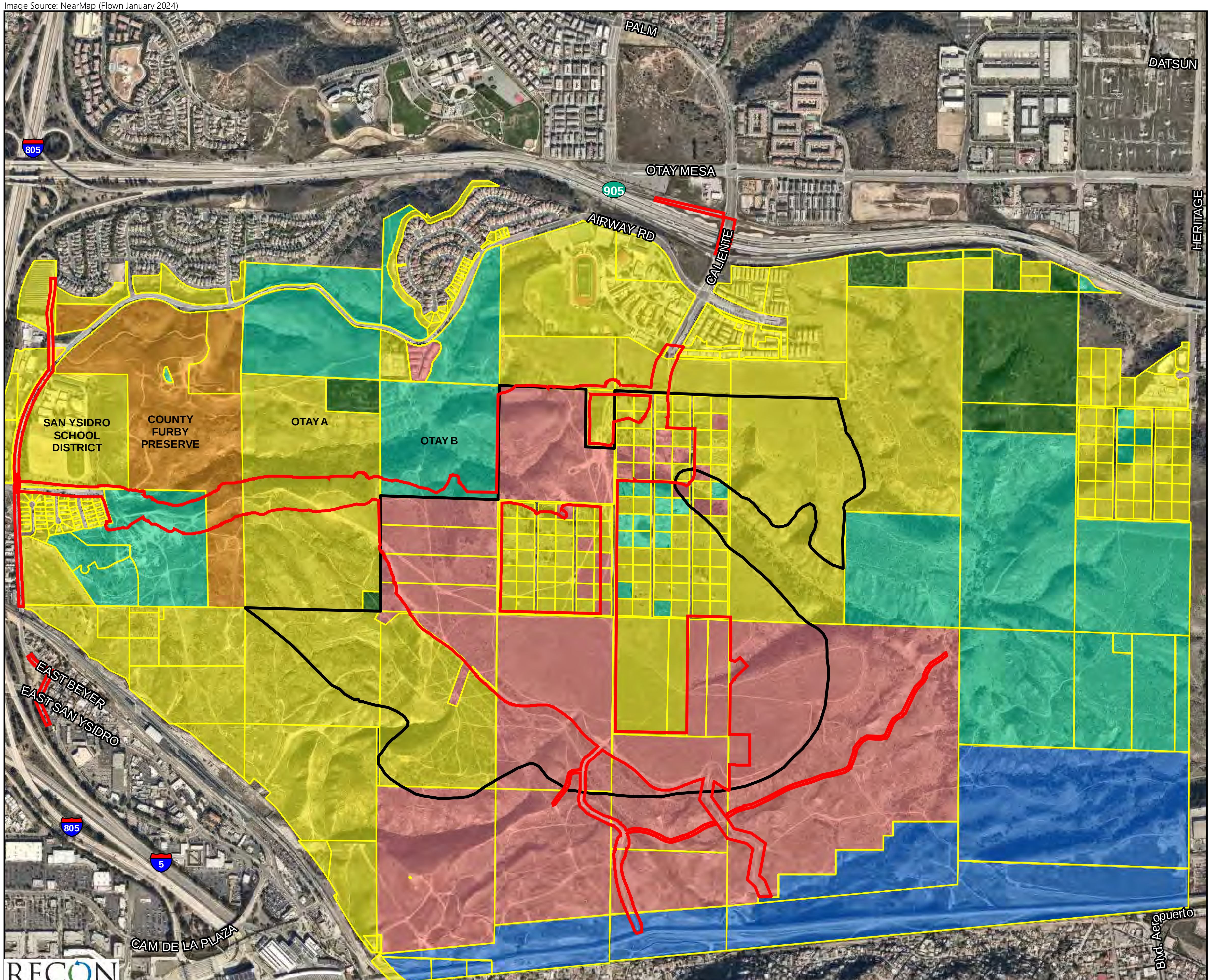
3.1 Physical Setting

3.1.1 Southwest Village Specific Plan Physical Setting

The Southwest Village Specific Plan project is roughly in the southwestern portion of the Otay Mesa marine terrace (see Figure 2). Otay Mesa begins approximately 5.5 miles east of the Pacific Ocean, rising rather sharply from an elevation about 60 feet above mean sea level (AMSL) in the Tijuana River and Otay River mouths to an elevation around 500 feet AMSL on the mesa's east end. The Otay River valley forms Otay Mesa's northern boundary. The valley's southern slopes are steep and heavily cut by small drainages emptying into the Otay River. The natural southern boundary of Otay Mesa is the Tijuana River and its tributary, Cottonwood Creek, both of which extend south of the U.S.–Mexico International Border. The eastern end of Otay Mesa is Otay Mountain, the west end of the San Ysidro Mountains.

Otay Mesa is one of a series of three uplifted marine terraces, the La Jolla Terrace, Linda Vista Terrace, and Poway Terrace, which stretch along the coastline of metropolitan San Diego. Otay Mesa is part of the Linda Vista Terrace, which occurs between the elevations of 300 feet and 500 feet AMSL. In the project area, the top layer of this terrace is composed of the Linda Vista Formation. The Linda Vista Formation consists of near shore marine and non-marine deposits dating from the early Pleistocene, composed of interbedded sandstones and cobble conglomerate with a generally reddish-brown coarse sand matrix (Abbott 1999).

Image Source: NearMap (Flown January 2024)



Project-level Analysis Area
Specific Plan Boundary

Parcel Ownership

City of San Diego
County of San Diego
State of California
Federal Government
Tri Pointe Homes
Other Private Ownership

0 Feet 1,100

FIGURE 15
Parcel Ownership

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The Santiago Peak Volcanic formation occurs in the foothills on the eastern edge of the study area. This material is of upper Cretaceous age and is represented as fine-grained, green metavolcanic stone that is locally known as felsite. Nodules and large cobbles of these Santiago Peak materials occur across Otay Mesa, including the project area, as float (Abbott 1999).

The soils that occur within the Specific Plan boundary of Otay Mesa are in the Group IV Soil Association. These are soils that develop on marine terraces and coastal foothills, and are characterized as excessively to moderately well-drained, nearly level to steep loamy coarse sands to clay loams. The western end of Otay Mesa is composed of Huerhuero–Stockpen Association soils, which are moderately well-drained loams to gravelly clay loams. These soils have a subsoil of clay or gravelly clay. The remaining soils are in the Redding–Olivenhain Association, characterized by well-drained cobbly to gravelly loams with a gravelly clay subsoil over a hardpan (U.S. Department of Agriculture 1973). As noted by Robbins-Wade (1990), the presence of clay soils in this region has implications with regard to site formation processes, as the expanding and contracting characteristics of these soils result in the opening and closing of fissures in the soil. This movement takes artifacts and other cultural debris from the surface to various depths below the surface. In addition, it has been proposed that items that make up cultural features are differentially moved vertically, lowering the chances of finding intact features and stratified deposits.

Prior to European settlement, the mesa tops on western Otay Mesa would have been covered with a combination of vernal pool/perennial grassland areas interspersed with coastal sage scrub and maritime succulent scrub communities. The south slopes of the Otay River valley and the smaller drainages would have supported moderate to dense chamise chaparral communities that extended up onto the edges of the mesa. Riparian communities such as southern willow scrub and freshwater marsh would exist in the bottoms of the larger drainages such as Moody and Dennery Canyons, and moderate to dense chamise chaparral communities extended up onto the edges of the mesa (Holland 1986).

The Specific Plan boundary consists primarily of mesa top. It is cut along its northwest edge by the head of the Moody Canyon drainage, which runs basically east to west. Dillon Canyon extends into the eastern half of the Specific Plan, separating the northeastern corner from the main portion of the Specific Plan. The majority of the mesa top has been cleared of native vegetation by the 1960s and used either for agriculture or possible grazing. In the 1980s, the central portion of the Specific Plan was subdivided and a number of houses and accompanying outbuildings were constructed and lots fenced in. These buildings have since been abandoned and most have been demolished, and scattered piles of building-related trash dot the area.

Water sources on Otay Mesa are intermittent, consisting of seasonally running streams and vernal pools. It is generally accepted that in prehistoric times drainages had more substantial flows and the water table was generally higher (Christenson 1989). These conditions may have resulted in water being available on the mesa for a longer period of the year than now. The Otay River, immediately to the north, would also have been a more regular source of water in prehistoric times.

A variety of usable resources would have been available to prehistoric populations in the Specific Plan boundary. The coastal sage scrub, chamise chaparral, and maritime succulent scrub communities contain many plants used by the ethnographic Kumeyaay population. Three plants in particular, manzanita (*Archtostaphylos* sp.), white sage (*Salvia apiana*), and elderberry (*Sambucus* *mexicana*), were used for a variety of purposes in ethnographic times. These plants were used for food, medicinal and ceremonial purposes, and as a source of wood. Animals available on the mesa would include jackrabbit, bush rabbit, cottontail rabbit, ground squirrel, woodrat, other small rodents, deer, and various small birds and reptiles.

Another resource available to prehistoric populations on Otay Mesa would be Santiago Peak Volcanics, a raw material for flaked stone tool production. This material occurs in cobble and tabular form throughout the Linda Vista Formation and is easily obtainable as it erodes out of its matrix. Santiago Peak Volcanics also occur as bedrock outcrops on the sides of Otay Mountain.

3.1.2 Planning Areas 8 through 10 Physical Setting

Planning Areas 8 through 10 is composed of a combination of a mesa top and northern and southern drainages, both part of Moody Canyon (see Figure 7). The northern drainage begins on the property and continues west out of the project. The southern drainage has two branches, the northern branch initially flows southwest and then turns to flow northwest off the project. The southern branch originates just south of the parcel and flows northwest to intersect the northern branch. These drainages have moderately steep slopes with somewhat sparse coastal sage scrub on the south-facing slopes and denser vegetation on the north-and northwest-facing slopes. The mesa top in the project has been heavily impacted by a combination of farming, heavy off-road vehicle activity, and construction of a berm along the northeastern property boundary.

The current vegetation on the mesa top is a mix of non-native grasses and disturbed coastal sage scrub. Coastal sage scrub covers the drainage slopes.

3.1.3 Planning Areas 11 through 14 Physical Setting

Planning Areas 11 through 14 consists primarily of mesa top, with a west-facing slope along the southern half of the western edge, and a wide north-trending drainage in the north–central portion of the project (see Figure 7). The western slope, which overlooks the Tijuana River valley and the community of San Ysidro, is moderately steep and vegetation varies between dense patches near the top and more scattered coastal sage scrub lower down the slope. Vegetation in the central drainage varies between moderately dense in the upper portions of the slope and dense in the lower portions and patches on the west-facing slope. The current vegetation on the mesa top is predominantly non-native grasses and exotic weeds. The mesa top has been heavily impacted by farming and moderate to heavy off-road vehicle activity.

3.1.4 Restoration Areas Physical Setting

3.1.4.1 Trail Restoration Area Physical Setting

The trails restoration area is located within natural open space south of the Specific Plan. Existing dirt roads run the length of these trail segments on steep to moderate slopes. The area consists of non-native grasslands, vernal pools, disturbed wetlands, and disturbed maritime succulent scrub.

3.1.4.2 Vernal Pool Restoration Area Physical Setting

The vernal pool restoration area is located on the mesa top in the southeast corner of the Specific Plan boundary, overlooking Spring Canyon to the south and Dillon Canyon to the northeast (see Figure 7). A finger canyon of Dillon Canyon separates the parcel into two areas. The vegetation in the finger canyon is a mix of moderate to dense maritime succulent scrub on the north-facing slope and coastal sage scrub on the south-facing slope. The south-facing Spring Canyon slope and the southwest facing Tijuana River Valley slope are mostly sparse maritime succulent scrub with some scattered coastal sage scrub species. The mesa top is predominantly non-native grasses with patches of dense blue dicks (*Dichelostemma capitatum*). There are numerous piles of cobbles from the clearing of the mesa top for agriculture along the mesa edges, especially in the large section. A dirt road runs around the perimeter of both sections, and others run through the larger section.

3.1.4.3 Otay Tarplant and Native Grassland Restoration Area

The Otay tarplant and native grassland restoration area is located on a southeast facing slope in the southeast corner of the Specific Plan boundary, overlooking Spring Canyon (see Figure 14). The area consists of non-native grassland. Dirt roads are to the west and south, and one bisects the area.

3.1.4.4 Cactus Wren Habitat Restoration Area

An area is proposed for restoration to create coastal cactus wren habitat (see Figure 14) within the County of San Diego Furby North preserve. The proposed restoration location is located on a mesa top north of Moody Canyon, east of Otay Mesa Road and northeast of the San Ysidro Middle School. The area consists of non-native grassland.

3.1.4.5 Wetland Restoration Area

The proposed wetland mitigation is located within the middle reaches of the Spring Canyon drainage within a riparian corridor. Dillon Canyon touches the northern portion of the area. The area consists of intermixed stands of native riparian species and non-native invasive perennial species.

3.1.4.6 Otay B Potential Restoration Area

The Otay B potential restoration area consists primarily of disturbed mesa top. It is located northwest of the Planning Areas 8 through 10. The current vegetation on the mesa top is predominantly non-native grasses and exotic weeds. The mesa top has been heavily impacted by farming and moderate to heavy off-road vehicle activity.

3.1.5 Planning Areas 15 through 20 Physical Setting

Planning Areas 15 through 20 is on the mesa top in the central and southern portions of the Specific Plan boundary (see Figure 7). The vegetation on the mesa currently consists of non-native grasses and annuals, with scattered coastal sage scrub species. The south-facing Spring Canyon slope is mostly sparse maritime succulent scrub with some coastal sage scrub. The mesa top in this area has been heavily impacted by a combination of farming and moderate off-road vehicle activity, with a substantial dirt road running along the edge of the mesa. Photographs from the 1950s and 1960s show remnant vernal pools scattered across the mesa top.

3.1.6 Beyer Boulevard Extension Physical Setting

The proposed Beyer Boulevard extension generally follows Moody Canyon for the majority of its length. Starting close to the mouth of the canyon, where it empties into the Tijuana River Valley, the alignment extends east along the top of the south slope of Moody Canyon (see Figure 6). These slopes are moderately steep to very steep, averaging 30–40 percent grade. As the alignment progresses east, it moves across the canyon bottom and onto the southern slope. The southern slope is also a 30–40 percent grade. The current vegetation on the mesa tops in and around the Beyer Boulevard extension is mostly non-native grasses and exotic weeds. Vegetation in Moody Canyon consists of maritime succulent scrub with patches of non-native grasses and weeds. The far west end of the Beyer Boulevard extension has especially dense patches of maritime succulent scrub on the north slope.

3.1.7 Central Avenue Extension Physical Setting

The future Central Avenue extension is on the mesa top in the north central portion of the Specific Plan boundary (see Figure 6). Most of the alignment has been heavily disturbed by grading including berms, a dirt access road, and dumping of large amounts of construction debris along the south side of the road. The area was used for farming in the past; north-south furrows are visible on the ground. A heavily disturbed drainage runs south through the central portion of this area, connecting to Dillon Canyon. Vegetation consists of the mixture of non-native grasses and weeds, exotic trees, and scattered coastal sage scrub species among the grasses. Prior to the introduction of agriculture on Otay Mesa, the western mesa tops, including the Central Avenue extension, would have been covered with a combination of vernal pool/perennial grassland areas interspersed with coastal sage scrub and maritime succulent scrub communities.

3.1.8 Phase 4 – Caliente Avenue and Planning Areas 1, 2, and 7 Physical Setting

The area labeled as Phase 4 on Figure 8 includes the future Caliente Avenue extension located south of Central Avenue in addition to portions of Planning Areas 1, 2, and 7. This area is on the mesa top and would ultimately extend south through the center of the Specific Plan boundary as detailed in Figure 5. Most of the area is heavily disturbed by dirt roads, agriculture, and the extensive dumping of large amounts of construction rubble and other debris. Vegetation consists of coastal sage scrub, non-native grasses, and ornamental trees. A small portion of this area includes grading into the end of a finger canyon.

The northerly portion of Caliente Avenue, north of Central Avenue and outside of the Specific Plan area, is considered part of the project-level analysis as this road is needed for access to the project site. However, this segment was evaluated as part of the Candlelight development project (PTS 30320/691625); therefore, historical survey results are based on the surveys done for that project, specifically the following reports included as Appendix F of the Candlelight Final Environmental Impact Report (Project 40329, State Clearinghouse Number 2013101036) dated April 18, 2018 (City of San Diego, 2018).

3.1.9 Emergency Vehicle Access Road Physical Setting

The EVA road is located along the alignment of an existing dirt road that is accessed by the U.S. Border Patrol and land managers. The road is rutted and in poor condition due to a lack of maintenance and erosion. A majority of this area is bare dirt; however, portions are vegetated with native vegetation. The slope varies from relatively flat to portions above 20 percent grade.

3.1.10 Infrastructure Improvement Areas Physical Setting

A number of off-site improvements are depicted in Figure 8. These areas are described below.

3.1.10.1 State Route 905 Physical Setting

The area for widening the westbound on-ramp to SR-905 at Caliente Avenue in addition to restriping and signal improvements consists of developed portion of SR-905 (see Figure 12).

3.1.10.2 Spring Canyon Drainage Outfall (South of Planning Area 18)

The Phase 2 grading area also includes the drainage outfall south of the Specific Plan area that would convey drainage to Spring Canyon (see Figure 8). The area consists of steep to moderate slopes covered in non-native grasslands.

3.1.10.3 Water and Sewer Line Improvements

These improvements are located within development roadways including Caliente Avenue, Beyer Boulevard, Otay Mesa Road, Otay Mesa Place, East Beyer Boulevard and Center Street (see Figure 13). With the exception of Caliente Avenue, the remaining streets are located west and northwest of the Specific Plan.

3.2 Cultural Setting

3.2.1 Prehistoric Period

The prehistoric cultural sequence in San Diego County is generally conceived as comprising three basic periods: the Paleoindian, dated between about 11,500 and 8,500 years ago and manifested by the artifacts of the San Dieguito Complex; the Archaic, lasting from about 8,500 to 1,500 years ago (A.D. 500) and manifested by the cobble and core technology of the La Jolla Complex; and the Late Prehistoric, lasting from about 1,500 years ago to historic contact (i.e., A.D. 500 to 1769) and represented by the Cuyamaca Complex. This latest complex is marked by the appearance of ceramics, small arrow points, and cremation burial practices.

The Paleoindian Period in San Diego County is most closely associated with the San Dieguito Complex, as identified by Rogers (1938, 1939, 1945). The San Dieguito assemblage consists of well-made scraper planes, choppers, scraping tools, crescentics, elongated bifacial knives, and leaf-shaped points. The San Dieguito Complex is thought to represent an early emphasis on hunting (Warren et al. 1993).

The Archaic Period brings an apparent shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. The local cultural manifestations of the Archaic Period are called the La Jolla Complex along the coast and the Pauma Complex inland. Pauma Complex sites lack the shell that dominates many La Jollan sites. Along with an economic focus on gathering plant resources, the settlement system appears to have been more sedentary. The La Jollan assemblage is dominated by rough cobble-based choppers and scrapers, and slab and basin metates. Large side-notched and Elko series projectile points appeared. Large deposits of marine shell at coastal sites argue for the importance of shellfish gathering to the coastal Archaic economy.

Near the coast and in the Peninsular Mountains beginning approximately 1,500 years ago, patterns began to emerge which suggest the ethnohistoric Kumeyaay. This period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversify and intensify during this period, with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, but effective technological innovations. The late prehistoric archaeology of the San Diego coast and foothills is characterized by the Cuyamaca Complex. It is primarily known from the work of D. L. True at Cuyamaca Rancho State Park (True 1970). The Cuyamaca Complex is characterized by the presence of steatite arrowshaft straighteners, steatite pendants, steatite comales (heating stones), Tizon Brownware pottery, ceramic figurines reminiscent of Hohokam styles, ceramic "Yuman bow pipes," ceramic rattles, miniature pottery various cobble-based tools (e.g., scrapers, choppers, hammerstones), bone awls, manos and metates, mortars and pestles, and Desert side-notched (more common) and Cottonwood Series projectile points.

3.2.2 Ethnohistory

The Kumeyaay (also known as Kamia, Ipai, Tipai, and Diegueño) occupied the southern two-thirds of San Diego County. The Kumeyaay lived in semi-sedentary, politically autonomous villages or rancherias. Settlement system typically consisted of two or more seasonal villages with temporary camps radiating away from these central places (Cline 1984a and 1984b). Their economic system consisted of hunting and gathering with a focus on small game, acorns, grass seeds, and other plant resources. The most basic social and economic unit was the patrilocal extended family. A wide range of tools were made of locally available and imported materials. A simple shoulder-height bow was used for hunting. Numerous other flaked stone tools were made including scrapers, choppers, flake-based cutting tools, and biface knives. Preferred stone types were locally available metavolcanic, chert, and quartz. Obsidian was imported from the deserts to the north and east. Ground stone objects include mortars and pestles typically made of locally available, fine-grained granite. Both portable and bedrock types are known. The Kumeyaay made fine baskets. These employed either coiled or twined construction. The Kumeyaay also made pottery, using the paddle-and-anvil technique. Most were a plain brown utility ware called Tizon Brown ware, but some were decorated (Meighan 1954; May 1976, 1978).

3.2.3 Spanish/Mexican/American Periods

The Spanish Period (1769–1821) represents a time of European exploration and settlement. Military and naval forces along with a religious contingent founded the San Diego Presidio, the pueblo of San Diego, and the San Diego Mission in 1769 (Rolle 1998). Native American culture in the coastal strip of California rapidly deteriorated despite repeated attempts to revolt against the Spanish invaders (Cook 1976). One of the hallmarks of the Spanish colonial scheme was the rancho system. In an attempt to encourage settlement and development of the colonies, large land grants were made to meritorious or well-connected individuals.

In 1821, Mexico declared its independence from Spain. During the Mexican Period (1822–1848), the mission system was secularized by the Mexican government and these lands allowed for the dramatic expansion of the rancho system. The southern California economy became increasingly based on cattle ranching.

After the Treaty of Guadalupe-Hidalgo in 1848 (beginning of the American Period), the population in San Diego County more than tripled (Pourade 1969). By the late 1800s, development in the county was well under way with the beginnings of a recognizable downtown San Diego area and the gradual development of a number of outlying communities, many of which were established around previously defined ranchos and land grants. Otay Mesa developed slowly until the 1870s. In 1869, a stage route to Yuma was opened that ran across the mesa. Farming developed through the 1870s, and by 1879 most of the mesa was under intensive agriculture. The most widely grown crops on the mesa were wheat, barley, corn, tomatoes, and beans. Water for crops was obtained from nearby streams and the Otay River, and by the early 1900s an extensive system of dams had developed (Pryde 1992).

Otay Mesa followed a particular rural community cultural pattern that developed in San Diego County from approximately 1870 to 1930. These communities were composed of an aggregate of people who lived within well-defined geographic boundaries, shared common bonds, and cooperated to solve common problems (Collett and Wade 1991). They lived, not in small towns or villages, but on farmsteads tied together through a common school district, church, post office, and country store (Hector and Van Wormer 1986). The Otay Mesa School District was started in 1914, and the Alta schoolhouse was constructed at that time. The schoolhouse, originally just east of Brown Field, was moved east to preserve it. By 1890, Otay also had a store, post office, blacksmith shop, and a Lutheran church. The population of Otay Mesa fluctuated over the early 1900s due to drought and in the 1930s due to the Great Depression.

Along with its agricultural history, aviation was important in Otay Mesa's history. In 1883, John Joseph Montgomery made the world's first controlled flight with a fixed curved-wing glider from the top of a hill on Otay Mesa. In 1918, the Army Air Corps established East Field along Otay Mesa Road, later also used by the Navy for pilots in training. In 1935, East Field was transferred to the Navy and was used for training prior to and during World War II. East Field was renamed Brown Field in 1943. After World War II, the Navy leased Brown Field to San Diego County but reopened the facility with the outbreak of the Korean War in 1951. The City annexed Otay Mesa in 1956 and acquired Brown Field in 1962 in order to relieve congestion at Lindbergh Field. The conversion of Brown Field to a general aviation airport brought new businesses, industries, and agencies to Otay Mesa.

Ranching and farming continued to be the main occupation of residents in and around the project area through most of the twentieth century. Over the past decades, large tracts of this formerly open land have been developed for light industrial and, more recently, residential projects. The result has been a dramatic change of the region from a sparsely populated rural area to an expansive suburb.

4.0 Area of Potential Effect

The area of potential effect (APE) for the project-level analysis area includes approximately 270 acres (218 acres plus 52 acres of restoration acres) including Planning Areas 8 through 14, the trails restoration corridor, the vernal pool restoration area, Otay tarplant/native grassland restoration area, cactus wren habitat restoration area, wetland restoration area, Planning Areas 15 through 20, the Beyer Boulevard extension, Central Avenue, Caliente Avenue/portions of Planning Areas 1, 2, and 7, and off-site improvements as shown on Figures 6, 11, 12, and 13. In addition to the restoration areas mentioned previously that are part of the project's mitigation and/or project design features, an additional 2.13-acre potential restoration area is included in the APE in the event restoration is pursued on this site as part of the required CDFW conservation easement exchange.

The APE for the program-level analysis areas is estimated to be approximately 130.73 acres including Planning Areas 1 through 7 (portions of Planning Areas 1, 2, and 7), portions of Planning Areas 21, 22, and 24 through 27, and the approximate 1,764-linear-foot program-level primitive trail.

5.0 Study Methods

5.1 Survey Methods

Site record search was requested from the California Historical Resources Information System, SCIC at San Diego State University (Confidential Attachment 1). The record search area included the entire Specific Plan boundary including Planning Areas 8 through 14, the vernal pool restoration area, Planning Areas 15 through 20. The records search also include the project-level trail restoration corridor, Otay tarplant and native grassland restoration area, cactus wren habitat restoration area, wetland restoration area, Beyer Boulevard extension, Central Avenue extension, Caliente Avenue extension/portions of Planning Areas 1, 2, and 7, and infrastructure improvement areas.

Survey protocol was consistent for all fieldwork. The spacing between the field personnel was 12 to 15 meters. The survey area was inspected for evidence of archaeological materials such as flaked and ground stone tools, ceramics, milling features, and historic features. The locations of the features and the artifacts within new site areas were recorded using a sub-meter-accurate Global Positioning System (GPS) unit. Each site was assigned a primary GPS datum. Sketch maps were made by means of GPS data and aerial photographs of the site location. Photographs were taken to document the environmental setting and general conditions. The appropriate California Department of Parks and Recreation (DPR) site forms or update forms were filled out and submitted to the SCIC (Confidential Attachment 2).

Planning Areas 8 through 10 were surveyed on January 12, 2018, by RECON archaeologists Carmen Zepeda-Herman, Nathanial Yerka, and Alyssa Soto, accompanied by Native American monitor Nick Ruis of Red Tail Environmental. The field inspection was conducted on foot, in conditions of sunny, warm weather and bright daylight. The survey area consisted of the mesa top and upper portions of the slopes. Steep and densely vegetated slopes and vegetated drainage bottoms where visibility was very poor were not surveyed.

Planning Areas 11 through 14 were surveyed on January 18, 2018, by RECON archaeologists Carmen Zepeda-Herman, Harry Price, Nathanial Yerka, and Andres Berdeja, accompanied by Native American monitor Banning Taylor of Red Tail Environmental. The field inspection was conducted on foot, in conditions of sunny, warm weather and bright daylight. The survey area consisted of the mesa tops and upper portions of the slopes. The steep and densely vegetated slopes in the southwest corner and north–central portion of the project where visibility was very poor were not surveyed.

An additional triangular portion of Planning Areas 11 through 14 was surveyed on June 21, 2018, by Nathanial Yerka and Richard Shultz, accompanied by Native American monitor Nick Ruis of Red Tail Environmental. The field inspection was conducted on foot, in conditions of sunny, warm weather and bright daylight. The survey area consisted of the entire triangular parcel at the southern part of the VTM South project area. The parcel sloped gradually to the southwest but was not too steep to survey.

The vernal pool restoration area was surveyed on January 25, 2019, by RECON archaeologists Carmen Zepeda-Herman, Harry Price, and Andres Berdeja, accompanied by Native American monitor Banning Taylor from Red Tail Environmental. The field inspection was conducted on foot, in conditions of sunny, warm weather and bright daylight. The survey area consisted of the mesa tops and slope edges. The steep and densely vegetated slopes in the southeast corner and central portion of the area are not part of the restoration area and were not surveyed.

Planning Areas 15 through 20 were surveyed on May 3 and 6, 2019, by RECON archaeologists Carmen Zepeda-Herman, Harry Price, and Nathanial Yerka, accompanied by Native American monitor Gabe Kitchen (May 3) and Justin Linton (May 6) of Red Tail Environmental. The field inspection was conducted on foot, in conditions of high clouds, warm weather and diffuse daylight. The survey included the entire parcels, as they are on the mesa tops.

The Beyer Boulevard extension was surveyed on May 6, 2019, September 9, 2019, and April 27, 2020, by various combinations of RECON archaeologists including Carmen Zepeda-Herman, Harry Price, Richard Shultz, Andres Berdeja, and Nathanial Yerka. Native American monitors Justin Linton (May 6. 2020) and Shuuluk Linton (September 9 and April 27, 2020; May 14, 2021) from Red Tail Environmental participated in the survey. The field inspections were conducted on foot. The Beyer Boulevard extension consists mostly of the moderately steep southern side of Moody Canyon with small areas of mesa top at the eastern end. The survey concentrated on the mesa tops, with some survey of accessible slopes. In general, the slopes were too steep, and vegetation was too dense for effective survey.

The Central Avenue extension was surveyed on November 5, 2019, by RECON archaeologist Harry Price, accompanied by Justin Linton of Red Tail Environmental. The field inspection was conducted on foot, in partially cloudy conditions with moderate temperatures and diffuse daylight. The Central Avenue extension consists of mesa top, with moderate impacts from earth moving and trash dumping.

The Caliente Avenue extension, south of Central Avenue, was surveyed on April 30, 2020, by RECON archaeologists Nathanial Yerka and Andres Berdeja, accompanied by Shuuluk Linton of Red Tail Environmental and again on June 18, 2020, by Nathanial Yerka and Shuuluk Linton. The field inspection was conducted on foot, under clear skies and moderate temperatures. The Caliente Avenue extension consists of mesa top and a portion of the northwestern terminus of Dillon Canyon. Most of the extension is heavily disturbed by grading, dirt roads, agriculture, and the extensive dumping of large amounts of construction rubble and other discarded debris. An additional survey of the eastern portion of Planning Areas 1, 2, and 7 was completed on January 31, 2024, by Nathanial Yerka accompanied by Keadan Graham of Red Tail Environmental.

The trail restoration corridor was surveyed on June 24, 2021, by RECON archaeologist Nathanial Yerka accompanied by Shuuluk Linton of Red Tail Environmental. The field inspection was conducted on foot, under partly cloudy to clear skies and warm temperatures. The network consists of existing graded roads that receive routine use. The area also had dense seasonal grasses, and some areas incorporated 20-plus degree slopes.

The Otay tarplant and native grassland restoration area was surveyed on April 19, 2023, by RECON archaeologist Nathanial Yerka accompanied by Keadan Graham of Red Tail Environmental. The field inspection was conducted on foot, under clear skies. These restoration areas had dense grasses and weeds.

A field survey of a portion of the cactus wren restoration area within the County's Furby North Preserve was surveyed on June 2, 2023, by RECON archaeologist Carmen Zepeda-Herman accompanied by Keadan Graham of Red Tail Environmental. Additional acres of the expanded cactus wren restoration area were surveyed on April 25, 2024, by RECON archaeologist Nathanial Yerka accompanied by Lawrence Douglas from Red Tail Environmental.

The wetland migration area was surveyed on June 15, 2023, by RECON archaeologist Nathanial Yerka accompanied by Anthony LaChappa from Red Tail Environmental.

The EVA road was surveyed on January 31, 2024, by RECON archaeologist Nathanial Yerka accompanied by Keadan Graham from Red Tail Environmental.

The 2.13-acre Otay B potential restoration area was surveyed on April 25, 2024, by RECON archaeologist Nathanial Yerka accompanied by Lawrence Douglas from Red Tail Environmental.

The infrastructure improvement areas (water and sewer lines, and off-site transportation improvement areas) were not surveyed because they occur within paved roads and the paved SR-905 westbound on-ramp at Caliente Avenue. The Spring Canyon drainage outfall was surveyed on June 24, 2021, the same day as the trail restoration corridor was surveyed.

5.2 Resource Types

Resources were defined using the Management Plan for Otay Mesa Prehistoric Resources (Gallegos et al. 1998), which was developed as an outgrowth of negotiations between California Department of Transportation and the Office of Historic Preservation to provide consistent site definitions and a management strategy for the kinds of resources present on Otay Mesa. This plan begins with a discussion of recorded site types using information drawn from site record forms. Habitation sites, temporary camps, lithic scatters, quarries, shell middens, and non-sites are resource types defined for the baseline study area. The types of sites in the management planning area were stratified based on geologic and landform information.

After the initial discussion of recorded site types on the mesa, Gallegos et al. (1998) combined a few of the types and determined that three site types dominate Otay Mesa: habitation sites, artifact scatters/temporary camps, and non-sites. The following are characteristics of these site types:

- Habitation sites: Gallegos et al. identified 14 loci from 9 sites as falling within this category. Sites were placed in this category if they had a subsurface artifact density of 100 artifacts per square meter or greater (10 artifacts per 10 cm level). Of the 14 identified habitation sites, 8 had been destroyed, 1 had been preserved, 4 were intact, and 1 was partially intact. Four of the habitation sites had features (Gallegos et al. 1998:3-29). Most of the sites had chert, obsidian, or chalcedony, ground stone implements, terrestrial faunal remains, and almost all had marine shell in sufficient quantity for conducting radiocarbon dating.

- Temporary camp/artifact scatter: Gallegos et al. documented 11 temporary camps/artifact scatters. This category was based on surface artifact density, and/or the presence of a substantial amount of faunal material combined with a lack of a subsurface component and features (Gallegos et al. 1998:3-29). These sites represent short-term habitation periods, not of sufficient duration for a substantial midden to develop. Of the 11 sites in this category, 9 had been destroyed, 1 was intact, and 1 was partially intact. Gallegos proposes that the definition of these sites be changed so that a site would consist of at least four contiguous 10-by-10-square-meter units with a minimum of three artifacts per unit (at least 12 artifacts).

- Non-sites: Seventy-two sites on Otay Mesa fell into this category. Non-sites are defined by a lack of a substantial subsurface deposit and a surface artifact density of less than 0.03 artifact per square meter (three lithic items within a 10-by-10-meter area). They noted that some 5,057,397 square meters of what they categorized as non-site had been recorded in their study area. These non-site or quasi-quarry areas contained some 5,824 artifacts of which some 68 percent or 3,947 were waste flakes. A total of 1,859 tools were also noted. The total artifact density was 0.0009 artifact/square meter, or 1 artifact/3,000 meters (Gallegos et al. 1998:3-45). Gallegos et al. felt that some of the sites in this category could be redefined as activity area or temporary camps with additional effort.

Gallegos et al. (1998) suggest that much of the research resource effort to date on Otay Mesa has been wasted on these low-density lithic scatters and has yielded virtually no meaningful insights into prehistory. Gallegos et al. (1998) assert that these low-density lithic scatters should be treated as archaeological noise and not recorded in future research, because they get in the way of more productive research. Work in the future should be concentrated on the few habitation sites that remain, since they would provide information to answer research questions concerning settlement patterns, chronology, lithic technology, trade, and diet. As such, RECON only recorded isolated tools and did not record sparse debitage.

5.3 Excavation Methods

An excavation program was conducted for resources that were determined artifact scatters/temporary camps based on Gallegos et al.'s (1998) site types. The purpose of the excavation program was to gather sufficient data to make a determination of eligibility for listing on the CRHR or the city's register. The program consisted of surface collection of artifacts within the site boundaries and excavating a series of surface scrapes, STPs, and/or units at each site.

Units measured 1-by-1-meter and were hand-excavated in 10 cm contour levels with shovels, trowels, and heavier tools as soil conditions dictated. Units were excavated until sterile soil was reached. Excavated soils were dry-screened through an $^{1}/_{8}$-inch mesh where artifacts and ecofacts were removed and placed in appropriately labeled bags to be cleaned, analyzed, and cataloged. Observations concerning soil characteristics, cultural material content, disturbance, and depth were recorded on field forms for each 10 cm level. A minimum of one sidewall of each unit was profiled to document soil color and changes in stratigraphy. Photographs were taken of each unit. Additionally, a 100 percent surface collection was conducted for each site. The coordinates of all surface artifacts were recorded using an Apple iPad running ESRI's ArcGIS Collector application paired with a Trimble R1 sub-meter GPS unit. For the surface collection by Tierra Environmental, the coordinates for artifacts recorded during investigations conducted by RECON in April of 2020 were reviewed; for any artifacts not relocated, an approximately 1-meter area around the coordinates was examined.

Surface scrapes measured 1-by-1 meter and were hand-excavated down to 10 cm. A location within each scrape was chosen to excavate a STP to determine the depth of cultural material. Each STP was excavated in 10 cm intervals until two sterile levels were achieved or subsoil was reached. Excavated soils were dry-screened through an $^{1}/_{8}$-inch mesh where artifacts and ecofacts were removed and placed in appropriately labeled bags to be cleaned, analyzed, and catalogued. Observations concerning soil characteristics, cultural material, disturbance, and depth were recorded on surface scrape field forms. Photographs were taken of each scrape and STP. Prior to the excavation of CA-SDI-23,235 and CA-SDI-23,236, RECON requested and obtained permission to excavate from the California Department of Fish and Wildlife due to conservation easement restrictions.

5.4 Laboratory

All of the recovered artifacts and ecofacts were returned to RECON's archaeological laboratory. Laboratory tasks included sorting and cataloging the collected data as recommended by the San

Diego Archaeological Center (SDAC). All items from each resource were counted, weighed, and cataloged according to class, type, and material, and the data was entered into a Microsoft Access database and then exported to a Microsoft Excel spreadsheet. An Access database and Excel spreadsheet were produced for each resource.

The artifact classes and their definitions are presented in the following sections.

5.4.1 Debitage

Debitage consists of flakes and angular waste or the stone byproducts of stone tool manufacture and maintenance. The items in this category were organized by sample unit and level within the unit and sorted by stone material type into nine reduction type choices (Table 1).

Table 1
Standard Flake Typology for Small Assemblages

Bulb	Platform	Relative Length	Cortex	Dorsal Scars	Other	Assumed Process/Type	Reduction Stage
Present	Present	2x width	None	2+	Parallel	"Blade" type flake	Tertiary
Present	Present		None		Diverging, thin	Biface thinning flake	Tertiary
Present	Present	2+ cm	80%+	None	--	Platform creation, cortex removal	Primary
Present	Present	2+ cm	30%–80%	0–1	--	Cortex removal	Primary
Present	Present	2+ cm	-30%	1+	--	Core reduction, basic shaping	Secondary
Present	Present	-2 cm	0%	1+	--	Finishing, resharpening	Tertiary
Present	Present	-2 cm	Present	1+	--	Trimming	Tertiary
Absent	Absent	--	Present	--	--	Shatter during primary reduction	Primary
Absent	Absent	--	Absent	--	--	Shatter during secondary reduction	Shatter

cm = centimeter; % = percent
SOURCE: Norwood et al. 1981

The flaked lithic debris analysis followed a series of steps that were originally proposed by Jane Rosenthal (Norwood et al. 1981) and geared towards reconstructing the stages of stone tool manufacture. For the current study, the definition of a flake is a stone that has been removed from a larger stone (core) by human activity and that retains evidence of this removal in the form of a striking platform and a bulb of percussion. Angular waste includes shatter and items that are probably flake fragments with no bulb or the striking platform present. In addition, the angular waste group includes broken stone fragments that can be produced during hard hammer percussion where a strike can result in pieces breaking off the parent stone that do not have the attributes of a flake.

5.4.2 Flaked Lithic Tools

Formal flaked stone tools were assigned individual catalog numbers. Attributes were recorded for each of the formal tools and for cores. Attributes include identifying the parent material, dimensions, weight, whether the tool is complete or broken, the production base, the presence of cortex, the angle of the working edge, and a series of attributes regarding use, damage, and modification. Specimens were checked for use wear using a 10x magnification hand lens.

Formal tools and cores are recognized by a combination of distinctive attributes. RECON employs a set of descriptive definitions as the initial means for identifying artifact types. These definitions come from Russell Kaldenberg's work at Rancho Park North (1976).

5.5 Protein Residue Analyses

Four artifacts were sent to PaleoResearch Institute for protein residue analysis. These include two manos (Artifact 23234-3000 and Artifact 22936-3000) and three scrapers (Artifacts 22936-9025, -9026, and -9027). All artifacts were collected from subsurface contexts. The extractions collected from the artifacts were tested using an immunologically based technique called cross-over immunoelectrophoresis. In this method, a known antibody is used to detect an unknown antigen. An antigen is the protein that adheres to the artifact or bedrock milling feature. Antiserums from sixteen mammals, nine fish, and two plant species were used to test the samples. For a complete methodology, see the full protein residue analysis report in Attachment 1a.

5.6 Curation

The materials, supporting documents, and report compiled during the test program from the project-level portion of the project will be curated at the SDAC. Cataloguing of the artifacts conformed to the requirements of the SDAC to facilitate curation of the collection upon project completion. The SDAC provides permanent curatorial stewardship for archaeological collections and meets the federal standard (36 Code of Federal Regulations 79) for curation facilities.

5.7 Research Questions

5.7.1 Site Function

The function of prehistoric sites can be inferred from artifacts and feature characteristics. The types of sites in the area included processing sites, short-term field camps, and long-term habitation areas or villages. Based on Binford's (1980) model for foraging and gathering societies, processing sites would be categorized as locations. These were used for specialized tasks such as food procurement and processing activities. These sites would be located near a food resource, and limited artifact types would be represented in the archaeological record. Task-specific tools, such as ground stone tools in association with bedrock milling, would be found. Short-term field camps were temporary living areas located along routes between resource areas and long-term villages. They were associated with gathering tasks. The artifact types represented in the archaeological record would be similar to those from a location, but would include some domestic debris, such as bone, shellfish, charcoal, and seeds. Long-term habitation sites or villages are located near reliable water and procurement resources and central to other site types. Villages are the most complex site type and include high quantities of artifacts from a diverse range of artifact types. Often, features such as hearths, house floors, and roasting and storage pits are present.

5.7.2 Chronology

The chronological placement of archaeological sites is important to understanding regional prehistory and site occupation. Several artifact types and features can be used for general temporal placement of a site. This is particularly true for Late Prehistoric Period sites. Artifacts and features that indicate this period are represented by projectile points, ceramics, and bedrock milling features. Applying this concept to San Dieguito (Paleoindian) versus La Jollan (Archaic) sites is more difficult since specific artifacts have not been assigned with confidence to either of these time periods (Bull et al. 1998). Despite the number of sites that have been recorded for the Otay Mesa area, archaeologists have not yet established a distinctive association between specific artifacts and the San Dieguito or La Jolla complexes for San Diego County (Gallegos et al. 1998; Berryman and Price 2003). Because artifact types cannot be used to date these time periods, an absolute date is needed to address the issue of chronology.

Will a suitable radiocarbon sample be recovered to help address the site's chronological placement? Absolute dating requires a suitable sample for radiocarbon dating analysis. Radiocarbon samples would ideally be recovered from charred remains from a feature, such as a hearth. If such samples are not recovered, burnt bone may be submitted for dating.

6.0 Results

6.1 Record Search

A records search with a one-mile radius buffer from the Specific Plan Area and the proposed Beyer Boulevard extension was requested from the California Historical Resources Information System, SCIC at San Diego State University, in October 2017 to determine if previously recorded prehistoric or historic cultural resources occur on the project site. The SCIC lists a total of 125 cultural resources within the one-mile search radius. Of the 125 resources, 22 are mapped completely or partially within Specific Plan; of which, two resources (CA-SDI-8,645 and CA-SDI-16,704) are within the program-level analysis area and were not part of the survey area (Planning Areas 4 and 5). Two resources (CA-SDI-11,079 and CA-SDI-6,941) are mapped in the infrastructure improvement areas and were not surveyed due to the developed nature of those project areas and lack of visibility. Table 2 lists the historical resources mapped within both the project-level analysis area and the program-level analysis area (refer to Figure 6 for a description of the project-level versus program-level areas). All of the previously recorded resources on the surveyed parcels are prehistoric. No historic structures are listed within or adjacent to the project.

The survey area included 20 resources within the Specific Plan in addition to seven resources outside the Specific Plan. The locations of the 27 resources are listed by survey area (some in more than one area). Five of the previously recorded sites are recorded within Planning Areas 8 through 10: CA-SDI-10,516, CA-SDI-10,522, CA-SDI-10,523, CA-SDI-10,524, and CA-SDI-16,705. One of the previously recorded sites is recorded within Planning Areas 11 through 14: CA-SDI-10,514.

Table 2 Cultural Resources Mapped within the Project-Level Area									
P Number	Trinomial	Age	Resource Type	Gallegos Site Type	Significance	Developed	Listed Impact	ECORP Report	Impacted? Location/Description
Mitigated Sites									
37-011079	CA-SDI-11,079	Prehistoric	Lithic Scatter	Artifact Scatter	Mitigated	Yes	Roads, housing development	Not included	Yes, Infrastructure Improvement Areas
Site Significance Undetermined									
37-025212	CA-SDI-16,704	Prehistoric	Lithic Scatter	Non-site/ Artifact Scatter	Undetermined	No	Agriculture; vehicles	Not Included	Not Impacted
Sites Not Significant									
37-008642	CA-SDI-8,642	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	No	Extensive agriculture; grading for pond	Not included	Yes, Central Avenue
37-008644	CA-SDI-8,644	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	No	Extensive agriculture	Not included	Yes, Caliente Avenue
37-008645	CA-SDI-8,645	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant (ASM Affiliates)	No	Extensive agriculture	Not included	Not Impacted
37-010206	CA-SDI-10,206	Prehistoric	Lithic scatter	Artifact Scatter	Not Significant	No	Dirt roads, erosion	Not included	Yes, Beyer Boulevard
37-010512	CA-SDI-10,512	Prehistoric	Lithic scatter	Artifact scatter/ Non-site	Not significant	No	Dirt roads, agriculture	Not included	Yes, Beyer Boulevard
37-010514	CA-SDI-10,514	Prehistoric	Lithic Scatter	Non-site	Not significant	No	Vehicles; Border Patrol defoliation; dumping; plowing; pothunting	4 surface artifacts; no subsurface; recommended not eligible for CRHR	Yes, Beyer Boulevard, Planning Areas 11 through 14
37-010515	CA-SDI-10,515	Prehistoric	Lithic Scatter	Non-site	Not significant	No	None noted	Not included	Yes, Beyer Boulevard
37-010516	CA-SDI-10,516	Prehistoric	Lithic Scatter	Non-site	Not significant	No	Vehicles; Border Patrol defoliation; dumping; plowing	Non-site; recommended not eligible for CRHR	Yes, Planning Areas 8 through 10
37-010522	CA-SDI-10,522	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant (ASM Affiliates)	No	Extensive agriculture	Not Included	Yes, Planning Areas 8 through 10
37-010523	CA-SDI-10,523	Prehistoric	Lithic Scatter	Non-site	Not significant	No	A small portion has been plowed; berm	Not Included	Yes, Planning Areas 8 through 10
37-010524	CA-SDI-10,524	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	No	Vehicles; plowed; agriculture	Lacks research potential; recommended not eligible for CRHR	Yes, Planning Areas 8 through 10
37-010805	CA-SDI-10,805	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	No	No listed disturbances	Not included	Impacted, Wetland Restoration Area

Table 2 Cultural Resources Mapped within the Project-Level Area									
P Number	Trinomial	Age	Resource Type	Gallegos Site Type	Significance	Developed	Listed Impact	ECORP Report	Impacted? Location/Description
37-010810	CA-SDI-10,810	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	No	Agriculture	Lacks research potential; recommended not eligible for CRHR	Partially, Vernal Pool Restoration Area, Planning Areas 15 through 18
37-011079	CA-SDI-11,079	Prehistoric	Lithic and Shell Scatter	Artifact Scatter	Significant				
37-020343	CA-SDI-20,343	Prehistoric	Lithic Scatter	Non-site	Not significant	No	No listed disturbances	Not included	Impacted, Cactus Wren Habitat Restoration Area
37-025213	CA-SDI-16,705	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	Partially	Agriculture; vehicles	Lacks research potential; recommended not eligible for CRHR	Yes, Planning Areas 8 through 10
37-025214	CA-SDI-16,706	Prehistoric	Lithic Scatter	Non-site	Not significant	No	Agriculture; vehicles	Lacks research potential; recommended not eligible for CRHR	Yes, Planning Areas 19 and 20
37-026729	CA-SDI-17,517	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	No	Agriculture; vehicles	No research potential; recommended not eligible for CRHR	Yes, Planning Areas 19 and 20
37-026730	CA-SDI-17,518	Prehistoric	Lithic Scatter	Artifact Scatter	No significant*	No	Vehicles	Recommended eligible for CRHR*	Yes, Planning Areas 19 and 20
37-026731	CA-SDI-17,519	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	No	Agriculture, vehicles	Lacks research potential; recommended not eligible for CRHR	Yes, Vernal Pool Restoration Area
37-026732	CA-SDI-17,520	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	No	No listed disturbances	Lacks research potential; recommended not eligible for CRHR	Yes, Vernal Pool Restoration Area
37-026733	CA-SDI-17,521	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	No	Vehicles	Lacks research potential; recommended not eligible for CRHR	Yes, Planning Areas 19 and 20
37-026734	CA-SDI-17,522	Prehistoric	Lithic Scatter	Artifact Scatter	Not significant	No	Vehicles	Lacks research potential; recommended not eligible for CRHR	Yes, Planning Areas 19 and 20

Three previously recorded sites are recorded within the vernal pool restoration areas: CA-SDI-10,810, CA-SDI-17,519, and CA-SDI-17,520. One previously recorded site is within the cactus wren habitat restoration area: CA-SDI-20,343. One previously recorded site is within the wetland restoration area: CA-SDI-10,811. Three sites previously recorded are recorded within Planning Areas 15 through 18: CA-SDI-10,810, CA-SDI-17,523, and CA-SDI-17,524. Five sites are recorded in Planning Areas 19 and 20: CA-SDI-16,706, CA-SDI-17,517, CA-SDI-17,518, CA-SDI-17,521, and CA-SDI-17,522. Eight previously recorded sites fall within the Beyer Boulevard extension: CA-SDI-10,512, CA-SDI-10,514, CA-SDI-10,515, CA-SDI-22,448, CA-SDI-10,206, P-37-028467, P-37-037600, and P-37-037601. One previously recorded site falls within the boundaries of the Central Avenue extension: CA-SDI-8,642. One previously recorded site is recorded within the Caliente Avenue extension south of Central Avenue: CA-SDI-8,644. No cultural resources have been recorded within the primitive trails and trail restoration area or Otay tarplant/native grassland restoration areas. Record search results are included in Confidential Attachment 1.

6.1.1 Planning Areas 8 through 10

CA-SDI-10,516 is mapped in the southcentral portion of Planning Areas 8 through 10. It was recorded in 1985 by Scientific Resource Surveys, Inc. as a small lithic scatter consisting of four artifacts in a 61-by-46-meter area. No cultural affiliation was proposed for the site. No disturbances to the site were observed. The site was tested by ECORP in 2005 and determined not a significant historical resource (Mason and Bouscaren 2005).

CA-SDI-10,522 is mapped in the northwest corner of Planning Areas 8 through 10, on the edge of the mesa above a drainage, with the southern half of this site extending into the project area. It was originally recorded by Scientific Resource Surveys, Inc. in 1985 as a low-density lithic scatter of 15 artifacts in a 91-by-30-meter area. No cultural affiliation was proposed for the site, and no disturbances to the site were observed. ASM Affiliates tested the site in 1990, finding 19 artifacts on the surface and only two flakes in the two test units excavated. The site was deemed insignificant by ASM.

CA-SDI-10,523 is mapped on the northeastern edge of Planning Areas 8 through 10, on a southwest-facing slope, with the southern half of this site within the project boundaries. The site consists of 17 artifacts in a 99-by-53-meter area, recorded by Scientific Resource Surveys, Inc. in 1985. The recorders noted a high tool-to-debitage ratio, which they felt reflected multiple processing activities. Disturbance to the site was indicated by some piles of cobbles indicating farming activity on the flatter portion of the site. There is no indication the site has been tested to determine significance.

CA-SDI-10,524 is mapped in the west–center portion of Planning Areas 8 through 10, on the mesa top between two drainages, with the eastern half of the site within the project boundaries. It was originally recorded by Scientific Resource Surveys, Inc. in 1985 as a lithic scatter consisting of 29 artifacts in a 259-by-22-meter area. Two concentrations were noted, and it was felt the site comprised the remains of several spatially overlapping use episodes. The portion of the site within the current project was tested by ECORP in 2005. ECORP noted a surface assemblage of approximately 100 lithics including flakes, cores, tools, hammerstones, and manos. Subsurface recovery mirrored the types on the surface. The site was determined not a significant historical resource by ECORP (Mason and Bouscaren 2005).

CA-SDI-16,705 is mapped in the southeast corner of Planning Areas 8 through 10, on the mesa top, with the northern half of the site within the project boundaries. It was originally recorded by Gallegos and Associates, Inc. in 2003 as a lithic scatter comprising approximately 50 artifacts, including 2 milling implement fragments. The site measured 66 by 30 meters. Disturbances to the site noted included past farming activity and heavy off-road vehicle activity. The portion of the site within the current project was tested by ECORP in 2005. ECORP noted a surface assemblage of approximately 80 artifacts and subsurface material down to a depth of 40 cm. The site was determined not a significant historical resource by ECORP (Mason and Bouscaren 2005).

6.1.2 Planning Areas 11 though 14

CA-SDI-10,514 is mapped in the northwest corner of Planning Areas 11 through 14. It is recorded as being 366 by 137 meters and is described as being a large lithic scatter with a high tool-to-debitage ratio with two areas of concentration, one in the western end of the site and a large one in the center. A total of 60 artifacts were observed during the 1985 recording by Scientific Resource Surveys, Inc., who felt the artifact assemblage indicated longer term occupation and diverse activities carried out at the site. No cultural affiliation was proposed for the site. Disturbances noted to the site included off-road vehicular traffic, defoliation by the U.S. Border Patrol, and farming (indicated by piles of rocks along the margin of the mesa top). The portion of the site within the current project was tested by ECORP in 2005. Only four artifacts were collected from the surface of the site and none of the 12 STPs excavated yielded cultural material. ECORP determined CA-SDI-10,514 was not a significant historical resource (Mason and Bouscaren 2005).

6.1.3 Restoration Areas

6.1.3.1 Primitive Trails and Trail Restoration Area

The proposed primitive trail alignments are located within the 100-foot restoration corridor; therefore, the trails and surrounding restoration are addressed in this report together. No previously recorded sites occurred within this area.

6.1.3.2 Vernal Pool Restoration Area

CA-SDI-10,810 is a large lithic scatter (approximately 200 by 100 meters). The eastern portion of this site is situated along the mesa rim and slope in the southwest corner of the vernal pool restoration area. The scatter was originally described by ECORP as having 41 cores, debitage, and seven tools. The site was tested in 2004–2005 by ECORP, which included five surface scrapes and 29 STPs, as well as a surface collection. Although almost 300 artifacts were recovered and areas of concentration were noted, during the surface collection, the STPs showed no subsurface component to the site. ECORP determined the site was not a significant cultural resource (Mason and Bouscaren 2005).

CA-SDI-17,520 is on the eastern edge of the mesa, in the vernal pool restoration area, along the mesa top and extending down the slope. The site was described by ECORP in 2004 as a lithic scatter consisting of 68 cores/debitage and four hammerstones. ECORP tested the site in 2004-2005. Almost 400 items were surface collected and five surface scrapes and 15 STPs were excavated. The site was determined to have no subsurface component and not a significant historical resource (Mason and Bouscaren 2005).

CA-SDI-17,519 is also on the eastern edge of the mesa, in the vernal pool restoration area, and is immediately north of CA-SDI-17,520. The site was described as a lithic scatter approximately 22 by 15 meters. The site was tested in 2004-2005 and 25 artifacts were collected, including a hammerstone, two cores, four tools and 19 debitage. Five STPs were excavated, and no subsurface material was recovered. The site was determined not a significant historical resource by ECORP (Mason and Bouscaren 2005).

6.1.3.3 Otay Tarplant and Native Grassland Restoration Area

No previously recorded cultural resources are within the Otay tarplant and native grassland restoration area.

6.1.3.4 Cactus Wren Habitat Restoration Area

CA-SDI-20,343 is north of Moody Canyon on a slope west of a dirt road. The site was recorded in 2011 as a lithic scatter with four felsite flakes and one volcanic core within a 7-by-5-meter area. Visibility was poor due to heavy vegetation at the time of that survey.

6.1.3.5 Wetland Restoration Area

CA-SDI-10,811 is described as being located on a small river terrace bench on the eastern side of the Spring Canyon drainage where Spring Canyon meets Wruk Canyon. The site was described as a habitation site based upon the dark color of the soil, the types and distribution of artifacts, and the presence of marine shellfish remains. The site measured 50 by 50 meters and was surface-collected and tested in 1986. The surface collection yielded 247 flakes, 94 angular waste fragments, 1 scraper fragment, and 5 utilized/modified flakes, while the subsurface component yielded 77 flakes, 141 angular waste fragments, 3 cores, 2 mano fragments, and 1 scraper. The site was determined not a significant historical resource.

6.1.3.6 Otay B Potential Restoration Area

CA-SDI-10,524 is mapped in the east half of the Otay B potential restoration area, on the mesa top between two drainages, with the majority of the site within Planning Areas 8 through 10. As noted above, CA-SDI-10,524 was originally recorded in 1985 as a lithic scatter consisting of 29 artifacts dispersed over a 259-by-22-meter area. The portion of the site within Planning Areas 8 through 10 was tested by ECORP in 2005. ECORP noted a surface assemblage of approximately 100 lithics including flakes, cores, tools, hammerstones, and manos. Subsurface recovery mirrored the types on the surface. The site was determined not a significant historical resource by ECORP (Mason and Bouscaren 2005).

6.1.4 Planning Areas 15 though 20

The western locus and a small portion of the eastern locus of CA-SDI-10,810 are recorded along the mesa edge in the southeastern corner of Planning Areas 15 through 20. As noted above, ECORP determined the site was not a significant historical resource.

CA-SDI-16,706 is located in the northwestern corner of Planning Areas 19 and 20. It was first recorded by Gallegos and Associates as a sparse lithic scatter measuring approximately 16 by 44 meters in size. ECORP evaluated the site in 2004 and found three tools and 19 flakes/debitage on the surface. Testing, which consisted of six STPs produced only one flake. ECORP determined the site was not a significant historical resource because it lacked the potential for addressing research topics (Mason and Bouscaren 2005).

CA-SDI-17,517 is located along the eastern edge of Planning Areas 19 and 20, on the north rim of the Spring Canyon tributary canyon. The site was described by ECORP as a lithic scatter consisting of 5 cores, 1 modified flake, and 25 flakes/debitage found in an area measuring 30 by 12 meters. The site was tested in 2004–2005 by ECORP and consisted of a surface collection and seven STPs. No subsurface material was recovered. ECORP determined the site was not a significant historical resource because it lacked the potential for addressing research topics (Mason and Bouscaren 2005).

CA-SDI-17,518 is located at the western end of the small tributary canyon within Planning Areas 19 and 20. ECORP described the site as consisting of approximately 60 tools/cores, 1 mano, and approximately 46 flakes/debitage in an area measuring 120 by 90 meters. Several dirt roads were noted transecting the site. ECORP tested the site in 2004-2005, surface collecting and excavating 22 STPs and two units. The two units were excavated near the STP that recovered FAR and charcoal to determine if the STP recovery represented a subsurface hearth feature. The subsurface testing program did not encounter a hearth feature and only yielded a sparse subsurface deposit. Four STPs and both of the units produced 1 core, 7 tools, 16 flakes/debitage, 2 FAR, and 1 marine shell fragment. ECORP determined the site contained sufficient material to address multiple research topics because of the presence of the FAR and one marine shell fragment. ECORP recommended CA-SDI-17,518 as a historical resource (Mason and Bouscaren 2005).

CA-SDI-17,521 is located in the southeastern corner of Planning Areas 19 and 20. It was recorded by ECORP in 2004 as consisting of 17 cores/debitage and 2 modified flakes in an area approximately 100 by 22 meters oriented along a dirt road. ECORP surface-collected the site and excavated 12 STPs. The 12 STPs yielded a small amount of subsurface material, but the site was determined not to be a significant historical resource (Mason and Bouscaren 2005).

CA-SDI-17,522 is located in the southwestern corner of Planning Areas 19 and 20. ECORP described the site in 2004 as a lithic scatter consisting of 2 hammerstones, 1 modified flake, 3 cobble cores, and 14 flakes/debitage in an area approximately 60 by 40 meters. It was noted in the site form that the area outside two dirt roads was completely obscured by non-native grasses. ECORP tested the site in 2004-2005, surface collecting the site and excavating a total of 49 STPs. Only five artifacts were recovered from the STPs. ECORP determined the site was not a significant historical resource because it lacked the potential for addressing research topics (Mason and Bouscaren 2005).

CA-SDI-17,523 is also located along the southern edge of the mesa, at the southeast corner of Planning Areas 15 through 18. The site was described by ECORP in 2004 as a lithic scatter consisting of 66 artifacts including cores, hammerstones, modified flakes, and over 40 flakes/debitage. The site was tested in 2004–2005 by ECORP, which included 30 STPs, one unit, as well as a surface collection. ECORP determined the site lacked the potential for addressing research topics and was not a significant historical resource (Mason and Bouscaren 2005).

CA-SDI-17,524 is located immediately east of CA-SDI-17,523 on the mesa edge at the southeast corner of Planning Areas 15 through 18. CA-SDI-17,524 was recorded as a lithic scatter consisting of 16 artifacts, including six cores, one core tool, modified flakes and debitage. The site was tested in 2004–2005 by ECORP, which consisted of three STPs and a surface collection. ECORP determined the site lacked the potential for addressing research topics and was not a significant historical resource (Mason and Bouscaren 2005).

6.1.5 Beyer Boulevard Extension

CA-SDI-10,206 is on a bench on the north side of Moody Canyon, near the western terminus of the Beyer Boulevard extension. It was recorded by RBR & Associates in 1985 and was described as a light scatter of approximately 10 flakes in an area of approximately 19 by 38 meters. Disturbance from heavily used footpaths through the site and erosion were noted on the site record form. The site was resurveyed by RECON in 2005 as part of a proposed Beyer Boulevard project and the site boundary was expanded both east and west along existing dirt roads. Numerous fine-grained metavolcanic flakes and a few tools were observed in the dirt roads crossing the site. The site was resurveyed by ASM Affiliates in 2011 and RECON in 2017. Similar conditions to the 2005 survey were noted during both surveys. There is no record of evaluation work for the site.

CA-SDI-22,448 is a sparse lithic scatter with two possible rock features in the northeastern part of the Beyer Boulevard extension. The lithic scatter consists of four fine-grained metavolcanic secondary flakes, one fine-grained metavolcanic primary flake, one fine-grained metavolcanic angular waste, an oval-shaped rock alignment measuring 4 by 2 meters, and a newer looking circular rock alignment. This site is located on a steep north-facing slope, with many conglomerate rocks on the surface. It measures 20 by 14 meters. A small dirt road leading into Moody Canyon runs north of the site, and a larger dirt road runs east-west south of the site.

P-37-037600 is an isolate consisting of a fine-grained metavolcanic retouched flake within the drainage of Moody Canyon in the Beyer Boulevard extension. The flake may have washed downstream and not be its originally recorded location.

P-37-037601 is an isolate consisting of a fine-grained metavolcanic core and fine-grained metavolcanic secondary flake within the drainage of Moody Canyon in the Beyer Boulevard extension. The core may have washed downstream and not be its originally recorded location.

CA-SDI-10,512 is located in the central portion of the Beyer Boulevard extension. Only the northwestern end is within the survey area, the vast majority of the site extending southeast along the edge of Otay Mesa. The site was originally described in 1985 as a low-density lithic scatter consisting of three cores, two scrapers, one beaked tool, one modified flake, and flakes/debitage covering and area 427 by 61 meters. Two additional small loci were added west of the original site boundary (outside the current survey, along the edge of Moody Canyon). Both loci consist of approximately 8 to 12 primary and secondary flakes. CA-SDI-10,512 has not been evaluated for significance.

CA-SDI-10,514 extends into the surveyed portion of the Beyer Boulevard extension from the northwest corner of the southern area of Phase 1. The site is described above. The portion of the site within Tri Pointe Homes ownership was evaluated by ECORP in 2004-2005 and they determined the site lacked the potential for addressing research topics and was not a significant historical resource (Mason and Bouscaren 2005).

P-37-028467 is an isolate found in a north-south drainage on the eastern end of the Beyer Boulevard extension. The isolate consists of two artifacts, a flake, and a core, both of fine-grained metavolcanic material. The isolate was recorded in 2005 by RECON.

CA-SDI-10,515 is on the south side of Moody Canyon, on a small mesa between a short north-south unnamed drainage and the south fork of the Y at the end of the canyon, in the Beyer Boulevard extension. This site was recorded by SRS in 1985. It is described as a very low-density site consisting of two cores, one hammerstone, and one chopper on a finger overlooking Moody Canyon. There is no record of any work on the site besides the initial survey.

6.1.6 Central Avenue Extension

CA-SDI-8,642 is recorded within the Central Avenue extension, where the existing dirt access road makes a 90-degree turn to the south. The site was recorded in 1980 and was described as a low-density lithic scatter consisting of two cores and eight flakes, in an area measuring 40 by 25 meters. Extensive disturbance from agriculture and grading for a pond were noted. The site was tested by ASM Affiliates in 1989 by the excavation of two test units and determined not a significant historical resource. Subsequent surveys have not relocated the site.

6.1.7 Caliente Avenue North of Central Avenue

Although previously addressed as part of the previous Candlelight project entitlements, the updated record search covered this area and no previously recorded cultural resources are within Caliente Avenue north of Central Avenue.

6.1.8 Phase 4 – Caliente Avenue South of Central Avenue and Portions of Planning Areas 1, 2, and 7

CA-SDI-8,644 is recorded within the Caliente Avenue extension, south of Central Avenue and north of Beyer Boulevard (see Figure 7). The site was recorded in 1980 as a large lithic scatter with several scrapers, eight cores, three hammerstones, five undiagnostic tools, flakes, and debitage. Disturbance from plowing was noted. The site was tested by ASM in 1989 with the excavation of two test units and was determined not a significant historical resource.

No cultural resources have been previously recorded in Planning Areas 1, 2, and 7.

6.1.9 West Avenue and Street A

The streets are located within Planning Areas 11 through 14. No cultural resources have been recorded within these alignments.

6.1.10 Emergency Vehicle Access Road

No cultural resources were recorded within the EVA Road (see emergency vehicle access road in Figure 8).

6.1.11 Infrastructure Improvement Areas

6.1.11.1 State Route 905

A portion of CA-SDI-6,941 is mapped within the off-site transportation improvement area on the SR-905 westbound on-ramp at Caliente Avenue. It was first recorded in 1979 as a temporary camp consisting of Loci A through E. Locus F and G were identified by RBR archaeologists. Loci A, D, and F were evaluated in 1986. Cultural material in Locus D extended down to 70 cm below ground surface (BGS). A data recovery program was completed at Locus D in 1990 and yielded lithic artifacts, ground stone artifacts, bone, shell, and ceramic sherds. A second phase data recovery was completed at Locus D in 1992 and yielded similar results (Cheever 1996). A 1995 survey for the Otay Mesa Road Widening project expanded the site to include Loci H through X. This expanded portion of CA-SDI-6,941 occurs within the APE. Evaluation excavations for the Otay Mesa Road Widening project were completed in 1996 and consisted of a 50 percent surface collection, 19 backhoe trenches, and six 1-by-1-meter units followed by additional excavations in the southern portion of Caliente Boulevard. Because of agricultural disturbance, this area of the site was determined not significant under city or CEQA guidelines (Kyle et al. 1997). A survey in 2015 identified lithic artifacts near Loci J, K, and L. Of the 24 loci, Locus D is the only one determined significant.

6.1.11.2 Spring Canyon Drainage Outfall and Pump Station/Sewer Lift

No cultural resources were recorded within the Spring Canyon Drainage Outfall (south of Planning Area 18) (see Outfall 1 in Figure 8) or within the Pump Station/Sewer Lift.

6.1.11.3 Water and Sewer Lines

CA-SDI-11,079 is recorded within the water and sewer lines infrastructure improvements area along Otay Mesa Place. It was recorded in 1988 by WESTEC Services as a lithic and shell scatter mapped over a 225-by-200-meter area. Artifacts include 4 scrapers, 10 cores, 5 flaked tools, 2 hammerstones, 1 mano, and over 200 flakes as well as *Chione* and *Mytilus* shell. A possible hearth was identified in the 30 to 40 cm level of a STP. A portion of the site was tested by Gallegos and Associates in 1993 and 1994; a 1,500-square-meter area was determined significant under CEQA guidelines and eligible for the National Register of Historic Places. A data recovery program was completed in 1998;

radiocarbon from 7 shell sources dated site occupation ranging between 7,000 and 9,400 years ago. In 2011, ASM Affiliates expanded the site boundary to include a new locus to the south and east, measuring 90 by 40 meters. The new locus includes 1 scraper, 2 cores, and 50 flakes, as well as ceramic sherds and historic glass. The area where data recovery was completed has been graded for a housing development and can be considered not significant due to loss of integrity.

6.1.12 Program-level Analysis Area

The record search indicates the program-level analysis area contains two previously recorded sites, detailed below. No previously recorded sites occur within Planning Areas 1, 2, 3, 6, 7, and 22 through 27.

6.1.12.1 Planning Areas 4 and 5

A portion of CA-SDI-8,645 is located within Planning Area 4 (see Figure 7). The site was recorded in 1980 as a lithic scatter with cores, a hammerstone, and a flake. The site measured 250 by 30 meters. Disturbances to the site were from past plowing. The site was tested by ASM Affiliates in 1989 with the excavation of two test units and was determined not a significant historical resource. A subsequent survey in 2003 located the site and noted that site conditions had not changed.

CA-SDI-16,704 is located within Planning Area 5 (see Figure 7). The site was recorded in 2003 as a sparse lithic scatter, measuring 160 by 90 meters. Artifacts included six pieces of metavolcanic debitage, a core, and three unifacial tools. Disturbances to the site include past agricultural activity and graded dirt roads. The site does not appear to have been tested for significance in the past.

6.1.13 Historic Aerial Photograph Review

Historic aerial photographs available online (Nationwide Environmental Title Research, LLC 1999–2018) were checked on January 19, 2018, in order to see past development within and near the project area. A 1953 photograph shows the Planning Areas 8 through 10 covered in low vegetation that appears to be the result of grazing as opposed to farming, as the drainages as well as the mesa top appear to be partially denuded. Properties immediately to the west and north are a lighter grey and appear more consistent in ground cover density. A single dirt road runs along the eastern boundary of Planning Areas 8 through 10. Ground cover remains the same in a 1964 photograph, but a second north–south dirt road runs through the middle of the area. These conditions appear the same through 1971, but a 1981 photograph shows several additional dirt roads running through the eastern half of the area. The mesa top appears basically unchanged. The western portion of the Planning Areas 8 through 10 may have been farmed at some time, but no evidence of plowing can be discerned. Dirt roads multiply and get wider on photographs from the 1980s and 1990s. The berm along the northeast edge of Planning Areas 8 through 10 appears on a 1996 photograph. Photographs from the 2000s show additional widening of dirt roads, and a large bare area south of the berm has developed.

The 1953 photograph shows Planning Areas 11 through 14 mesa top cleared of native vegetation and covered with a uniform growth, possibly grass. The faint outlines of vernal pools or mima mounds are visible. Native vegetation remains in the central canyon and on the west-facing slope in the southwest corner. No dirt roads are visible. On a 1964 photograph, there are dirt roads along the perimeter of the mesa top and along the south side of the area. The area remains the same during the late 1960s and 1970s, with the vernal pools/mima mounds becoming more distinct in the northwestern portion of Planning Areas 8 through 10. Throughout the 1980s, 1990s, and 2000s a few new dirt roads appear, and the existing dirt roads increase in width. Ground cover appears to remain the same. At no time does Planning Areas 8 through 10 appear to be under cultivation but appears covered by relatively low exotic weeds.

The 1953 photograph shows the vernal pool restoration area cleared of native vegetation and covered with a uniform growth, possibly grass. The faint outlines of vernal pools or mima mounds are visible covering almost the entire parcel. No dirt roads are visible. The 1964 photograph shows the same ground cover, and some of the pools/mima mounds are more distinct. There are now dirt roads along the edge of the mesa and two cutting across the parcel. Photographs through the 1980s show no basic change to the vegetation cover, but new dirt roads appearing across the parcel. On photographs taken through the 1990s and 2000s the number and width of the dirt roads increase. At no time does the vernal pool restoration area appear to be under cultivation but appears covered by relatively low exotic weeds.

The 1953 photograph shows Planning Areas 15 through 20 cleared of native vegetation and covered with a uniform growth, possibly grass. Distinct outlines of vernal pools or mima mounds are visible covering almost the entire parcel. The 1964, 1966, and 1968 aerial photographs show little change except for dirt roads along the perimeter of the mesa top, along parcel boundaries, and a few cutting diagonally across the mesa top. This pattern remains up until the present, with some dirt roads being abandoned and others appearing. There is no other form of development within Planning Areas 15 through 20.

The 1953 photograph shows the eastern 300 meters of the southern rim of Moody Canyon cleared for agriculture in the area of the proposed Beyer Boulevard extension. The remainder of Moody Canyon has remained basically undeveloped up to the present. Several dirt roads do descend from the southern and northern mesa tops into the canyon, but these are narrow and have had little impact. The eastern cleared portion has had no development other than agriculture and vegetation clearing.

The 1953 photograph shows the western half of the Central Avenue extension cleared of native vegetation and covered with a uniform growth, possibly grass. Distinct outlines of vernal pools or mima mounds are visible. A row of trees running north south exists where the current dirt access road turns south. Between the trees and the drainage, the vegetation appears to be sparse native species. The eastern portion of the alignment has also been cleared and has vegetation and mounds/vernal pools similar to the western portion of the alignment. The current dirt road is present in the 1964 aerial photograph, and there is a small stock pond north of the alignment in the drainage at the northwest terminus of Dillon Canyon. Disturbances from roads and minor grading occur between 1964 and the early 2000s. By 2003, the berms have appeared.

The 1953 photograph shows a portion of the existing northwest terminus of Dillon Canyon at the southern end of the alignment. The current road that runs south and then east was present by 1953 and was surrounded by mima mounds. The 1964 photo shows more dirt roads with agricultural fields in the northern extent and mima mounds south of the canyon. Aerial photographs indicate that the agricultural fields in the north and the mima mounds in the south continue until sometime between 1971 and 1981 when the mounds are no longer noted. The 1981 photograph shows an increase of dirt roads. The high school currently situated along the southern end of Caliente Avenue is first noted in the 2002 photograph.

In summary, no historic buildings, foundations, or structures were identified during review of historic aerial photographs.

6.1.14 Sacred Lands Search

A letter was sent to the Native American Heritage Commission (NAHC) in Sacramento on October 31, 2017, for Planning Areas 8 through 10 requesting a search of their Sacred Lands File. The NAHC replied on November 1, 2017, indicating that they had no record of Native American cultural resources in the immediate area of the project. A letter was sent to the NAHC in Sacramento on February 7, 2018, requesting a search of their Sacred Lands File for Planning Areas 11 through 14. The NAHC replied on February 8, 2018, indicating that they had no record of Native American cultural resources in the immediate area of Plannings Area 11 through 14. Another letter was sent to NAHC on May 9, 2023, to search for the entire project-level and program-level areas. The NAHC replied on June 15, 2023, with positive results. The response letters from the NAHC are included as Attachment 2. RECON sent tribal scoping letters on May 13, 2024. Two responses were received as of the writing of this report. Daniel Tsosie of the Campo Band of Mission Indians responded on May 16, 2024, via email stating the importance of preservation of cultural sites and the fact that Otay itself is a resource with integrity. The Campo Band of Mission Indians maintains the APE is a very sensitive area that is connected to the Kumeyaay's present-day oral traditions. In addition, the Campo Band of Mission Indians requested a copy of the survey report and that they be included in mitigation planning and monitoring. Angelina Gutierrez emailed a letter on behalf of Desiree M. Whiteman, the Tribal Historic Preservation Officer for the San Pasqual Band of Mission Indians, on May 31, 2024. The letter stated that the project is within the boundaries of the territory that the Tribe considers its aboriginal territory and as such, the Tribe would like to engage in government-to-government consultation under Assembly Bill 52 in order to have a voice in development of measures to protect sites. The Tribe also requested access to any cultural resources reports (see Attachment 2).

6.2 Survey Results

6.2.1 Survey Results within Project-level Areas

6.2.1.1 Planning Areas 8 through 10

The field survey for Planning Areas 8 through 10 (see Figure 7) was conducted on January 12, 2018, by RECON archaeologists Carmen Zepeda-Herman, Nathanial Yerka, and Alyssa Soto, accompanied by Nick Ruis, a Native American Monitor from Red Tail Environmental.

As discussed above the project area consists of a mesa top bisected by two large east/west-trending drainages. Ground visibility on the mesa top varied. Moderately dense ground cover of exotic annuals covered part of the mesa top, with ground visibility averaging 30 percent (Photograph 1).

In other areas, ground cover was much sparser, with ground visibility averaging 60 percent (Photograph 2). In areas of off-road vehicle activity, especially along the eastern edge of these planning areas, ground visibility was much higher with extensive bare dirt patches and lower vegetation (Photograph 3). Steep north- and west-facing slopes with native vegetation were not surveyed because of the low probability of the presence of cultural material (Photograph 4).

The edges of the mesa top/tops of the slopes were generally covered in sparse coastal sage scrub, where ground visibility averaged 50 percent. There were numerous rock piles along the mesa edges from field clearing from the period when the mesa was farmed (Photograph 5). Trash was scattered across the mesa top, often at the edge of the mesa and at the head of the southern drainages (Photograph 6). The southeastern portion of the project appeared to have been graded in the past, with parallel windrows of cobbly soil and rock piles. A recent concrete slab was found in this area, along with a large amount of recent trash. No historic structures were found.

The survey identified cultural material at all of the previously recorded sites. A scraping tool, three cores, a utilized flake, and a flake were found at CA-SDI-10,516. The area has been heavily disturbed by grading and some off-road vehicle activity, which has most probably led to dispersal of the artifacts from their original location. In addition, two flakes were found approximately 30 meters west of the site boundary, at the edge of a pile of pushed dirt and cobbles. Because their original location was not known, they were not included in CA-SDI-10,516 but were considered isolates.

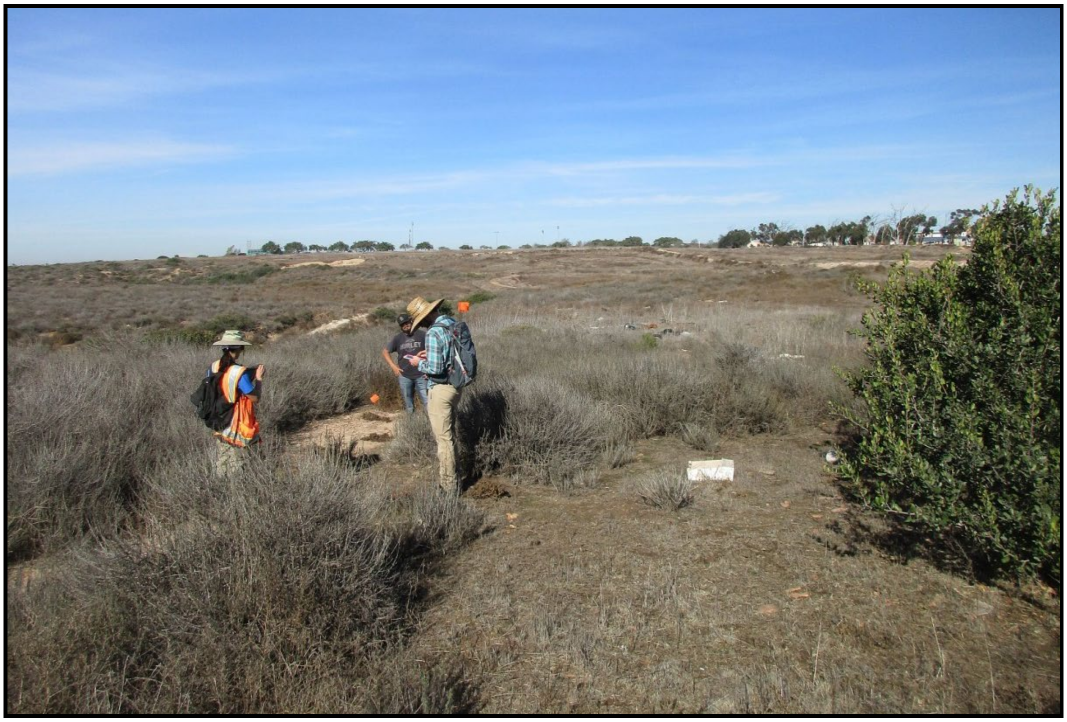
A total of 18 artifacts were found outside the mapped location of CA-SDI-10,522: two utilized flakes, four cores, two chopping tools, a mano, and nine flakes. The majority of these were southwest of the recorded site boundary. Ground visibility in the site area was good, averaging 60–70 percent due to a lack of grass ground cover. A graded road is faintly visible running through western half of the site, but it may predate the site's recording.

Five flakes were observed in the mapped location of CA-SDI-10,523, where ground visibility averaged 60 percent due to low grass cover. The site area has been impacted by a dirt bike ramp, farming, and the west end of a berm extending into the eastern half of the site.

A total of 30 plus flakes and a tool were observed in CA-SDI-10,524. Ground visibility over the site area varied from 60 percent to less than 10 percent. The site has suffered fewer impacts from off-road vehicle activity and dumping of trash along the mesa's edge, but numerous rock piles line the mesa edge.

Three artifacts were observed within the recorded area of CA-SDI-16,705. The site area has been heavily disturbed by off-road vehicle activity, trash dumping, and possibly some grading/scraping. Two previously unrecorded prehistoric resources were found during the survey.

P-37-037533 (TM1-NDY-1) is a lithic scatter consisting of 10 artifacts: 4 utilized flakes, 2 cores, 1 scraping tool, 1 modified flake, and 2 flakes. These were found in an area of 475 square meters approximately 80 meters north of the CA-SDI-16,705. The site area is flat and heavily disturbed by off-road vehicle activity, and artifacts have most probably been displaced from their original locations. A large portion of the site was bare ground or covered in short grasses, making ground visibility good.



PHOTOGRAPH 1
Dense Exotic Weeds and Grasses on Mesa Top
within Planning Areas 8 through 10

PHOTOGRAPH 2
Sparse Mesa Top Vegetation within Planning Areas 8 through 10

PHOTOGRAPH 3
Off-road Vehicle Activity in Eastern Portion of the Project within Planning Areas 8 through 10

PHOTOGRAPH 4
Vegetation Cover on Steep Slopes within Planning Areas 8 through 10

RECON

PHOTOGRAPH 5
Typical Rock Pile at Edge of Mesa within Planning Areas 8 through 10

PHOTOGRAPH 6
Typical Trash Scatter within Planning Areas 8 through 10

P-37-037532 (TM1-ALS-2) is a small lithic scatter consisting of one scraping tool, one core, and two flakes within a 212-square-meter area. The site is on the mesa approximately 35 meters north of CA-SDI-16,705. The site area is flat, and a large percentage has been disturbed by off-road vehicle activity. Approximately one-half of the site was bare ground or covered in short grasses, making ground visibility good. Confidential Attachment 3 shows the locations of all cultural resources observed during the survey within Planning Areas 8 through 10.

6.2.1.2 Planning Areas 11 though 14

Planning Areas 11 through 14, which include West Avenue and Street A, were surveyed on January 18, 2018, by RECON archaeologists Carmen Zepeda-Herman, Harry Price, Nathanial Yerka, and Andres Berdeja, accompanied by Native American monitor Banning Taylor of Red Tail Environmental. An additional triangular portion of Planning Area 14 was surveyed on June 21, 2018, by Nathanial Yerka and Richard Shultz, accompanied by Native American monitor Nick Ruis of Red Tail Environmental. A third survey of the southern addition was conducted on April 30, 2020, by RECON archaeologist Nathanial Yerka and Andres Berdeja, accompanied by Native American monitor Shuuluk Linton of Red Tail Environmental. The majority Planning Areas 11 through 14 is basically flat and has been impacted by a combination of farming and some road and drainage construction. The majority of the property has been tilled for agriculture since at least the early 1960s. The non-native vegetation on the mesa top areas varied in density. In most areas, the density of grasses and filaree (*Erodium* sp.) reduced ground visibility to below 10 percent (Photographs 7 and 8). Baseball-sized cobbles could sometimes be seen, and there were patches where ground visibility was up to 60 percent. Ground visibility along the western edge of the mesa in areas of coastal sage scrub averaged significantly better, often 80 to 90 percent between scattered bushes (Photograph 9). Vegetation in the central drainage varied. East-facing slopes exhibited some areas of sparser coastal sage scrub, and ground visibility averaged 40 percent (Photograph 10), with numerous bare areas. West-facing slope vegetation cover was noticeably denser, with ground visibility averaging 20 percent (Photograph 11). The northern 30 meters of the central drainage were not surveyed due to dense vegetation and steep slopes.

CA-SDI-10,514 was not relocated during the current survey. No artifacts were observed at the mapped location of CA-SDI-10,514. Groundcover was generally below 10 percent, except in and adjacent to the dirt road that bisects the site. Since the survey area did not include the western and central areas of concentration, it is possible that artifact concentration was so sparse at the eastern end that the ground cover was sufficient to obscure the few artifacts previously recorded within the survey area.

A total of 11 previously unrecorded prehistoric resources were found during the survey including one artifact scatter and ten isolated tools/cores. No historic structures were found. CA-SDI-22,939 (NDY0430-2) is a lithic scatter consisting of at least 2 retouched flakes, 1 scraper, 3 cores, and 53 flakes, in an approximately 1,860-square-meter area. Material types across the assemblage are a mix of fine-grained metavolcanic and fine-grained porphyritic metavolcanic. The site is situated on the edge of a disturbed mesa top, next to a southwest-facing slope. The site measures 93 meters (northwest/southeast) by 20 meters (southwest/northeast), has an open exposure to the northeast, and is lightly bounded by a southwest-facing slope. Area vegetation is composed of a moderately dense coastal sage scrub and disturbed non-native grasses.

PHOTOGRAPH 7
Dense Grass Cover on Mesa Top within Planning Areas 11 through 14

PHOTOGRAPH 8
Filaree (*Erodium* sp.) Ground Cover on Mesa Top
within Planning Areas 11 through 14

RECON

PHOTOGRAPH 9
Coastal Sage Scrub on Western West-facing Slope
within Planning Areas 11 through 14

PHOTOGRAPH 10
Vegetation Cover on Drainage East-facing Slope
within Planning Areas 11 through 14

RECON

PHOTOGRAPH 11
Vegetation Cover on Drainage West-facing Slope
within Planning Areas 11 through 14

P-37-037535 (TM2-ISO-1) is a single fine-grained metavolcanic core. The core is unifacial, with two to three flakes taken off a platform that appears to be the result of natural spalling. P-37-037535 is near the west end of the mesa, in a farmed area. Vegetation consists of non-native grasses and dense filaree ground cover. Ground visibility was below 30 percent.

P-37-037536 (TM2-ISO-2) is a single fine-grained metavolcanic core. The core is polyhedral, with three to four flakes taken off a cobble that has previously been subject to natural spalling. The spalling created platforms that were used for flaking. A small area of one edge exhibited microflaking, which may be from cultural use or the result of actions from modern farm equipment.

P-37-037568 (TM2-ISO-3) is a single fine-grained porphyritic metavolcanic core. The core is flake-based.

P-37-037569 (TM2-ISO-4) consists of two core fragments approximately three meters apart. Both are core fragments are made of fine-grained metavolcanic material and are probably from the same core. The resource is situated approximately five meters south of the proposed grading limit.

P-37-037570 (TM2-ISO-5) is a fragment of a fine-grained porphyritic metavolcanic core.

P-37-037571 (TM2-ISO-6) is a unifacially retouched flake. The flake is made of fine-grained porphyritic metavolcanic material and is in a somewhat disturbed area next to a dirt road.

P-37-037572 (TM2-ISO-7) is a core made of fine-grained porphyritic metavolcanic material. The core is flake-based and flakes have been removed unifacially. The core is in a dirt road.

P-37-037573 (TM2-ISO-8) consists of three artifacts in a 5-by-5-meter area. One is a convergent sidescraper with unifacial use wear. The scraper is made of coarse-grained metavolcanic material. The second artifact is a broken utilized flake. The flake is made of a fine-grained metavolcanic material. The third artifact is a notched and patinated sidescraper made of a fine-grained metavolcanic material. These three artifacts are in a disturbed area south of a dirt road.

P-37-037574 (TM2-ISO-9) is a fine-grained porphyritic metavolcanic retouched flake.

P-37-037575 (TM2-ISO-10) consists of two artifacts. One is a fine-grained porphyritic metavolcanic core. The core is multi-directional. It was found in a heavily disturbed area adjacent to a dirt road. The second is a fine-grained porphyritic metavolcanic utilized flake. The flake shows use wear consisting of rounding and polishing on its distal end.

Several scattered flakes were seen during the surveys. These flakes are considered part of the “archaeological noise” discussed by Gallegos (Gallegos et al. 1998) and were not recorded. The two cores found within Planning Areas 11 through 14 were mapped, and isolate forms were completed to be submitted to the SCIC (see Confidential Attachment 2). Confidential Attachment 4 shows the locations of all cultural resources observed during the survey within Planning Areas 11 through 14.

6.2.1.3 Restoration Areas

a. Primitive Trails and Trail Restoration Area

A small portion of the project-level primitive trails was surveyed on September 10, 2019, by RECON archaeologists Carmen Zepeda-Herman, Richard Shultz, and Harry Price, accompanied by Native American monitor Shuuluk Linton of Red Tail Environmental. One previously recorded prehistoric was observed during the survey. P-37-038928 (BS-ISO-5) is a fine-grained metavolcanic core fragment found on the southeast facing slope of Spring Canyon, about 50 meters from CA-SDI-10,810. It is unifacially flaked with a small amount of bifacial edge preparation.

Other portions of the project-level primitive trails and trail restoration area were surveyed on June 24, 2021, by RECON archaeologist Nathanial Yerka accompanied by Shuuluk Linton of Red Tail Environmental. Ground visibility within the dense seasonal grasses surrounding the graded roads was approximately 5 percent. In the hilly coastal sage scrub area with 20-plus degree slopes, ground visibility increased to approximately 20 percent. No new cultural resources were identified. The remaining portions were surveyed on April 19, 2023, by RECON archaeologist Nathanial Yerka accompanied by Keadan Graham of Red Tail Environmental. No cultural resources were identified during the April 2023 survey.

b. Vernal Pool Restoration Area

The vernal pool restoration area was surveyed on January 25, 2019, by RECON archaeologists Carmen Zepeda-Herman, Harry Price, and Andres Berdeja, accompanied by Native American monitor Banning Taylor of Red Tail Environmental. The restoration area consists of basically flat mesa top, sloping slightly to the east.

It had been cleared of native vegetation by the 1950s and is currently covered by a dense growth of mostly non-native grasses and Russian thistle (Photograph 12). A finger canyon of Dillon Canyon separates the parcel into two areas, a small northern section and a larger southern section. A dirt road runs around the perimeter of the mesa, and four other dirt roads crisscross the mesa top in the southern section. Piles of cobbles line the edge of the mesa, especially along the northern edge of the larger section, the result of clearing the mesa for agriculture (Photograph 13). Ground visibility over most of the parcel was very low due to dense grasses, including bromes, wild oat, ryegrass, and fescues. These grow up to 90 cm high in many places, and ground visibility averaged less than 10 percent (Photograph 14). Ground visibility along the northern edge of the mesa in the southern section was better, with little grass and more dispersed native vegetation (Photograph 15). Ground visibility there averaged 50–70 percent. Ground visibility along the southern and eastern mesa edge was also good, averaging over 80 percent.

This area has been impacted by off-road vehicle activity and the creation of the perimeter road, leaving little ground cover. Ground visibility in the dirt roads being actively used was 90–100 percent, and in the interior of the parcels was the only way to see the ground (Photograph 16). Little trash was visible, except for scattered material along the mesa edge. No historic structures were found.

PHOTOGRAPH 12
Typical Mesa Top Vegetation on the Vernal Pool Restoration Area

PHOTOGRAPH 13
Cobble Pile on North-facing Slope of the Vernal Pool Restoration Area

PHOTOGRAPH 14
Dense Non-native Vegetation Covering the Majority of the Vernal Pool Restoration Area

PHOTOGRAPH 15
Northern Edge of the Mesa Showing Native Vegetation and Better Ground Visibility in the Vernal Pool Restoration Area

RECON

PHOTOGRAPH 16
Typical In-Use Dirt Road on the Vernal Pool Restoration Area

Artifacts were observed at all of the three previously recorded sites within the vernal pool restoration area. Several flakes and a core were observed at the mapped locations of CA-SDI-17,519 and CA-SDI-17,520. These were seen in the road along the mesa edge. Four flakes were observed at the mapped location of CA-SDI-10,810, also in the dirt road.

A total of four previously unrecorded prehistoric resources were found during the survey of the vernal pool restoration area. Two of these, P-37-038489 and P-37-038491 consist of single artifacts.

P-37-038489 (VP-ISO-2) consists of a single fine-grained metavolcanic retouched primary flake. Three flakes have been removed from the edge.

P-37-038491 (VP-ISO-4) consists of a single fine-grained metavolcanic core based on a large primary flake. Three flakes have been removed from a single platform. It is possible that there was some retouch, but recent damage to the edge has obscured any original secondary flaking.

The remaining two resources consist of multiple artifacts. P-37-038490 (VP-ISO-3) consists of four artifacts. One is a fine-grained metavolcanic core based on a large primary flake with a single flake has been removed. In addition, three fine-grained metavolcanic flakes were observed within five meters of the core.

P-37-038493 (VP-ISO-6) is a coarse-grained porphyritic metavolcanic core based on a split cobble. Four flakes have been removed from the platform created when the cobble was split. In addition, four fine-grained metavolcanic core reduction/basic shaping flakes were observed within 10 meters of the core.

Confidential Attachment 5 shows the locations of all cultural resources observed during the survey of the vernal pool restoration area.

c. Otay Tarplant and Native Grassland Restoration Area

The Otay tarplant and native grassland restoration area was surveyed on April 19, 2023, by RECON archaeologist Nathanial Yerka, accompanied by Native American monitor Keadan Graham of Red Tail Environmental. The restoration area consists of a mix of bare dirt off-highway vehicle trails, several flat and open areas, occupying moderate-steep generally southeast-facing slopes. No new cultural resources were recorded.

d. Cactus Wren Habitat Restoration Area

A portion of the cactus wren habitat restoration area was surveyed on June 2, 2023, under cool and cloudy conditions by RECON archaeologist Carmen Zepeda-Herman, accompanied by Native American monitor Keadan Graham of Red Tail Environmental. The western and northern portions of the 1.09-acre area consisted of steep slopes. The eastern and southern portions had a flatter topography. The entire survey area was covered in dense vegetation including non-native grasslands and coastal sage scrub. Three flakes and a core were identified at CA-SDI-20,343.

Additional acres located east and north of the first survey area were surveyed on April 25, 2024, also under cool and cloudy conditions by RECON archaeologist Nathanial Yerka, accompanied by Native

American monitor Lawrence Douglas of Red Tail Environmental. The southern portions of the additional survey area occupy a knoll top and generally south-facing, 10-to-32-degree-steep slopes.

One new resource was recorded. P-37-040924/NDY-042524-1 is a dispersed lithic scatter comprising 35 lithics within an approximately 400 square meter area. Material types across the assemblage are a mix of fine-grained porphyritic metavolcanic and coarse-grained porphyritic metavolcanic, with one core made of quartz. The site area measures 20 meters (northwest/southeast) by 20 meters (southwest/northeast), is predominantly located at the top of a small knoll, occupies a portion of the south-facing slope, and has an open exposure. The site is situated west of a north-south dirt road that leads to a communications tower and east a north-south chain link fence alignment. A west-southwest trending creek drainage at the bottom of Moody Canyon runs 230 meters to the southeast. Site area vegetation is composed of moderately dense coastal sage scrub and non-native grasses.

The 35 lithics observed at P-37-040924/NDY-042524-1 consist of 1 retouched flake, 2 scrapers, 3 cores, 28 flakes, and 1 piece of angular waste. The retouched flake is made of coarse-grained porphyritic metavolcanic rock, is based on a primary reduction flake, measures 103 by 72 by 28 millimeters (mm), and exhibits two flakes removed over a 47 mm area. One straight sidescraper is made of fine-grained porphyritic metavolcanic rock, is based on a secondary reduction flake, measures 100 by 62 by 39 mm, and exhibits seven flakes removed along a 119 mm use edge with micro-step damage. The other scraper is made of fine-grained porphyritic metavolcanic rock, measures 56 by 44 by 21 mm and exhibits three flakes removed along one 54 mm edge. Two of the three cores are made of coarse-grained porphyritic metavolcanic rock while one is made of quartz. The 28 flakes represent 14 primary reduction flakes (5 fine-grained porphyritic metavolcanic and 9 coarse-grained porphyritic metavolcanic), 14 secondary reduction flakes (6 fine-grained porphyritic metavolcanic and 8 coarse-grained porphyritic metavolcanic). The angular waste is one primary shatter (coarse-grained porphyritic metavolcanic).

e. Wetland Restoration Area

The wetland restoration area was surveyed on June 15, 2023, by RECON archaeologist Nathanial Yerka, accompanied by Native American monitor Anthony LaChappa of Red Tail Environmental. The survey commenced from the southern end of the wetland restoration area, on the east side of the drainage and moved north. The survey finished on the west side of the drainage at the southern end of the survey area. The wetland restoration area exhibited moderately shallow to approximately 20-foot-tall side slopes that varied in severity of steepness, with dense riparian vegetation cover, along with several smaller areas that were flat and open with dense and matted seasonal grasses. The drainage bottom is a scoured cobble-laden channel that varied in width between 3 to 10 feet with 1-to-5-foot-tall vertical sidewalls. RECON visited the SCIC mapped location of CA-SDI-10,811 and did not observe any site material. The absence of site material is consistent with the provided information within the recording of CA-SDI-10,811, that the cultural material within the site area was surface collected; however, the provided locational description of CA-SDI-10,811 is inconsistent with the physical setting of the current mapped boundary. RECON believes the terrace upslope and adjacent to the east—outside of the current project boundary—better fits the physical setting provided within the recording of CA-SDI-10,811. Several isolated lithics were observed within the wetland restoration area but no tools or concentrations were noted. These isolated flakes are interpreted as part of the erosion of the likely location of CA-SDI-10,811.

f. Otay B Potential Restoration Area

The Otay B potential restoration area was surveyed on April 25, 2024, by RECON archaeologist Nathanial Yerka, accompanied by Native American monitor Lawrence Douglas of Red Tail Environmental. The survey area included the western portion of CA-SDI-10,524 and extended west to the mesa edge. No prehistoric or historic cultural material was observed during the survey. The survey area has been heavily impacted by farming and moderate to heavy off-road vehicle activity and the current vegetation comprises a few shrubs, non-native grasses, and exotic weeds.

6.2.1.4 Planning Areas 15 through 20

Planning Areas 15 through 20 were surveyed on May 3 and 6, 2019 by RECON archaeologists Carmen Zepeda-Herman, Harry Price, and Nathanial Yerka, accompanied by Native American monitor Gabe Kitchen (May 3) and Justin Linton (May 6) of Red Tail Environmental. A third survey was conducted on April 27 and 30, 2020 by RECON archaeologist Nathanial Yerka and Andres Berdeja, accompanied by Native American monitor Shuuluk Linton of Red Tail Environmental. The survey area consists of basically flat mesa top, sloping slightly to the south.

The parcels comprising the survey area had been cleared of native vegetation by the 1950s and were covered by a dense growth of non-native grasses due to 2019 spring rains (Photograph 17). Small numbers of native annual plants are scattered in the grasses. A dirt road runs around the southern perimeter of the mesa, and several currently unused dirt roads crisscross the area (Photograph 18). As with the other survey areas, scattered piles of cobbles dot the mesa edge overlooking Spring Canyon, the result of clearing the mesa for agriculture. Ground visibility over most of the area was less than five percent due to extremely dense grasses, at least 50 cm high in most places and over a meter in some patches (Photograph 19). Species included bromes, wild oat, ryegrass, and fescues. Ground visibility along the southern edge of the mesa and around the finger canyon of Dillon Canyon was better, with sparser grass and more dispersed native vegetation (Photograph 20). Ground visibility there averaged 50–70 percent. Ground visibility in the dirt roads being actively used was 90–100 percent, while ground visibility in the unused dirt roads was generally less than 20 percent due to grasses. Little trash was visible, except for scattered material along the mesa edge. No historic structures were found.

Material was observed at four of the eight recorded sites within Planning Areas 15 through 20. Three flakes were observed at the mapped location of the western locus of CA-SDI-10,810. They were observed along the edge of the dirt road. Non-native grasses obscured the remainder of the site. Ten to 12 flakes and a tool were observed at the mapped location of CA-SDI-17,518. They were observed in the dirt road and on the drainage edge where vegetation was sparser. Much of the site was obscured by non-native grasses. A few flakes were observed within the mapped location of CA-SDI-16,706, situated on a dirt road transecting the site. One tool and a small number of flakes were observed just to the east and west of the mapped location of CA-SDI-17,523, in the dirt road and on the mesa edge where vegetation was sparser. As with the other sites in these survey areas, non-native grasses obscure any portion of the site away from dirt roads and the mesa edge.

PHOTOGRAPH 17
Typical Vegetation Conditions within Planning Areas 15 through 20

PHOTOGRAPH 18
Condition of Unused Dirt Roads within Planning Areas 15 through 20

PHOTOGRAPH 19
Dense Non-Native Grass Cover within the Northern Portions of
Planning Areas 15 through 20

PHOTOGRAPH 20
Lighter Vegetation Cover Adjacent to Finger Canyon

No cultural material was observed at or adjacent to the mapped location of CA-SDI-17,517, CA-SDI-17,521, CA-SDI-17,522, and CA-SDI-17,524. Both CA-SDI-17,521 and CA-SDI-17,522 are recorded in areas with dense non-native grass cover where ground visibility was less than five percent.

Four previously unrecorded prehistoric resources were observed during the survey. Confidential Attachment 6 shows the locations of all cultural resources observed during the survey of Planning Areas 15 through 18.

P-37-038485 (BS-ISO-1) is a fine-grained metavolcanic core found next to the southern mesa edge dirt road in the western portion of Planning Area 15. The core is unifacial and has at least three flakes removed. Some cortex remains.

P-37-038486 (BS-ISO-2) is a fine-grained porphyritic metavolcanic chopper with moderately heavy use wear along a 9 cm edge. It was found on the southern mesa edge in the southern portion of Planning Area 18.

P-37-038487 (BS-ISO-3) is an exceptional thumbnail scraper made of fine-grained metavolcanic material often referred to as Santiago Peak Metavolcanic. The scraper has been unifacially flaked along its entire perimeter. It was found approximately five meters north of the northwest corner of Planning Area 18.

P-37-038488 (BS-ISO-4) is a fine-grained porphyritic metavolcanic core found in the southern portion of Planning Area 18, along the southern mesa edge approximately 30 meters east of the western locus of CA-SDI-10,810. It has had several flakes unifacially removed along a convex edge.

6.2.1.5 Beyer Boulevard Extension

A portion of the Beyer Boulevard extension was surveyed on May 6, 2019, by RECON archaeologists Carmen Zepeda-Herman, Harry Price, and Nathanial Yerka, accompanied by Native American monitor Justin Linton of Red Tail Environmental. A second survey was conducted on September 9, 2019, by RECON archaeologists Carmen Zepeda-Herman, Richard Shultz, and Harry Price, accompanied by Native American monitor Shuuluk Linton of Red Tail Environmental. A third survey was conducted on April 27, 2020, by RECON archaeologist Nathanial Yerka and Andres Berdeja, accompanied by Native American monitor Shuuluk Linton of Red Tail Environmental. A fourth survey was conducted on June 18, 2020, by RECON archaeologist Nathanial Yerka accompanied by Native American monitor Shuuluk Linton. A fifth survey was conducted on May 14, 2021, by the same survey crew. The Beyer Boulevard extension consists mostly of the moderately steep southern side of Moody Canyon with small areas of mesa top at the eastern end.

The mesa top portion at the eastern end of the survey area had been cleared of native vegetation by 1953. Current vegetation in this area is a mix of relatively sparse, low growing non-native annuals and scattered patches of coastal sage scrub (Photograph 21). The dense, tall non-native grasses present on Planning Areas 15 through 20 and vernal pool restoration area are not present in this area. Ground visibility in the non-native cover areas averages 65 percent. Ground visibility on and adjacent to the dirt road running along the edge of the mesa is 100 percent (Photograph 22).

PHOTOGRAPH 21
Mesa Top Vegetation Cover on the Eastern Portion of the
Beyer Boulevard Extension

PHOTOGRAPH 22
Mesa Top Dirt Road Showing Sparse Vegetation Cover

Numerous tire ruts from off-road vehicle activity were visible on the mesa top in this area. The eastern end of the mesa top portion of the route has been disturbed by substantial debris dumping along the edge of the mesa (Photograph 23). Debris includes both household trash and construction debris. This debris almost completely obscures the ground surface and extends down the slope for some distance. Vegetation cover in the debris strewn area is moderately dense and consists predominately of non-native annuals. Between the debris and vegetation, ground visibility in this area is effectively zero.

The existing vegetation on the southern slope of Moody Canyon is predominately maritime succulent scrub with clusters of lemonade berry (*Rhus integrifolia*) near the top and base of the slope (Photograph 24). There are large areas, especially in the lower half of the slope, of non-native grasses and mustard. Because of the steepness, vegetation cover, and very low potential for cultural resources to be present, most of the alignment in Moody Canyon was not surveyed. Three 40-meter-wide transects were surveyed. Ground visibility was very low, averaging less than 10 percent. No historic structures were found.

Eight previously recorded resources fall within the Beyer Boulevard extension. No cultural material was observed at the mapped locations of CA-SDI-10,512 and CA-SDI-10,515 during the survey. A single core was found within the mapped boundary of CA-SDI-10,514 and 3 cores and 15 flakes were mapped outside the recorded boundary between it and CA-SDI-10,512. Numerous fine-grained metavolcanic flakes and tool fragments were observed in the core of the mapped area of CA-SDI-10,206.

CA-SDI-22,448 was not visited during the survey as it had been recorded by RECON archaeologists in January 2017 and the site vicinity has not been disturbed since then.

P-37-028467, P-37-037600, and P-37-037601 were not relocated during the current survey.

Seven previously unrecorded resources were observed within the Beyer Boulevard extension during the survey: CA-SDI-23,232 (NDY-1-051421), CA-SDI-23,234 (NDY-2-051421), CA-SDI-23,235 (NDY-3-051421), CA-SDI-23,236 (NDY-4-051421), P-37-039762 (ISO-1-051421), P-37-038925/BBA-ISO-1, and P-37-038926/BBA-ISO-2.

P-37-038925/BBA-ISO-1 is a fine-grained metavolcanic core found at the eastern end of the alignment. It measures 97 by 81 by 30 mm and is based on a primary flake. Four flakes have been removed and some cortex remains on the dorsal surface.

P-37-038926/BBA-ISO-2 is a wood telephone pole adjacent to a north-south dirt access road at the eastern end of the alignment. The pole has a 1960 date nail, and tags for 1988, 1996, 2002, and 2013 inspections. The pole is 12 inches in diameter and three lines are attached with glass insulators directly to the pole (no cross arm to support the lines). The adjacent pole to the south on the line, also in the survey area, did not have a date nail.

P-37-039762 (ISO-1-051421) consists of 1 scraper and 4 flakes within a 7-by-7-meter area. The artifacts are within a road cut with berms of graded material. There is a considerable amount of construction refuse on the south-facing slope adjacent to the south of the resource.

PHOTOGRAPH 23
Typical Trash Dumped along Moody Canyon Rim at the Eastern End of the Beyer Boulevard Extension

PHOTOGRAPH 24
View of Typical Dense Vegetation and Steepness of the Slope in the South Side of Moody Canyon

CA-SDI-23,232 (NDY-1-051421) is a diffuse lithic scatter consisting of 8 cores, 1 mano, 1 scraper, and 31 flakes on the west face of an east/west saddle surrounded by thick vegetation and disturbed by two east/west-trending road cuts. The flake and tool assemblage consists mostly of primary flakes that are either fine-grained metavolcanic or fine-grained porphyritic metavolcanic material with one core made of quartz. The scatter measures 50 meters east/west by 10 meters north/south.

CA-SDI-23,234 (NDY-2-051421) is a diffuse lithic scatter consisting of 1 assayed cobble, 2 cores, 1 scraper, and 22 flakes situated on the west face of an east/west saddle surrounded by thick vegetation and disturbed by an east/west-trending road cut. The flake assemblage consists mostly of primary flakes that are either fine-grained metavolcanic or fine-grained porphyritic metavolcanic material with one of quartzite. The site measures 20 meters southwest/northeast by 13 meters northwest/southeast.

CA-SDI-23,235 (NDY-3-051421) is a lithic scatter consisting of 1 chopper, 1 combination tool, 19 cores, 2 hammerstones, 1 mano, 2 scrapers, and 106 flakes. The site is situated on the western end of a small saddle with lithic material occurring on the south side of an east/west road. The flake and tool assemblage consists of either fine-grained metavolcanic or fine-grained porphyritic metavolcanic material with the mano made of quartz. The site measures 52 meters northwest/southeast by 14 meters northeast/southwest.

CA-SDI-23,236 (NDY-4-051421) is a lithic scatter consisting of 1 core, 17 flakes, and a lithic reduction station with 120 fine-grained metavolcanic flakes. The lithic reduction station measures 9 meters northwest/southeast by 3 meters north/south and the overall site measures 17 meters northwest/southeast by 8 meters northeast/southwest. The site is situated on the southern side of a western ridge with a graded east/west dirt road. Confidential Attachment 7 shows the locations of all cultural resources observed during the survey of the Beyer Boulevard extension.

6.2.1.6 Central Avenue Extension

The Central Avenue extension was surveyed on November 5, 2019, by RECON archaeologist Harry Price, accompanied by Justin Linton of Red Tail Environmental. The eastern half of the alignment has been heavily impacted by grading for a dirt access road and the construction of a berm on the north and west sides of the road. Large amounts of construction debris have been dumped along the south side of the road, obscuring the ground. Vegetation consists of the mixture of non-native grasses and weeds, exotic trees, and scattered coastal sage scrub species among the grasses. A heavily disturbed drainage runs north-south across the dirt road.

No evidence of CA-SDI-8,642 was observed during the survey. The site area has been impacted by construction of the dirt road and associated berm.

6.2.1.7 Caliente Avenue North of Central Avenue

The northern portion of Caliente Avenue was surveyed by Brian F. Smith and Associates in 2004 and 2010, and again by ASM Affiliates in 2015 as part of the Candlelight Villas project (Daniels 2015; Smith 2010; Smith and Meier 2005). No cultural resources were recorded during these investigations which include the current project area. The results from these surveys were used for project-level analysis due to access issues which prohibited update surveys during this investigation.

6.2.1.8 Phase 4 – Caliente Avenue South of Central Avenue and Portions of Planning Areas 1, 2, and 7

The portion of the Caliente Avenue extension south of Central Avenue and north of Beyer Boulevard including portions of Planning Areas 1, 2, and 7 was surveyed on June 18, 2020, by RECON archaeologist Nathanial Yerka accompanied by Shuuluk Linton of Red Tail Environmental. RECON did not have access rights to survey the northern portion of the alignment where it connects to the current Caliente Avenue; however, that portion was previously addressed in a prior entitlement. The southern portion of the alignment is comprised of the mesa top and Dillon Canyon. The mesa top at the southern boundary of the alignment has suffered impacts from agriculture and grading associated with an adjacent homestead. Moving north, the northwest terminus of Dillon Canyon presents steep slopes and dense coastal sage scrub. The east and west-facing slopes, north of the southeast trending drainage, as well as the mesa top moving upslope towards CA-SDI-8,644, exhibit extensive dumping of large amounts of construction rubble and other discarded debris (Photograph 25). A segment of the western portion of CA-SDI-8,644 occurs within the alignment. RECON observed eleven lithics comprising one core and ten flakes within the survey area. CA-SDI-8,644 exhibits heavily disturbed soils due to grading and dumping. Imported or site soils are piled up within the segment and the ground surface is littered with construction rubble and dimensional lumber. Three previously unrecorded resources were observed within the Caliente Avenue extension during the survey: CA-SDI-22,936/NDY0618-01, P-37-039434/ISO-0618-01, and P-37-040875/NDY-01H.

Additional portions of Planning Areas 1, 2, and 7 were surveyed on January 31, 2024, by RECON archaeologist Nathanial Yerka accompanied by Keadan Graham from Red Tail Environmental. The survey area included a portion of Dillon Canyon and a portion of the mesa top on the north side of Dillon Canyon; this area consists of east- and west-facing steep slopes that surround a south-trending finger drainage located on the north side of Dillon Canyon, the northeast-facing steep southern slope of Dillon Canyon, the finger drainage and canyon bottom, and the mesa top on the north side of Dillon Canyon. Four dispersed flakes (considered noise per the Gallegos et al. 1998 approach) were noted along a northwest-southeast trail occupying the east-facing steep slope of the finger drainage, most likely secondarily washed downslope from CA-SDI-22,936. The finger drainage bottom exhibits a dispersed modern trash scatter consisting of a hot tub, a golf bag, various tarps, a 50-gallon drum, concrete fragments, metal and glass fragments, as well as approximately 20-plus tires. The mesa top exhibits two circa 1980s concrete foundations and dispersed associated house demolition rubble.

PHOTOGRAPH 25
Construction Rubble on Steep Slopes within the Caliente Avenue Extension, Looking East

CA-SDI-22,936 (NDY0618-01) is a lithic scatter consisting of at least 12 scrapers, 2 retouched flakes, 4 cores, and 117 flakes (malfunctioning GPS equipment prevented recording of all surface artifacts). The materials represented fine-grained metavolcanic, fine-grained porphyritic metavolcanic, and quartzite. The site is situated on the top of a relatively flat southeast trending finger ridge towards the northwest terminus and north side of Dillon Canyon. The site measures 47 meters (northwest/southeast) by 32 meters (southwest/northeast) and is bounded by the steep slopes of Dillon Canyon to the west, south, and east with a small open exposure of the mesa top to the north. A seasonal drainage situated 40 meters to the southwest runs through Dillon Canyon. Area vegetation is composed of a moderately dense coastal sage scrub. There is a significant amount of surface disturbance owed to the dumping of construction rubble abutting the northern boundary of the site. The site is situated approximately 100 meters south of the western mapped boundary of CA-SDI-8,644.

P-37-039434 (ISO-0618-01) is an isolated fine-grained metavolcanic core that exhibits multidirectional flake removal. The tool measures 9.4 by 7.0 by 6.1 cm. The resource is situated in a drainage bottom surrounded by steep slopes near the northwest terminus of Dillon Canyon. The tool most likely translated downslope from one of the numerous surrounding area sites located on the mesa top, most likely CA-SDI-22,936/NDY0618-01. The immediate area is exposed cobble, annual grasses, and dense coastal sage scrub.

P-37-040875/NDY-01H is an extension of an unnamed historic road that appears on the 1904 USGS topographic map and continues in subsequent maps. The road was first recorded in 2022 during a survey for a project north of the current APE. Sources refer to the road as Dillon Trail, named after Henry Dillon who owned property in the area around present-day Dillon Canyon starting in 1892 (Schoenherr 2014; 1892 Plat Map for Township 18 South, Range 1 West; San Diego City and County Directory 1895). An approximately 1.16-mile portion south of the 2022 recording extends to the U.S.-Mexico border with the majority within the current APE. The road extends across the South Rim of Otay Mesa and then drops south down the canyon before heading southwest. This alignment changed in the 1943 topographic map, in which the road ends immediately south of the South Rim. In the 1955 map, the road splits into two trails south of this point: one, the 1904 alignment and, one that heads southeast down the canyon before heading southwest to the border. The original 1904 alignment disappears from the 1977 topographic map. The 1977 map represents the present-day alignment as a road.

Confidential Attachment 3 shows the locations of all cultural resources observed during the survey of the Caliente Avenue extension south of Central Avenue.

6.2.1.10 West Avenue and Street A

These roads were surveyed as part of Planning Areas 11 through 14.

6.2.1.11 EVA Road

The EVA road was surveyed on January 31, 2024 by RECON archaeologist Nathanial Yerka accompanied by Keadan Graham from Red Tail Environmental. A portion of P-37-040875/NDY-01H was encountered along this road alignment. The EVA road is an existing dirt road that commences on the mesa top and translates southward towards an east-west road north of the U.S.-Mexico border. This segment of the road alignment consisted of the disturbed off-highway vehicle road which exhibited deep erosional rills and exposed loose cobbles and drops 265 feet in elevation over the approximately 2,560-foot segment. On either side of the road is a mix of non-native grasses and coastal sage scrub. Two isolated lithics were observed within this survey area which are considered noise per the Gallegos et al. 1998 approach and therefore not counted in cultural resources totals.

6.2.1.13 Infrastructure Improvement Areas

a. State Route 905

The area for infrastructure transportation improvement along SR-905 was not surveyed due to the developed nature of the project area and lack of visibility at these locations.

b. Spring Canyon Drainage Outfall (South of Planning Area 18)

The Spring Canyon drainage outfall was surveyed on June 24, 2021, the same day as the trail restoration corridor was surveyed. No cultural resources were identified.

c. Water and Sewer Line Improvements

These areas for water and sewer line improvements were not surveyed due to the developed nature of the project area and lack of ground visibility.

6.3 Excavation (Project-level Areas Only)

RECON and Tierra Environmental completed test excavations at eight sites: CA-SDI-22,448, CA-SDI-10,206, CA-SDI-23,232, CA-SDI-23,234, CA-SDI-23,235, CA-SDI-23,236, CA-SDI-22,936, and CA-SDI-22,939 located within the program-level analysis areas. The results are discussed below. A test excavation was also completed for a site (CA-SDI-23,233) that was part of the trail network prior to a project design change. Results of that excavation are in Confidential Attachment 8.

6.3.1 CA-SDI-22,448 (Beyer Boulevard)

RECON archaeologists Nathanial Yerka and Andres Berdeja accompanied by Shuuluk Linton of Red Tail Environmental excavated two 1-by-1-meter units at CA-SDI-22,448 on April 28 and 29, 2020 (Confidential Attachment 9). The original surface artifacts and possible rock features were not located likely due to denser vegetation compared to the initial recording in 2017. The units were to be located near the two rock features based on previously recorded GIS data. Unit 1 was excavated approximately 10 meters south-southeast of the southern rock feature, next to a mano. The unit was in an area where excavation did not result in impacts to sensitive biological vegetation. Unit 2 was excavated approximately 6 meters south of the northern rock feature in an area where excavation did not result in impacts to sensitive biological vegetation.

Soils at CA-SDI-22,448 are identified as Olivenhain cobbly loam, 30 to 50 percent slopes. The Olivenhain series consists of well-drained and moderately deep to deep cobbly loams that have a very cobbly clay subsoil. These soils formed in old gravelly and cobbly alluvium and are dissected marine terraces that appear on slopes between 2 and 50 percent. A representative soil profile has a surface layer of brown and reddish-brown, medium acid cobbly loam that is about 10 inches thick. The subsoil is composed of reddish-brown, red, and pink, strongly acidic, and very cobbly clay and clay loam that is about 32 inches thick. The substratum is pinkish-white with strongly acid cobbly loam (U.S. Department of Agriculture 1973).

The soil stratigraphy for CA-SDI-22,448 consisted of two distinct soil horizons: an A Horizon containing the bulk of the archaeological deposit, and a B Subsoil Horizon. The A Horizon averaged the upper 25 cm consisted of brown to grayish brown coarse silty sands (10YR3/2 to 10YR5/2) with low to medium compaction. The lower sterile B Horizon consisted of brown to very dark grayish brown coarse silty sandy clay (10YR3/2 to 10YR4/3) with high compaction. Both soil horizons contain a high number of cobbles (Photographs 26 and 27). No rodent activity was noted. Artifacts were found in the upper 20 cm.

Table 3 provides the summary of the materials recovered during the evaluation program at CA-SDI-22,448 (for a complete catalog, see Attachment 3). Four artifacts were surface-collected; however, none of the surface artifacts identified in 2017 were located and collected. A total of 13 debitage pieces, 1 mano, and 9 flaked lithic artifacts were recovered from the surface collection and units. The bulk of the artifacts were recovered from Unit 2; only one primary reduction flake and a core were recovered from Unit 1.

Table 3
Summary of Artifacts Recovered from CA-SDI-22,448

Location	Debitage	FLA	Ground Stone	Total
Surface Collection				
Count	3	--	1	4
Weight (g)	95.75	--	1,089.09	1,184.84
Unit 1				
Count	2	1	--	3
Weight (g)	69.38	284.95	--	354.33
Unit 2				
Count	8	8	--	16
Weight (g)	376.31	2,380.68	--	2,756.99
Total Count	**13**	**9**	**1**	**23**
Total Weight (g)	**541.44**	**2,665.63**	**1,089.09**	**4,296.16**
FLA = flaked lithic artifact; g = gram				

6.3.1.1 Debitage

Debitage consists of the waste resulting from the production of lithic tools. The debitage category includes flakes and debris. Flakes are the pieces that retain specific, identifiable landmarks that differentiate these pieces from naturally occurring chips of stone. The pieces that do not have all of the necessary landmarks, but are clearly the result of this process, are identified as debris. The debitage types were grouped by reduction stages, including primary, secondary, and tertiary reduction, and a fourth group of secondary shatter. A total of five pieces were produced during primary reduction, five during secondary reduction, and three were secondary shatter (Table 4). All debitage was made from locally available material including one coarse-grained porphyritic metavolcanic, five fine-grained metavolcanic, and seven fine-grained porphyritic metavolcanic material.

PHOTOGRAPH 26
CA-SDI-22,448 Plan View of Unit 1

PHOTOGRAPH 27
CA-SDI-22,448 North Wall of Unit 2

Table 4 Debitage by Type and Material from CA-SDI-22,448				
Flake or Shatter Type	CGPM	FGM	FGPM	Total
Primary Reduction				
Cortex Removal				
Count	--	1	1	2
Weight (g)	--	65.10	260.60	325.70
Primary Shatter				
Count	--	3	--	3
Weight (g)	--	91.84	--	91.84
Secondary Reduction				
Core Reduction, Basic Shaping				
Count	--	1	4	5
Weight (g)	--	16.11	88.59	104.70
Secondary Shatter				
Count	1	--	2	3
Weight (g)	4.90	--	14.30	19.20
Total Count	**1**	**5**	**7**	**13**
Total Weight (g)	**4.90**	**173.05**	**363.49**	**541.44**
CGPM = coarse-grained porphyritic metavolcanic; FGPM = fine-grained metavolcanic; FGPM = fine-grained porphyritic metavolcanic; g = grams				

6.3.1.2 Flaked Lithic Tools

A total of nine flaked lithic tools were recovered from CA-SDI-22,448. Lithic tools recovered included one retouched flake, one utilized flake, and seven cores (Photograph 28).

a. Retouched Flakes

A retouched flake, also called a modified flake, is any flake or spall that shows evidence of edge retouch but lacks indication of usage. Retouch may be unifacial or bifacial. Edge angles are usually less than 60 degrees. One retouched flake was recovered from CA-SDI-22,448 from the 10 to 20 cm level Unit 2. Artifact 22448-9008 is a whole fine-grained porphyritic metavolcanic secondary shatter-based flake that exhibits three flakes unifacially removed from one margin totaling 84 mm of edge modification.

b. Utilized Flakes

A utilized flake is any flake or spall, whole or fragmented, which shows evidence of use and may have some intentional retouch. Edge angles are typically less than 60 degrees and damage is usually limited to microstepping, nibbling, or rounding, although items of larger mass may show crushing or battering. One utilized flake was recovered from CA-SDI-22,448 from the 0 to 10 cm level of Unit 2. Artifact 22448-9001 is a fine-grained porphyritic metavolcanic flake that exhibits 25 mm of edge wear.

PHOTOGRAPH 28
Tools from CA-SDI-22,448

c. Cores

Seven cores were recovered from CA-SDI-22,448. Artifact 22448-9000 is a whole quartzite core from Unit 1, weighing 284.95 grams exhibiting at least five flakes removed unifacially. The other six cores were from Unit 2. Artifact 22448-9002 is a whole fine-grained porphyritic metavolcanic core that weighs 806.41 grams and is mostly spall but exhibits at least one flake removed. Artifact 22448-9003 is a whole fine-grained porphyritic metavolcanic core weighing 285.5 grams and exhibiting three flakes removed bifacially. Artifact 22448-9004 is a whole fine-grained metavolcanic core weighing 392.84 grams and exhibits multidirectional flake removal. Artifact 22448-9005 is a whole fine-grained porphyritic metavolcanic core weighing 285.43 grams and exhibits multidirectional flake removal. Artifact 22448-9006 is a whole fine-grained porphyritic metavolcanic core weighing 182.09 grams, is polyhedral in shape, is mostly spall, but has 1 flake removed. Artifact 22448-9007 is a coarse-grained porphyritic metavolcanic core fragment that weighs 247.31 grams.

6.3.1.3 Ground Stone Artifact

Portable ground stone tools include artifacts associated with milling seeds and other plant products, processing animals, or materials such as pigments. Tools in this category are identified by a pattern or wear resulting from rubbing or grinding stone on stone, which creates polished surfaces. Specific tools within this category include manos, metates, pestles, and mortars. The stone types, dimensions, wear attributes, and conditions of recovered ground stone artifacts were recorded during the catalog process.

One ground stone unifacial mano was recovered during the surface collection of CA-SDI-22,448. Artifact 22448-3000 is a whole granite mano that measures 138 by 97 by 60 mm and weighs 1089.09 grams.

6.3.1.4 Discussion

The excavation revealed that the cultural deposit was very sparse and extended down to the 20 cm level before hitting subsoil clays. The lack of midden-like soils in association with the hearth features suggests that the site was not occupied over a long period of time and therefore not a habitation site. Based on Binford's model for foraging and gathering societies, CA-SDI-22,448 can be classified as a location, where specialized activities took place. When the recommended test for classification as a habitation site proposed by Gallegos et al. (1998) is applied, CA-SDI-22,448 does not qualify as a habitation site with a subsurface density of 100 artifacts per square meter; only 19 subsurface artifacts were recovered. According to Gallegos et al. 1998, habitation sites should be the focus of future research.

Recovered artifacts suggest that one of the functions of the site was initial- and secondary-stage tool manufacturing, as noted by five out of 10 pieces of debitage being primary reduction flakes and the seven cores. The presence of the mano, retouched flake, and utilized flake indicates that plant processing may also have occurred at the site.

None of the artifacts that were recovered are indicative of a particular time period. Cores, flakes, manos, and debitage are found in both Archaic and Late Prehistoric periods. No charcoal or bone was recovered to provide an opportunity to date the site. Overall, the low-density artifact recovery and limited artifact types do not provide enough data to answer regional research questions.

6.3.2 CA-SDI-10,206 (Beyer Boulevard)

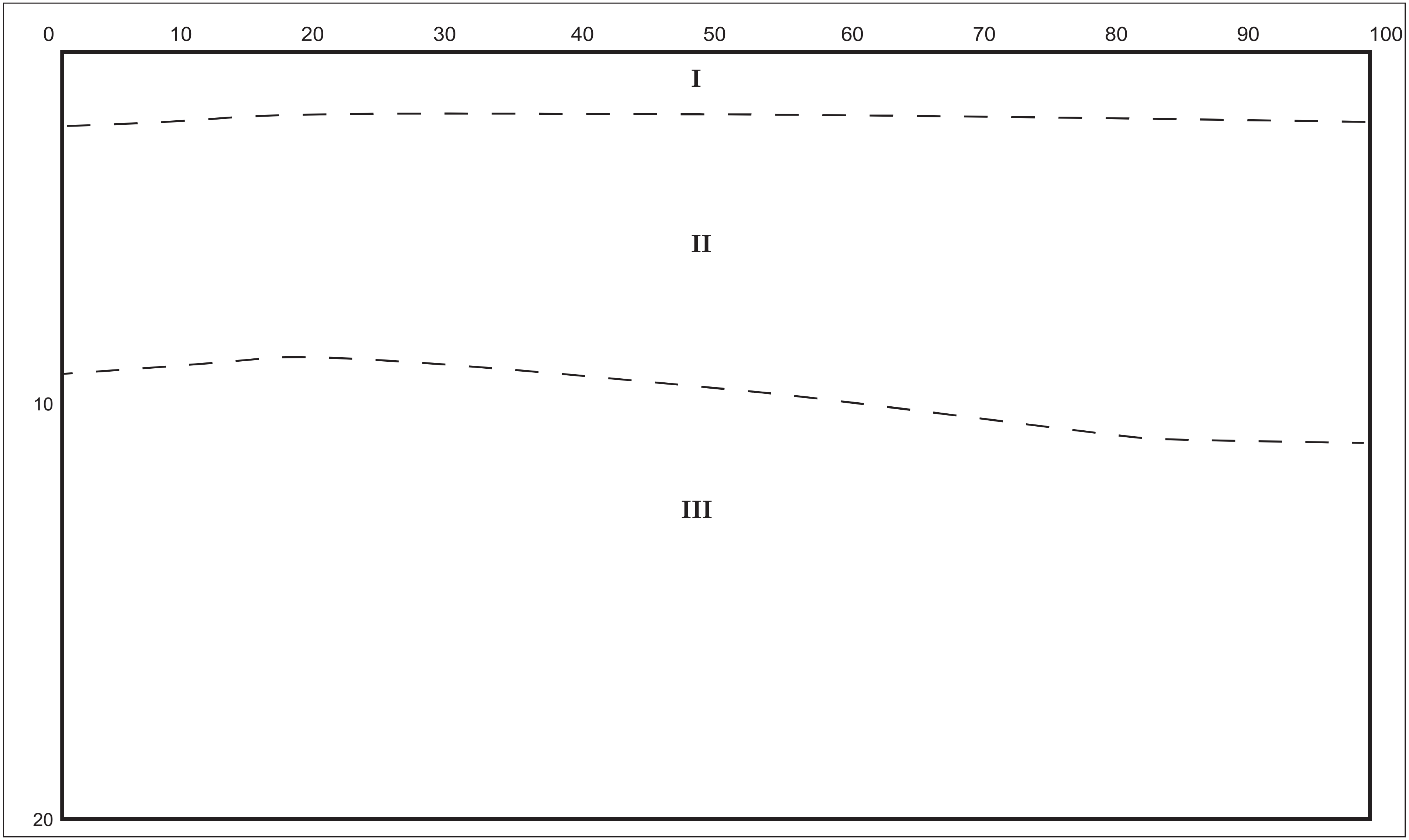
RECON archaeologists Nathanial Yerka and Harry Price and Red Tail Environmental archaeologists Amanda Piccus and Alyssa Soto accompanied by Native American monitors Alisha Pico, Corel Taylor, and Philip Peña of Red Tail Environmental excavated six 1-by-1-meter units at CA-SDI-10,206 on December 30 and 31, 2020 and February 4 and 5, 2021 (Confidential Attachment 10). RECON archaeologists Nathanial Yerka and Harry Price accompanied by Alyssa Soto of Red Tail Environmental collected all artifacts from the surface within the APE on March 18, 2021. Units were in areas where excavation did not result in impacts to sensitive biological vegetation. Units 2, 3, and 6 were excavated down to 30 cm; Units 1 and 4 were excavated to 20 cm and Unit 5 was excavated to 50 cm when a sterile clay and cobble lens was encountered. Unit 1 was sterile. Unit 4 and 6 only had one item recovered each. The majority of the artifacts were recovered from Unit 3.

Unit 1 was located on a southwest facing slope at the east end of the CA-SDI-10,0206 and contained three soil strata (Figure 16; Photograph 29). Stratum I extended down 2 cm BGS and consisted of surface duff and pebbles. Stratum II extended from 2 cm to 10-11 cm BGS and consisted of pale brown loamy sandy silt (10YR 6/3) followed by Stratum III down to 20 cm BGS consisting of grayish brown clay with cobbles (10YR 5/2) with high compaction. There was no subsurface recovery.

Unit 2 was located on flattened spot on the southwest facing slope at the east end of the site and contained four soil strata (Figure 17; Photograph 30). Stratum I extended down to 2 to 8 cm BGS and consisted of surface leaf duff. Stratum II extended from surface to 8 cm and consisted of pale brown silty sandy loam with 1 inch minus pebbles. Two pieces of debitage and one small mammal bone fragment were recovered. Stratum III extended from 8 cm to 18 to 22 cm and consisted of gray loamy sandy silt (10YR 5/1) with increased pebbles. Five pieces of debitage and one core were recovered from this stratum. Stratum IV extended from 18 to 22 cm BGS down to the bottom of the unit at 30 cm and consisted of grayish brown clay (10YR 5/2) with pebbles and high compaction. Four pieces of debitage, one assayed cobble, and one small mammal bone fragment were recovered.

Unit 3 was located near the edge of a dirt road within the flat valley in the center of the site and contained three soil strata (Figure 18; Photograph 31). The upper 8 cm, Stratum I, consisted of light gray finely sorted silty sand with no surface organics. Stratum II extended from 8 to 20 cm BGS and consisted of brown silty coarse sand, followed by Stratum III extending down to 30 cm and consisting of gray sandy silt clay with cobbles. Ten pieces of debitage were recovered from the 0 to 10 cm level and 14 pieces of debitage and six small mammal bone fragments were recovered from the 10 to 20 cm level.

Unit 4 was located near the edge of a dirt road within a slope portion in the center of the site and contained three soil strata (Figure 19). The soil strata were sloped in contrast to the other units with more or less level soil strata. Stratum I consisted of disturbed gray silty clay (10YR 5/1). One shellfish fragment was recovered from the 0 to 10 cm level. Stratum II consisted of pale brown silty sandy (10YR 5/2) with pebbles, followed by Stratum III consisting of gray clay (10YR 5/1) with few pebbles.



I Surface Duff with Surface Pebbles

II 10YR 6/3 Pale Brown Loamy Sandy Silt

III 10YR 5/2 Grayish Brown Heavily Compacted Clay with Cobbles

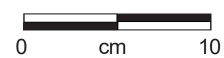


FIGURE 16
CA-SDI-10206
Unit 1
South Wall Profile

RECON

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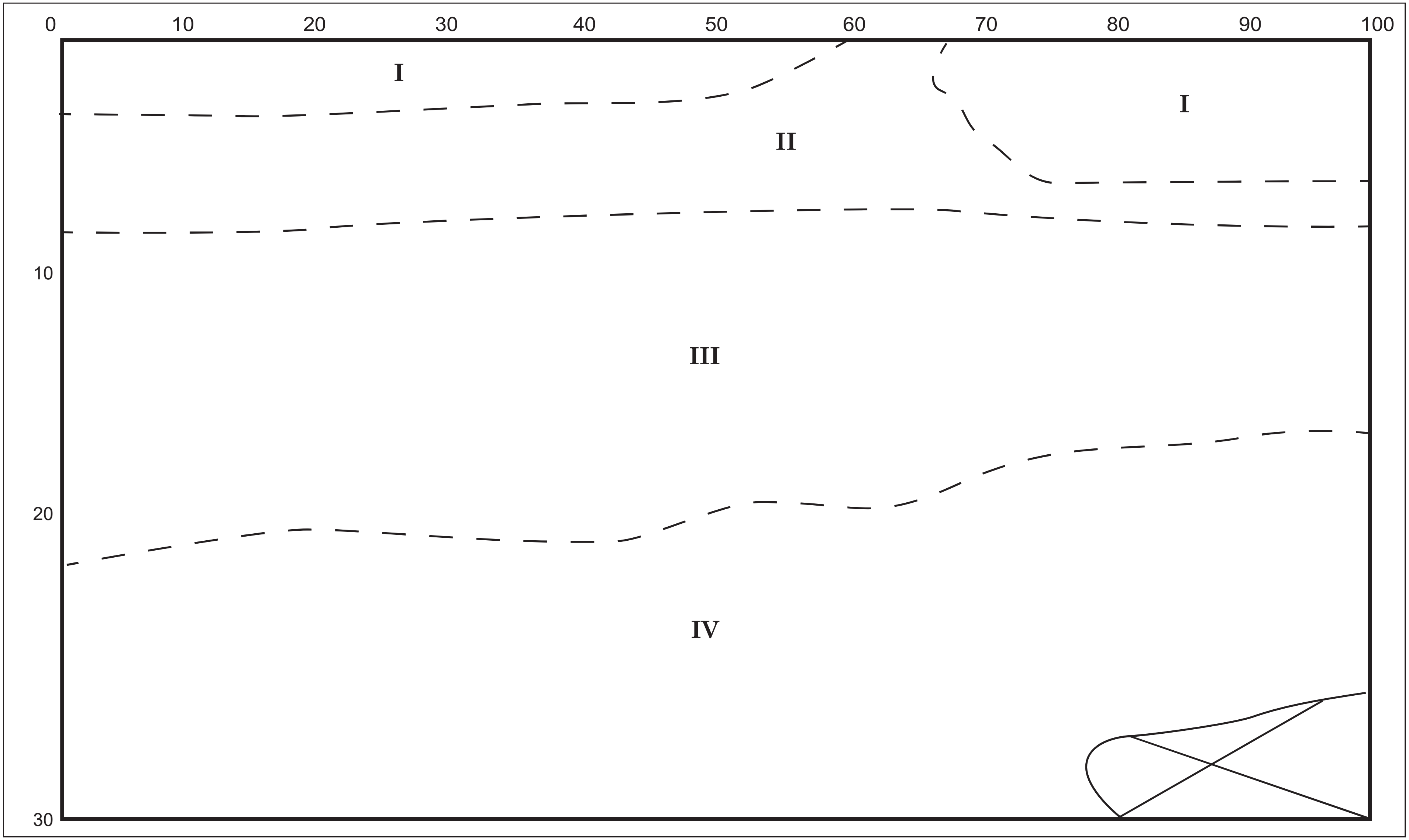
PHOTOGRAPH 29
CA-SDI-10,206 West Wall of Unit 1



Rock

I Surface Leaf Duff

II 10 YR 6/3 Pale Brown Silty Sandy Loam with 1” Minus Pebbles

III 10YR 5/1 Gray Loamy Sandy Silt with Increased 1” Minus Pebble Content

IV 10YR 5/2 Grayish Brown Heavily Compacted Clay with 1” Minus Pebbles

0 cm 10

FIGURE 17
CA-SDI-10206
Unit 2
East Wall Profile

RECON

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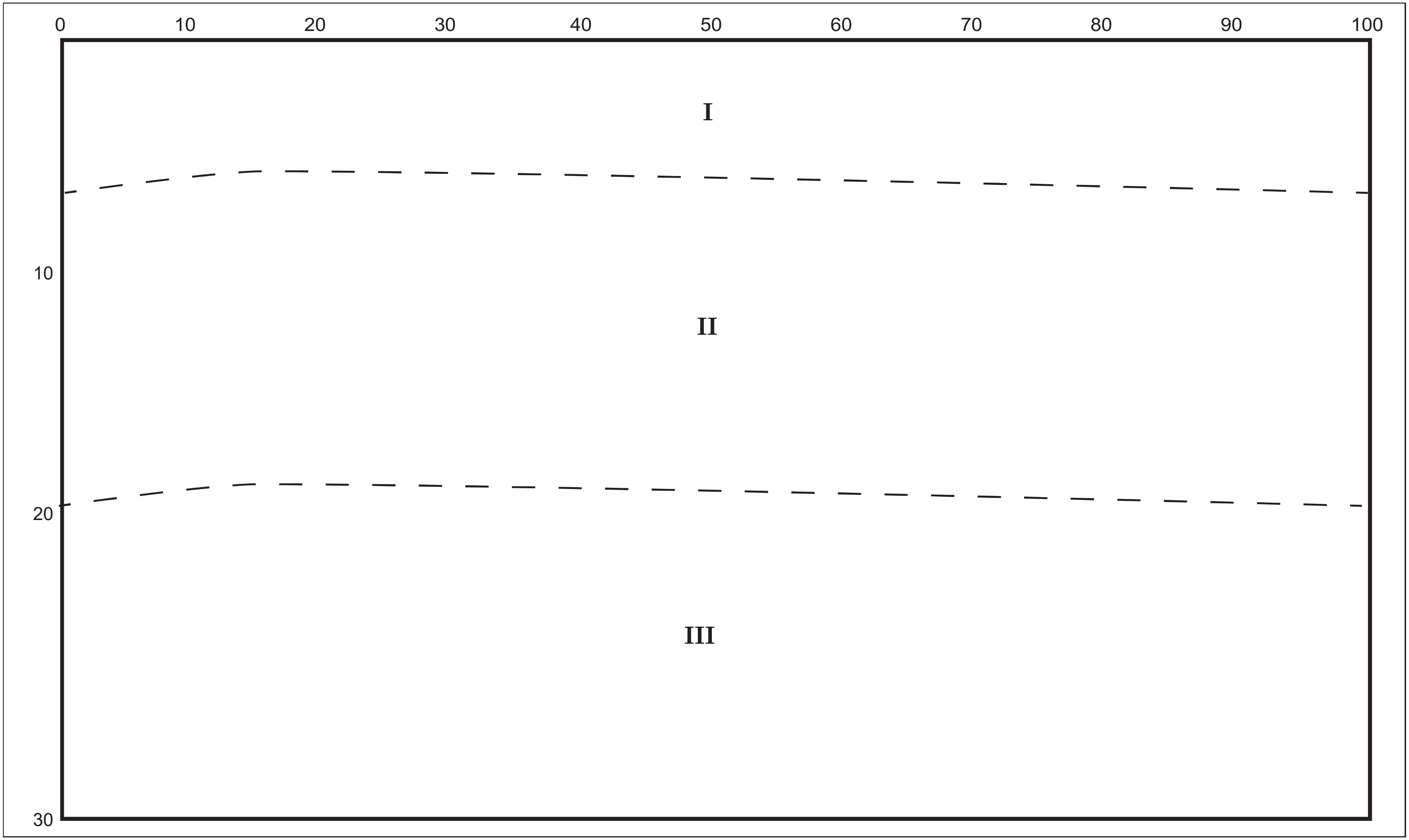
PHOTOGRAPH 30
CA-SDI-10,206 West Wall of Unit 2



I 10YR 7/1 Light Gray Finely Sorted Silty Sand; In the Roadway; No Surface Organics

II 10YR 5/3 Brown Silty Coarse Sand; Minor Root Activity at I to II Transition; Few Pebbles

III 10 YR 5/1 Gray Sandy Silty Clay with Pebbles

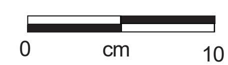


FIGURE 18
CA-SDI-10206
Unit 3
South Wall Profile

RECON

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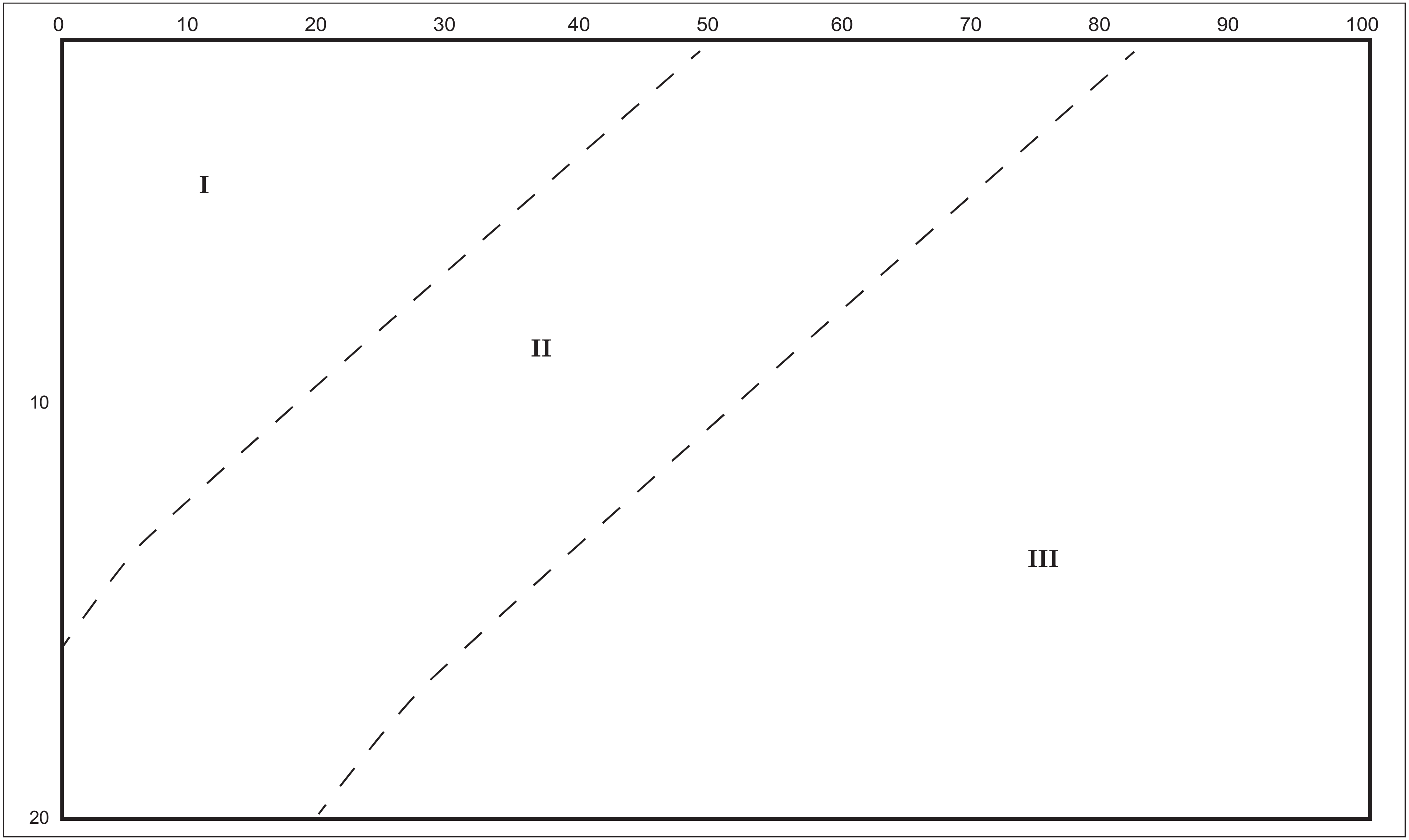
PHOTOGRAPH 31
CA-SDI-10,206 East Wall of Unit 3



I 10YR 51 Gray Disturbed Silty Clay
Lower Level Soil at Perimeter of Roadway,
Possible Secondary Deposit due to Grading

II 10YR 5/3 Pale Brown Silty Sand with
Pebbles

III 10YR 5/1 Gray Clay with Few Pebbles

0 cm 10

FIGURE 19
CA-SDI-10206
Unit 4
South Wall Profile

RECON

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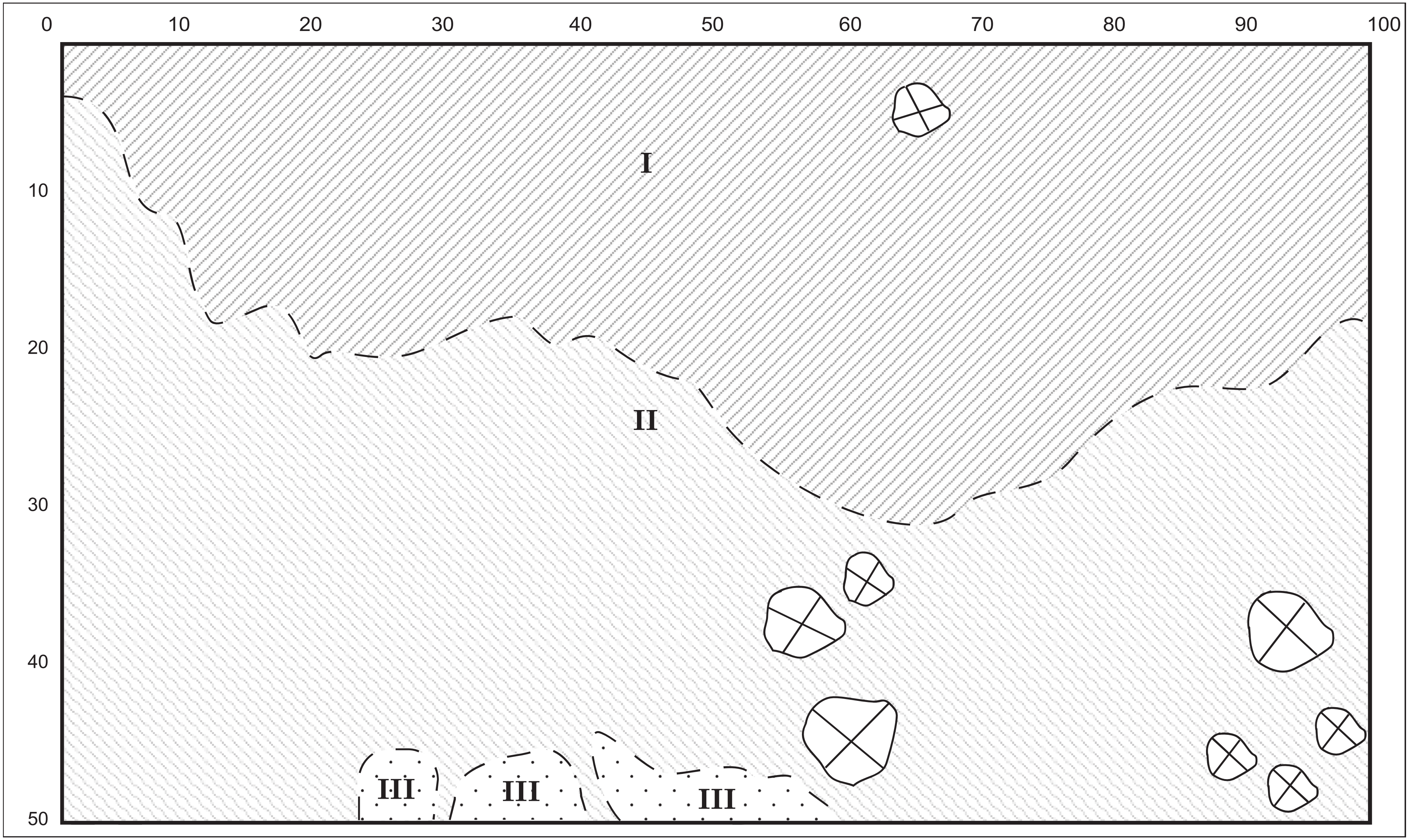
Unit 5 was located on a south facing slope on west side of the site among dense cholla and contained three soil strata (Figure 20; Photograph 32). Stratum I extended down to 10 to 30 cm BGS and consisted of brown loam (10YR 4/2) with high clay content. There was no artifact recovery from this level. Stratum II extended from 10 to 30 cm to 50 cm and consisted of very compact yellowish-brown fine-grained clay (10YR 5/4). Five pieces of debitage and one core (from the 30 to 50 cm level) were recovered from this stratum. Stratum III was revealed in several pockets starting at 46 cm BGS and consisted of white chalky subsoil with some rocks.

Unit 6 was located on a south facing slope on the west side of the site among dense cholla and contained three soil strata (Figure 21; Photograph 33). Stratum I extended down to 5 to 7 cm BGS and consisted of very dark grayish brown sandy loam (10YR 3/2) with duff. One piece of debitage was recovered from this stratum. Stratum II extended from 10 to 14 cm down to approximately 18 cm BGS and consisted of dark grayish brown sandy clay (10YR 4/2) with pebbles and layered with some light bands. Stratum III is between Stratum I and II and below Stratum II. Stratum III consisted of pale brown sandy clay (10YR 6/3) with pebbles and brown layers (10YR 4/3).

Table 5 provides the summary of the materials recovered during the evaluation program at CA-SDI-10,206 (for a complete catalog, see Attachment 4). A total 1,014 artifacts comprised of 980 debitage pieces, 23 flaked lithic artifacts, 1 metate fragment, 10 non-human bone fragments, and 23.63 grams of marine shellfish remains were recovered from the surface collection and units; 962 artifacts were collected from the surface and 52 were collected from the units. Table 6 shows the artifact assemblage by depth. The majority of the artifacts from the units were found within the upper 20 cm.

Table 5
Summary of Artifacts Recovered from CA-SDI-10,206

Unit Type	Debitage	FLA	Ground Stone	Non-Human Bone	Shell	Total
1 x 1 Meter Units						
Unit 2						
Count	10	3	--	2	--	15
Weight (g)	74.31	54.37	--	0.09	--	128.77
Unit 3						
Count	23		1	6	--	30
Weight (g)	212.83		58.85	2.01	--	273.69
Unit 4						
Count	--	--	--	--	0	0
Weight (g)	--	--	--	--	0.6	0.6
Unit 5						
Count	5	1	--	--	--	6
Weight (g)	160.34	115.18	--	--	--	275.52
Unit 6						
Count	1	--	--	--	--	1
Weight (g)	0.06	--	--	--	--	0.06
1 x 1 Meter Units Count	**39**	**4**	**1**	**8**	**0**	**52**
1 x 1 Meter Unit Weight (g)	**447.54**	**169.55**	**58.85**	**2.1**	**0.6**	**678.64**
Surface Collection						
Count	941	19	--	2	0	962
Weight (g)	6,216.56	4,116.97	--	0.50	23.03	10,357.06
Total Count	**980**	**23**	**1**	**10**	**0**	**1,014**
Total Weight (g)	**6,664.10**	**4,286.52**	**58.85**	**2.60**	**23.63**	**11,035.70**
cm = centimeters; g = grams; FLA = flaked lithic artifacts						



Rock

I — 10YR 4/2 Brown Loam with High Clay Content, Damp, Fine-Graines Pebbles up to 5 cm. Some Small Roots.

II — 10 YR 5/4 Very Compact Clay Fine-Graines Lots of Rocks, Gels Slightly Lighter in Southeast Corner with More Rocks.

III — White Chalky Subsoil, Fine-Grained, Some Rocks

0 cm 10

FIGURE 20
CA-SDI-10206
Unit 5
South Wall Profile

RECON

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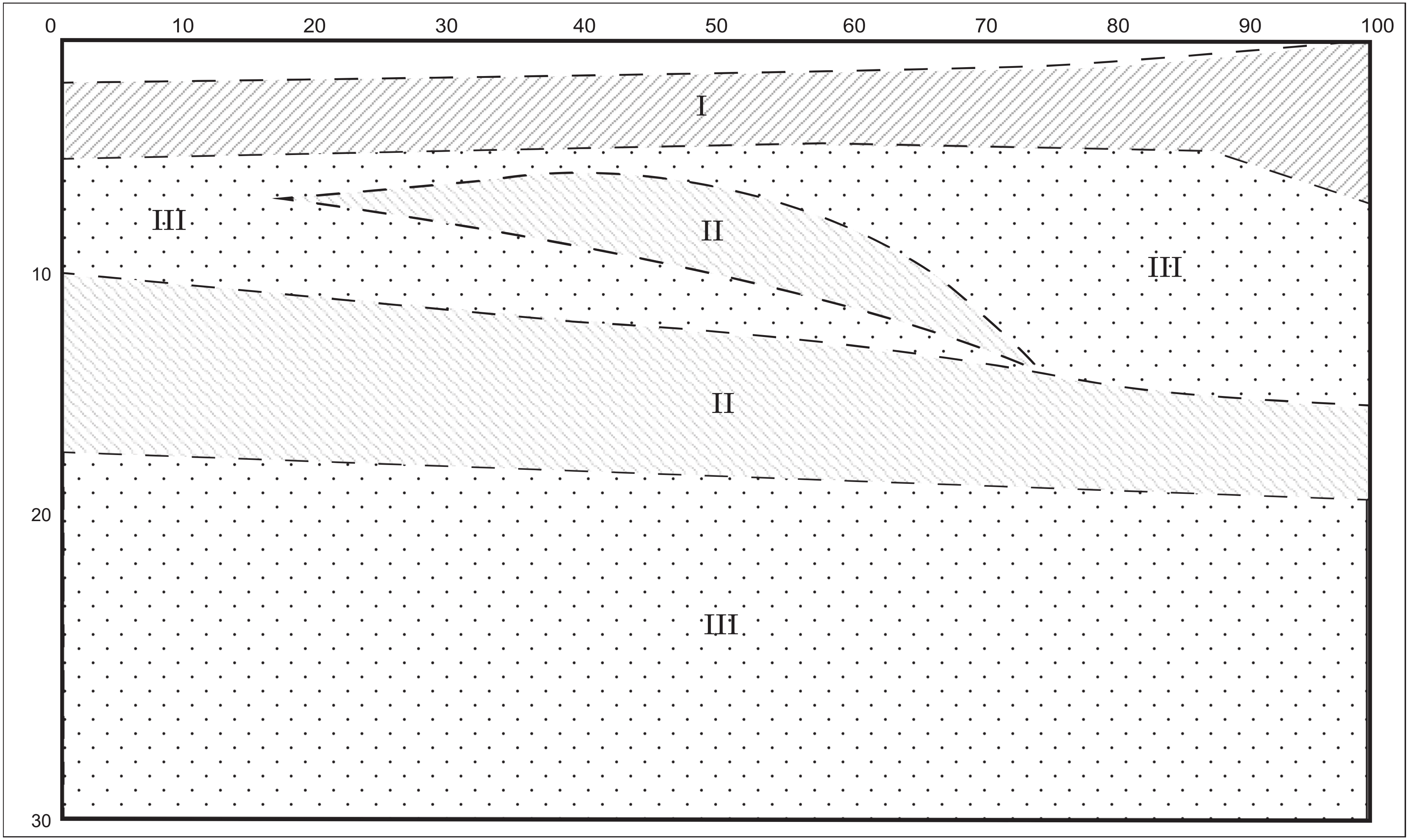
PHOTOGRAPH 32
CA-SDI-10,206 East Wall of Unit 5



I 10YR 3/2 Very Dark Grayish Brown Sandy Loam and Duff

II 10YR 4/2 Dark Grayish Brown Sandy Clay with Pebbles; Layered with Some Light Bands

III 10YR 6/5 Pale Brown Sandy Clay with Pebbles; Layered with 10YR 4/3 Dark Brown Layers

FIGURE 21
CA-SDI-10206
Unit 6
North Wall Profile

RECON

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PHOTOGRAPH 33
CA-SDI-10,206 West Wall of Unit 6

Table 6 Unit Artifact Assemblage from CA-SDI-10,206 by Depth						
Depth (cm)	Debitage	FLA	Ground Stone	Non-Human Bone	Shell	Total
0-10						
Count	12	--	1	1	0	14
Weight (g)	80.43	--	58.85	0.07	0.6	139.95
10-20						
Count	20	1	--	6	--	27
Weight (g)	206.01	34.76	--	2.01	--	242.78
20-30						
Count	4	2	--	1	--	7
Weight (g)	16.43	19.61	--	0.02	--	36.06
30-40						
Count	3	1	--	--	--	4
Weight (g)	144.67	115.18	--	--	--	259.85
Total Count	**39**	**4**	**1**	**8**	**0**	**52**
Total Weight (g)	**447.54**	**169.55**	**58.85**	**2.1**	**0.6**	**678.64**
cm = centimeters; g = grams; FLA = flaked lithic artifact						

6.3.2.1 Debitage

A total of 114 pieces (11.63 percent by count) were produced during primary reduction, 375 (38.27 percent by count) during secondary reduction, 347 (35.41 percent by count) during tertiary reduction, and 144 (14.69 percent by count) were secondary shatter (Table 7). Debitage was made from locally available material including coarse-grained porphyritic metavolcanic, fine-grained metavolcanic, fine-grained porphyritic metavolcanic material, granite, microcrystalline quartz (chert), and quartzite, as well as the import material Piedra de Lumbre chert, which is sourced from the Camp Pendleton area of coastal northern San Diego County, approximately 55 miles to the north-northwest.

6.3.2.2 Flaked Lithic Artifacts

A total of 23 flaked lithic tools were recovered from CA-SDI-10,206. Lithic tools recovered included one chopper, two hammerstones, one assayed cobble, one modified flake, one scraper, and 17 cores (Photographs 34 and 35). Table 8 lists the artifacts. The majority were recovered from the surface collection.

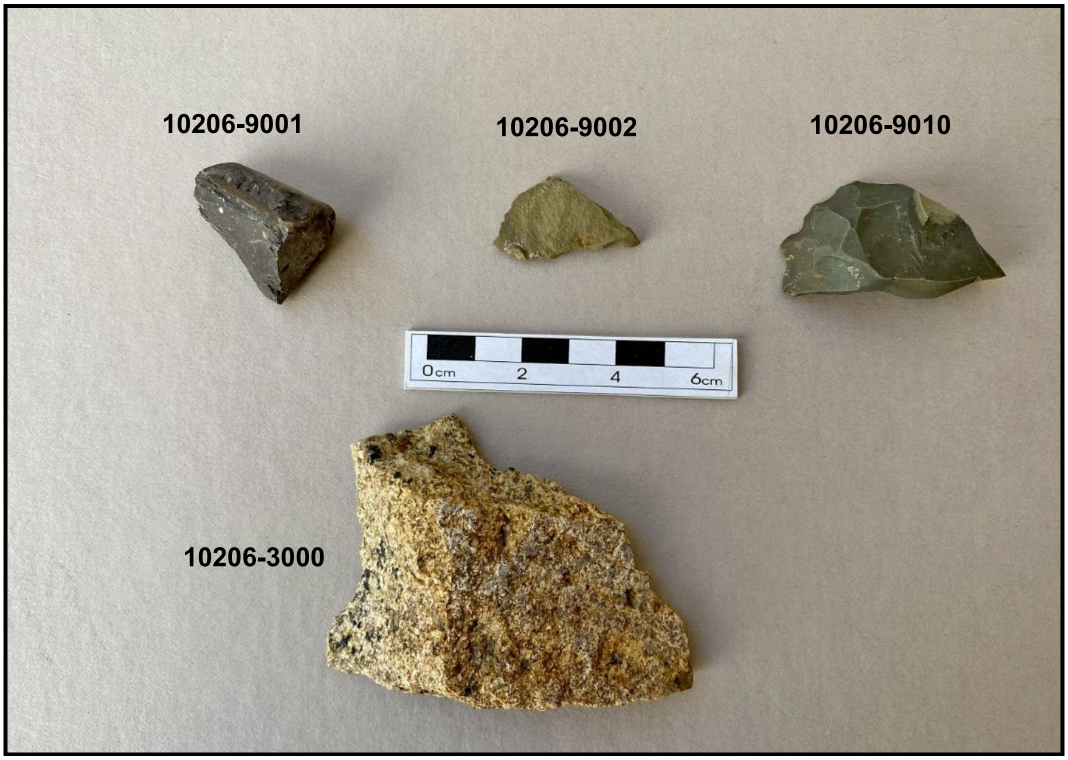
Table 7
Debitage by Type and Material from CA-SDI-10,206

Flake of Shatter Type	Basalt	CGM	CGPM	FGM	FGPM	Granite	MCQ	MCQ (PDL)	Quartzite	Total	% of Total Debitage[1]
Primary Reduction											
Cortex Removal											
Count			1	8	27					36	
Weight (g)			2.6	220.87	713.72					937.19	
Platform Creation, Cortex Removal											
Count			1	4	13					18	
Weight (g)			7.08	40.43	309.93					357.44	
Primary Shatter											
Count	1	1	3	13	39		2		1	60	
Weight (g)	4.5	6.92	18.76	80.21	306.87		7.62		0.45	425.33	
Primary Reduction Total											
Count	**1**	**1**	**5**	**25**	**79**		**2**		**1**	**114**	11.63
Weight (g)	**4.5**	**6.92**	**28.44**	**341.51**	**1330.52**		**7.62**		**0.45**	**1719.96**	25.81
Secondary Reduction											
Core Reduction, Basic Shaping											
Count		5	22	67	279			1	1	375	
Weight (g)		34.24	207.37	690.34	3,393.53			5.24	26.78	4,357.50	
Secondary Reduction Total											
Count		**5**	**22**	**67**	**279**			**1**	**1**	**375**	38.27
Weight (g)		**34.24**	**207.37**	**690.34**	**3,393.53**			**5.24**	**26.78**	**4,357.50**	65.39
Tertiary Reduction											
Bifacial Thinning Flake											
Count				3	1					4	
Weight (g)				1.52	0.75					2.27	
Finishing, Resharpening											
Count		1	18	95	172		4			290	
Weight (g)		0.52	9.91	80.01	132.99		0.69			224.12	
Trimming											
Count		1	1	7	43	1				53	
Weight (g)		0.23	0.56	6.53	56.19	2.4				65.91	
Tertiary Reduction Total											
Count		**2**	**19**	**105**	**216**	**1**	**4**			**347**	35.41
Weight (g)		**0.75**	**10.47**	**88.06**	**189.93**	**2.4**	**0.69**			**292.3**	4.39

Table 7 Debitage by Type and Material from CA-SDI-10,206											
Flake of Shatter Type	Basalt	CGM	CGPM	FGM	FGPM	Granite	MCQ	MCQ (PDL)	Quartzite	Total	% of Total Debitage[1]
Secondary Shatter											
Count		1	10	34	94	1	3		1	144	14.69
Weight (g)		1.85	30.48	56.59	200.98	0.3	3.39		0.75	294.34	4.42
Total Count	**1**	**9**	**56**	**231**	**668**	**2**	**9**	**1**	**3**	**980**	100.00
Total Weight (g)	**4.50**	**43.76**	**276.76**	**1,176.50**	**5,114.96**	**2.70**	**11.70**	**5.24**	**27.98**	**6,664.10**	100.00

CGM = coarse-grained metavolcanic; CGPM = coarse-grained porphyritic metavolcanic; FGM = fine-grained metavolcanic; FGPM = fine-grained porphyritic metavolcanic; MCQ = microcrystalline quartz; PDL = Piedra de Lumbre; g = grams; % = percent

[1] Percent of total debitage with more than 20 pieces reported by count and weight to determine what type of lithic activity was occurring at each site.



PHOTOGRAPH 34
Tools from CA-SDI-10,206

PHOTOGRAPH 35
Hammerstones and Chopper from CA-SDI-10,206

Table 8 Flaked Lithic Artifact Recovered from CA-SDI-10,206				
Flaked Lithic Artifact	Surface Collection	Unit 2	Unit 5	Total
Assayed Cobble				
Count	--	1	--	1
Weight (g)	--	16.74	--	16.74
Chopper				
Count	1	--	--	1
Weight (g)	243.63	--	--	243.63
Core				
Count	15	1	1	17
Weight (g)	3,102.89	34.76	115.18	3,252.83
Hammerstone				
Count	2	--	--	2
Weight (g)	750.12	--	--	750.12
Modified Flake				
Count	--	1	--	1
Weight (g)	--	2.87	--	2.87
Scraper				
Count	1	--	--	1
Weight (g)	20.33	--	--	20.33
Total Count	**19**	**3**	**1**	**23**
Total Weight (g)	**4,116.97**	**54.37**	**115.18**	**4,286.52**
g = grams				

a. Assayed Cobble and Cores

A total of 17 cores were recovered from CA-SDI-10,206: two during excavation, 15 from the surface collection. The following are descriptions of seven representative samples from the surface collection. Artifact 10206-9006 is a whole fine-grained porphyritic metavolcanic core weighing 53.05 grams and exhibiting at least four flakes removed unifacially. Artifact 10206-9007 is a whole fine-grained porphyritic metavolcanic core that weighs 86.47 grams and has seven flakes removed. Artifact 10206-9009 is a whole, flake based, fine-grained porphyritic metavolcanic core weighing 113.22 grams and exhibits at least three flakes removed. Artifact 10206-9011 is a whole fine-grained metavolcanic core weighing 57.77 grams, exhibits multidirectional removal of at least four flakes, and has 30 percent cortex remaining. Artifact 10206-9012 is a whole fine-grained porphyritic metavolcanic core weighing 118.53 grams and was possibly used as a scraper due to the amount of microstepping along the ventral margin. Artifact 10206-9066 is a whole fine-grained porphyritic metavolcanic core weighing 654.76 grams, has at least five flakes removed, one flake removed from the ventral side, exhibits 5 cm of battering near one cortical margin, and has approximately 40 percent cortex remaining. Artifact 10206-9022 is a whole fine-grained porphyritic metavolcanic core that weighs 888.16 grams, exhibits several large flakes removed, minimal cortex remains, and has differing levels of patination on differing flaked surfaces.

b. Chopper

A chopper is a tool that is usually fabricated on a pebble, cobble, or large primary flake. The working edge is flaked bifacially and may be straight or convex. Edge angles are between 30 and 90 degrees. Damage characteristics include microstepping and crushing predominantly, with inclusive nibbling and rounding. Some battering may be present in limited amounts without influencing the designation. One chopper was recovered from the surface collection of CA-SDI-10,206. Artifact 10206-9019 is a fine-grained porphyritic metavolcanic tool that was initially utilized as a core. The chopper exhibits 9 cm of edge damage across two margins and exhibits 1.5 cm of battering at the apex of two margins on the ventral side.

c. Hammerstone

Two hammerstones were recovered from the surface collection of CA-SDI-10,206. Artifact 10206-9008 is a large fine-grained porphyritic metavolcanic hammer that exhibits use-wear across seven margins with four areas of battering. It weighs 534.51 grams and measures 87 by 72 by 68 mm.

d. Modified Flake

One modified flake was recovered from CA-SDI-10,206 from the 20 to 30 cm level of Unit 2. Artifact 10206-9002 is a fine-grained metavolcanic flake that exhibits at least five flakes removed over a 20 mm segment of edge work.

e. Scraper

A scraper is flake based with unifacial flaking of at least one edge. Damage may include nibbling, microstepping, and some limited crushing. Edge angles are generally less than 60 degrees but may go higher in some situations. One scraper was recovered from the surface collection of CA-SDI-10,206. Artifact 10206-9010 is a broken fine-grained porphyritic metavolcanic unclassified scraper that most likely fractured during manufacture.

6.3.2.3 Ground Stone Artifact

Portable ground stone tools include artifacts associated with milling seeds and other plant products, processing animals, or materials such as pigments. Tools in this category are identified by a pattern or wear resulting from rubbing or grinding stone on stone, which creates polished surfaces. Specific tools within this category include manos, metates, pestles, and mortars. The stone types, dimensions, wear attributes, and conditions of recovered ground stone artifacts were recorded during the catalog process.

One granitic ground stone metate fragment was recovered during the excavation of CA-SDI-10,206. Artifact 10206-3000 was recovered from the 0 to 10 cm level of Unit 3 (see Photograph 34). The relatively small and shallow ground stone fragment exhibits a 6.3 by 3.1 cm extant polished and pecked grinding surface that would have existed towards the edge of the element in its primary form.

6.3.2.4 Discussion

The excavation revealed that the subsurface cultural deposit was sparse and extended down to the 20 cm level, in most cases, before hitting subsoil clays. One core and three pieces of debitage were found in the 30 to 40 cm level of Unit 5. The lack of midden-like soils suggests that the site was not occupied over a long period of time and therefore not a habitation site. Based on Binford's model for foraging and gathering societies, CA-SDI-10,206 can be classified as a location where specialized activities took place, which were temporary living areas located along routes between resource areas and long-term villages. When the recommended test for classification as a habitation site proposed by Gallegos et al. (1998) is applied, CA-SDI-10,206 does not qualify as a habitation site with a subsurface density of 100 artifacts per square meter; only 52 subsurface artifacts were recovered.

Recovered artifacts suggest that the site likely functioned as a testing and procurement opportunity as evidenced by the 17 cores and one assayed cobble, as well as a second- and third-stage tool manufacturing location, as evidenced by 38 percent of the debitage being from core reduction (secondary reduction) and 35 percent of the debitage being from tertiary reduction. The presence of a metate, small to medium mammal bone fragments, and 0.6 gram of marine shellfish remains suggests that plant processing and/or food consumption also took place as well as flaking activities.

None of the artifacts that were recovered are indicative of a particular time period. Cores, flakes, metates, and debitage are found in both Archaic and Late Prehistoric periods. No charcoal or bone from a feature was recovered to provide an opportunity to date the site. Overall, the low-density artifact recovery and limited represented artifact types do not provide enough data to answer regional research questions.

6.3.3 CA-SDI-23,232/NDY-1-051421 (Beyer Boulevard)

RECON archaeologists Nathanial Yerka and Carmen Zepeda-Herman accompanied by Shuuluk Linton of Red Tail Environmental collected surface artifacts and excavated two 1-by-1 meter surface scrapes and two STPs at CA-SDI-23,232 on November 30, 2021 (Confidential Attachment 11). Additional surface artifacts beyond the 41 artifacts recorded during the survey were identified and collected, resulting in expanding the site boundary from 10 to 18 meters across, northeast and upslope within a steep dirt road. These artifacts may have washed downslope from CA-SDI-23,232/NDY-2-051421. Surface scrapes were placed in the areas with the highest surface artifact density and the STPs were in the northeast corner of each scrape.

The soil stratigraphy for CA-SDI-23,232 consisted of one soil horizon. The A Horizon extended down to 40 cm and consisted of grayish brown to dark grayish brown silty clayey loam (10YR4/2 to 10YR5/2) with medium to high compaction. The soil horizon contained some cobbles and rootlets (Photograph 36). Subsurface artifacts were found in the upper 30 cm and consisted of 7 pieces of debitage.

PHOTOGRAPH 36

CA-SDI-23,232 Surface Scrape 1 Plan View

Table 9 provides the summary of the materials recovered during the evaluation program at CA-SDI-23,232 (for a complete catalog, see Attachment 5). A total of 95 artifacts were recovered, of which 88 artifacts were surface-collected consisting of 72 pieces of debitage and 16 flaked lithic artifacts. As noted above, only seven pieces of debitage were recovered through subsurface excavations at Surface Scrape 2. Five of the pieces of debitage were in the 0 to 10 cm level, with two in the 10 to 30 cm level.

Table 9
Summary of Artifacts Recovered from CA-SDI-23,232

Unit Type	Debitage	FLA	Total
Surface Scrapes (SS)			
SS 2 (0-10 cm BGS)			
Count	5	--	5
Weight (g)	32.65	--	32.65
Total SS Count	**5**	--	**5**
Total SS Weight (g)	**32.65**	--	**32.65**
Shovel Test Pit (STP)			
SS 2—STP 2 (10-30 cm BGS)			
Count	2	--	2
Weight (g)	20.69	--	20.69
Total STP Count	**2**	--	**2**
Total STP Weight (g)	**20.69**	--	**20.69**
Surface Collection (SC)			
SC			
Count	72	16	88
Weight (g)	3,114.07	4,245.68	7,359.75
Total SC Count	**72**	**16**	**88**
Total SC Weight (g)	**3,114.07**	**4,245.68**	**7,359.75**
Total Count	**79**	**16**	**95**
Total Weight (g)	**3,167.41**	**4,245.68**	**7,413.09**

g = grams; FLA = flaked lithic artifacts; cm = centimeters;
BGS = below ground surface

6.3.3.1 Debitage

A total of 30 pieces (37.97 percent by count) were produced during secondary reduction, 23 (29.11 percent by count) during primary reduction, 11 (13.92 percent by count) during tertiary reduction, and 15 (18.99 percent by count) were secondary shatter (Table 10). All debitage was made from locally available material including coarse-grained porphyritic metavolcanic, fine-grained metavolcanic, fine-grained porphyritic metavolcanic material, and granite.

Table 10 Debitage by Type and Material from CA-SDI-22,232						
Flake or Shatter Type	CGPM	FGM	FGPM	Granite	Total	% of Total Debitage [1]
Primary Reduction						
Cortex Removal						
Count	1	--	14	--	15	--
Weight (g)	85.97	--	686.96	--	772.93	--
Platform Creation, Cortex Removal						
Count	1	1	5		7	--
Weight (g)	740.17	9.87	546.77		1,296.81	--
Primary Shatter						
Count	--	--	1	--	1	--
Weight (g)	--	--	0.2	--	0.2	--
Primary Reduction Total						
Count	2	1	20	--	23	29.11
Weight (g)	826.14	9.87	1,233.93	--	2,069.94	65.35
Secondary Reduction						
Core Reduction, Basic Shaping						
Count	2	3	25	--	30	37.97
Weight (g)	30.87	62.37	958.66	--	1,051.90	33.21
Tertiary Reduction						
Finishing, Resharpening						
Count	1	--	2	--	3	--
Weight (g)	2.13	--	1.29	--	3.42	--
Trimming						
Count	--	1	6	1	8	--
Weight (g)	--	3.95	10.82	0.36	15.13	--
Tertiary Reduction Total						
Count	1	1	8	1	11	13.92
Weight (g)	2.13	3.95	12.11	0.36	18.55	0.59
Secondary Shatter						
Count	--	--	15	--	15	18.99
Weight (g)	--	--	27.02	--	27.02	0.85
Total Count	**5**	**5**	**68**	**1**	**79**	**100.00**
Total Weight (g)	**859.14**	**76.19**	**2,231.72**	**0.36**	**3,167.41**	**100.00**

CGPM = coarse-grained porphyritic metavolcanic; FGM = fine-grained metavolcanic; FGPM = fine-grained porphyritic metavolcanic; g = grams; % = percent
[1] Percent of total debitage with more than 20 pieces reported by count and weight to determine what type of lithic activity was occurring at each site.

6.3.3.2 Flaked Lithic Artifacts

A total of 16 flaked lithic tools were recovered from CA-SDI-23,232. Lithic tools recovered included one chopper, one hammerstone, three sidescrapers, two modified flakes, and nine cores (Photograph 37). Table 11 lists the artifacts. All were recovered from the surface collection.

PHOTOGRAPH 37
Tools from CA-SDI-23,232

Table 11 Flaked Lithic Artifacts Recovered from CA-SDI-22,232					
Flaked Artifact	CGPM	FGM	FGPM	Quartzite	Total
Chopper					
Count	--	--	1	--	1
Weight (g)	--	--	450.11	--	450.11
Convergent Sidescraper					
Count	1	--	--	--	1
Weight (g)	224.75	--	--	--	224.75
Convex Sidescraper					
Count	--	--	1	--	1
Weight (g)	--	--	109.91	--	109.91
Core					
Count	2		6	1	9
Weight (g)	355.48		1,074.77	275.70	1,705.95
Hammerstone					
Count	--	--	1	--	1
Weight (g)	--	--	1,237.15	--	1,237.15
Modified Flake					
Count	--	--	2	--	2
Weight (g)	--	--	192.74	--	192.74
Straight Sidescraper					
Count	--	1	--	--	1
Weight (g)	--	325.07	--	--	325.07
Total Count	**3**	**1**	**11**	**1**	**16**
Total Weight (g)	**580.23**	**325.07**	**3,064.68**	**275.70**	**4,245.68**
CGPM = coarse-grained porphyritic metavolcanic; FGM = fine-grained metavolcanic; FGPM = fine-grained porphyritic metavolcanic; g = grams; % = percent					

a. Cores

Nine cores were recovered from surface of CA-SDI-23,232; none were found subsurface. Six cores were made from fine-grained porphyritic metavolcanic rock, two of coarse-grained porphyritic metavolcanic rock, and one of quartzite. The quartzite core (Artifact 23232-9013) exhibited numerous spalls and one flake scar. Artifact 23232-9004 had three flakes removed and recent edge damage; Artifact 23232-9007 also had three flakes removed and microstepping with one flake removed and 100 percent cortex on one face. Artifact 23232-9000 had five flakes removed with one dorsal scar and one small area of cortex. Artifacts 23232-9002 and 9006 exhibited dorsal scarring and 30 percent cortex with five flakes and three flakes removed, respectively. Artifact 23232-9005 exhibits a multi-directional platform with cortex and at least three flakes removed. Artifact 23232-9010 had two flakes removed from one face. Artifact 23232-9011 looks like a spall but has one flake removed.

b. Chopper

One chopper was recovered from the surface collection of CA-SDI-23,232. Artifact 23232-9012 is a fine-grained porphyritic metavolcanic core-based tool. The tool exhibits a great deal of dorsal scaring along a bifacial margin with a small amount of crushing. The chopper weighed 450.11 grams and measured 90 by 82 by 51 mm.

c. Hammerstone

One hammerstone was recovered from the surface collection of CA-SDI-23,232. Artifact 23232-9015 is a fine-grained porphyritic metavolcanic core-based tool. The tool exhibits battering and crushing on all margins. There is bifacial removal along one margin with crushing along 98 mm margin. The hammerstone weighed 1,237.15 grams and measured 141 by 104 by 72 mm.

d. Modified Flakes

Two modified flakes were recovered from the surface collection of CA-SDI-23,232. Artifact 23232-9008 is a fine-grained porphyritic metavolcanic flake that exhibits unifacial edge retouch along one 109 mm margin. Overall, the flake measured 102 by 69 by 29 mm. Artifact 23232-9009 is a fine-grained porphyritic metavolcanic flake that exhibits bifacial retouch along one convex margin and unifacial retouch on opposite side save one bifacially removed flake from concave margin. The flake measures 62 by 44 by 17 mm.

e. Scrapers

Three scrapers were recovered from the surface collection at CA-SDI-23,232. Artifact 23232-9001 is a coarse-grained porphyritic metavolcanic convergent sidescraper. Two adjacent sides converge at an offset extremity which give the offset dimensions. Nine flakes have been removed with microstepping damage at each removal. The scraper has a large flake platform with a small amount of edge damage. The scraper measures 69 by 82 by 35 mm.

Artifact 23232-9003 is a fine-grained porphyritic metavolcanic convex sidescraper. Six flakes have been unifacially removed along one straight edge. Approximately 20 percent cortex remains on the dorsal side. Some microstepping damage was noted. The bifacial flaking appears to be recent damage from being in the road. The scraper measures 78 by 53 by 28 mm.

Artifact 23232-9014 is a fine-grained metavolcanic straight sidescraper. The cortical margin exhibits 127 mm of edge damage with little unifacial retouch; however, there is consistent microstepping. Damage exhibited on the ventral margin appears to have been recent. The scraper measured 125 by 82 by 34 mm.

6.3.3.3 Discussion

The excavation revealed that the subsurface cultural deposit was sparse and extended down to the 10 cm level, with only two pieces of debitage in the two lower levels of one STP. The lack of midden-like soils suggests that the site was not occupied over a long period of time, and therefore not a habitation site. Based on Binford's model for foraging and gathering societies, CA-SDI-23,232 can be classified as a location where specialized activities took place. When the recommended test for classification as a habitation site proposed by Gallegos et al. (1998) is applied, CA-SDI-23,232 does not qualify as a habitation site with a subsurface density of 100 artifacts per square meter; only 7 subsurface artifacts were recovered.

Recovered artifacts suggest that the site likely functioned as a primary- and second -stage tool manufacturing location, as evidenced by nine cores and 79 debitage recovered, 29 percent of which being from primary reduction, 38 percent of which being from core reduction (secondary reduction), and 14 percent of the debitage being from tertiary reduction.

None of the artifacts that were recovered are indicative of a particular time period. Cores, modified flakes, choppers, hammerstones, sidescrapers, and debitage are found in both Archaic and Late Prehistoric periods. No charcoal or bone was recovered to provide an opportunity to date the site. Overall, the low-density artifact recovery and limited represented artifact types do not provide enough data to answer regional research questions.

6.3.4 CA-SDI-23,234/NDY-2-051421 (Beyer Boulevard)

RECON archaeologists Nathanial Yerka and Chay Morrissey accompanied by Shuuluk Linton of Red Tail Environmental collected surface artifacts and excavated two 1-by-1 meter surface scrapes and two STPs at CA-SDI-23,234 on December 1, 2021 (Confidential Attachment 12). The two proposed locations for the surface scrapes were moved due to the steepness of those areas. Surface Scrape 1 was excavated north of the dirt road on a more level ground surface and near three surface artifacts. Surface Scrape 2 was excavated south of the dirt road near one surface artifact. The STP in Surface Scrape 1 was excavated in the northwest corner; the STP in Surface Scrape 2 was excavated in the northeast corner. The majority of surface artifacts were within the steep dirt road and therefore not an ideal setting for excavation of surface scrapes. Additional surface artifacts beyond the 21 recorded during the survey effort were identified and collected, resulting in expanding the site boundary from 20 to 28 meters southwest within a steep dirt road. There are at least three flakes east of the applicant’s property that were not collected since permission to excavate had not been granted in November 2021.

The soil stratigraphy for CA-SDI-23,234 consisted of one soil horizon. The A Horizon extended to 30 cm and consisted of brown to strong brown silty loam (7.5YR4/3 to 7.5YR4/6) with medium to high compaction. Surface Scrape 1 had high amounts of cobbles while Surface Scrape 2 had moderate amounts of large cobbles (Photograph 38). Both surface scrapes had evidence of disturbance in the upper 10 cm, including rodent activity in the northeast corner of Surface Scrape 2. Artifacts were found in the upper 10 cm.

Table 12 provides the summary of the materials recovered during the evaluation program at CA-SDI-23,234 (for a complete catalog, see Attachment 6). A total of 27 artifacts were surface-collected and 10 were recovered from the 0 to 10 cm level of the surface scrapes. No artifacts were recovered from the STPs. A total of 26 debitage pieces, 1 mano, and 10 flaked lithic artifacts were recovered from the surface collection and surface scrapes.

PHOTOGRAPH 38
CA-SDI-23,234 Surface Scrape 1 Plan View with STP 1
in the Northwest Corner

Table 12 Summary of Artifacts from CA-SDI-23,234				
	Debitage	FLA	Ground Stone	Total
Surface Collection				
Count	19	8	--	27
Weight (g)	964.2	6,432.38	--	7,396.58
Surface Scrape 1				
Count	3	2	1	6
Weight (g)	102.98	314.42	354.89	772.29
Surface Scrape 2				
Count	4	--	--	4
Weight (g)	31.37	--	--	31.37
Total Count	**26**	**10**	**1**	**37**
Total Weight (g)	**1,098.55**	**6,746.80**	**354.89**	**8,200.24**
FLA = flaked lithic artifact; g = grams				

6.3.4.1 Debitage

A total of 12 pieces (46.15 percent by count) were produced during secondary reduction, 9 (34.62 percent by count) during primary reduction, 2 (7.69 percent by count) during tertiary reduction, and 3 (11.54 percent by count) were secondary shatter (Table 13). All debitage was made from locally available material including coarse-grained porphyritic metavolcanic, fine-grained metavolcanic, and fine-grained porphyritic metavolcanic material.

Table 13 Debitage by Type and Material Recovered from CA-SDI-23,234					
	CGPM	FGM	FGPM	Total	% of Total Debitage[1]
Primary Reduction					
Platform Creation, Cortex Removal					
Count	--	--	1	1	--
Weight (g)	--	--	24.45	24.45	--
Primary Shatter					
Count	--	--	1	1	
Weight (g)	--	--	4.37	4.37	
Cortex Removal					
Count	1	2	4	7	--
Weight (g)	221.61	45.84	353.91	621.36	--
Primary Reduction Total					
Count	**1**	**2**	**6**	**9**	**34.62**
Weight (g)	**221.61**	**45.84**	**382.73**	**650.18**	**59.19**
Secondary Reduction					
Core Reduction, Basic Shaping					
Count	1	2	9	12	**46.15**
Weight (g)	77.84	27.42	316.13	421.39	**38.36**

Table 13 Debitage by Type and Material Recovered from CA-SDI-23,234					
	CGPM	FGM	FGPM	Total	% of Total Debitage[1]
Tertiary Reduction					
Finishing, Resharpening					
Count	--	1	1	2	**7.69**
Weight (g)	--	1.87	6.15	8.02	**0.73**
Secondary Shatter					
Count	--	1	2	3	**11.54**
Weight (g)	--	0.63	18.33	18.96	**1.73**
Total Count	**2**	**6**	**18**	**26**	100.00
Total Weight (g)	**299.45**	**75.76**	**723.34**	**1,098.55**	100.00

CGPM = coarse-grained porphyritic metavolcanic; FGM = fine-grained metavolcanic; FGPM = fine-grained porphyritic metavolcanic; g = grams; % = percent
[1] Percent of total debitage with more than 20 pieces reported by count and weight to determine what type of lithic activity was occurring at each site.

6.3.4.2 Flaked Lithic Artifacts

A total of 10 flaked lithic tools were recovered from CA-SDI-23,234. Lithic tools recovered included one hammerstone, one modified flake, two scrapers, and six cores (Photographs 39 and 40). Table 14 lists the artifacts. Of the 10, two flaked lithic artifacts were recovered from a subsurface level.

Table 14 Flaked Lithic Artifact from CA-SDI-23,234			
Flaked Lithic Artifact	FGM	FGPM	Total
Convergent Sidescraper			
Count	--	1	1
Weight (g)	--	107.63	107.63
Convex Sidescraper			
Count	1	--	1
Weight (g)	230.73	--	230.73
Core			
Count	2	4	6
Weight (g)	314.42	690.13	1,004.55
Hammerstone			
Count	--	1	1
Weight (g)	--	5,400.00	5,400.00
Modified Flake			
Count	--	1	1
Weight (g)	--	3.89	3.89
Total Count	**3**	**7**	**10**
Total Weight (g)	**545.15**	**6,201.65**	**6,746.80**

PHOTOGRAPH 39
Tools from CA-SDI-23,232

PHOTOGRAPH 40
Hammerstone from CA-SDI-23,234

a. Cores

Four cores were recovered from the surface of CA-SDI-23,234 and two were recovered from the 0 to 10 cm level of Surface Scrape 1. The two subsurface cores (Artifacts 23234-90008 and 9009) are made of fine-grained metavolcanic rock with flakes removed in a multi-directional fashion. Artifact 23234-9008 is patinated and exhibits at least six flakes removed, dorsal scarring on remaining cortex, and small bifacially-removed flakes along the long margin. Artifact 23234-9009 exhibits more than 10 flakes removed with no remaining cortex; however, the core is not completely expended. The remaining four cores are made of fine-grained porphyritic metavolcanic rock. Artifact 23234-9000 exhibits two flakes removed and numerous spall removals. Artifact 23234-9002 is a small core with seven flakes removed. Artifact 23234-9005 has three multi-directional removal areas. Seven flakes were removed from Artifact 23234-9006.

b. Hammerstone

One hammerstone was recovered during the surface collection at CA-SDI-23,234. Artifact 23234-9007 is made of fine-grained porphyritic metavolcanic rock. It is a large cobble with battering on protuberances and high spots on one area, weighing 5.4 kilograms.

c. Modified Flake

One modified flake was recovered during the surface collection at CA-SDI-23,234. Artifact 23,234-9003 is made of fine-grained porphyritic metavolcanic rock and exhibits unifacial flaking along a 22 mm margin.

d. Scrapers

Two scrapers were recovered during the surface collection at CA-SDI-23,234. Artifact 23,234-9001 is a convex sidescraper made of fine-grained metavolcanic rock. It exhibits unifacial flake removal along a 172 mm margin. Artifact 23,234-9004 is a fine-grained porphyritic metavolcanic convergent sidescraper. It is core-based with two bifacially flaked edges with greater than 20-degree angles. The width is greater than the length.

6.3.4.3 Ground Stone Artifact

One coarse-grained metavolcanic mano fragment was recovered during the excavation of CA-SDI-23,234. Artifact 23234-3000 was recovered from the 0 to 10 cm level of Surface Scrape 1. The long axis ends exhibit possible battering.

6.3.4.4 Protein Residue Analysis

Protein extractions from the mano fragment (Artifact 23234-3000) that was sent to PaleoResearch Institute was tested against a number of antisera. The antisera include 19 mammals (bear, bison, bovine, camel, cat, deer, dog, dolphin, elephant, goat, guinea pig, horse, human, mouse, pig, rabbit, rat, sheep, and white whale), 2 birds (chicken and turkey), 10 fish (American eel, Atlantic croaker, bay anchovy, catfish, gizzard shad, phyllopod, striped bass, sturgeon, trout, and weakfish), three plants (acorn, agave, and yucca), one insect (grasshopper), and algae.

The analysis did not produce a conclusive positive result for any antiserum; however, it did produce a diffuse reaction to goat antiserum on the mano from CA-SDI-23,234. According to Maison and Cummings (see Attachment 1a), tools could test negative for several reasons: (1) degradation of the proteins over time, (2) use of tools on animals or plants not tested for, or (3) resharpening or reshaping of tools after last use could have remove proteins (see Attachment 1a).

6.3.4.5 Discussion

The excavation revealed that the subsurface cultural deposit was sparse and extended down to the 10 cm level. The lack of midden-like soil suggests that the site was not occupied over a long period of time and therefore not a habitation site. Based on Binford's model for foraging and gathering societies, CA-SDI-23,234 can be classified as a location where specialized activities took place. When the recommended test for classification as a habitation site proposed by Gallegos et al. (1998) is applied, CA-SDI-23,234 does not qualify as a habitation site with a subsurface density of 100 artifacts per square meter; only 10 subsurface artifacts were recovered.

Recovered artifacts suggest that the site likely functioned as a primary and second-stage tool manufacturing location, as evidenced by six cores, 35 percent of the debitage being from primary reduction and 46 percent of the debitage being from core reduction (secondary reduction). The presence of a mano indicates that plant processing may also have occurred at the site.

None of the artifacts that were recovered are indicative of a particular time period. Cores, modified flakes, hammerstones, sidescrapers, and debitage are found in both Archaic and Late Prehistoric periods. No charcoal or bone was recovered to provide an opportunity to date the site. Overall, the low-density artifact recovery and limited represented artifact types do not provide enough data to answer regional research questions.

6.3.5 CA-SDI-23,235/NDY-3-051421 (Beyer Boulevard)

Prior to the start of the testing program at CA-SDI-23,235, RECON obtained permission from the California Department of Fish and Wildlife to complete a surface collection and the excavation of four shovel scrapes due to their conservation easement restrictions. RECON archaeologists Nathanial Yerka and Carmen Zepeda-Herman accompanied by Lawrence Douglas of Red Tail Environmental collected surface artifacts and excavated four 1-by-1-meter surface scrapes and four STPs at CA-SDI-23,235 on March 9 and 10, 2023 (Confidential Attachment 13). Natalie Cibel, a RECON biologist, was present to ensure no biological impacts occurred during the excavation program. Ms. Cibel also assisted in the surface collection. The surface collection was conducted after numerous heavy rain events that likely exposed more artifacts and may have moved artifacts downslope. The proposed location for the surface scrape in the southwest was moved due to the steepness of that area. The other surface scrapes were excavated closer to the road on more level ground surfaces that lacked brush. The STP in Surface Scrape 1 was excavated in the northeast corner; the STP in Surface Scrape 2 was excavated in the northwest corner; the STP in Surface Scrape 3 was excavated in the southeast corner; and the STP in Surface Scrape 4 was excavated in southwest corner (Photographs 41 through 44). STPs 1 and 3 extended down to 30 cm BGS while STPs 2 and 4 extended down to 20 cm BGS before encountering decomposing granite. Surface Scrape 3 was excavated down to 20 cm BGS due to large cobbles that were removed.

The majority of surface artifacts were close to native vegetation and therefore not an ideal setting for excavation of surface scrapes. Additional surface artifacts beyond the 132 recorded during the survey effort were identified and collected, resulting in expanding the site boundary further downslope to the southeast, as well as downslope to the northwest towards the mapped boundary of CA-SDI-23,236. Likewise, additional artifacts were collected from the surface of CA-SDI-23,236, resulting in the expansion of the site; therefore, these sites have been combined into one site under CA-SDI-23,235. A total of 20 artifacts were collected between the original boundaries of these two sites. The expanded boundary of CA-SDI-23,235 subsumes CA-SDI-23,236 and measures 90 meters by 14 meters. Locus E (eastern) is the original boundary of CA-SDI-23,235 and Locus W (western) is the original boundary of CA-SDI-23,236. The artifacts collected from the lithic concentration area in Locus W were not recorded individually but rather collected as a whole because of the density of surface artifacts.

RECON archaeologists Nathanial Yerka and Carmen Zepeda-Herman accompanied by Lawrence Douglas of Red Tail Environmental collected surface artifacts and excavated two 1-by-1 meter surface scrapes and two STPs at Locus W (CA-SDI-23,236) on March 13, 2023 (see Confidential Attachment 13). Natalie Cibel, a RECON biologist, assisted with the surface collection and ensured no biological impacts occurred during the excavation program. As noted above, additional artifacts were encountered because of heavy rain and erosion episodes. Both surface scrapes were excavated in the road in part to avoid biological impacts and due to the steepness of the site area free of sensitive plants. Surface Scrape 1 was excavated within the previously mapped lithic concentration area, while Surface Scrape 2 was excavated upslope within a level portion of the road (Photographs 45 and 46).

The soil stratigraphy for Locus E (CA-SDI-23,235) consisted of two soil horizons. The A Horizon extended to 20 to 25 cm and consisted of reddish-brown to brown sandy loam (5YR4/3 to 7.5YR4/3) with medium compaction and high amounts of cobbles. Numerous cobbles were also encountered in the STPs. The B Horizon extended from 20 to 30 and consisted of brown to dark reddish-brown sticky clay (7.5YR4/7 to 2.5YR3/4). Decomposing granite with some clay was noted at the bottom of STPs 1 and 4 with clay soils at the bottom of STPs 2 and 3. Artifacts were found in the upper 10 cm.

The soil stratigraphy for Locus W (CA-SDI-23,236) was similar to Locus E. The A Horizon extended down to 20 cm in Surface Scrape 1 and consisted of dark brown sandy silt (7.5YR3/3) with numerous cobbles. The B Horizon extended down to 20 cm in Surface Scrape 2 and consisted of sticky dark brown clayey silt (7.5YR3/2) with numerous cobbles. The A Horizon was not present in Surface Scrape 2 and was likely graded away during construction of the road.

Table 15 provides the summary of the materials recovered during the evaluation program at CA-SDI-23,235 (Locus E and W) (for a complete catalog, see Attachment 7). A total of 378 artifacts were surface-collected and 62 were recovered from subsurface excavations. A total of 408 debitage pieces and 32 flaked lithic artifacts were recovered from the surface collection and surface scrapes.

PHOTOGRAPH 41
CA-SDI-23,235 (Locus E) Surface Scrape 1 Plan View

PHOTOGRAPH 42
CA-SDI-23,235 (Locus E) Surface Scrape 2 with STP 2 in Northwest Corner

PHOTOGRAPH 43
CA-SDI-23,235 (Locus E) Surface Scrape 3

PHOTOGRAPH 44
CA-SDI-23,235 (Locus E) Surface Scrape 4 Plan View
with STP 4 in Southwest Corner

PHOTOGRAPH 45
Locus W (CA-SDI-23,236) Surface Scrape 1 with STP 1 in Northeast Corner

PHOTOGRAPH 46
Locus W (CA-SDI-23,236) Surface Scrape 2 with STP 2 in Southeast Corner

Table 15 Summary of Artifacts Recovered from CA-SDI-23,235 (Loci E and W)				
Collection Type	Debitage	FLA	Total	%
Surface Collection by Point Plot				
Count	189	30	219	
Weight (g)	8,313.04	9,751.17	18,064.21	
Feature; Surface Lithic Concentration				
Count	159		159	
Weight (g)	1,666.39		1,666.39	
Total Surface				
Count	348	30	378	85.91
Weight (g)	9,979.43	9,751.17	19,730.60	92.67
1x1 m Shovel Scrape by 10 cm				
Count	43	1	44	
Weight (g)	342.02	357.02	699.04	
1x1 m Shovel Scrape by 20 cm				
Count	14		14	
Weight (g)	782.95		782.95	
STPs 30x50 cm, 10 cm Levels Reported				
Count	1	1	2	
Weight (g)	0.71	20.91	21.62	
STPs 30x50 cm, 20 cm Levels Reported				
Count	2		2	
Weight (g)	57.35		57.35	
Total Subsurface				
Count	60	2	62	14.09
Weight (g)	11,83.03	377.93	1,560.96	7.33
Total Count	**408**	**32**	**440**	**100.00**
Total Weight (g)	**11,162.46**	**10,129.10**	**21,291.56**	**100.00**
FLA = flaked lithic artifact; % = percent; g = grams; m = meter; cm = centimeter				

6.3.5.1 Debitage

A total of 147 pieces (36.15 percent by count) were produced during secondary reduction, 39 (28.43 percent by count) during primary reduction, 91 (22.30 percent by count) during tertiary reduction, and 54 (13.24 percent by count) were secondary shatter (Table 16). All debitage was made from locally available material including coarse-grained porphyritic metavolcanic, fine-grained metavolcanic, fine-grained porphyritic metavolcanic material, granite, and quartzite.

Table 16 Debitage by Type and Material for CA-SDI-23,235 (Loci E and W)							
Flake Type	CGPM	FGM	FGPM	Granite	Quartzite	Total	% of Total Debitage [1]
Primary Reduction							
Cortex Removal							
Count	20	2	19	2	1	44	
Weight (g)	1,038.27	287.38	1,320.62	555.16	46.61	3,248.04	
Platform Creation, Cortex Removal							
Count	21	5	5		2	33	
Weight (g)	1,571.41	590.88	286.55		164.34	2,613.18	
Shatter During Primary Reduction							
Count	21	3	15			39	
Weight (g)	208.26	81.92	616.94			907.12	
Primary Reduction Total							
Count	62	10	39	2	3	116	28.43
Weight (g)	2,817.94	960.18	2,224.11	555.16	210.95	6,768.34	60.63
Secondary Reduction							
Core Reduction, Basic Shaping							
Count	80	6	61			147	36.03
Weight (g)	1,399.36	180.2	2,494.68			4,074.24	36.50
Tertiary Reduction							
Finishing, resharpening							
Count	43	3	22			68	
Weight (g)	64.17	6.61	23.46			94.24	
Trimming							
Count	17	2	3		1	23	
Weight (g)	17.69	1.46	3.55		2.82	25.52	
Tertiary Reduction Total							
Count	60	5	25		1	91	22.30
Weight (g)	81.86	8.07	27.01		2.82	119.76	1.07
Shatter During Secondary or Subsequent Reduction							
Count	42	1	11			54	13.24
Weight (g)	178.09	5.32	16.71			200.12	1.79
Total Count	**244**	**22**	**136**	**2**	**4**	**408**	**100.00**
Total Weight (g)	**4,477.25**	**1,153.77**	**4,762.51**	**555.16**	**213.77**	**11,162.46**	**100.00**

CGPM = coarse-grained porphyritic metavolcanic; FGM = fine-grained metavolcanic; FGPM = fine-grained porphyritic metavolcanic; g = grams; % = percent

[1] Percent of total debitage with more than 20 pieces reported by count and weight to determine what type of lithic activity was occurring at each site.

6.3.5.2 Flaked Lithic Artifacts

A total of 32 flaked lithic tools were recovered from CA-SDI-23,235. Lithic tools recovered included 10 hammerstones, 4 modified flakes, 5 scrapers, and 13 cores. Table 17 lists the artifacts. Of the 32, two flaked lithic artifacts were recovered from a subsurface level.

Table 17 Flaked Lithic Artifacts Recovered from CA-SDI-23,235 (Loci E and W)							
Flaked Lithic Artifact	CGPM	FGM	FGPM	Granite	Quartzite	Total	% of Total Flaked Lithic Artifacts[1]
Convex Sidescraper							
Count			1			1	
Weight (g)			24.08			24.08	
Convex-Concave Sidescraper							
Count		1	1			2	
Weight (g)		28.5	332.64			361.14	
Double-Convergent Sidescraper							
Count			1			1	
Weight (g)			503.8			503.8	
Double-Convex Sidescraper							
Count		1				1	
Weight (g)		146.5				146.5	
Total Scrapers							
Count		2	3			5	15.63
Weight (g)		175	860.52			1,035.52	10.22
Core							
Count	1	2	8*	1	1	13	40.63
Weight (g)	80.38	435.37	2,840.86	176.26	174.02	3,706.89	36.60
Hammerstone							
Count	3**	6	1			10	31.25
Weight (g)	912.64	1447.97	372.85			2733.46	26.99
Modified Flake							
Count	2		2			4	12.50
Weight (g)	2235.98		417.25			2653.23	26.19
Total Count	**6**	**10**	**14**	**1**	**1**	**32**	**100.00**
Total Weight (g)	**3,229.00**	**2,058.34**	**4,491.48**	**176.26**	**174.02**	**10,129.10**	**100.00**

CGPM = coarse-grained porphyritic metavolcanic; FGM = fine-grained metavolcanic; FGPM = fine-grained porphyritic metavolcanic; g = grams; % = percent
* one subsurface from STP 1 (Locus W)
** one subsurface from SS 4 (Locus W)
[1] Percent of total flaked lithic artifacts reported by count and weight to determine what type of lithic activity was occurring at the site.

a. Cores

Thirteen cores were recovered from the surface of CA-SDI-23,235 (Loci E and W) and one was recovered from the 10 to 20 cm level of STP 1 (Locus W). The one subsurface core (Artifact 23236-9031) is made of fine-grained porphyritic metavolcanic rock and is expended. The following two cores are made of fine-grained metavolcanic rock. Artifact 23235-9000 is patinated and exhibits at least five flakes removed, and Artifact 23235-9013 exhibits multi-directional removal areas but still has cortex remaining. Artifact 23235-9012 is made of coarse-grained porphyritic metavolcanic rock, has cortex remaining on two poles but is expended. Artifact 23235-9024 is made of granite rock, is tubular in shape, and exhibits at least two flakes removed. Artifact 23235-9020 is made of quartzite, is a rounded cobble, and has some cortex remaining. The remaining seven cores are made of fine-grained porphyritic metavolcanic rock. Artifact 23235-9003 exhibits three flakes removed from a large spall. Artifact 23235-9008 is cobble-based and exhibits multidirectional removal. Artifact 23235-9021 also exhibits multidirectional removal with cortex remaining. Artifact 23235-9019 is patinated and exhibits multidirectional removal with at least one flake removed subsequent to patination. Artifact 23235-9027 exhibits a patinated cortex with a high amount of dorsal scarring in removal areas. Artifact 23235-9025 has six large flakes removed multi-directionally and at least four flakes were removed from Artifact 23235-9030.

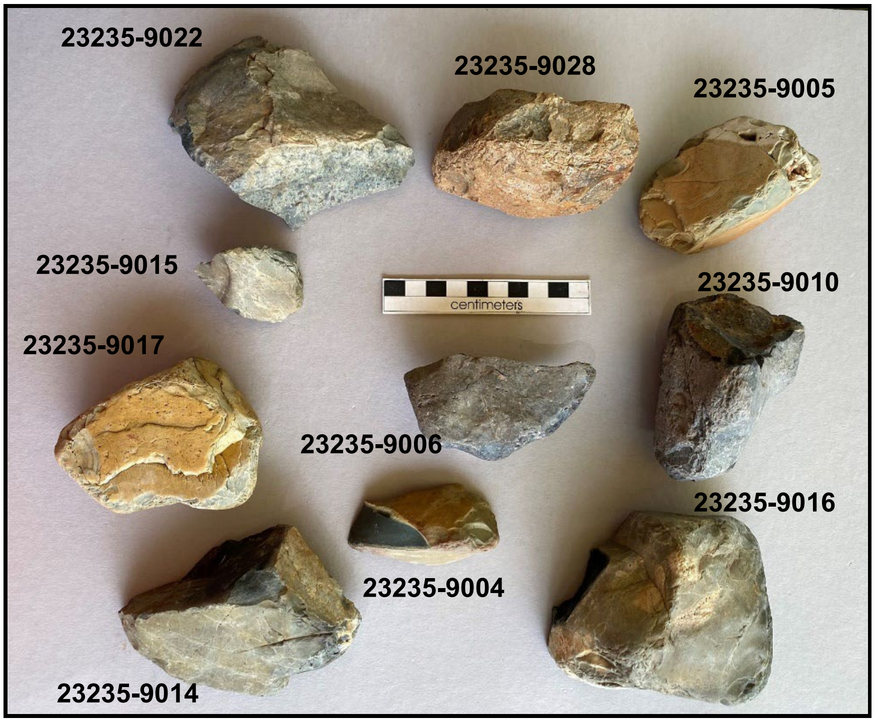
b. Hammerstones

Ten hammerstones were recovered from the surface collection of CA-SDI-23,235 (Locus E only) (Photograph 47). Six of the ten hammerstones are made of fine-grained metavolcanic rock. Artifacts 23235-9014, -9015, and -9016 are fragments that fit together to constitute one primary artifact; however, several fragments were not recovered. The tool fragment exhibits 623 mm of battering and crushing on all margins. The hammerstone weighs 1,455.36 grams and measures 109 by 93 by 74 mm. Artifact 23235-9004 is patinated and exhibits 36 mm of battering along dorsal margin. The tool is fragmented where subsequent removal areas are spalls. The hammerstone measures 71 by 36 by 22 mm and weighs 47.68 grams. Artifact 23235-9005 is also patinated, has battering along all margins, measures 87 by 51 by 43 mm, and weighs 245.16 grams. Artifact 23235-9017 is tabular in shape, exhibits 280 mm of battering along the margins, measures 87 by 77 by 37 mm, and weighs 322.77 grams.

Three hammerstones are made of coarse-grained porphyritic metavolcanic rock. Artifact 23235-9006 is also patinated, has battering along 126 mm of one margin, measures 89 by 45 by 31 mm, and weighs 140.33 grams. Artifact 23235-9010 exhibits battering along 85 mm of remaining 55-degree margin as well as several removals which possibly originated from breaking due to hammering save for one removal showing dorsal scarring or microstepping on the concave area. The hammerstone measures 95 by 76 by 60 mm and weighs 415.29 grams. Artifact 23235-9028 exhibits battering on 129 mm cortical ridge, measures 97 by 53 by 44 mm, and weighs 357.02 grams. Artifact 23235-9022 is made of fine-grained porphyritic metavolcanic rock. The hammer broke most likely from use as there is battering evident along the margins of the remaining cortex. The tool measures 177 by 108 by 45 mm and weighs 372.85.

c. Modified Flakes

Four modified flakes were recovered from the surface collection of CA-SDI-23,235 (Loci E and W) (Photograph 48). Artifact 23235-9002 is a patinated fine-grained porphyritic metavolcanic flake that exhibits three flakes removed bifacially at the distal end. Also evident is dorsal scarring and the patinated edge exhibits damage from previous crushing or battering. The modified flake measures 121 by 100 by 32 mm and weighs 337.34 grams. Artifact 23235-9007 is a core reduction flake made of fine-grained porphyritic metavolcanic rock. The tool is patinated and exhibits at least seven unifacial removals.



PHOTOGRAPH 47
Hammerstones from CA-SDI-23,235 (Loci E and W)

PHOTOGRAPH 48
Modified Flakes from CA-SDI-23,235 (Loci E and W)

The flake measures 62 by 59 by 19 mm and weighs 79.51 grams. Artifact 23235-9026 is a large platform creation flake made of coarse-grained porphyritic metavolcanic rock. The tool could be a core but five flakes, totaling 120 mm in length, have been removed along a margin. Initially, three flakes were removed leaving hinge fractures up to the cortex. The flake measures 242 by 126 by 68 mm and weighs 2,033.54 grams. Artifact 23235-9029 is also a large platform creation flake made of coarse-grained porphyritic metavolcanic rock that exhibits retouch on both edges; however, this could just be downward pressure flakes from modern equipment. The flake measures 154 by 67 by 26 mm and weighs 202.44 grams.

d. Scrapers

Five scrapers were recovered from the surface collection at CA-SDI-23,235 (Locus E only) (Photograph 49). Artifact 23235-9001 is a patinated fine-grained porphyritic metavolcanic convex sidescraper. The tool is flake based with an edge angle that is approximately 35 degrees. The interior side of the tool exhibits recent edge damage. The scraper measures 60 by 25 by 20 mm. Artifact 23235-9009 is a fine-grained metavolcanic convex-concave sidescraper. The core reduction flake exhibits unifacial retouch as well as damage in the form of rounding and microstepping. The scraper measures 47 by 44 by 12 mm. Artifact 23235-9018 is a patinated fine-grained porphyritic metavolcanic convex-concave sidescraper. The scraper is flake-based with dorsal scarring on the distal end. One convex retouched side exhibits 91 mm of retouch. Two non-adjacent concave retouched areas are due to larger flake/retouch removals with associated step-fractures exhibiting 54 and 37 mm of retouch. The scraper measures 103 by 80 by 46 mm.

Artifact 23235-9023 is a fine-grained porphyritic metavolcanic double-convergent sidescraper. The scraper is flake-based with a large patinated ventral surface. The platform forms the non-worked edge, which includes a smooth hinge fracture while the remaining convergent margins show intentional retouch. The scraper measures 118 by 68 by 48 mm. Artifact 23235-9011 is a fine-grained porphyritic metavolcanic double-convex sidescraper. The scraper is flake-based and exhibits damage in the form of rounding and microstepping. The tool measures 88 by 72 by 26 mm.

6.3.5.3 Discussion

The excavation revealed that the subsurface cultural deposit was sparse and extended down to the 20 cm level in some areas. The lack of midden-like soil suggests that the site was not occupied over a long period of time and therefore not a habitation site. Based on Binford's model for foraging and gathering societies, CA-SDI-23,235 can be classified as a location where specialized activities took place. When the recommended test for classification as a habitation site proposed by Gallegos et al. (1998) is applied, CA-SDI_23,235 does not qualify as a habitation site with a subsurface density of 100 artifacts per square meter; only 62 subsurface artifacts were recovered from an approximately 1,260-square-meter area (90 by 14 meters).

Recovered artifacts suggest that the site likely functioned as a primary and second-stage tool manufacturing location, as evidenced by 13 cores, 28 percent of the debitage being from primary reduction and 36 percent of the debitage being from core reduction (secondary reduction). The presence of scrapers indicates that plant and/or hide processing may also have occurred at the site.

PHOTOGRAPH 49
Scrapers from CA-SDI-23,235 (Loci E and W)

None of the artifacts that were recovered are indicative of a particular time period. Cores, modified flakes, hammerstones, sidescrapers, and debitage are found in both Archaic and Late Prehistoric periods. No charcoal or bone was recovered to provide an opportunity to date the site. Overall, the limited represented artifact types and lack of subsurface artifact density do not provide enough data to answer regional research questions.

6.3.6 CA-SDI-23,236/NDY-4-051421 (Beyer Boulevard)

As noted above, this site was subsumed into an expanded boundary for CA-SDI-23,235. Excavation results are in Section 6.4.4.

6.3.7 CA-SDI-22,939 by Tierra Environmental (Planning Areas 11 through 14)

Fieldwork was performed by Tierra Environmental archaeologists Andres Berdeja and Nicole Dimmick, accompanied by Phillip Pena of Redtail Environmental between November 18 and November 23, 2020. Fieldwork was directed by Tierra Environmental archaeologist Tanya Wahoff. Oversight was performed by Mike Baksh of Tierra Environmental Services. Four 1-by-1-meter units were excavated at CA-SDI-22,939 at previously determined locations within or adjacent to surface artifact concentrations (Confidential Attachment 14). The units were placed to avoid impacts to biologically sensitive vegetation. Units 1 and 2 were excavated through two sterile levels, and Units 3 and 4 excavated to sterile subsoil.

Soils at the site consist of Olivenhain cobbly loam, 30 to 50 percent slopes, and are underlain by very cobbly clay or very cobbly clay loam. Olivenhain soils are gently sloping to strongly sloping and are formed on dissected marine terraces. Characteristics of the Olivenhain soils are an A Horizon of yellowish brown, brown or reddish-brown cobbly loam or cobbly sandy loam, with less than 1 percent organic matter below a depth of 4 inches. This horizon is slightly acid or has medium acidity. The substratum horizon is a medium or strongly acid cobbly loam or clay loam (U.S. Department of Agriculture 2020).

The soil stratigraphy for CA-SDI-22,939 consisted of two distinct soil horizons: an A Horizon which contained the archaeological deposit, and a B Subsoil Horizon. The A Horizon averaged the upper 18 cm and consisted of brown to light brown coarse silty sands (7.5YR4/4 to 7.5YR6/4) with low to medium compaction. The lower sterile B Horizon consisted of pinkish brown to pinkish gray coarse silty sandy clay (7.5YR6/2 to 7.5YR7/2) with high compaction. Both soil horizons contain high amounts of cobbles (Photographs 50 through 53). No rodent activity was noted. Artifacts were found in the upper approximately 22 cm.

Table 18 provides the summary of the artifacts recovered during the evaluation program at CA-SDI-22,939 (for a complete catalog, see Attachment 8). The fieldwork resulted in the recovery of 115 artifacts: 83 from the surface collection and 32 from the units.

PHOTOGRAPH 50
CA-SDI-22,939 North Wall of Unit 1

PHOTOGRAPH 51
CA-SDI-22,939 Plan View of Unit 2

PHOTOGRAPH 52
CA-SDI-22,939 East Wall of Unit 3

PHOTOGRAPH 53
CA-SDI-22,939 North Wall of Unit 4

Table 18 Summary of Artifacts Recovered from CA-SDI-22,939				
Location	Debitage	FLA	Ground Stone	Total
Surface Collection				
Count	76	6	1	83
Weight (g)	4,581.2	9081.0	816.5	14,478.7
Unit 1				
Count	1	--	--	1
Weight (g)	16.1	--	--	16.1
Unit 2				
Count	5	--	--	5
Weight (g)	298.9	--	--	298.9
Unit 3				
Count	12	1	--	13
Weight (g)	33.4	1,010.0	--	1,043.4
Unit 4				
Count	13	--	--	13
Weight (g)	223.6	--	--	223.6
Total Count	**107**	**7**	**1**	**115**
Total Weight (g)	**5,153.2**	**10,091.0**	**816.50**	**16,060.70**
FLA = flaked lithic artifact; g = gram				

The artifacts collected from the surface included 76 pieces of debitage, five cores, one flaked stone tool, and a single ground stone artifact (Photograph 54). The flaked stone tool is a retouched flake modified along the distal end and a portion of one lateral margin. This tool was made from a porphyritic metavolcanic core reduction flake and measures 5.8 cm long, 5.5 cm wide, and 2.6 cm high. The retouched flake weighs 203.4 grams. The mano is a granitic cobble with two ground faces, both of which show light to moderate amounts of wear. The mano measures 12.5 cm long, 11.4 cm wide, 5.3 cm thick, and weighs 816.5 grams.

Of the 59 surface artifacts identified in April of 2020, five (recorded as three pieces of debitage, one core, and one scraper) were not relocated. An additional item previously identified as a retouched flake may not have been relocated; the artifact collected from those approximate coordinates was found to be an unmodified flake (catalog number 71).

The distribution of surface artifacts and unit locations are shown on Confidential Attachment 14. The discovery of the additional surface materials from the prior investigations at the site expanded the site boundaries approximately 10 meters to the southeast and approximately two meters to the northeast adjacent to the northwest-southeast-trending dirt road. The revised site CA-SDI-22,939 dimensions are 120 meters by 30 meters.

Most of the subsurface materials were recovered from Units 3 and 4; Unit 1 contained a single piece of debitage and Unit 2 contained five pieces of debitage, all of which were recovered from the upper 10 cm of the units. Unit 3 contained 12 pieces of debitage and one core in the upper 20 cm. Unit 3 contained 12 pieces of debitage and a flaked lithic artifact (core) in the upper 20 cm. Unit 4 contained 13 pieces of debitage in the upper approximately 23 cm.

PHOTOGRAPH 54
Tools from CA-SDI-22,939

6.3.7.1 Discussion

The excavations at CA-SDI-22,939 revealed a sparse subsurface cultural deposit that extends to a depth of approximately 22 cm before encountering the subsoils. This shallow deposit and the absence of midden soils indicates that the site was occupied for a limited period. The artifacts from CA-SDI-22,939 are mainly primary or secondary debitage resulting from reduction of locally available fine-grained and porphyritic metavolcanic cobbles. Based on Binford's model for foraging and gathering societies, CA-SDI-22,939 can be classified as a location where mainly initial tool manufacture activities occurred, with the mano and the retouched flake providing evidence of limited plant processing activities.

6.3.8 CA-SDI-22,936/ NDY0618-01 (Phase 4 – Caliente Avenue South of Central Avenue and Portions of Planning Areas 1, 2, and 7)

RECON archaeologists Nathanial Yerka, Diana Murray, Charles Musser, and Carmen Zepeda-Herman accompanied by Native American monitors Keadan Graham, Dennis "Bobo" Linton, and Lawrence Douglas of Red Tail Environmental collected all artifacts from the surface and excavated eight 1-by-1-meter units and two STPs at CA-SDI-22,936 between August 28 and September 1, 2023 (Confidential Attachment 15). Additional surface artifacts beyond the original artifacts recorded during the survey were identified and collected, resulting in expanding the site boundary from 47 to 84 meters northwest/southeast and downslope southeast, northwest, and northeast along a steep dirt road. The updated area equals 2,856 square meters. Two of the proposed unit locations were moved to less steep areas. Units 1, 2, 4, and 6 were excavated down to 30 cm; Unit 3 was excavated down to 10 cm; Units 5 and 8 were excavated to 40 cm and a portion of Unit 7 was excavated to 50 cm. STP 1 was located downslope at the north end of the site while STP 2 was located downslope at the far eastern end of the site; both STPs were excavated to a depth of 20 cm and yielded no subsurface recovery. The purpose of the STPs was to determine if the site boundary extended past the mesa top.

Unit 1 was located within an old dirt road at the south end of a finger ridge extending from the mesa top, on the west end of CA-SDI-22,936 and contained two soil strata (Photograph 55). Stratum I extended to 20 cm BGS and consisted of brown silty, sandy loam (7.5 YR 5/3) with 6 cm minus cobbles. Stratum II extended to the last level at 30 cm BGS and consisted of decomposed granite subsoil. Seven flaked lithic artifacts and 21 pieces of debitage were recovered from Unit 1.

Unit 2 was located at the terminus of an old dirt road on mesa top of the finger ridge near the northwest corner of CA-SDI-22,936 and contained two soil strata (Photograph 56). Stratum I extended down to 30 cm BGS and consisted of very dark-brown silty, sandy loam (10 YR 3/3) with 8 cm minus cobbles. Statum II consisted of pale brown decomposing granite subsoil. Stratum II was noted to undulate along the floor of Unit 2, starting in the northern half at 20 cm BGS while starting at 30 cm BGS in the southern half. Eight flaked lithic artifacts and 90 pieces of debitage were recovered from Unit 2.

PHOTOGRAPH 55
CA-SDI-22,936 North Wall of Unit 1

PHOTOGRAPH 56
CA-SDI-22,936 North Wall of Unit 2

Unit 3 was located at the edge of an old dirt road near the southeastern corner of CA-SDI-22,936 and contained one soil stratum (Photograph 57). The upper-level Stratum I described soils consistent with previously noted units were absent in Unit 3 and were likely removed by grading or have eroded away due to slope wash. Stratum II consisted of dark reddish grey clayey decomposing granite subsoil (5 YR 4/2) and extended down to 10 cm BGS. The excavation of Unit 3 was terminated because decomposing granite subsoil was encountered at 10 cm BGS. Four pieces of debitage were recovered from Unit 3.

Unit 4 was located on the mesa top of the finger ridge in the center of the site and contained one soil stratum (Photograph 58). Stratum I extend down to 28 cm BGS and consisted of brown sandy silt (7.5 YR 4/2) with 5 cm minus cobbles throughout; the greatest number of cobbles were noted in the 10 to 20 cm level. The excavation of Unit 4 was terminated because decomposing granite subsoil was encountered throughout the unit. Eight flaked lithic artifacts and 93 pieces of debitage were recovered from Unit 4.

Unit 5 was located on the mesa top of the finger ridge in the center of the site and contained three soil strata (Photograph 59). Stratum 1a extended down to 10 cm BGS and consisted of dark-brown sandy silty loam (7.5YR 3/2) with 4 cm minus cobbles. Stratum 1b extended from 10 to 30 cm BGS in the southern half of Unit 5 and to 40 cm BGS in the northern half of Unit 5 and consisted of dark-brown sandy silt (7.5YR 3/2) with 8 cm minus cobbles. Stratum II was encountered in several pockets starting at 30 cm BGS in the southern half of Unit 5 and continued down to 40 cm BGS and consisted of decomposing granite subsoil. Six flaked lithic artifacts and 132 pieces of debitage were recovered.

Unit 6 was located on the mesa top of the finger ridge situated between Units 2 and 5 surrounded by California sagebrush and contained one soil stratum (Photograph 60). Stratum I extended down to 17 cm BGS in the southwest corner, 30 cm BGS in the southeast corner, and 23 to 27 cm BGS along the northern wall. Stratum I consisted of black sandy loamy silt (10YR 2/1) with 15 cm minus cobbles. Decomposing granite subsoil was first encountered along the floor of Unit 6 within the 20 to 30 cm level. One mano, 11 flaked lithic artifacts, and 60 pieces of debitage were recovered from Unit 6.

Unit 7 was located on the mesa top of the finger ridge near an old dirt road on the eastern portion of the site and contained two soil strata (Photograph 61). Stratum I extended down between 30 to 34 cm BGS throughout most of the unit floor with a small pocket extending down to 50 cm BGS within the west half. Stratum I consisted of pale silty sand (7.5YR 6/3). Stratum II consisted of decomposing granite subsoil and was encountered at 30 cm BGS on the east and south sides of the unit floor and at 40 cm BGS in the northwest corner. A small portion along the west side was excavated down to 50 cm BGS. Unit 7 was the most prolific with 18 flaked lithic artifacts and 143 pieces of debitage.

Unit 8 was located on the mesa top of the finger ridge on the eastern portion of the site surrounded by California sagebrush and contained two soil strata (Photograph 62). Stratum I extended down to 30 cm BGS throughout most of the unit with the central portion extending down to 40 cm BGS.

PHOTOGRAPH 57
CA-SDI-22,936 Plan View of Unit 3

PHOTOGRAPH 58
CA-SDI-22,936 North Wall of Unit 4

PHOTOGRAPH 59
CA-SDI-22,936 East Wall of Unit 5

PHOTOGRAPH 60
CA-SDI-22,936 North Wall of Unit 6

PHOTOGRAPH 61
CA-SDI-22,936 North Wall of Unit 7

PHOTOGRAPH 62
CA-SDI-22,936 Plan View of Unit 8

Stratum I consisted of pale brown silty sand with some loam (7.5YR 6/3) along with a secondary deposit of clay dumped in the northwest corner. The clay deposit was noted to be 10 cm thick. The upper most portion of this stratum evidenced disturbance as noted by the presence of consumer bottle glass fragments, carpeting, stucco, red brick, assorted metal, roofing tile, ceramics, and plastics. Stratum II was revealed at 30 cm BGS in the northwest, northeast, and southern half of the unit and consisted of decomposing granite subsoil with clay. Recovery included two flaked lithic artifacts, 62 pieces of debitage, and 1 historic spent bullet.

STP 1 was located at the northern end of the site within a saddle and was excavated down to 13 cm BGS. The soil consisted of disturbed subsoil (Photograph 63). No artifacts were recovered. STP 2 was located downslope at the far east end of the site down to 36 cm BGS. The soil consisted of intact decomposing granite subsoil with increasing 20 cm minus cobbles at approximately 30 cm BGS. The STP was terminated at 36 cm BGS because of the rock floor (Photograph 64). One flake was recovered from the 0 to 20 cm level.

Table 19 provides the summary of the materials recovered during the evaluation program at CA-SDI-22,936 (for a complete catalog, see Attachment 9). A total 1,769 artifacts comprised of 1,594 debitage pieces, 173 flaked lithic artifacts, 1 mano, and 8.38 grams of marine shellfish remains were recovered from the surface collection, test units, and STPs; 1,101 artifacts were collected from the surface and 668 were collected from the units and STPs. Unit 3 was essentially sterile with only 4 pieces of debitage recovered from the 0 to 10 cm level while STP 1 yielded no recovery. The majority of the artifacts were recovered from Units 4, 5, and 7, located within a less disturbed portion of the site, centrally located on the finger ridge extension from the mesa top. The less disturbed portion is surrounded on three sides by an old dirt road along with construction rubble and modern rubbish that has been illegally dumped on the north side of the site. The less disturbed portion measures 35 meters northwest/southeast by 19 meters northeast/southwest totaling approximately 665 square meters.

Table 20 shows the artifact assemblage by depth. The majority of the artifacts from the units were found within the upper 30 cm of the less disturbed portion of the site (665 square meters).

PHOTOGRAPH 63
CA-SDI-22,936 Plan View of STP 1

PHOTOGRAPH 64
CA-SDI-22,936 North Wall of STP 2

Table 19 Summary of Artifacts Recovered from CA-SDI-22,936							
Collection Type	Debitage	FLA	Groundstone	Historic	Shell	Total	% of Total Artifacts[1]
1 x 1 Meter Units							
Unit 1							
Count	21	7				28	
Weight (g)	348.99	556.36				905.35	
Unit 2							
Count	90	8				98	
Weight (g)	1,820.12	881.04			2.75	2,703.91	
Unit 3							
Count	4					4	
Weight (g)	40.2					40.2	
Unit 4							
Count	93	8				101	
Weight (g)	1,005.89	521.27				1,527.16	
Unit 5							
Count	132	6				138	
Weight (g)	2,338.25	472.84				2,811.09	
Unit 6							
Count	60	11	1			72	
Weight (g)	1,441.63	1,971.94	648.36			4,061.93	
Unit 7							
Count	143	18				161	
Weight (g)	1,377.83	3,952.70				5,330.53	
Unit 8							
Count	62	2		1		65	
Weight (g)	367.63	532.95		8.38		908.96	
1 x 1 Meter Units Count	**605**	**60**	**1**	**1**		**667**	**37.70**
1 x 1 Meters Units Weight (g)	**8,740.54**	**8,889.10**	**648.36**	**8.38**	**2.75**	**18,289.13**	**36.88**
Shovel Test Pit							
Shovel Test Pit 2							
Count	1					1	
Weight (g)	2.43					2.43	
Shovel Test Pit Count	**1**					**1**	**0.06**
Shovel Test Pit Weight (g)	**2.43**					**2.43**	**0.00**
Surface Collection							
Count	988	113				1101	62.24
Weight (g)	13,948.85	17,349.09				31,297.94	63.11
Total Count	**1,594**	**173**	**1**	**1**		**1,769**	**100.00**
Total Weight (g)	**22,691.82**	**26,238.19**	**648.36**	**8.38**	**2.75**	**49,589.50**	**100.00**

FLA = flaked lithic artifacts; % = percent; g = grams
[1] Percent of total artifacts by subsurface collection versus surface collection to subsurface density.

Table 20 Unit Artifact Assemblage from CA-SDI-22,936 by Depth						
Depth (cm)	Debitage	FLA	Groundstone	Historic	Shell	Total
0-10						
Count	266	18	1	1		286
Weight (g)	2,960.21	2,315.26	648.36	8.38	2.75	5,934.96
0-20						
Count	1					1
Weight (g)	2.43					2.43
10-20						
Count	201	24				225
Weight (g)	3,597.54	2,907.47				6,505.01
20-28						
Count	1					1
Weight (g)	5.57					5.57
20-30						
Count	104	11				115
Weight (g)	1,866.62	2,965.38				4,832.00
30-40						
Count	23	5				28
Weight (g)	291.98	418.96				710.94
40-50						
Count	10	2				12
Weight (g)	18.62	282.03				300.65
Total Count	**606**	**60**	**1**	**1**		**668**
Total Weight (g)	**8,742.97**	**8,889.10**	**648.36**	**8.38**	**2.75**	**18,291.56**
cm = centimeters; FLA = flaked lithic artifact; g = grams						

6.3.8.1 Debitage

A total of 356 pieces (22.33 percent by count) were produced during primary reduction, 607 (38.08 percent by count) during secondary reduction, 423 (26.54 percent by count) during tertiary reduction, and 208 (13.05 percent by count) were secondary shatter (Table 21). Debitage was made from locally available material including coarse-grained metavolcanic, coarse-grained porphyritic metavolcanic, conglomerate, fine-grained metavolcanic, fine-grained porphyritic metavolcanic material, granite, microcrystalline quartz (chalcedony), and quartzite.

6.3.8.2 Flaked Lithic Artifacts

A total of 173 flaked lithic tools were recovered from CA-SDI-22,936. Lithic tools recovered included one drill, 72 scrapers, nine modified flakes, 20 utilized flakes, one undifferentiated FLA, four hammerstones, four combination tools, 60 cores, and two assayed cobbles (Photographs 65 through 67). Table 22 lists the artifacts. The majority (n=113) were recovered from the surface collection.

Table 21 Debitage by Type and Material from CA-SDI-22,936											
Flake or Shatter Type	CGM	CGPM	Conglomerate	FGM	FGPM	Granite	MCQ (Chalcedony)	Quartz	Quartzite	Total	% of Total Debitage [1]
Primary Reduction											
Platform creation, cortex removal											
Count	1	44		4	15	1			5	70	
Weight (g)	24.11	3,052.19		97	360.05	4.15			276.44	3,813.94	
Cortex Removal											
Count		68		7	58		1		1	135	
Weight (g)		2,128.55		227.42	2,115.82		13.53		20.53	4,505.85	
Primary Shatter											
Count	1	80	1	7	55	1	1		5	151	
Weight (g)	11.82	3,088.41	85.77	49.8	1,097.23	27.21	4.2		153.91	4,518.35	
Primary Reduction Total											
Count	2	192	1	18	128	2	2		11	356	22.33
Weight (g)	35.93	8,269.15	85.77	374.22	3,573.1	31.36	17.73		450.88	12,838.14	56.58
Secondary Reduction											
Core Reduction, Basic Shaping											
Count	23	219		54	309				2	607	38.08
Weight (g)	225.27	2,660.41		815.81	4,141.33				12.67	7,855.49	34.62
Tertiary Reduction											
Bifacial Thinning Flake											
Count				8	8					16	
Weight (g)				5.82	16.78					22.6	
Finishing, Resharpening											
Count	22	104		60	155		1	1	2	345	
Weight (g)	31.07	107.62		50.86	173.02		0.77	2.11	0.82	366.27	
Trimming											
Count	2	28		7	25					62	
Weight (g)	0.28	52.48		11.03	40.28					104.07	
Tertiary Reduction Total											
Count	24	132		75	188		1	1	2	423	26.54
Weight (g)	31.35	160.1		67.71	230.08		0.77	2.11	0.82	492.94	2.17

Table 21 Debitage by Type and Material from CA-SDI-22,936											
Flake or Shatter Type	CGM	CGPM	Conglomerate	FGM	FGPM	Granite	MCQ (Chalcedony)	Quartz	Quartzite	Total	% of Total Debitage[1]
Secondary Shatter											
Count	12	71		35	90					208	13.05
Weight (g)	37.72	476		89.91	901.62					1,505.25	6.63
Total Count	**61**	**614**	**1**	**182**	**715**	**2**	**3**	**1**	**15**	**1,594**	**100.00**
Total Weight (g)	**330.27**	**11,565.66**	**85.77**	**1,347.65**	**8,846.13**	**31.36**	**18.50**	**2.11**	**464.37**	**22,691.82**	**100.00**

CGM = coarse-grained metavolcanic ; CGPM = coarse-grained porphyritic metavolcanic; FGM = fine-grained metavolcanic; FGPM = fine-grained porphyritic metavolcanic; MCQ = microcrystalline quartz; % = percent; g = grams

[1] Percent of total debitage with more than 20 pieces reported by count and weight to determine what type of lithic activity was occurring at each site.

PHOTOGRAPH 65
Domed Scrapers from CA-SDI-22,936

PHOTOGRAPH 66
Various Sidescrapers from CA-SDI-22,936

PHOTOGRAPH 67
Utilized Flakes and Drill from CA-SDI-22,936

Table 22
Flaked Lithic Artifact Recovered from CA-SDI-22,936

FLA	CGM	CGPM	FGM	FGPM	Granite	Quartzite	Total
Assayed Cobble							
Count		1				1	2
Weight (g)		406.4				1,158.18	1,564.58
Combination							
Count				4			4
Weight (g)				1,804.61			1,804.61
Convergent Sidescraper							
Count		1	1	2			4
Weight (g)		49.23	57.93	306.16			413.32
Convex Sidescraper							
Count		4	6	14			24
Weight (g)		355.96	193.03	1,442.72			1,991.71
Convex-Concave Sidescraper							
Count			1				1
Weight (g)			55.91				55.91
Core							
Count	1	31	6	15	1	6	60
Weight (g)	14.83	6,387.13	493.89	3,840.59	198.44	768.05	11,702.93
Domed Sidescraper							
Count	1	2	2	14			19
Weight (g)	39.88	288.93	150.14	2,454.27			2,933.22
Double Straight Sidescraper							
Count				2			2
Weight (g)				129.78			129.78
Double-Convergent Sidescraper							
Count				2			2
Weight (g)				335.75			335.75
Double-Convex Sidescraper							
Count				2			2
Weight (g)				174.66			174.66
Drill							
Count			1				1
Weight (g)			2.79				2.79
Endscraper							
Count		1		3			4
Weight (g)		81.09		146.74			227.83
Hammerstone							
Count		4					4
Weight (g)		2,986.69					2,986.69
Modified flake							
Count		5	2	2			9
Weight (g)		284.72	80.97	38.92			404.61
Multiple Scraper							
Count				1			1
Weight (g)				90.45			90.45

Table 22
Flaked Lithic Artifact Recovered from CA-SDI-22,936

FLA	CGM	CGPM	FGM	FGPM	Granite	Quartzite	Total
Notched Sidescraper							
Count		1					1
Weight (g)		7.21					7.21
Sidescraper							
Count				1			1
Weight (g)				78.74			78.74
Straight Sidescraper							
Count		1	1	6			8
Weight (g)		170.27	71.96	449.16			691.39
Straight-Concave Sidescraper							
Count			1				1
Weight (g)			16.08				16.08
Unclassified scraper							
Count		1		1			2
Weight (g)		165.62		7.81			173.43
Undifferentiated FLA							
Count		1					1
Weight (g)		96.83					96.83
Utilized Flake							
Count		4	3	12		1	20
Weight (g)		76.25	24.03	247.57		7.82	355.67
Total Count	**2**	**57**	**24**	**81**	**1**	**8**	**173**
Total Weight (g)	**54.71**	**11,356.33**	**1,146.73**	**11,547.93**	**198.44**	**1,934.05**	**26,238.19**

FLA = flaked lithic artifact; CGM = coarse-grained metavolcanic; CGPM = coarse-grained porphyritic metavolcanic; FGM = fine-grained metavolcanic; FGPM = fine-grained porphyritic metavolcanic; g = grams

a. Assayed Cobbles

Two assayed cobbles were recovered from CA-SDI-22,936: one from the surface collection and one during the excavation. Artifact 22936-9053 is a whole coarse-grained porphyritic metavolcanic assayed cobble that weighs 406.4 grams, measures 108 by 68 by 44 mm, and is mostly spall with the exception of one cortical depression with dorsal scarring. Artifact 22936-9166 was recovered from the 20 to 30 cm level of Unit 7. The tool is made of quartzite rock, weighs 1158.18 grams, measures 124 by 112 by 64 mm, and exhibits one large flake removed.

b. Cores

A total of 60 cores were recovered from CA-SDI-22,936: 45 from the surface collection and 15 during the excavation. The following are descriptions of five representative samples from the surface collection. Artifact 22936-9013 is a whole quartzite core weighing 30.31 grams and exhibiting at least five flakes removed and is expended. Artifact 22936-9016 is a whole coarse-grained porphyritic metavolcanic core that weighs 123.38 grams and exhibits multidirectional removal with at least four flakes removed, minimal cortex remaining and some dorsal scarring across one plane. Artifact 22936-9038 is a whole coarse-grained porphyritic metavolcanic core weighing 1143.82 grams and exhibits multidirectional removal with one large primary flake last removed from proximal pole. Artifact 22936-9103 is a whole quartzite core weighing 93.73 grams, exhibits multidirectional removal with minimal cortex remaining, and could have possibly been in process as a scraper but edge angles became either too steep or inverted. Artifact 22936-9107 is a whole fine-grained porphyritic metavolcanic rather large core weighing 1960.11 grams and exhibiting three large removals with dorsal scarring on the remaining cortex.

The following are descriptions of three representative cores from the excavation. Artifact 22936-9140 was recovered from the 0 to 10 cm level of Unit 5 and is a whole fine-grained metavolcanic core weighing 11.69 grams based on a heavily patinated small nodule that exhibits dorsal scarring on all margins and has two flakes removed. Artifact 22936-9165 was recovered from the 20 to 30 cm level of Unit 7 and is a whole quartzite core that weighs 113.75 grams and exhibits three flakes removed unifacially. Artifact 22936-9171 was recovered from the 10 to 20 cm level of Unit 8 is a whole fine-grained porphyritic metavolcanic core weighing 1960.11 grams and exhibits the multidirectional removal of at least 12 flakes.

c. Combination Tools

Four combination tools were recovered from CA-SDI-22,936: three from the surface collection and one during the excavation. Artifact 22936-9017 is a broken fine-grained porphyritic metavolcanic hammer/convex sidescraper that was first used as a hammer where the cortical portion exhibits broad-placed battering and the convex margin exhibits unifacial retouch with micro step damage. The tool weighs 141.01 grams and measures 88 by 37 by 31 mm. Artifact 22936-9018 is a whole fine-grained porphyritic metavolcanic hammer/core. The tool started as a hammerstone evidenced by battering along the prominent cortical ridge. Four flakes were subsequently removed. The tool weighs 134.34 grams and measures 75 by 49 by 39 mm. Artifact 22936-9036 is a whole fine-grained porphyritic metavolcanic hammer/core. The tool started as a hammerstone evidenced by 250 mm of battering along the prominent cortical ridge. Two flakes were subsequently removed. The tool weighs 1,440.85 grams and measures 122 by 103 by 85 mm. Artifact 22936-9162 is the one combination tool (straight sidescraper/hammerstone) recovered during the excavation of the 20 to 30 cm level of Unit 7. The hefty base tool exhibits one straight edge with unifacial edge work and step fractures, cortex on perceived bottom and top (dorsal and ventral dependent on which tool was being used), and 90 mm of dorsal scarring or crushing along the prominent margin. The combination tool weighs 388.41 grams and measures 95 by 79 by 44 mm.

d. Drill

Artifact 22936-9132 was recovered from the 0 to 10 cm level of Unit 4 and is a broken fine-grained metavolcanic drill that weighs 2.79 grams and measures 31 by 11 by 7 mm (see Photograph 67).

e. Hammerstones

Three hammerstones were recovered from the surface collection of CA-SDI-22,936. Artifact 22936-9000 is a whole coarse-grained porphyritic metavolcanic hammer that exhibits 330 mm of battering along one margin that includes a 41 mm cortical portion. The hammer weighs 641.41 grams and measures 101 by 84 by 67 mm. Artifact 22936-9002 is a broken coarse-grained porphyritic metavolcanic hammer that exhibits 110 mm of cortical battering, weighs 591.37 grams, and measures 131 by 107 by 51 mm. Artifact 22936-9037 is a fragmented large coarse-grained porphyritic metavolcanic hammer that exhibits one 38 mm area of cortical battering and one 27 mm area of cortical battering. The hammer weighs 1,189.68 grams and measures 126 by 119 by 19 mm. Artifact 22936-9156 is the only hammerstone recovered subsurface from the 10 to 20 cm level of Unit 7. The whole hammer is made of coarse-grained porphyritic metavolcanic rock, weighs 564.23 grams, measures 97 by 82 by 64 mm, and exhibits battering on all margins with two areas where battering led to shattering.

f. Modified Flakes

Nine modified flakes were recovered from CA-SDI-22,936: three from the surface collection and six during the excavation; the three following examples are from the surface collection. Artifact 22936-9014 is a whole fine-grained metavolcanic cortex removal flake recovered during the surface collection, weighs 35.75 grams, measures 53 by 33 by 20 mm, and exhibits areas of retouch, mostly in the area of the non-extant platform. Artifact 22936-9066 is a whole coarse-grained porphyritic metavolcanic secondary reduction flake, weighs 48.11 grams, measures 77 by 29 by 20 mm, and exhibits 111 mm of unifacial retouch and microstepping due to use-wear damage. Artifact 22936-9083 is a whole fine-grained porphyritic metavolcanic secondary reduction flake, weighs 34.91 grams, measures 46 by 44 by 11 mm, and exhibits at least five flakes removed with no use-wear or damage evident. A representative sample artifact from the excavation of CA-SDI-22,936 is Artifact 22936-9124, a whole coarse-grained porphyritic metavolcanic secondary reduction flake recovered from the 10 to 20 cm level of Unit 2, weighing 22.17 grams, measuring 52 by 35 by 13 mm, and exhibiting prep work along the length of the 64 mm margin as well as some nibbling.

g. Scrapers

A scraper is flake based with unifacial flaking of at least one edge. Damage may include nibbling, microstepping, and some limited crushing. Edge angles are generally less than 60 degrees but may go higher in some situations. Seventy-two scrapers were recovered from CA-SDI-22,936: 40 from the surface collection and 32 during the excavation; the nine following examples are from the surface collection. Artifact 22936-9003 is a whole fine-grained porphyritic metavolcanic domed sidescraper recovered during the surface collection, weighs 452.05 grams, and measures 69 by 68 by 68 mm. The scraper exhibits a steep 90-degree edge and has cortex down to the plane bottom. The remaining edges are over 90 degrees as the plane bottom has a smaller diameter than the girth of the mid-section. These edges are unifacially prepped and exhibit microstepping. Artifact 22936-9021 is a whole fine-grained porphyritic metavolcanic endscraper based on a core reduction flake, that weighs 39.22 grams, measures 56 by 44 by 17 mm, and exhibits bifacial retouch with microstepping (see Photograph 66). Artifact 22936-9024 is a whole fine-grained metavolcanic convergent sidescraper based on a cortex removal flake, that weighs 57.93 grams, measures 52 by 48 by 22 mm, and exhibits two adjacent edges where one of the lateral and distal edges converge, and the opposite edge exhibits unifacial retouch with microstep damage. Artifact 22936-9029 is a whole fine-grained porphyritic metavolcanic multiple sidescraper that weighs 90.45 grams, measures 63 by 51 by 27 mm, and exhibits two opposite and inverse unifacially prepped edges each exhibiting microstep damage. Artifact 22936-9044 is a whole fine-grained porphyritic metavolcanic double-convex sidescraper that is based on a secondary reduction flake that weighs 115.21 grams and measures 70 by 59 by 27 mm.

The scraper exhibits four flakes removed along one edge, with one flake removed at distal edge showing no prep or use-wear, where the other edge has two flakes removed with a small area of unifacial prep work; overall, the scraper does not exhibit much use-wear or microstepping. Artifact 22936-9085 is a whole fine-grained metavolcanic straight-concave sidescraper that is based on a secondary reduction flake that weighs 16.08 grams and measures 44 by 26 by 15 mm. The tool exhibits 40 mm of unifacial prep work with microstep damage and has a slight concave distal end that is adjacent to the straight used edge. Artifact 22936-9090 is a whole coarse-grained porphyritic metavolcanic notched sidescraper based upon a secondary reduction flake that weighs 7.21 grams and measures 31 by 29 by 7 mm (see Photograph 66). The tool exhibits one notch that is unifacially prepped into one side with some use-wear exhibited on the outside of the notch along the margin; this notch measures 12 mm wide and 5 mm deep. Artifact 22936-9097 is a whole fine-grained metavolcanic convex sidescraper, weighs 36.41 grams, and measures 59 by 42 by 16 mm (see Photograph 66). The tool exhibits 105 mm of unifacial retouch with microstepping and rounding. Artifact 22936-9115 is a whole fine-grained porphyritic metavolcanic straight sidescraper, weighs 56.46 grams, and measures 59 by 44 by 22 mm. The scraper exhibits 98 mm of prep work along a straight margin that wraps around to the proximal end, a steep edge angle on the use-wear side, nibbling and microstepping, and remnant cortex on the top side of the tool. Artifact 22936-9157 is a whole fine-grained porphyritic metavolcanic double-convergent sidescraper recovered from the 20-30 cm level of Unit 7 that is based upon a cortex removal flake, weighs 170.12 grams, and measures 97 by 83 by 19 mm. The scraper is semi-ovate in shape, exhibits one semi-straight side with one convex side, 210 mm of use-wear along the entire margin excepting the platform, with step fractures and microstepping.

There are 19 scrapers recovered from CA-SDI-22,936 that do not exhibit damage in the form of use-wear, rounding, nibbling, and microstepping.

h. Undifferentiated Flaked Lithic Artifact

Artifact 22936-9124 was recovered from the 0 to 10 cm level of Unit 4. The flaked lithic artifact is made of coarse-grained porphyritic metavolcanic rock and do not fit any tool definition. The artifact appears to be fractured with a fair amount of battering/crushing along three margins.

i. Utilized Flakes

Twenty utilized flakes were recovered from CA-SDI-22,936: 18 from the surface collection and two during the excavation; the three following examples are from the surface collection. Artifact 22936-9040 is a broken fine-grained porphyritic metavolcanic secondary reduction flake recovered during the surface collection, weighs 8.92 grams, and measures 37 by 26 by 9 mm (see Photograph 67). The fragment exhibits 74 mm of unifacial prep work along two convergent margins with use-wear and microstepping apparent along same area. Artifact 22936-9052 is a whole fine-grained porphyritic metavolcanic flake that exhibits 104 mm use-wear with microstepping and small amounts of unifacial retouch that wraps around one of the poles, and the opposite side exhibits at least three primary points of percussion with microstep dorsal scarring. The flake weighs 38.47 grams, and measures 73 by 32 by 26 mm. Artifact 22936-9067 is a whole coarse-grained porphyritic metavolcanic secondary reduction flake that weighs 13.25 grams, and measures 45 by 29 by 7 mm, and exhibits 76 mm of bifacial retouch and use-wear up to the fracture plane. A representative sample artifact from the excavation of CA-SDI-22,936 is Artifact 22936-9169, a whole fine-grained porphyritic metavolcanic secondary shatter recovered from the 30 to 40 cm level of Unit 7, weighing 47.3 grams, measuring 68 by 32 by 20 mm, and exhibiting 38 mm of use-wear on distal end of margin; however, the hinge fracture shows no use-wear.

6.3.8.3 Ground Stone Artifact

One coarse-grained metavolcanic mano fragment was recovered during the excavation of CA-SDI-22,936. Artifact 22936-3000 was recovered from the 0 to 10 cm level of Unit 6 and is a granitic, whole-facial unshaped mano. It weighs 648.36 grams and measures 93 by 79 by 50 mm and exhibits some pecking and a mild shoulder. This artifact was sent to PaleoResearch for protein residue analysis.

6.3.8.4 Protein Residue Analysis

The protein residue extractions from the one mano (Artifact 22936-3000) and three scrapers (Artifacts 22936-9025, -9026, and -9027) that were sent to PaleoResearch Institute were tested against a number of antisera. The mano was recovered from the 0 to 10 cm level of Unit 6, one scraper (-9025) was recovered from the 20 to 30 cm level of Unit 5, another scraper (-9026) was recovered from the 0 to 10 cm level of Unit 6, and the third scraper (-9027) was recovered from the 40 to 50 cm level of Unit 7. The antisera tested against include 13 mammals (bear, bison, bovine, cat, deer, dog, goat, guinea pig, mouse, pig, rabbit, rat, and sheep), 2 birds (chicken and turkey), 5 fish (American eel, Atlantic croaker, catfish, striped bass, and trout), three plants (acorn, agave, and yucca), and one insect (grasshopper) (Attachment 1b).

The analysis produced one positive result for antiserum of yucca on a domed scraper (Artifact 22936-9026). *Yucca*, a genus of the Agavaceae family, are native to a variety of habitats, including chaparral, coastal scrub, and grasslands (see Attachment 1b). Mojave yucca (*Yucca schidigera*) and *Yucca whipplei* can be found within maritime chaparral and Diegan coastal sage scrub habitats in coastal San Diego and therefore available during prehistoric times (Oberbauer et al. 2008, Robbins-Wade 1990).

6.3.8.5 Discussion

The excavation revealed that the subsurface cultural deposit at CA-SDI-22,936 was denser than those of the other resources within the project area. The cultural deposit extended down to the 30 cm level on average. Both Units 5 and 7 extended down to 40 cm BGS while a small portion of Unit 7 extended down to the 50 cm level, with recovery of 10 pieces of debitage and two flaked lithic artifacts. This was likely due to rodent activity. The lack of midden-like soils suggests that the site was not occupied over a long period of time, and therefore is not a habitation site. Based on Binford's model for foraging and gathering societies, CA-SDI-22,936 can be classified as a location where specialized activities took place. When the recommended test for classification as a habitation site proposed by Gallegos et al. (1998) is applied, CA-SDI-22,936 qualifies as a habitation site based on the subsurface density of 100 artifacts per square meter within the centrally located and less disturbed portion of the site where over 100 artifacts were recovered from each unit for Units 4, 5, and 7. CA-SDI-22,936, however, lacks a diversity of artifact types, faunal remains (shellfish, bone fragments), and/or hearth features included in the classification of a habitation site; therefore, this resource appears to be more than just an artifact scatter because of the subsurface density of artifacts but not a habitation because of the lack of artifact variety, features, and faunal remains as defined by Gallegos et al. 1998.

Recovered artifacts suggest that the site likely functioned as a primary- and second-stage tool manufacturing location, as evidenced by 60 cores, one assayed cobble, and 60.41 percent of debitage representing primary reduction (22 percent) and core reduction (secondary reduction, 38 percent). The presence of the mano and 2.75 grams of marine shellfish remains suggests that more than flaking activities took place, perhaps plants were being processed and shellfish was being consumed. The high number and variety of scrapers suggest that manufacturing of scrapers may have been the focus of the lithic activities at CA-SDI-22,936 rather than concentrating on cobble testing and procurement opportunities. The 19 scrapers that do not exhibit use-wear damage represent 26 percent of the total number of scrapers and strengthen the idea of the site functioning as a scraper manufacturing location.

In addition to the production of scrapers among other tools, some type of processing was transpiring at the site as evidenced by the presence of use-wear in the majority of scrapers. Past studies have demonstrated that scrapers with a slight polish, striations and scratches were used for scraping dry hides during the finishing process of making hides pliable and thinning them out, if needed (Cahen et al. 1979). Other studies indicate that scraper planes were used for planing wood tools and flat boards (Aschmann 1967), for roughening grinding stones (Kowta 1969), and for pulping agave and yucca (Kowta 1969, Rogers 1939, Salls 1985). During pulping, scrapers were used to separate agave or yucca fibers from the pulp to prepare cordage (Kowta 1969). Scrapers used on wood surfaces exhibit a slight polish and edge frosting (Salls 1985). The results of the protein residue analysis suggest that some scrapers were used for processing yucca.

None of the artifacts that were recovered are indicative of a particular time period. Cores, assayed cobbles, modified flakes, utilized flakes, hammerstones, drills, scrapers, manos, and debitage are found in both Archaic and Late Prehistoric periods. No charcoal or bone was recovered to provide an opportunity to date the site. The shellfish remains, recovered from the 0 to 10 cm level in Unit 2, were too fragmentary and not associated with a feature and therefore not suitable for radiocarbon dating. The results of the protein residue may indicate what was being processed with the mano and scrapers sent for analysis.

6.3.9 Summary Discussion of Excavated Resources

The inter-site comparison of the flaked lithic artifacts from the seven sites excavated by RECON/Tierra (CA-SDI-22,448, CA-SDI-10,206, CA-SDI-23,232, CA-SDI-23,234, CA-SDI-23,235, CA-SDI-22,936, and CA-SDI-22,939) and the five sites (CA-SDI-10,524, CA-SDI-10,180, CA-SDI-16,705, CA-SDI-17,518, and CA-SDI-17,520) excavated by ECORP that produced more than 90 flaked lithic artifacts reveals the similarities and differences among these 12 sites (Table 23).

Table 23 Totals of Flaked Lithic Artifacts from Twelve Sites												
Site	Assayed	Biface/ Preform	Core	Hammer-stone	Scraper***	Modified Flake	Utilized Flake	Combination*	Chopper	Drill	Mano	Total
CA_SDI-10,206	1		17	2	1	1			1			23
CA-SDI-23,232			9	1	3	2			1			16
CA-SDI-23,234			6	1	2	1					1	11
CA-SDI-23,235 (E&W)			13	10	5	4						32
CA-SDI-22,448			7			1	1				1	10
CA-SDI-22,936	2		60	6	72	9	20	2		1	1	173**
CA-SDI-22,939			5			1					4	7**
RECON Totals	**3**		**117**	**20**	**83**	**19**	**21**	**2**	**2**	**1**	**1**	**272**
CA-SDI-17,518		1	25		7	33					1	67
CA-SDI-17,520			12		10	26						48
CA-SDI-10,524			18	7	13	20					3	61
CA-SDI-16,705			7	2	4	27	1			1		42
CA-SDI-10,810			29	5	3	34						71
ECORP Totals		**1**	**91**	**14**	**37**	**140**	**1**			**1**	**4**	**289**

*Hammerstone and scraper
**Undifferentiated flaked lithic artifact not counted in total
*** include other tools for ECORP sites

All sites contained cores, scrapers, and modified flakes, with the exception of CA-SDI-22,448 and CA-SDI-22,939. Both these sites yielded less recovery than other sites with only 10 flaked lithic artifacts and 23 pieces of debitage from CA-SDI-22,448 and 7 flaked lithic artifacts and 107 pieces of debitage from CA-SDI-22,939. Lithic testing and procurement activities at these sites appear not to be as intense as at the other sites. Another similarity among the sites is that eight of the 12 sites included hammerstones, consistent with lithic testing activities. Similar with the results of the ECORP excavated sites (Mason and Bouscaren 2005), the RECON sites yielded unifacially flaked tools and numerous cores but lacked bifacially flaked tools strengthening the premise that nodule core reduction, as defined by Flenniken (2002), was the focused activity along the southern rim edge of Otay Mesa. Flenniken (2002) states that the goal of nodule core reduction was to manufacture large flake blanks to make steep-edged unifacial artifacts (also classified as core/cobble tool by Schroth and Flenniken 1997). This core reduction technology produced large flakes for flake tools such as scrapers and knives and cores for core-based scrapers, choppers, and hammerstones.

This is consistent with the findings in the *Management Plan for Otay Mesa Prehistoric Resources*, which reveal there was an emphasis on core/cobble tools and cores on the mesa top sites versus those sites on low terraces in Otay Valley which produced more bifaces and flake-based tools (Gallegos et al. 1998). Based on Schroth and Flenniken's (1997) study, the cores on Otay Mesa were purposefully used for production of large flakes and cores needed for core/cobble tools rather than for production of small flakes for flake-based tools as evidenced by the low frequency of small-flaked tools. Overall, six of the RECON sites represent the use of Otay Mesa as temporary locations for testing and procurement of lithic materials, rather than more sedentary habitation sites. These sites yielded at least twice as many (if not more) cores as scrapers and modified flakes, implying that flake blanks may have been taken elsewhere for finished tool production and/or finished flaked lithic artifacts were taken off-site to be used at a different location. The abundance of the surface cobble material on Otay Mesa permitted this quick and expedient technology (nodule core reduction) of producing useful flakes for immediate use or for further reduction with little need to conserve lithic material and use more time-consuming lithic reduction technologies (Stropes 2006). Gallegos et al. (1998) concur with this idea that tools could be discarded easily because of the readily available raw materials on Otay Mesa for making new tools.

The other RECON site, CA-SDI-22,936, and the ECORP sites demonstrate a different pattern regarding the ratio of cores to scrapers and modified flakes. Although the flaked lithic artifacts at these sites were produced using nodule core reduction like in the above six sites, CA-SDI-22,936 and the five ECORP sites yielded more scrapers and/or modified flakes than cores. In the artifact assemblage for CA-SDI-22,936, scrapers represent 41.62 percent versus 34.68 percent represent cores. When adding modified flakes, the total percentage of scrapers and modified flakes is 46.82 percent. Using the totals for the ECORP sites, a combination of scrapers and modified flakes represent 61.24 percent (scrapers alone representing 12.80 percent), modified flakes being the dominant flaked lithic artifact type recovered from the ECORP sites. The number of cores and flake-based artifacts (scrapers and modified flakes) suggest that production of flaked-based tools was a primary focus rather than the focus of expedient testing and procurement of lithic materials at the six other RECON sites, which yielded high numbers of cores compared to scrapers and modified flakes. An alternative thesis is that the flaked-based tools were kept on-site for processing plants and/or hides at CA-SDI-22,936 and the five ECORP sites while the other six RECON sites may have produced an equivalent number of scrapers and modified flakes but those were transported elsewhere for use or they were pushed to the mesa edges during agricultural activities as noted by numerous of rock piles that may have artifacts mixed in (see Photograph 5 and 13).

Differences among the 12 sites include locational data. CA-SDI-16,705 is at the head of Finger Canyon and extends more centrally across the mesa top versus remaining limited to the rim edge of the mesa as the four other excavated sites (CA-SDI-10,524, CA-SDI-10,180, CA-SDI-17,520, and CA-SDI-22,939) are. In terms of artifact recovery, CA-SDI-17,518, however, did not yield different artifact types. The other five sites (CA-SDI-22,448, CA-SDI-10,206, CA-SDI-23,232, CA-SDI-23,234, and CA-SDI-23,235) are located along the ridgeline south of Moody Canyon and yielded similar numbers of cores, hammerstones, scrapers, and modified flakes.

CA-SDI-22,936 is located on the mesa top of a finger ridge above Dillon Canyon where agricultural disturbances appear absent with site disturbances from a dirt road and some trash dumping. This area of the mesa top was likely too small of an area to be utilized for agricultural activities. The centrally located and less disturbed portion of the site is likely one of the few areas on Otay Mesa that has not had its topsoil removed. As noted above, CA-SDI-22,936 yielded more scrapers than cores, suggesting that not only lithic testing and procurement activities were occurring but also onsite manufacturing of scrapers and plant and/or hide processing. In summary, 11 of the 12 sites are located on the edges of the mesa top and likely represent the remanent less disturbed lithic testing locations that covered the mesa top during prehistoric times as described in *Management Plan for Otay Mesa for Prehistoric Resources* (Gallegos et al. 1998). Past agricultural activities appear not to have affected the mesa edges, the sloping surfaces near the mesa rim, and along the ridgeline above Moody Canyon as intensely as the flatter mesa tops.

RECON also compared debitage recovery from five of the six RECON sites (Table 24). The sparse recovery from CA-SDI-22,448 suggests that this location was not used to the same extent as the other rim sites and therefore was not included in the comparison. CA-SDI-22,939 was also not used because the debitage analysis for this site did not differentiate flake reduction stages like the other five RECON sites (CA-SDI-10,206, CA-SDI-23,232, CA-SDI-23,234, CA-SDI-23,235, and CA-SDI-22,936). Comparison of the debitage reduction phases among these five sites demonstrates that CA-SDI-10,206 focused less on initial stage tool procurement as represented by 11.63 percent primary reduction flakes verses the average of 28.62 percent primary reduction flakes from the other four sites (see Table 24). The latter sites (CA-SDI-23,232, CA-SDI-23,234, CA-SDI-23,235, and CA-SDI-22,936) focused more on initial-stage tool procurement (n=28.62 percent) and core reduction with an average of 39.56 percent secondary reduction flakes. CA-SDI-10,206 also yielded 35.41 percent tertiary reduction flakes versus the average of 14.21 percent tertiary reduction flakes from the other four sites. This trend is not due to the recovery methods of surface collection versus screening using an $^{1}/_{8}$-inch mesh screen during excavations of the six units at CA-SDI-10,206 since the majority of the 337 tertiary reduction flakes were recovered during surface collection with only ten recovered during screening of subsurface soils. This indicates that some level of final tool manufacturing occurred at CA-SDI-10,206. The presence of a metate, small to medium mammal bone fragments, and 0.6 gram of marine shellfish remains also suggests that plant processing and/or food consumption also took place as well as flaking activities.

Table 24 Percent of Debitage Types from Five Sites					
Site	Primary	Secondary	Tertiary	Shatter	Total
CA-SDI-10,206	11.63	38.27	35.41	14.69	100
CA-SDI-23,232	29.11	37.97	13.92	18.99	100
CA-SDI-23,234	34.62	46.15	7.69	11.54	100
CA-SDI-23,235 (E&W)	28.43	36.03	22.3	13.24	100
CA-SDI-22,936	22.33	38.08	26.54	13.05	100

The results from the protein residue analysis yielded one positive reaction to yucca from a domed scraper from CA-SDI_22,936. This adds to the growing data of other protein residue analyses. Three studies within the Otay Mesa Management Plan area submitted tools for protein residue analyses (Gallegos et al. 1998). Samples included bifaces, scrapers, cobble/core tools, one core, one unifacial tool, manos, and metates. Of the 67 samples sent in 21 yielded positive results. Samples were positive for plants including piñon pine, agave, prickly pear, chia, and goosefoot, and animals including deer, rat, rabbit, and dog. The scrapers and the unifacial tool were positive for piñon pine and goosefoot respectively (Gallegos et al. 1998). Additional studies such as protein residue, phytolith, and pollen analyses are needed to identify what the scrapers from CA-SDI-22,936 may have been used for.

7.0 Evaluation and Recommendations

7.1 Regulatory Framework

7.1.1 State

According CEQA, a significant impact is a project effect that may cause a substantial adverse change in the significance of a historical resource. Adverse changes include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings resulting in the impairment of the resource's significance (Section 15064.5.4b, CEQA Guidelines). Mitigation measures are required for adverse effects on significant historical resources (Section 21083.2, CEQA Code).

State criteria are those listed in CEQA and used to determine whether a historic resource qualifies for the CRHR. CEQA also recognizes resources listed in a local historic register or deemed significant in a historical resource survey. Some resources that do not meet these criteria may still be historically significant for the purposes of CEQA.

A resource may be listed in the CRHR if it is significant at the federal, state, or local level under one of more of the four criteria listed below.

1. Are associated with events that have made a significant contribution to the broad patterns of local or regional history and cultural heritage of California or the United States.

2. Are associated with the lives of persons important to the nation or to California's past.

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

4. Has yielded, or may be likely to yield, information important in prehistory or history of the state or nation.

Sections 15064.5 and 21083.2(g) of the CEQA Guidelines define the criteria for determining the significance of historical resources. Archaeological resources are considered "historical resources" for the purposes of CEQA. Most archaeological sites which qualify for the CRHR do so under criterion 4 (i.e., research potential).

Native American involvement in the development review process is addressed by several State and Federal laws. The most notable of these are the California Native American Graves Protection and Repatriation Act (2001) and the federal Native American Graves Protection and Repatriation Act (1990). These acts ensure that Native American human remains and cultural items be treated with respect and dignity. In addition, Senate Bill 18 spells out requirements for local agencies to consult with identified California Native American Tribes during the development process when there is a plan amendment. Assembly Bill 52 establishes a consultation process between lead agencies and California Native American Tribes for proposed projects that have the potential for impacting Tribal Cultural Resources.

Since resources that are not listed or determined eligible for the state or local registers may still be historically significant, their significance shall be determined if they are affected by a project. The significance of a historical resource under criterion 4 rests on its ability to address important research questions.

7.1.2 City

The City has developed a set of guidelines that ensure compliance with state and federal guidelines for the management of historical resources. These guidelines are stated in the City's Historic Resources Regulations (HRR). The HRR has been developed to implement applicable local, state, and federal policies and mandates. Included in these are the City's Progress Guide and General Plan, the CEQA of 1970, and Section 106 of the National Historic Preservation Act of 1966. The intent of the City's guidelines is to ensure consistency in the identification, evaluation, preservation/mitigation, and development of the City's historical resources.

The criteria used by the City Historical Resources Board to determine significance for historical resources reflect a more local perspective of historical, architectural, and cultural importance for inclusion on the City's HRR. The resource can meet one or more of the following criteria:

a) Exemplifies or reflects special elements of the City's, a community's, or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping, or agricultural development.
b) Is identified with persons or events significant in local, state, or national history.
c) Embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of indigenous materials or crafts.

d) Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman.

e) Is listed or has been determined eligible by National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the State Historical Preservation Office for listing on the State Register of Historic Resources.

f) Is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest, or aesthetic value, or which represent one or more architectural periods or styles in the history and development of the city.

Under the City's HRG for the Land Development Code there are historical resource types which are typically considered insignificant for planning purposes. These are isolates, sparse lithic scatters, isolated bedrock milling features, shellfish processing stations, and sites and buildings less than 45 years old (City of San Diego 2001:13).

In the City Guidelines, an archaeological site is defined as at least three associated artifacts/ecofacts within a 50-square-meter area, or a single feature and be at least 45 years old (City of San Diego 2001:). It should be pointed out that this site definition differs from the Otay Mesa Management Plan for Prehistoric Resources discussed below. Unless demonstrated otherwise, archaeological sites with only a surface component are not typically considered significant. The determination of an archaeological site's significance depends on a number of factors specific to that site, including size, type, integrity; presence or absence of a subsurface deposit, soil stratigraphy, features, diagnostic artifacts, or datable material; artifact/ecofact density; assemblage complexity; cultural affiliation; association with an important person or event; and ethnic importance. According to the City's Guidelines, all archaeological sites are considered potentially significant (City of San Diego 2001).

Significance for historic buildings, structures, objects, and landscapes is based on age, location, context, integrity, and association with an important person or event.

For a site to have ethnic significance, it must be associated with a burial or cemetery; religious, social, or traditional activities of a discrete ethnic population; an important person or event as defined within a discrete ethnic population; or the mythology of a discrete ethnic population (City of San Diego 2001).

7.1.3 Historical Resources Guidelines

The City HRG addresses the identification, and mitigation of impacts to historical resources in the city. These HRG ensure compliance with local, state, and federal regulations for the management of historical resources. The term "historical resources" in the guidelines includes both prehistoric and historic sites. These guidelines are stated in the City's HRR. The HRR has been developed to implement applicable local, state, and federal policies and mandates. According to the City Guidelines, historical resources include all properties (historic, archaeological, landscapes, traditional, etc.) that are eligible or potentially eligible for the National Register of Historic Places. It also covers those same properties that may be significant under state and local laws and registration programs, such as the CRHR and the City HRR. Historical resources, in the City HRR context, includes "site improvements, buildings, structures, historic districts, signs, features (including significant trees or other landscaping), places, place names, interior elements and fixtures designated in conjunction with a property, or other objects historical, archaeological, scientific, educational, cultural, architectural, aesthetic, or traditional significance to the citizens of the city." These include structures, buildings, archaeological sites, objects, districts, or landscapes having physical evidence of human activities. These are usually over 45 years old, and they may have been altered or still be in using (City of San Diego 2001).

The City HRR (Chapter 14, Article 3, Division 2 of the San Diego Municipal Code) authorizes promulgation and publishing of the HRG. These guidelines are incorporated in the San Diego Municipal Code Land Development Code. These guidelines set up a Development Review Process to review projects in the city. This process is composed of two aspects: the implementation of the HRR and the determination of impacts and mitigation under CEQA.

Compliance with the HRR begins with the determination of the need for a site-specific survey for a project. Section 143.0212(b) of the HRR requires that historical resource sensitivity maps be used to identify properties in the city that have a probability of containing archaeological sites. These maps are based on records maintained by the South Coastal Information Center of the California Historic Resources Information System and site-specific information in the City's files. If records show an archaeological site existing on or immediately adjacent to the subject property, the City would require a survey. In general, archaeological surveys are required when the proposed development is on previously undeveloped parcel, if a known resource is recorded on the parcel or within a one-mile radius, or if a qualified consultant or knowledgeable City staff member recommends it. Surveys would also be required if more than five years have elapsed since the last survey and the potential for resources exists. A historic property (built environment) survey would be required on a project if the properties are over 45 years old and appear to have integrity of setting, design, materials, workmanship, feeling, and association.

The HRR says that if a property-specific survey is required, it should be conducted according to criteria in the HRG (Section 143.0212[d]). Using the survey results and other available applicable information, the City determines whether a historical resource exists within a project area, whether it is eligible for designation as a designated historical resource, and precisely where it is located. The resources eligibility is determined in accordance with Chapter 12, Article 3, Division 2 of the Land Development Code.

Resource eligibility is determined through a historical resource evaluation process. This process is applied when, as a result of the survey, new resources are identified, if previously recorded resources relocated during the survey have not already been evaluated, or if previously recorded resources were not relocated but there is the likelihood the resource still exists. If an existing resource has been evaluated for CEQA or National Register of Historic Places significance within the last five years, it does not need to be reevaluated unless there has been a change in the conditions that contributed to its determination of significance or eligibility.

Additionally, per the City Municipal Code §143.0210—Historical Resources Regulations, "the purpose of these regulations is to protect, preserve, and where damaged, restore the historical resources of San Diego, which include historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties.

These regulations are intended to assure that development occurs in a manner that protects the overall quality of historical resources." The applicant is required to obtain a Site Development Permit prior to any development when the project APE contains a historical resource, per §143.0210 and §143.0211. Additionally, per §143.0253 (a)(1), development may be permitted in areas containing important archaeological sites with up to 25 percent encroachment into the site and any encroachment into important archaeological sites shall include measures to mitigate for partial loss of the resource as a condition of approval (§143.0253 (b)). Per §143.0253 (a)(2), an additional encroachment of up to 15 percent, for a total encroachment of 40 percent, into important archaeological sites may be permitted for essential public service projects, that are sited, designed, and constructed to minimize adverse impacts to important archaeological sites, where it has been demonstrated that there is no feasible, less environmentally damaging location or alternative. Essential public service projects include publicly owned parks and recreation facilities, fire and police stations, publicly owned libraries, public schools, major streets and primary arterials, and public utility systems.

Per §143.0260 (a), if a proposed development cannot to the maximum extent feasible comply with this division (maximum of 25 percent encroachment into important archaeological sites), a deviation may be considered in accordance with decision Process Four. A Site Development Permit in accordance with Process Four is required for a development that deviates from the historical resources regulations (§126.0502(d)). A recommendation of the Historical Resources Board prior to a planning commission decision on the Site Development Permit is required when a historical resource is present (§126.0504(b)) as well as a supplemental finding for historical resources deviation for important archaeological sites and traditional cultural properties per §126.0505(g)(1) where no feasible measures, including a less environmentally damaging location or alternative, that can further minimize the potential adverse effects on historical resources; (2) where the proposed deviation is the minimum necessary to afford relief and accommodate the development and all feasible measures to mitigate for the loss of any portion the resource have been provided by the applicant; and (3) where special circumstances or conditions apart from the existence of historical resources, applying to the land that are peculiar to the land and are not of the applicant's making, whereby the strict application of the provisions of the historical resources regulations would deprive the property owner of reasonable use of the land.

7.1.4 Otay Mesa Community Plan Final Environmental Impact Report

The OMCP was evaluated in a Program EIR (No. 30330/304032; SCH No. 2004051076) that was certified by the City Council on March 11, 2014, via Resolution No. R-308809. The OMCP FEIR (City of San Diego 2013) concluded that the project would result in significant and unmitigated environmental impacts to air quality, greenhouse gas emissions, noise, traffic/circulation, and utilities. The following issue areas were determined to be significant but mitigated to below a level of significance with mitigation: land use, biological resources, historical resources, hydrology/water quality, geology. and paleontological resources. All other impacts analyzed in the FEIR were determined to be less than significant.

Pertinent to historical resources, the OMCP FEIR (Section 5.5) provides an analysis of historical resource impacts associated with the implementation of the OMCP. Additionally, the OMCP FEIR Land Use Section 5.1 addressed consistency with the City's Historical Resources regulations.

The environmental analysis for the Specific Plan tiers from the OMCP FEIR, which anticipated development of the Specific Plan area in addition to the proposed Beyer Boulevard extension. This report provides information for use in preparing a Subsequent EIR tiering from the historical analysis and Mitigation Framework in the OMCP FEIR. The OMCP FEIR found that impacts to known and unknown historical resources could occur anywhere within the planning area and that grading of original in situ soils could expose buried historical archaeological resources and features including sacred sites and human remains. Additionally, potential impacts to historic buildings, structures and objects were found to be significant. The OMCP FEIR Mitigation Framework pertaining to historical resources is cited below.

OMCP Mitigation Framework

HIST-1 ARCHAEOLOGICAL RESOURCES

Prior to issuance of any permit for a future development project implemented in accordance with the CPU area that could directly affect an archaeological resource, the City shall require the following steps be taken to determine: (1) the presence of archaeological resources and (2) the appropriate mitigation for any significant resources which may be impacted by a development activity. Sites may include, but are not limited to, residential and commercial properties, privies, trash pits, building foundations, and industrial features representing the contributions of people from diverse socio-economic and ethnic backgrounds. Sites may also include resources associated with pre-historic Native American activities.

INITIAL DETERMINATION

The environmental analyst will determine the likelihood for the project site to contain historical resources by reviewing site photographs and existing historic information (e.g., Archaeological Sensitivity Maps, the Archaeological Map Book, and the City's "Historical Inventory of Important Architects, Structures, and People in San Diego") and conducting a site visit. If there is any evidence that the site contains archaeological resources, then a historic evaluation consistent with the City Guidelines would be required. All individuals conducting any phase of the archaeological evaluation program must meet professional qualifications in accordance with the City Guidelines.

STEP 1:

Based on the results of the Initial Determination, if there is evidence that the site contains historical resources, preparation of a historic evaluation is required. The evaluation report would generally include background research, field survey, archaeological testing and analysis. Before actual field reconnaissance would occur, background research is required which includes a record search at the SCIC at San Diego State University and the San Diego Museum of Man. A review of the Sacred Lands File maintained by the NAHC must also be conducted at this time. Information about existing archaeological collections should also be obtained from the San Diego Archaeological Center and any tribal repositories or museums.

In addition to the record searches mentioned above, background information may include, but is not limited to: examining primary sources of historical information (e.g., deeds and wills), secondary sources (e.g., local histories and genealogies), Sanborn Fire Maps, and historic cartographic and aerial photograph sources; reviewing previous archaeological research in similar areas, models that predict site distribution, and archaeological, architectural, and historical site inventory files; and conducting informant interviews. The results of the background information would be included in the evaluation report.

Once the background research is complete, a field reconnaissance must be conducted by individuals whose qualifications meet the standards outlined in the City Guidelines. Consultants are encouraged to employ innovative survey techniques when conducting enhanced reconnaissance, including, but not limited to, remote sensing, ground penetrating radar, and other soil resistivity techniques as determined on a case-by-case basis. Native American participation is required for field surveys when there is likelihood that the project site contains prehistoric archaeological resources or traditional cultural properties. If through background research and field surveys historical resources are identified, then an evaluation of significance must be performed by a qualified archaeologist.

STEP 2:

Once a historical resource has been identified, a significance determination must be made. It should be noted that tribal representatives and/or Native American monitors will be involved in making recommendations regarding the significance of prehistoric archaeological sites during this phase of the process. The testing program may require reevaluation of the proposed project in consultation with the Native American representative which could result in a combination of project redesign to avoid and/or preserve significant resources as well as mitigation in the form of data recovery and monitoring (as recommended by the qualified archaeologist and Native American representative). An archaeological testing program will be required which includes evaluating the horizontal and vertical dimensions of a site, the chronological placement, site function, artifact/ecofact density and variability, presence/absence of subsurface features, and research potential. A thorough discussion of testing methodologies, including surface and subsurface investigations, can be found in the City Guidelines.

The results from the testing program will be evaluated against the Significance Thresholds found in the Guidelines. If significant historical resources are identified within the Area of Potential Effect, the site may be eligible for local designation. At this time, the final testing report must be submitted to Historical Resources Board staff for eligibility determination and possible designation. An agreement on the appropriate form of mitigation is required prior to distribution of a draft environmental document. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and/or assessment will require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation (DPR) site forms and inclusion of results in the survey and/or assessment report. If no significant resources are found, but results of the initial evaluation and testing phase indicate there is still a potential for resources to be present in portions of the property that could not be tested, then mitigation monitoring is required.

STEP 3:

Preferred mitigation for historical resources is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm shall be taken. For archaeological resources where preservation is not an option, a Research Design and Data Recovery Program is required, which includes a Collections Management Plan for review and approval. The data recovery program shall be based on a written research design and is subject to the provisions as outlined in CEQA, Section 21083.2. The data recovery program must be reviewed and approved by the City's Environmental Analyst prior to draft CEQA document distribution. Archaeological monitoring may be required during building demolition and/or construction grading when significant resources are known or suspected to be present on a site, but cannot be recovered prior to grading due to obstructions such as, but not limited to, existing development or dense vegetation.

A Native American observer must be retained for all subsurface investigations, including geotechnical testing and other ground-disturbing activities, whenever a Native American Traditional Cultural Property or any archaeological site located on City property or within the Area of Potential Effect of a City project would be impacted. In the event that human remains are encountered during data recovery and/or a monitoring program, the provisions of Public Resources Code Section 5097 must be followed. These provisions are outlined in the Mitigation Monitoring and Reporting Program (MMRP) included in the environmental document. The Native American monitor shall be consulted during the preparation of the written report, at which time they may express concerns about the treatment of sensitive resources. If the Native American community requests participation of an observer for subsurface investigations on private property, the request shall be honored.

STEP 4:

Archaeological Resource Management reports shall be prepared by qualified professionals as determined by the criteria set forth in Appendix B of the Guidelines. The discipline shall be tailored to the resource under evaluation. In cases involving complex resources, such as traditional cultural properties, rural landscape districts, sites involving a combination of prehistoric and historic archaeology, or historic districts, a team of experts will be necessary for a complete evaluation.

Specific types of historical resource reports are required to document the methods (see Section III of the Guidelines) used to determine the presence or absence of historical resources; to identify the potential impacts from proposed development and evaluate the significance of any identified historical resources; to document the appropriate curation of archaeological collections (e.g., collected materials and the associated records); in the case of potentially significant impacts to historical resources, to recommend appropriate mitigation measures that would reduce the impacts to below a level of significance; and to document the results of mitigation and monitoring programs, if required.

Archaeological Resource Management reports shall be prepared in conformance with the California Office of Historic Preservation "Archaeological Resource Management Reports: Recommended Contents and Format" (see Appendix C of the Guidelines), which will be used by Environmental Analysis Section staff in the review of archaeological resource reports. Consultants must ensure that archaeological resource reports are prepared consistent with this checklist. This requirement will standardize the content and format of all archaeological technical reports submitted to the City. A confidential appendix must be submitted (under separate cover) along with historical resources reports for archaeological sites and traditional cultural properties containing the confidential resource maps and records search information gathered during the background study. In addition, a Collections Management Plan shall be prepared for projects which result in a substantial collection of artifacts and must address the management and research goals of the project and the types of materials to be collected and curated based on a sampling strategy that is acceptable to the City. Appendix D (Historical Resources Report Form) may be used when no archaeological resources were identified within the project boundaries.

STEP 5:

For Archaeological Resources: All cultural materials, including original maps, field notes, non-burial related artifacts, catalog information, and final reports recovered during public and/or private development projects must be permanently curated with an appropriate institution, one which has the proper facilities and staffing for insuring research access to the collections consistent with state and federal standards. In the event that a prehistoric and/or historic deposit is encountered during construction monitoring, a Collections Management Plan would be required in accordance with the project MMRP. The disposition of human remains and burial related artifacts that cannot be avoided or are inadvertently discovered is governed by state (i.e., Assembly Bill 2641 and California Native American Graves Protection and Repatriation Act of 2001) and federal (i.e., Native American Graves Protection and Repatriation Act) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human bones and associated grave goods of Native American origin shall be turned over to the appropriate Native American group for repatriation.

Arrangements for long-term curation must be established between the applicant/property owner and the consultant prior to the initiation of the field reconnaissance, and must be included in the archaeological survey, testing, and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collection (dated May 7, 1993) and, if federal funding is involved, 36 Code of Federal Regulations 79 of the Federal Register. Additional information regarding curation is provided in Section II of the Guidelines.

HIST-2 Historic Buildings, Structures, and Objects

Prior to issuance of any permit for a future development project implemented in accordance with the CPU that would directly or indirectly affect a building/structure in excess of 45 years of age, the City shall determine whether the affected building/structure is historically significant. The evaluation of historic architectural resources shall be based on criteria such as: age, location, context, association with an important person or event, uniqueness, or structural integrity, as indicated in the Historical Resources Guidelines.

Preferred mitigation for historic buildings or structures shall be to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm to the resource shall be taken. Depending upon project impacts, measures shall include, but are not limited to:

a. Preparing a historic resource management plan;

b. Designing new construction which is compatible in size, scale, materials, color and workmanship to the historic resource (such additions, whether portions of existing buildings or additions to historic districts, shall be clearly distinguishable from historic fabric);

c. Repairing damage according to the Secretary of the Interior's Standards for Rehabilitation;

d. Screening incompatible new construction from view through the use of berms, walls, and landscaping in keeping with the historic period and character of the resource; and

e. Shielding historic properties from noise generators through the use of sound walls, double glazing, and air conditioning.

Specific types of historical resource reports, outlined in Section III of the HRG, are required to document the methods to be used to determine the presence or absence of historical resources, to identify potential impacts from a proposed project, and to evaluate the significance of any historical resources identified. If potentially significant impacts to an identified historical resource are identified these reports will also recommend appropriate mitigation to reduce the impacts to below a level of significance. If required, mitigation programs can also be included in the report.

7.2 Evaluation of Resources and Proposed Mitigation

7.2.1 Evaluation of Resources within the Project-level Analysis Area

The sections below identify the results of surveys completed for the portions of the project area that would be subject to ground disturbance as a result of the first and second phases of implementation of the Specific Plan including Planning Areas 8 through 20, the Beyer Boulevard extension, Caliente Avenue extension, project-level primitive trails, habitat restoration areas, and other off-site improvements. Sixty prehistoric resources (of which 15 are considered non-sites and 22 are isolated artifacts) and two historic-era isolated resources are mapped as occurring within the Project Level Analysis Area. The remaining 23 prehistoric resources are evaluated in the following sections. Table 25 summarizes evaluation determinations and recommended mitigation.

Table 25 Management/Mitigation Recommendations							
P Number	Trinomial	Resource Type	Gallegos Site Type	Significance	Specific Plan Location[1]	Impact Significance	Mitigation
37-010206	CA-SDI-10,206	Lithic Scatter	Artifact Scatter	Not significant	Beyer Boulevard	Not significant	None
37-010512	CA-SDI-10,512	Lithic Scatter	Non-site	Not significant	Beyer Boulevard	Not significant	None
37-010515	CA-SDI-10,515	Lithic Scatter	Non-site	Not significant	Beyer Boulevard	Not significant	None
37-037597	CA-SDI-22,448	Lithic Scatter	Non-site	Not significant	Beyer Boulevard	Not significant	None
37-039763	CA-SDI-23,232/ NDY-1-051421	Lithic Scatter	Artifact Scatter	Not significant	Beyer Boulevard	Not significant	None
37-039765	CA-SDI-23,234/ NDY-2-051421	Lithic Scatter	Artifact Scatter	Not significant	Beyer Boulevard	Not significant	None
37-039766	CA-SDI-23,235/ NDY-3-051421	Lithic Scatter	Artifact Scatter	Not significant	Beyer Boulevard	Not significant	None
37-039767	CA-SDI-23,236/ NDY-4-051421	Lithic Scatter	Artifact Scatter	Not significant	Beyer Boulevard	Not significant	None
37-028467	N/A	Isolate	Non-site	Not significant	Beyer Boulevard	Not significant	None
37-037600	N/A	Isolate	Non-site	Not significant	Beyer Boulevard	Not significant	None
37-037601	N/A	Isolate	Non-site	Not significant	Beyer Boulevard	Not significant	None
37-038925	N/A	Isolate	Non-site	Not significant	Beyer Boulevard	Not significant	None
37-038926	N/A	Telephone Pole	Non-site	Not significant	Beyer Boulevard	Not significant	None
37-039762	N/A	Isolate	Non-site	Not significant	Beyer Boulevard	Not significant	None
37-008642	CA-SDI-8,642	Lithic Scatter	Artifact Scatter	Not significant	Central Avenue	Not significant	None
37-026735	CA-SDI-17,523	Lithic Scatter	Artifact Scatter	Not significant	Planning Areas 15 through 18	Not significant	None
37-026736	CA-SDI-17,524	Lithic Scatter	Artifact Scatter	Not significant	Planning Areas 15 through 18	Not significant	None
37-038485	N/A	Isolate	Non-site	Not significant	Planning Areas 15 through 18	Not significant	None
37-038486	N/A	Isolate	Non-site	Not significant	Planning Areas 15 through 18	Not significant	None
37-038487	N/A	Isolate	Non-site	Not significant	Planning Areas 15 through 18	Not significant	None
37-038488	N/A	Isolate	Non-site	Not significant	Planning Areas 15 through 18	Not significant	None
37-010516	CA-SDI-10,516	Lithic Scatter	Non-site	Not significant	Planning Areas 8 through 10	Not significant	None
37-010522	CA-SDI-10,522	Lithic Scatter	Artifact Scatter	Not significant	Planning Areas 8 through 10	Not significant	None
37-010523	CA-SDI-10,523	Lithic Scatter	Non-site	Not significant	Planning Areas 8 through 10	Not significant	None
37-010524	CA-SDI-10,524	Lithic Scatter	Artifact Scatter	Not significant	Planning Areas 8 through 10	Not significant	None
37-025213	CA-SDI-16,705	Lithic Scatter	Artifact Scatter	Not significant	Planning Areas 8 through 10	Not significant	None
37-037532	N/A	Lithic Scatter	Non-site	Not significant	Planning Areas 8 through 10	Not significant	None
37-037533	N/A	Lithic Scatter	Non-site	Not significant	Planning Areas 8 through 10	Not significant	None
37-010514	CA-SDI-10,514	Lithic Scatter	Non-site	Not significant	Planning Areas 11 through 14, Beyer Boulevard	Not significant	None

Table 25 Management/Mitigation Recommendations							
P Number	Trinomial	Resource Type	Gallegos Site Type	Significance	Specific Plan Location[1]	Impact Significance	Mitigation
37-039055/ NDY0430-02	CA-SDI-22,939	Lithic Scatter	Artifact scatter	Not significant	Planning Areas 11 through 14	Not significant	None
37-037535	N/A	Isolate	Non-site	Not significant	Planning Areas 11 through 14	Not significant	None
37-037536	N/A	Isolate	Non-site	Not significant	Planning Areas 11 through 14	Not significant	None
37-037568	N/A	Isolate	Non-site	Not significant	Planning Areas 11 through 14	Not significant	None
37-037569	N/A	Isolate	Non-site	Not significant	Planning Areas 11 through 14	Not significant	None
37-037570	N/A	Isolate	Non-site	Not significant	Planning Areas 11 through 14	Not significant	None
37-037571	N/A	Isolate	Non-site	Not significant	Planning Areas 11 through 14	Not significant	None
37-037572	N/A	Isolate	Non-site	Not significant	Planning Areas 11 through 14	Not significant	None
37-037573	N/A	Isolate	Non-site	Not significant	Planning Areas 11 through 14	Not significant	None
37-037574	N/A	Isolate	Non-site	Not significant	Planning Areas 11 through 14	Not significant	None
37-037575	N/A	Isolate	Non-site	Not significant	Planning Areas 11 through 14	Not significant	None
37-010810	CA-SDI-10,810	Lithic Scatter	Artifact Scatter	Not significant	Vernal Pool Restoration, Planning Areas 15 through 18	Not significant	None
37-025214	CA-SDI-16,706	Lithic Scatter	Non-site	Not significant	Planning Areas 19 and 20	Not significant	None
37-026729	CA-SDI-17,517	Lithic Scatter	Artifact Scatter	Not significant	Planning Areas 19 and 20	Not significant	None
37-026730	CA-SDI-17,518	Lithic Scatter	Artifact Scatter	Not significant	Planning Areas 19 and 20	Not significant	None
37-026733	CA-SDI-17,521	Lithic Scatter	Artifact Scatter	Not significant	Planning Areas 19 and 20	Not significant	None
37-026734	CA-SDI-17,522	Lithic Scatter	Artifact Scatter	Not significant	Planning Areas 19 and 20	Not significant	None
37-026731	CA-SDI-17,519	Lithic Scatter	Artifact Scatter	Not significant	Vernal Pool Restoration	Not significant	None
37-026732	CA-SDI-17,520	Lithic Scatter	Artifact Scatter	Not significant	Vernal Pool Restoration	Not significant	None
37-038489	N/A	Isolate	Non-site	Not significant	Vernal Pool Restoration	Not significant	None
37-038490	N/A	Lithic Scatter	Non-site	Not significant	Vernal Pool Restoration	Not significant	None
37-038491	N/A	Isolate	Non-site	Not significant	Vernal Pool Restoration	Not significant	None
37-038493	N/A	Lithic Scatter	Non-site	Not significant	Vernal Pool Restoration	Not significant	None
37-038928	N/A	Isolate	Non-site	Not significant	Primitive Trails and Trails Restoration	Not significant	None
37-032101	CA-SDI-20,343	Lithic Scatter	Non-site	Not significant	Cactus Wren Habitat Restoration	Not significant	None
P-37-040924/ NDY-042524-1	N/A	Lithic Scatter	Non-site	Not significant	Cactus Wren Habitat Restoration	Not significant	None
37-010805	CA-SDI-10,805	Lithic Scatter	Non-site	Not significant	Wetland Restoration	Not significant	None
37-008644	CA-SDI-8,644	Lithic Scatter	Artifact Scatter	Not significant	Caliente Avenue	Not significant	None
37-039434/ ISO-618-01	N/A	Isolate	Non-site	Not significant	Caliente Avenue	Not significant	None

Table 25 Management/Mitigation Recommendations							
P Number	Trinomial	Resource Type	Gallegos Site Type	Significance	Specific Plan Location[1]	Impact Significance	Mitigation
37-039052/ NDY0618-01	CA-SDI-22,936	Lithic Scatter	Artifact scatter	Significant	Caliente Avenue	Significant	Data Recovery
37-040875/ NDY-01H		Historic Road	n/a	Not significant	Caliente Avenue	Not significant	None
37-006491	CA-SDI-6941			Not significant	State Route 905	Not significant	None
37-011079	CA-SDI-11,079	Lithic and Shell Scatter	Artifact Scatter	Not significant	Infrastructure Improvement Areas/ Water and Sewer Improvements	Not significant	None

[1]Refer to Figure 7 for Planning Area locations.

7.2.1.1 Planning Areas 8 through 10

Four of the five previously recorded sites within Planning Areas 8 through 10 have been determined not significant historical resources. CA-SDI-10,516, -10,524, and -16,705 were tested by ECORP Consulting, Inc. in 2005. ASM Affiliates tested CA-SDI-10,522 in 1990 and determined that the site was not a significant historical resource. During the current survey RECON archaeologists found 18 artifacts located outside the recorded boundaries of CA-SDI-10,522. If this expanded area was included in the test conducted by ASM is not known; therefore, RECON considers it a new extension of the site. When the recommended test for classification as a site proposed by Gallegos et al.–at least four contiguous 10-by-10-meter units with a minimum of three artifacts per unit (i.e., three artifacts in 100 square meters)–is applied to the material found by the RECON survey the newly found material does not qualify under the definition of an artifact scatter. There are not four contiguous 100-square-meter areas with at least three artifacts in each. Also, the artifacts cover roughly 700 square meters in area. If the average per 100 square meters is applied, the site has only 2.6 artifacts per 100 square meters average. RECON concurs that this site is not significant.

CA-SDI-10,523 has not previously been evaluated. When the recommended test for classification as a site proposed by Gallegos et al. is applied to the material found by the RECON survey at CA-SDI-10,523, it does not qualify under the Gallegos definition of an artifact scatter and is considered a non-site. CA-SDI-10,523 has less than the minimum of 12 artifacts. If the average per 100 square meters is applied, the site has only 1.25 artifacts per 100 square meters average. The original site artifact count of 17 artifacts in approximately 5,240 square meters also does not qualify under the Gallegos definition as it averages 0.32 artifact in a 100 square meter area. In addition, the site is in an area that has been subject to impacts from farming, off-road vehicle activity, and construction of a berm in the eastern portion of the site area all of which have reduced the integrity of the site. RECON recommends no testing or other additional fieldwork for this site.

Two previously unrecorded prehistoric cultural resources were found during the survey: P-37-037533 and P-37-037532. P-37-037533 is a lithic scatter consisting of 10 artifacts. P-37-037533 contains a total of 10 artifacts: four utilized flakes, two cores, one scraping tool, one modified flake, and two flakes in an approximately 475-square-meter area. When the recommended test for classification as a site proposed by Gallegos et al. is applied to P-37-037533, it does not qualify under the definition of an artifact scatter and is considered a non-site. P-37-037533 has only 2.5 artifacts per 100 square meters average, and 6 of the artifacts are concentrated in only one of the four squares. In addition, the site is in an area that has been subject to extensive impacts from farming and off-road vehicle activity, significantly reducing the integrity of the site. RECON recommends no testing or other additional fieldwork. The tools recorded in these two areas have been treated as isolates.

P-37-037532 is a small lithic scatter consisting of one scraping tool, one core, and two flakes. When the Gallegos test is applied to P-37-037532, it also does not qualify as an artifact scatter. P-37-037532 averages only one artifact per 100 square meters, well below the three artifacts per 100 square meters required. It is considered a non-site. In addition, the site is in an area that has been subject to extensive impacts from farming and off-road vehicle activity, significantly reducing the integrity of the site. RECON recommends no testing or other additional fieldwork. The tools recorded in these two areas have been treated as isolates.

7.2.1.2 Planning Areas 11 though 14

The previously recorded cultural resource, CA-SDI-10,514, was not relocated during the current survey. ECORP determined CA-SDI-10,514 was not a significant historical resource.

Eleven previously unrecorded prehistoric cultural resources were found: CA-SDI-22,939/ NDY0430-02, small artifact scatter; and P-37-037535, P-37-037536, and P-37-037568 through P-37-037575, which are isolate tools.

CA-SDI-22,939/NDY0430-02 is a lithic artifact scatter consisting of at least 2 retouched flakes, 1 scraper, 3 cores, and 53 flakes, in an approximately 1,860-square-meter area. If CA-SDI-22,939/NDY0430-02 is analyzed using the test for classification as a site proposed by Gallegos et al. in the Otay Mesa Management Plan, it qualifies as an artifact scatter. The average artifact density for CA-SDI-22,939/NDY0430-02 is 0.03, or three artifacts per 100 square meters.

Because CA-SDI-22,939/NDY0430-02 qualifies as an artifact scatter, Tierra Environmental completed a significance excavation program. The excavation revealed that the cultural deposit is very sparse and extends to a depth of approximately 22 cm BGS. Based on Binford's model for foraging and gathering societies, CA-SDI-22,939 can be classified as a location where initial-stage tool manufacturing and limited plant processing occurred. The site is not significant under criteria 1 and 2 because it is not associated with a significant event or person important to the nation, California's past, or locally. Archaeological sites typically do not qualify as embodying distinctive construction methods; therefore, it does not qualify under criterion 3. Because the low-density artifact recovery and limited represented artifact types do not provide enough data to answer regional research questions, CA-SDI-22,939 does not qualify under criterion 4 as likely to yield information important in prehistory.

Ten isolates were found during the survey of Planning Areas 11 through 14, P-37-037535, P-37-037536, and P-37-037568 through P-37-037575. Cultural isolates are not considered significant historical resources, because they generally lack characteristics that would qualify them for listing on the CRHR. Isolates are also not considered significant cultural resources under City guidelines. Therefore, the 10 isolates found during the survey are not historical resources under the CRHR or the City's inventory requirements. Since the isolates are not significant historical resources, there are no adverse effects to these resources associated with the proposed project.

7.2.1.3 Restoration Areas

a. Trail Restoration Area

One core, P-37-038928, was identified within the project-level portions of the primitive trails and trail restoration area. Cultural isolates are not considered significant historical resources, because they generally lack characteristics that would qualify them for listing on the CRHR. Isolates are also not considered significant cultural resources under City guidelines.

b. Vernal Pool Restoration Area

Four previously recorded sites are recorded within the vernal pool restoration area: CA-SDI-17,519, CA-SDI-17,520, CA-SDI-10,810, and CA-SDI-17,521. All four of these sites were tested in 2004-2005 and determined not to be significant historical resources by ECORP.

A total of four previously unrecorded prehistoric resources were found during the survey of the vernal pool restoration area. Two of these, P-37-038490 and P-37-038493, contain more than one artifact.

P-37-038490 consists of four artifacts. If P-37-038490 is analyzed using the test for classification as a site proposed by Gallegos et al. as discussed above, it does not qualify as an artifact scatter. Because of these conditions, RECON recommends no testing for P-37-038490 as it is a non-site.

P-37-038493 consists of five artifacts. If P-37-038493 is analyzed using the test for classification as a site proposed by Gallegos et al. as discussed above, it does not qualify as an artifact scatter. In addition, P-37-038493 is entirely within a dirt road that is subject to moderate to heavy disturbance. Because of these conditions, RECON recommends no testing for P-37-038493 as it is a non-site.

The remaining two resources–P-37-038489 and P-37-038491–consist of single artifacts. Single isolated artifacts are not historical resources under the CRHR or the City's inventory requirements; thus, P-37-038489 and P-37-038491 are not significant historical resources. Therefore, there are no adverse effects to these resources associated with the proposed project.

c. Otay Tarplant and Native Grassland Restoration Area

No cultural resources were identified within this area.

d. Cactus Wren Restoration Area

CA-SDI-20,343 consists of four artifacts. This site has not been evaluated in the past. If CA-SDI-20,343 is analyzed using the test for classification as a site proposed by Gallegos et al. as discussed above, it does not qualify as an artifact scatter and is considered a non-site. Because of these conditions, RECON recommends no testing for CA-SDI-20,343 as it is a non-site.

P-37-040924/NDY-042524-1 is a lithic scatter consisting of 3 cores, 2 scrapers, 1 retouched flake, 28 flakes, and one piece of angular waste within an approximately 400 square meter area. Based on an analysis of P-37-040924/NDY-042524-1 using the test for classification as a site proposed by Gallegos et al. (1998) in the Otay Mesa Management Plan, this site does not qualify as an artifact scatter and is considered a non-site. P-37-040924/NDY-042524 presents 8 artifacts per 100 square meters concentrated across three contiguous 10-by-10-square-meter units rather than the minimum of four contiguous 10-by-10-square-meter units. Because of this, RECON recommends no testing since P-37-040924/NDY-042524-1 is a non-site.

e. Wetland Restoration Area

The previously recorded cultural resource, CA-SDI-10,811, was not relocated during the current survey. Westec Services determined CA-SDI-10,811 was not a significant historical resource. No new cultural resources were identified within this area.

f. Otay B Potential Restoration Area

Previously recorded cultural resource, CA-SDI-10,524 is mapped in the east half of the Otay B potential restoration area, on the mesa top between two drainages, with the majority of the site within Planning Areas 8 through 10. ECORP determined this site was not a significant historical resource (Mason and Bouscaren 2005).

7.2.1.4 Planning Areas 15 though 20

Eight previously recorded sites are recorded within Planning Areas 15 through 20: CA-SDI-16,706, CA-SDI-17,517, CA-SDI-17,518, CA-SDI-17,521, CA-SDI-17,522, CA-SDI-17,523, CA-SDI-17,524, and CA-SDI-10,810. All eight of these sites were tested in 2004-2005 and seven were determined not to be significant historical resources by ECORP. ECORP determined CA-SDI-17,518 contained sufficient material to address multiple research topics under criterion 4 and recommended a significant historical resource. When the recommended test for classification as a habitation site proposed by Gallegos et al. (1998) is applied, CA-SDI_17,518 does not qualify as a habitation site with a subsurface density of 100 artifacts per square meter; only 20 subsurface artifacts were recovered. Therefore, RECON does not recommend CA-SDI-17,518 eligible for the CRHR under criterion 4 because the low-density artifact recovery and limited represented artifact types do not provide enough data to answer regional research questions.

Four previously unrecorded prehistoric cultural resources were observed during the survey. P-37-038485, P-37-038486, P-37-038487, and P-37-038488 consist of single artifacts. Isolated artifacts are not historical resources under the CRHR or the City's inventory requirements; therefore, the six isolates are not significant historical resources. Because of this, there are no adverse effects to these resources associated with the proposed project.

7.2.1.5 Beyer Boulevard Extension

Eight previously recorded resources fall within the Beyer Boulevard extension: CA-SDI-10,206, CA-SDI-10,512, CA-SDI-10,514, CA-SDI-10,515, CA-SDI-22,448, P-37-028467, P-37-037600, and P-37-037601. Visual inspection indicated CA-SDI-10,206 has sufficient artifact density to be classified as an artifact scatter using the Gallegos definition.

Because CA-SDI-10,206 qualifies as an artifact scatter, RECON completed a significance excavation program. The excavation revealed that the cultural deposit is sparse and extends to a depth of approximately 20 cm BGS. Based on Binford's model for foraging and gathering societies, CA-SDI-10,206 can be classified as a location where specialized activities took place. Recovered artifacts suggest that the site likely functions as a testing and procurement opportunity. The site is not significant under criteria 1 and 2 because it is not associated with a significant event or person important to the nation, California's past, or locally. Archaeological sites typically do not qualify as embodying distinctive construction methods; therefore, it does not qualify under criterion 3. Because the low-density artifact recovery and limited represented artifact types do not provide enough data to answer regional research questions, CA-SDI-10,206 does not qualify under criterion 4 as likely to yield information important in prehistory. The information collected during the testing program has exhausted its data potential.

The portion of CA-SDI-10,512 mapped within the Beyer Boulevard extension is an area of less than 500 square meters at the northwestern edge of the site. CA-SDI-10,512 has not been evaluated for significance. When the recommended test for classification as a site proposed by Gallegos et al. is applied to CA-SDI-10,512, it does not qualify under the definition of an artifact scatter. CA-SDI-10,512 is described as being a low-density scatter approximately 427 by 61 meters (26,047 square meters) with a total of 36 artifacts. This averages out to 0.0013 artifacts per square meter, or 0.13 artifacts per a 10-by-10-meter unit, substantially below the requirement set by Gallegos et al. (1998) for an artifact scatter, and is therefore, considered a non-site. In addition, no cultural material was seen in the recorded location of the site during the survey. Ground visibility averaged 65 percent and if cultural material was present, it would have been visible. This lack of observed artifacts in the surveyed portion of the site is an indication of the very low density of the deposit.

The portion of CA-SDI-10,514 within Planning Areas 11 through 14 was determined not a significant historical resource by ECORP. However, RECON observed that the digital site shape file received from the SCIC for CA-SDI-10,514 did not coincide with the location described in the original site form. The site form describes the site location as being on the flat north half of the mesa top, along the southern edge of Moody Canyon. The area is later described as "flat topography" that engenders deflation and erosion. The SCIC shape file shows the north central portion of the site as extending down the southern slope of Moody Canyon, an area not discussed in the site form and with a slope too steep to be practically utilized except for gathering resources. RECON excluded the portion of the site shown by the SCIC as within the project area based on the evaluation of the site form descriptions. Therefore, a testing program for that portion of CA-SDI-10,514 is not recommended as it is not located within the project boundary based as mapped on the site form. When the recommended test for classification as a site proposed by Gallegos is applied to the portion of the site on the mesa top, CA-SDI-10,514, it does not qualify under the definition of an artifact scatter. CA-SDI-10,514 is described as being approximately 366 by 137 meters, with a total of 60 artifacts observed. The core of the site is described as 12,600 square meters in size (170 by 80 meters). These numbers also include the portion of the site within Planning Areas 11 through 14, as the area of concentration described in the site form cannot be located accurately enough to determine if it was within the area previously tested by ECORP. Even if the core area of the site is used for evaluation, and all 60 artifacts are included, the site does not qualify under the Gallegos criteria. If the average per 100 square meters is applied, the core site has only 0.47 artifacts per 100 square meters average, much less than the minimum of 12 artifacts needed to be designated a site. In addition, the site is in an area that has been subject to impacts from farming and off-road vehicle activity, which has significantly reduced the integrity of the site. RECON recommends no testing or other additional fieldwork for this site as the resource is considered a non-site.

A small portion of the western edge of CA-SDI-10,515 falls within the Beyer Boulevard extension. The entire site is described as consisting of 4 artifacts in an area of 2,800 square meters. When the recommended test for classification as a site proposed by Gallegos et al. is applied to CA-SDI-10,515, it falls well below the minimum number of artifacts need to meet the definition of an artifact scatter, with a density of 0.1 artifact per 100 square meters and therefore, is considered a non-site.

CA-SDI-22,448 is a sparse lithic scatter of six flakes and two possible rock features. Although the site does not qualify as an artifact scatter using only the artifact density formula (it has less than 12 artifacts in a 400-square-meter area), RECON completed a significance excavation program because of the presence of the two hearth features. The excavation revealed that the cultural deposit was very sparse and extended down to 20 cm. Based on Binford's model for foraging and gathering societies, CA-SDI-22,448 can be classified as a location, where initial- and secondary-stage tool manufacturing and possibly some plant processing occurred. CA-SDI-22,448 is not significant under criteria 1 and 2 because it is not associated with a significant event or person important to the nation, California's past or locally, Archaeological sites typically do not qualify as embodying distinctive construction methods and therefore does not qualify under criterion 3. Because the low-density artifact recovery and limited artifact types does not provide enough data to answer regional research questions, CA-SDI-22,448 does not qualify under criterion 4 as likely to yield information important in prehistory.

P-37-028467, P-37-037600, and P-37-037601 are isolates. Isolated artifacts are not historical resources under the CRHR or the City's inventory requirements. Therefore, P-37-028467, P-37-037600, and P-37-037601 are not significant historical resources, and there will be no adverse effects to these resources associated with the proposed project.

Six previously unrecorded prehistoric cultural resources and one historic-era resource (P-37-038926/BBA-ISO-2) were observed within the Beyer Boulevard extension during the survey: CA-SDI-23,232/NDY-1-051421, CA-SDI-23,234/NDY-2-051421, CA-SDI-23,235/NDY-3-051421, CA-SDI-23,236/NDY-4-051421, P-37-039762/ISO-1-051421, and P-37-038925/BBA-ISO-1. The latter one and the historic-era resource are considered isolates. Because isolates are not historical resources under the CRHR or the City's inventory requirements, there are no adverse effects to these resources associated with the proposed project.

Because CA-SDI-23,232/NDY-1-051421 qualifies as an artifact scatter, RECON completed a significance excavation program. The excavation revealed that the cultural deposit is very sparse and extends to a depth of approximately 10 cm BGS. Based on Binford's model for foraging and gathering societies, CA-SDI-23,232 can be classified as a location where primary- and second- stage tool manufacturing occurred. CA-SDI-23,232/NDY-1-051421 is not significant under criteria 1 and 2 because it is not associated with a significant event or person important to the nation, California's past, or locally. Archaeological sites typically do not qualify as embodying distinctive construction methods; therefore, it does not qualify under criterion 3. Because the low-density artifact recovery and limited represented artifact types do not provide enough data to answer regional research questions, CA-SDI-23,232 does not qualify under criterion 4 as likely to yield information important in prehistory.

Because CA-SDI-23,234/NDY-2-051421 qualifies as an artifact scatter, RECON completed a significance excavation program. The excavation revealed that the subsurface cultural deposit was sparse and extended down to the 10 cm level. Based on Binford's model for foraging and gathering societies, CA-SDI-23,234 can be classified as a location where initial- and secondary-stage tool manufacturing and limited plant processing occurred. CA-SDI-23,234/NDY-2-051421 is not significant under criteria 1 and 2 because it is not associated with a significant event or person important to the nation, California's past, or locally. Archaeological sites typically do not qualify as embodying distinctive construction methods; therefore, it does not qualify under criterion 3. Because the low-density artifact recovery and limited represented artifact types do not provide enough data to answer regional research questions, CA-SDI-23,234 does not qualify under criterion 4 as likely to yield information important in prehistory.

Because CA-SDI-23,235/NDY-3-051421 (Loci E and W/CA-SDI-23,236) qualifies as an artifact scatter, RECON completed a significance excavation program. The excavation revealed that the cultural deposit is very sparse and extends to a depth of approximately 10 cm BGS. Based on Binford's model for foraging and gathering societies, CA-SDI-23,235 (Loci E and W) can be classified as a location where primary- and secondary-stage tool manufacturing and limited plant and/or hide processing occurred. CA-SDI-23,235/NDY-3-051421 is not significant under criteria 1 and 2 because it is not associated with a significant event or person important to the nation, California's past, or locally. Archaeological sites typically do not qualify as embodying distinctive construction methods; therefore, it does not qualify under criterion 3. Because the limited represented artifact types do not provide enough data to answer regional research questions, CA-SDI-23,235 does not qualify under criterion 4 as likely to yield information important in prehistory.

P-37-039762/ISO-1-051421 consists of one scraper and four flakes within an approximately 49-square-meter area. If P-37-039762/ISO-1-051421 is analyzed using the test for classification as a site proposed by Gallegos et al. (1998), it does not qualify as an artifact scatter because it does not have four contiguous 10-meter-squares with at least three artifacts each. Therefore, P-37-0397692/ISO-1-051421 is categorized as a non-site. RECON recommends no testing or other additional fieldwork.

7.2.1.6 Central Avenue

One previously recorded site falls within the proposed Central Avenue and no new sites were recorded during the current surveys. CA-SDI-8,642 was recorded in 1980 and was described as a low-density lithic scatter consisting of two cores and eight flakes, in an area measuring 40 by 25 meters. It was tested by ASM Affiliates in 1989 and determined not a significant historical resource.

7.2.1.7 Caliente Avenue North of Central Avenue

The northern portion of the Caliente Avenue extension was evaluated as part of the FEIR for the Candlelight project. No significant cultural resources were identified; however, to reduce the potential for significant adverse effects on previously unidentified archaeological resources, mitigation measures including construction monitoring were incorporated into the proposed project (City of San Diego 2018).

One previously recorded site is within the Caliente Avenue extension. CA-SDI-8,644 was recorded in 1980 as a large lithic scatter with several scrapers, eight cores, three hammerstones, five undiagnostic tools, flakes, and debitage. Disturbance from plowing was noted. The site was tested by ASM in 1989 with the excavation of two test units and determined not a significant historical resource. No further work is recommended for this resource.

7.2.1.8 Phase 4 – Caliente Avenue South of Central Avenue and Portions of Planning Areas 1, 2, and 7

Three previously unrecorded prehistoric cultural resources were observed during the survey: P-37-040875/NDY-01H, CA-SDI-22,936/NDY0618-01, and P-37-039434/ISO-0618-01. P-37-039434/ISO-0618-01 is an isolated core. Single isolated artifacts are not historical resources under the CRHR or the City's inventory requirements; P-37-039434/ ISO-0618-01 is not a significant historical resource. Therefore, there is no adverse effect to this resource.

P-37-040875/NDY-01H is not eligible for listing on the CRHR or the City's Historical Resources Register. The road portion is not associated with a significant event or method of construction and does not have the potential to yield information important to the prehistory or history of the local area, California, or the nation. The road portion is currently a segment of an off-highway vehicle trail that Google Maps currently refers to as Dillon Trail (adjacent to Dillon Canyon), presumably after Henry Dillon, a local landowner from the 1890s (Schoenherr 2014); no other information could be located on Henry Dillon identifying him as a person significant in local, state, or national history. Although the road aided access to one of the community's agricultural areas, it does not exemplify or reflect a special element of agricultural development. The dirt road is not a part of a grouping of finite resources which are distinguishable or geographically definable to an improved area of special character, historical interest, or aesthetic value, or represent an architectural period or style in the history and development of the city.

Because CA-SDI-22,936/NDY0618-01 qualifies as an artifact scatter, RECON completed a significance excavation program. The excavation revealed that the cultural deposit has an intact and dense central subsurface component that extends to a depth of approximately 30-40 cm BGS. The lack of midden-like soils suggests that the site was not occupied over a long period of time, and therefore is not a habitation site. Based on Binford's (1982) model for foraging and gathering societies, CA-SDI-22,936 can be classified as a location, intense primary- and second-stage tool manufacturing took place as well as possible plant or hide processing activities. When the recommended test for classification as a habitation site proposed by Gallegos et al. (1998) is applied, CA-SDI-22,936 qualifies as a habitation site based on the subsurface density of 100 artifacts per square meter within the centrally located and less disturbed portion of the site where over 100 artifacts were recovered from each unit for Units 4, 5, and 7. CA-SDI-22,936, however, lacks a diversity of artifact types, faunal remains (shellfish, bone fragments), and/or hearth features included in the classification of a habitation site; therefore, this resource appears to be more than just an artifact scatter because of the subsurface density of artifacts but not a habitation because of the lack of artifact variety, features, and faunal remains as defined by Gallegos et al. 1998.

CA-SDI-22,936/NDY0618-01 is not significant under CEQA criteria 1 or 2 or City criterion b because it is not associated with a significant event or person important to the nation, California's past, or locally. Archaeological sites typically do not qualify as embodying distinctive construction methods; therefore, the site does not qualify under CEQA criterion 3 or City criteria c or d. The resource is not listed nor determined eligible for listing on the National Register of Historic Places or the CRHR;

therefore, it does not quality under City criterion e. The resource does not qualify under City criterion f as a finite group of resources related to one another in a clearly distinguishable way or is geographically definable area which represents one or more architectural periods or styles. Because of the high-density subsurface component and minimal disturbance within the central portion of the site area—the core area, this resource could provide enough data to answer regional research questions and exemplifies or reflects special elements of Otay Mesa archaeological resources; therefore, CA-SDI-22,936 is recommended significant under CEQA criterion 4 and City criterion a as likely to yield information important in prehistory and as reflecting a special element of the Otay Mesa archaeological resources.

CA-SDI-22,936 retains the integrity required to qualify for CEQA criterion 4 and City criterion a. The seven aspects of integrity used in evaluating the resource are described below.

1. Location: The resource is in the place where it was developed. Intact deposits were noted within a 665-square-meter central area of the resource. The core area of the resource has excellent integrity of location.

2. Design: The resource reflects the intentional decisions regarding spatial arrangement by prehistoric people to test cobbles, manufacture flaked lithic tools, and process plants and/or hides. Surface and subsurface artifacts retain depositional integrity and reflect past expedient tool manufacturing activities. Artifacts noted along the old dirt road have likely been moved somewhat from their original locations during the grading of the road. The resource retains integrity of design because this area of the mesa did not receive the typical tilling and plowing associated with the other archaeological sites on Otay Mesa.

3. Setting: The physical environment of the resource and its surrounding area reveal some level of disturbance as noted by the trash dumped to the north and the dirt road. Although the vicinity of the CA-SDI-22,936 has been used for agricultural fields during historic times, the resource has fair integrity of setting because it retains its open space setting with the closest development being the high school, located approximately 350 meters to the north.

4. Materials: The physical elements of the deposited artifacts in a particular pattern have not been disturbed within the central 665 square-meter core area. No artifacts have been removed since their deposition nor have any modern materials been introduced into the core area. The resource has good integrity of materials. The nodule core reduction technology (the method of hammering, flaking, etc. to produce debitage and tools) is evident in the artifact assemblages.

5. Workmanship. The artifacts collected from the surface and subsurface during excavation are representative of the craft used by the prehistoric people that occupied CA-SDI-22,936; therefore, the resource has excellent integrity of workmanship.

6. Feeling. The presence of the artifacts and intact soils in the core area evoke the historic sense of the past place when prehistoric people were testing cobbles and manufacturing tools. The area is still relatively free of modern development and has an open viewshed of the mesa. The resource has good integrity of feeling.

7. Association. The *in situ* artifacts directly link CA-SDI-22,936 to prehistoric people of the past.

CA-SDI-22,936 reflects the special element of the archaeological development of Otay Mesa. Much of the mesa has been plowed and tilled for use as agricultural fields. The location of the resource is one of the few areas remaining that did not receive this type of treatment. The resource has the potential to answer questions related to chronology, site function, and subsistence.

Chronology

The artifact assemblage for CA-SDI-22,936 lacks diagnostic artifacts. The cores, scrapers, drills, hammerstones, modified flakes, utilized flakes, and manos are present during both Archaic and Late Prehistoric periods. No suitable sample for radiocarbon dating was recovered during the evaluation phase. However, additional excavation could result in recovering a suitable sample. Following are research questions regarding chronology that may be answered with additional excavation and special studies:

- *Research Question 1:* Does the lack of ceramics suggest that Otay Mesa was not used during the Late Prehistoric Period as much as the Archaic Period?
- *Research Question 2:* Is there data available to suggest that the site was occupied over a period of time or was it only occupied briefly?

Site Function

CA-SDI-22,936 is an artifact scatter that can be classified as a location where intense primary- and second-stage tool manufacturing took place and where the manufacture of scrapers appears to have been the focus of flaking activities not just the cobble testing and procurement activities that was occurring at the other resources excavated. Following are research questions regarding site function that may be answered with additional excavation and special studies:

- *Research Question 3:* Was the availability of surface cobbles for prospective tools what attracted prehistoric groups or were additional resources available on the mesa top?

The high number of scrapers, the mano, and the 2.75 grams of marine shellfish remains suggest that more than flaking activities took place, perhaps plants were being processed and shellfish was being consumed. Protein and/or phytolith residue analyses may shed light on what the utilized flakes and scrapers were being used for. Following are research questions that may be answered with additional excavation and recovery of samples for protein and/or phytolith residue analyses:

- *Research Question 4:* Were the scrapers used for cutting plants or processing hides, or for making cordage? Will other scrapers also have a positive reaction to yucca?

Based on the protein residue analysis, yucca was being processed, likely to separate fibers from the pulp for cordage similar to the Kowta (1969) study of the Sayles Complex in Cajon Pass.

The vegetation communities in the vicinity of CA-SDI_22,936 include disturbed maritime succulent scrub, maritime succulent scrub and Diegan coastal sage scrub (RECON 2024). In the project area, the maritime succulent scrub is dominated by California sagebrush, jojoba, and San Diego bur-sage. Growth and flowering are concentrated in the spring. Diegan coastal Sage scrub is dominated

California sagebrush, California buckwheat, California encelia, and laurel sumac. During prehistoric times, sagebrush leaves were collected between August and December. The leaves were boiled for tea used to aid regular menstrual cycles and comfortable childbirth and recovery. The leaves were also chewed fresh or dried and smoked to relieve colds. The tea was also used to relieve gallbladder pain. An infusion of leaves and stems was used to cure infections in animals. The sagebrush leaves could be burned to remove spiders from inside the house (Bean and Saubel 1972, Robbins-Wade 1990, Wilken 2012). Joboba seeds were gathered between May and July and were used as a non-staple food, either eaten fresh or ground into a powder and made into a coffee-like drink. Joboba oil obtained from ground seeds was used for skin, hair, and eye problems. Green seeds chewed to relieve sore throat. A strong infusion was drunk by pregnant women to ensure easy delivery (Bean and Saubel 1972, Cornett 2002). Jojoba nuts were roasted, and the extracted oil was used to heal stubborn sores (Wilken 2012). Shoots from California buckwheat were harvested between February and May while seeds were collected between June and September. The seeds were eaten raw or ground into meal. Roots and leaves were boiled to cure headaches and stomach ailments. Flowers were boiled for eye wash or mashed and used as a salve for sores (Bean and Saubel 1972, Hedges 1967, Robbins-Wade 1990). Buckwheat tea was also used to calm the nerves and to aid sleep (Wilken 2012). Laurel sumac leaves were harvested between May and July and used for tea during pregnancy (Robbins-Wade 1990). The following are research questions regarding site function that may be answered with additional excavation and special studies.

- *Research Question 5:* Does the area reflect seasonality of use? Was the site visited during spring and summer to collect or process any of the above plants?

<u>Subsistence</u>

The current excavation results provided limited data regarding subsistence. Following are research questions regarding subsistence that may be answered with additional excavation and special studies.

- *Research Question 6:* Does the lack of faunal remains corroborate the site function and indicate a brief period of occupation? Are there faunal remains in other parts of the resource?

- *Research Question 7:* Is there data to suggest what was, if anything, being processed at the site? Will additional protein or phytolith residue analysis on flaked lithic artifacts or ground stone tools provide more information regarding site function or subsistence processing or gathering?

<u>Impacts</u>

The entire boundary of CA-SDI-22,936 (100 percent of the site) is within project impacts. Because more than 25 percent of an important archaeological site would be impacted, a deviation would need to be considered in accordance with decision Process Four per §143.0260 (a) and §126.0502(d) of the SDMC. A recommendation from the Historical Resources Board would be required, as well as a supplemental finding pursuant to SDMC §126.0505(f) and §126.0505(g) as detailed below.

§126.0505(f) Supplemental Findings--Important Archaeological Sites and Traditional Cultural Properties

A Site Development Permit required in accordance with Section 143.0210 because of potential impacts to an important archaeological site or traditional cultural property may be approved or conditionally approved only if the decision maker makes the following supplemental findings in addition to the findings in Section 126.0505(a):

(1) The site is physically suitable for the design and siting of the proposed development, the development will result in minimum disturbance to historical resources, and measures to fully mitigate for any disturbance have been provided by the applicant; and

(2) All feasible measures to protect and preserve the special character or the special historical, architectural, archaeological, or cultural value of the resource have been provided by the applicant.

§126.0505 (g) Supplemental Findings--Historical Resources Deviation for Important Archaeological Sites and Traditional Cultural Properties

A Site Development Permit required in accordance with Section 143.0210 because of potential impacts to an important archaeological site or traditional cultural property where a deviation is requested in accordance with Section 143.0260 may be approved or conditionally approved only if the decision maker makes the following supplemental findings in addition to the findings in Section 126.0505(a): Ch. Art. Div. 12 6 5 11

(1) There are no feasible measures, including a less environmentally damaging location or alternative, that can further minimize the potential adverse effects on historical resources;

(2) The proposed deviation is the minimum necessary to afford relief and accommodate the development and all feasible measures to mitigate for the loss of any portion of the resource have been provided by the applicant; and (3) There are special circumstances or conditions apart from the existence of historical resources, applying to the land that are peculiar to the land and are not of the applicant's making, whereby the strict application of the provisions of the historical resources regulations would deprive the property owner of reasonable use of the land.

7.2.1.9 Emergency Vehicle Access Road

Portions of P-37-040875/NDY-01H were found within the southern EVA road. As noted above, this resource does not qualify as a historical resource.

7.2.1.10 Infrastructure Improvement Areas

A portion of a previously recorded site is within the infrastructure transportation Improvement area along SR-905. CA-SDI-6,941 was recorded in 1979 as a temporary camp with 24 loci. Various loci were tested in 1986 and 1996. The portion within the APE was recommended not significant because of the high degree of disturbance from agricultural activities. Because Locus D was recommended as a significant historical resource, a data recovery program was completed at this locus in 1990 and 1992. No further work is recommended for this resource.

One previously recorded site is within the water and sewer lines improvements along Otay Mesa Place. CA-SDI-11,079 was recorded in 1988 as a lithic and shell scatter. The site was tested by ASM Affiliates in 1993 and 1994 and determined a significant historical resource. A data recovery program was completed in 1998. No further work is recommended for this resource.

7.2.2 Project-level Mitigation Measures

The project-level analysis was conducted consistent with the requirements of the OMCP FEIR Mitigation Framework described in Section 7.1.4. This report documents the results of the site-specific historical resources survey as required by OMCP FEIR Mitigation Framework HIST-1.

OMCP FEIR Mitigation Framework HIST-2 additionally requires an evaluation of any structure in excess of 45 years of age to determine if it is historically significant. No structures are located on-site that require historic evaluation.

The mitigation measures described below are proposed to minimize potentially significant impacts to buried archaeological resources during grading, as identified in the OMCP FEIR Mitigation Framework to the extent feasible.

7.2.2.1 Construction Monitoring

RECON recommends construction monitoring for all ground disturbance within the project-level analysis areas (see Figure 6) because there is the potential for previously unidentified subsurface cultural resources to exist. RECON recommends a City-qualified archaeologist and a representative from the Kumeyaay community be present for all ground disturbing work within the project-level analysis areas. If potentially significant historical resources are discovered during grading, the process outlined in the City's HRG should be followed. Following are elements in the HRG:

I. Prior to Start of Construction

A. Verification of Records Search

1. The PI shall provide verification to MMC that a site specific records search (1/4 mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coastal Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.
3. The PI may submit a detailed letter to MMC requesting a reduction to the ¼ mile radius.

B. PI Shall Attend Precon Meetings

1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, <u>Native American consultant/monitor (where</u>

Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.

a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.

2. Identify Areas to be Monitored

a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.

b. The AME shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation).

c. MMC shall notify the PI that the AME has been approved.

3. When Monitoring Will Occur

a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.

b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate site conditions such as depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

4. Approval of AME and Construction Schedule

After approval of the AME by the MMC, the PI shall submit to MMC written authorization of the AME and Construction Schedule from the CM.

III. During Construction

A. Monitor(s) Shall be Present During Grading/Excavation/Trenching

1. The Archaeological Monitor shall be present full-time during all soil disturbing and grading/excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the AME.

2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and grading/excavation/trenching activities based on the AME and provide that information to the PI and MMC. If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Section III.B-C and IV.A-D shall commence.
3. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present.
4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (Notification of Monitoring Completion), and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.
2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.
4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.

C. Determination of Significance

1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below.
   a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
   b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) which has been reviewed by the Native American consultant/monitor, and obtain written approval from MMC. Impacts to significant resources must be mitigated before ground disturbing activities in the area of discovery will be allowed to resume.

c. If the resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.

IV. Discovery of Human Remains

If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains; and the following procedures as set forth in CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification

1. Archaeological Monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS) of the Development Services Department to assist with the discovery notification process.
2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site

1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenance of the remains.
2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenance.
3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains ARE determined to be Native American

1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, ONLY the Medical Examiner can make this call.
2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.
3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes.
4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if:

a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission; OR;

b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, THEN,

c. In order to protect these sites, the Landowner shall do one or more of the following:

(1) Record the site with the NAHC;

(2) Record an open space or conservation easement on the site;

(3) Record a document with the County.

d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.

D. If Human Remains are NOT Native American

1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.

2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).

3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

V. **Night and/or Weekend Work**

A. If night and/or weekend work is included in the contract

1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.

2. The following procedures shall be followed.

a. No Discoveries

In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to MMC via fax by 8AM of the next business day.

b. Discoveries

All discoveries shall be processed and documented using the existing procedures detailed in Sections I–I - During Construction, and IV – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery.

c. Potentially Significant Discoveries

If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section I–I - During Construction and IV-Discovery of Human Remains shall be followed.

d. The PI shall immediately contact MMC, or by 8AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction

1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.

2. The RE, or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

VI. Post Construction

A. Preparation and Submittal of Draft Monitoring Report

1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to MMC for review and approval within 90 days following the completion of monitoring. It should be noted that if the PI is unable to submit the Draft Monitoring Report within the allotted 90-day timeframe resulting from delays with analysis, special study results or other complex issues, a schedule shall be submitted to MMC establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.

a. For significant archaeological resources encountered during monitoring, the Archaeological Data Recovery Program shall be included in the Draft Monitoring Report.

b. Recording Sites with State of California Department of Parks and Recreation

The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.

2. MMC shall return the Draft Monitoring Report to the PI for revision or, for preparation of the Final Report.
3. The PI shall submit revised Draft Monitoring Report to MMC for approval.
4. MMC shall provide written verification to the PI of the approved report.
5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts

1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued
2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.
3. The cost for curation is the responsibility of the property owner.

C. Curation of artifacts: Accession Agreement and Acceptance Verification

1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.
2. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section IV – Discovery of Human Remains, Subsection C.
3. The PI shall include the Accession Agreement and catalog record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.
4. The RE or BI, as appropriate shall obtain signature on the Accession Agreement and shall return to PI with copy submitted to MMC.
5. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)

1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC that the draft report has been approved.
2. The RE shall, in no case, issue the Notice of Completion and/or release of the Performance Bond for grading until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

7.2.3 Research Design and Data Recovery Program for CA-SDI-22,936

A research design and data recovery program is required to mitigate impacts to CA-SDI-22,936 to the extent feasible. The purpose of the research design and data recovery program is to extract an adequate sample of data within the project impact area to reduce the level of impacts to the extent feasible. This sample is expected to answer research questions and add to the overall regional prehistoric data.

a. Research Design

The chronological placement of archaeological sites is important to understanding regional prehistory and site occupation. Although no temporally diagnostic artifacts were recovered during the testing of CA-SDI-22,936, marine shell was recovered. Recovery of additional shell could be sent in for radiocarbon dating. An adequate number of radiocarbon dates from different locations/features and/or levels could address chronology questions. A variety of materials likely to provide reliable dates should be sought. Dates for the deposit could be derived from marine shell and burned bone; however, the best case would be to recover charred wood or plant remains from a feature such as a hearth.

Another important research topic is site function. The testing phase of CA-SDI-22,936 suggests it was probably a location. Additional data could address the question of site function of CA-SDI-22,936. If during the data recovery phase features are encountered such as hearths, house floors, roasting and storage pits, or a wider variety and number of tools, it would indicate a more intense utilization of the site and the probability that the site was a residential base.

Questions about subsistence systems could also be addressed. What were the occupants of CA-SDI-22,936 eating? What food sources were processed and prepared? Specialized faunal analysis, shell speciation, and macro-botanical samples can answer these questions. Column samples should be taken from units with the highest potential for macrobotanical remains. The column sample should be processed to extract the light fraction suspended within the soil matrix. If charred seeds are present in the recovered light-fraction from the column samples, the samples should be submitted to an ethnobotanical laboratory for analysis. This analysis could reveal the plant species present in the sample, and thus those present during prehistoric times.

Data regarding the trade and exchange networks of prehistoric peoples could be gathered with the research design and data recovery program. One chert flake was recovered during testing. The presence of chert could indicate trade with non-local groups. Where did this chert originate from and what groups were involved in the trade network that brought the material to the sites? Obsidian may also be recovered during data recovery excavations. The total site area is 2,856 square meters with a low-disturbance central area equaling 665 square meters. RECON recommends that a two-phased data recovery program take place in this central area. Phase I would consist of excavation of 7 one-by-one-meter units within this area. They would be excavated to the bottom of the cultural deposit. The 7 units represent 1.0 percent of the total central area. It is felt that 7 units will adequately sample the full horizontal extent of the subsurface deposit and reveal any intra-site distribution of artifact types and spatial variations in quantities of artifacts/faunal remains not revealed during the testing. All excavations would be observed by a Native American monitor.

All units would be hand-excavated in 10 cm increments, until two 10 cm levels have been dug into sterile subsoil. Soil would be dry-screened through a $^1/_8$-inch mesh. Five column samples will be taken from productive units. The artifacts and ecofacts will be removed and placed in appropriately labeled bags to be cleaned, cataloged, and analyzed. Shellfish remains will be speciated and weighed, but not counted. A sample of flaked lithic tools will be selected for protein residue analyses. If found, any human remains or potential human remains and grave goods would be treated respectfully and appropriately and repatriated to the Native American community. The artifact collection shall be curated at an approved curation facility, such as the San Diego Archaeological Center.

The results from Phase I would be compared to the results from the test excavation. A lack of intra-site variation in artifact distribution, no noticeable increase in amounts of material recovered per volume excavated, or the lack of features would mirror the initial testing results and indicate redundancy in data. Redundancy is the point at which continued excavation would produce only larger amounts of already represented data. If the excavation results in redundancy, the results would be presented to the City and Native American monitor for their concurrence. If concurrence is reached, no further excavation would be required. If concurrence or redundancy is not reached, Phase II excavation would be required.

If intra-site variability in artifact type clustering, artifact density clustering or features are discovered, redundancy is not attained and a second phase of data recovery would begin. Phase II would involve excavating an additional 7 one-by-one-meter units. These units would be placed in areas where Phase I units indicated variations in vertical or horizontal artifact distribution, density variation, or feature locations. The Phase II excavation would produce additional data for a greater opportunity to resolve research questions. A total of 2.0 percent of the central area would be excavated at the end of Phase II.

7.2.4 Program-level Mitigation

As detailed in Section 6.1.9, the record search completed for the program-level areas showed the presence of and potential for significant historic resources to be present. Future development and ground disturbance within the program-level areas would have the potential to result in adverse impacts to historical resources. A majority of the program-level areas have not been surveyed.

Based on the anticipated development footprint of the Specific Plan, future development could have the potential to significantly impact both known archaeological sites and currently unrecorded sites. While potentially significant historic-era structures are not anticipated to be present in the program-level areas, future site-specific historical evaluation consistent with the OMCP Mitigation Framework HIST-2 may be necessary to verify presence or absence.

Any grading, excavation, and other ground disturbing activities associated with future Specific Plan development, including trail alignments implemented in accordance with the Specific Plan that would affect significant archaeological sites would represent a significant impact. The following modified

OMCP FEIR Mitigation Framework measure would be implemented for future project-specific development proposed within the Specific Plan:

HIST-1: Prior to issuance of any permit for a future development project implemented in accordance with the Specific Plan that could directly affect an archaeological resource, the City shall require the following steps be taken to determine: (1) the presence of archaeological resources and (2) the appropriate mitigation for any significant resources which may be impacted by a development activity. Sites may include, but are not limited to, residential and commercial properties, privies, trash pits, building foundations, and industrial features representing the contributions of people from diverse socio-economic and ethnic backgrounds. Sites may also include resources associated with prehistoric Native American activities.

INITIAL DETERMINATION

The environmental analyst will determine the likelihood for the project site to contain historical resources by reviewing site photographs and existing historic information (e.g. Archaeological Sensitivity Maps, the Archaeological Map Book, and the City's "Historical Inventory of Important Architects, Structures, and People in San Diego") and conducting a site visit. If there is any evidence that the site contains archaeological resources, then a historic evaluation consistent with the City Guidelines would be required. All individuals conducting any phase of the archaeological evaluation program must meet professional qualifications in accordance with the City Guidelines.

STEP 1:

Based on the results of the Initial Determination, if there is evidence that the site contains historical resources, preparation of a historic evaluation is required. The evaluation report would generally include background research, field survey, archaeological testing and analysis. Before actual field reconnaissance would occur, background research is required which includes a record search at the SCIC at San Diego State University. A review of the Sacred Lands File maintained by the NAHC must also be conducted at this time. Information about existing archaeological collections should also be obtained from the San Diego Archaeological Center and any tribal repositories or museums.

In addition to the record searches mentioned above, background information may include, but is not limited to: examining primary sources of historical information (e.g., deeds and wills), secondary sources (e.g., local histories and genealogies), Sanborn Fire Maps, and historic cartographic and aerial photograph sources; reviewing previous archaeological research in similar areas, models that predict site distribution, and archaeological, architectural, and historical site inventory files; and conducting informant interviews. The results of the background information would be included in the evaluation report.

Once the background research is complete, a field reconnaissance must be conducted by individuals whose qualifications meet the standards outlined in the City Guidelines. Consultants are encouraged to employ innovative survey techniques when conducting enhanced reconnaissance, including, but not limited to, remote sensing, ground penetrating radar, and other soil resistivity techniques as determined on a case-by-case basis. Native American participation is required for field surveys when there is likelihood that the project site contains prehistoric archaeological resources or traditional cultural properties. If through background research and field surveys historical resources are identified, then an evaluation of significance must be performed by a qualified archaeologist.

STEP 2:

Once a historical resource has been identified, a significance determination must be made. It should be noted that tribal representatives and/or Native American monitors will be involved in making recommendations regarding the significance of prehistoric archaeological sites during this phase of the process. The testing program may require reevaluation of the proposed project in consultation with the Native American representative which could result in a combination of project redesign to avoid and/or preserve significant resources as well as mitigation in the form of data recovery and monitoring (as recommended by the qualified archaeologist and Native American representative). An archaeological testing program will be required which includes evaluating the horizontal and vertical dimensions of a site, the chronological placement, site function, artifact/ecofact density and variability, presence/absence of subsurface features, and research potential. A thorough discussion of testing methodologies, including surface and subsurface investigations, can be found in the City Guidelines.

The results from the testing program will be evaluated against the Significance Thresholds found in the Guidelines. If significant historical resources are identified within the Area of Potential Effect, the site may be eligible for local designation. At this time, the final testing report must be submitted to Historical Resources Board staff for eligibility determination and possible designation. An agreement on the appropriate form of mitigation is required prior to distribution of a draft environmental document. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and/or assessment will require no further work beyond documentation of the resources on the appropriate DPR site forms and inclusion of results in the survey and/or assessment report. If no significant resources are found, but results of the initial evaluation and testing phase indicates there is still a potential for resources to be present in portions of the property that could not be tested, then mitigation monitoring is required.

STEP 3:

Preferred mitigation for historical resources is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm shall be taken. For archaeological resources where preservation is not an option, a Research Design and Data Recovery Program is required, which includes a Collections Management Plan for review and approval. The data recovery program shall be based on a written research design and is subject to the provisions as outlined in

CEQA, Section 21083.2. The data recovery program must be reviewed and approved by the City's Environmental Analyst prior to draft CEQA document distribution. Archaeological monitoring may be required during building demolition and/or construction grading when significant resources are known or suspected to be present on a site, but cannot be recovered prior to grading due to obstructions such as, but not limited to, existing development or dense vegetation.

A Native American observer must be retained for all subsurface investigations, including geotechnical testing and other ground-disturbing activities, whenever a Native American Traditional Cultural Property or any archaeological site located on City property or within the Area of Potential Effect of a City project would be impacted. In the event that human remains are encountered during data recovery and/or a monitoring program, the provisions of Public Resources Code Section 5097 must be followed. These provisions are outlined in the Mitigation Monitoring and Reporting Program included in the environmental document. The Native American monitor shall be consulted during the preparation of the written report, at which time they may express concerns about the treatment of sensitive resources. If the Native American community requests participation of an observer for subsurface investigations on private property, the request shall be honored.

STEP 4:

Archaeological Resource Management reports shall be prepared by qualified professionals as determined by the criteria set forth in Appendix B of the Guidelines. The discipline shall be tailored to the resource under evaluation. In cases involving complex resources, such as traditional cultural properties, rural landscape districts, sites involving a combination of prehistoric and historic archaeology, or historic districts, a team of experts will be necessary for a complete evaluation.

Specific types of historical resource reports are required to document the methods (see Section III of the Guidelines) used to determine the presence or absence of historical resources; to identify the potential impacts from proposed development and evaluate the significance of any identified historical resources; to document the appropriate curation of archaeological collections (e.g., collected materials and the associated records); in the case of potentially significant impacts to historical resources, to recommend appropriate mitigation measures that would reduce the impacts to the extent feasible; and to document the results of mitigation and monitoring programs, if required.

Archaeological Resource Management reports shall be prepared in conformance with the California Office of Historic Preservation "Archaeological Resource Management Reports: Recommended Contents and Format" (see Appendix C of the Guidelines), which will be used by Environmental Analysis Section staff in the review of archaeological resource reports. Consultants must ensure that archaeological resource reports are prepared consistent with this checklist. This requirement will standardize the content and format of all archaeological technical reports submitted to the City. A confidential appendix must be submitted (under separate cover) along with historical resources reports for archaeological sites and traditional cultural properties containing the confidential resource maps and records search information gathered during the background study. In addition, a Collections Management Plan shall be prepared for projects which result in a substantial collection of artifacts and must address the management and research goals of the project and the types of materials to be collected and curated based on a sampling strategy that is acceptable to the City. Appendix D (Historical Resources Report Form) may be used when no archaeological resources were identified within the project boundaries.

STEP 5:

For Archaeological Resources: All cultural materials, including original maps, field notes, non-burial related artifacts, catalog information, and final reports recovered during public and/or private development projects must be permanently curated with an appropriate institution, one which has the proper facilities and staffing for insuring research access to the collections consistent with state and federal standards. In the event that a prehistoric and/or historic deposit is encountered during construction monitoring, a Collections Management Plan would be required in accordance with the project Mitigation Monitoring and Reporting Program. The disposition of human remains and burial related artifacts that cannot be avoided or are inadvertently discovered is governed by state (i.e., Assembly Bill 2641 and California Native American Graves Protection and Repatriation Act of 2001) and federal (i.e., Native American Graves Protection and Repatriation Act) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human bones and associated grave goods of Native American origin shall be turned over to the appropriate Native American group for repatriation.

Arrangements for long-term curation must be established between the applicant/property owner and the consultant prior to the initiation of the field reconnaissance, and must be included in the archaeological survey, testing, and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collection (dated May 7, 1993) and, if federal funding is involved, 36 Code of Federal Regulations 79 of the Federal Register. Additional information regarding curation is provided in Section II of the Guidelines.

HIST-2: Prior to issuance of any permit for a future development project implemented in accordance with the Specific Plan that would directly or indirectly affect a building/structure in excess of 45 years of age, the City shall determine whether the affected building/structure is historically significant. The evaluation of historic architectural resources shall be based on criteria such as: age, location, context, association with an important person or event, uniqueness, or structural integrity, as indicated in the Guidelines.

Preferred mitigation for historic buildings or structures shall be to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm to the resource shall be taken. Depending upon project impacts, measures shall include, but are not limited to:

a. Preparing a historic resource management plan;

b. Designing new construction which is compatible in size, scale, materials, color and workmanship to the historic resource (such additions, whether portions of existing buildings or additions to historic districts, shall be clearly distinguishable from historic fabric);

c. Repairing damage according to the Secretary of the Interior's Standards for Rehabilitation;

d. Screening incompatible new construction from view through the use of berms, walls, and landscaping in keeping with the historic period and character of the resource; and

e. Shielding historic properties from noise generators through the use of sound walls, double glazing, and air conditioning.

Specific types of historical resource reports, outlined in Section III of the HRG, are required to document the methods to be used to determine the presence or absence of historical resources, to identify potential impacts from a proposed project, and to evaluate the significance of any historical resources identified. If potentially significant impacts to an identified historical resource are identified these reports will also recommend appropriate mitigation to reduce the impacts to the extent feasible. If required, mitigation programs can also be included in the report.

8.0 Certification and Project Staff

This report was prepared in compliance with CEQA (Section 21083.2 of the Statutes and Appendix K of the Guidelines) and with policies and procedures of the City. To the best of our knowledge, the statements and information contained in this report are accurate.

Harry J. Price
Co-Principal Investigator

Carmen Zepeda-Herman
Principal Investigator, Field Archaeologist

Resumes for key personnel are on file with the City. The following individuals participated in the field tasks or preparation of this report.

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ATTACHMENTS

ATTACHMENT 1a

Protein Residue (CIEP) Analysis Report on Two Lithic Samples from Sites CA-SDI-23,233 and CA-SDI-23,234, Otay Mesa, San Diego, California

PROTEIN RESIDUE (CIEP) ANALYSIS ON TWO LITHIC SAMPLES FROM SITES CA-SDI-23,233 AND CA-SDI-23,234, OTAY MESA, SAN DIEGO, CALIFORNIA

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PaleoResearch Institute Technical Report 22–028

Prepared for

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San Diego, California

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INTRODUCTION

One unifacial lithic tool from CA-SDI-23,233 and one groundstone artifact from CA-SDI-23,234 on the Otay Mesa in San Diego, California were submitted for protein residue (CIEP) analysis. Both sites are described as diffuse lithic scatters, and the lithics were submitted to characterize tool use and site functions.

METHODS

Protein Residue

Successful identification of proteins from lithic artifacts relies on the biological activity of those proteins (Hyland, 1990:105) and recovery method. Protein residue analysis for lithic artifacts used counter immunoelectrophoresis (CIEP). We note that both cross-over and counter are used in the literature to describe this type of immunoelectrophoresis. This method is based on an antigen-antibody reaction, where a known antibody (immunoglobulin) is used to detect an unknown antigen (Bog-Hansen, 1990).

Culliford's (1964)(1971) forensic CIEP methods used at the Royal Canadian Mounted Police Serology Laboratory, Ottawa, and the Centre of Forensic Sciences, Toronto, were modified by Newman and Julig (1989) for use on archaeological materials. Subsequently, PaleoResearch Institute enacted changes following the advice of Dr. Richard Marlar of the Thrombosis Research Laboratory, VA Medical Center, Denver, and the Health Sciences Center, University of Colorado. Although several different protein detection methods have been employed in archaeological analyses, including enzyme-linked immunosorbent assay (ELISA) and radioimmunoassay (RIA), the CIEP test is demonstrated to be extremely sensitive, with the detection of 10^{-8} g of protein possible (Culliford, 1964:1092). Testing unknowns against non-immunized animal serum screens for the presence of reactive proteins that bind indiscriminately with numerous antisera, but are not species, genera, family, or group specific. Sediment controls are necessary to address the potential for false positives caused by compounds in sediments, including chlorophyll; bacteria; and metal cations, i.e. manganese, copper and iron oxide (Evershed, 1996); or proteins from modern animal activity, such as feces and urine.

The lithics were washed using 0.5–1 ml of solution containing 0.02 M Tris hydrochloride, 0.5 M sodium chloride, and 0.5% Triton X-100 (Tris/NaCl/Triton). While in solution, the artifacts were placed in an ultrasonic bath for 30 minutes, on a rotating mixer for 30 minutes, back into an ultrasonic bath for an additional 30 minutes, and once again onto a rotating mixer for an additional 30 minutes. When removed from the ultrasonic bath, artifacts were rinsed using a small amount of reverse osmosis de-ionized (RODI) water to recover all of the protein wash solution.

Wash solutions were centrifuged to remove sediments and recover the solution, which was decanted into new microcentrifuge tubes. In addition, a control sample was tested because sediments contain compounds, such as bacteria and animal urine and/or feces, causing false positive results. These contaminants may originate in the sampled location or be introduced as air-borne material. One half gram of sediment associated with each artifact was added to 1 ml Tris/NaCl/Triton solution, and then refrigerated for several days prior to testing.

The first step tests all residue washes extracted from artifacts and the sediment controls, when present, against pre-immune goat serum (serum from a non-immunized animal) to screen for the presence of non-specific, indiscriminate binding of proteins. All of the artifact washes tested negative against pre-immune serum. Next, the samples were tested against prepared animal and plant antisera obtained from a variety of commercial and private sources. Appropriate positive and negative controls were run for each antiserum. The blood of an animal for which the antiserum tests positively constitutes the positive control, while negative controls use the serum of the type of animal in which the antiserum was raised, either rabbit or goat.

Agarose gel poured onto GelBond® film acts as the medium for CIEP. Four columns of paired wells (2 mm in diameter separated by 3 mm of gel) organized in a series of eight rows were punched into the gel. The anodic (-) well contained the antiserum while the cathodic (+) well held the artifact's protein extraction (the antigen). The sample was electrophoresed in Barbital buffer (pH 8.6) for 45 minutes at 130 V to drive the antigens and antibodies toward each other. Overnight, a 1 M NaCl bath removed extraneous proteins from the gel. The next morning the gel was pressed for 10 minutes, rinsed with RODI water for an hour, and then pressed for an additional 10 minutes. This sequence removes extraneous water and provides a rinse to remove the NaCl. The gels were air dried.

A positive reaction appears as a vertical line of precipitation between the two wells. Coomassie Blue stain was used to make the line of precipitation easier to see. When a positive reaction was obtained between the artifact wash (antigen) and an antiserum at the 1:5 dilution, the antigen from the artifact was retested and the soil control was tested using dilute antiserum at a concentration of 1:5. Retests are performed when the original test did not yield conclusive reactions. Retests distinguish between true and false positives, identifying a true positive when they replicate the initial positive reaction and when that reaction is not observed in the accompanying soil control sample. Positive reactions obtained after the second test with dilute antisera were reported.

Many archaeological samples do not produce the expected clear vertical lines of precipitation that are observed with positive blood-based controls. Therefore, descriptions, based on the presence and pattern of precipitation lines, and reaction strengths for each dilution level were recorded to help monitor consistency and viability of the reactions between antisera and archaeological proteins. These reactions vary from fuzzy or curved precipitation lines to clearly defined precipitation lines. While we use these designators in the laboratory, we do not report the myriad of possible reactions, as they serve only to guide retesting.

Identification of animals represented by positive results is usually made to the family level. All mammalian species share serum protein antigenic determinations (epitopes or sites on the surface of an antigen molecule to which the antibody binds); therefore, some cross-reactions occur between closely and sometimes distantly related animals (Gaensslen, 1983:241). Examples of closely related reactivity include bovine antiserum reacting with bison blood, as well as deer antiserum reacting with other members of the Cervidae (deer) family, such as elk and moose. Positive reactions between distantly related (at the order level) animals include guinea pig antiserum reacting with squirrel blood. This similarity in epitopes (binding sites) is the reason that all labs test their antisera against the blood of many animals, not simply the one to which the antiserum was created. This testing builds lists of animals whose blood is recognized by each antiserum.

DISCUSSION

One unifacial tool from CA-SDI-23,233 and one groundstone artifact from CA-SDI-23,234, originating from the Otay Mesa region in San Diego, California, were submitted for protein residue analysis (CIEP) (Table 1). Two associated soil controls were also submitted for each sample to rule out contamination; one collected from within the site, the other from outside the boundary of each site. Results are discussed by site in the following sections.

CA–SDI–23,233

CA–SDI–23,233 is characterized as a diffuse precontact lithic scatter that has been heavily disturbed from the placement of graded dirt roads that crisscross the site boundary and experience heavy Border Patrol off-road vehicle (ORV) traffic. The site is situated on the southern side of Wruck Canyon where it intersects with Spring Canyon on a small peninsula of a west-flowing drainage. Site investigation produced one scraper and 42 flakes. The scraper (Sample 9017) and two soil controls (Samples 23233–1 and 23233–2) were submitted for protein residue analysis.

Sample 9017 was recovered 10 cm below surface (cmbs) from a small drainage near the mesa top. Protein residue analysis for Sample 9017 did not produce conclusive positive results against any antisera in the PaleoResearch Institute (PRI) catalog (Table 2); therefore, no interpretations concerning processed flora or fauna could be made from the results. An inconclusive result to mouse antiserum necessitated testing the soil control samples. However, location of the soil controls minimized their ability to act as true control samples for the artifact. Sample 23233-1, a soil control recovered from within the site boundary, was collected approximately 6 meters away from Sample 9017, while Sample 23233-2 was recovered approximately 16 meters away from where the artifact was uncovered. While a soil control extracted within the site could aid in accuracy for ruling out results produced due to contamination, the accuracy of the control is dependent on the proximity to the associated artifact with best results coming from soil in direct association with the artifact's depositional context. At this time, the control samples did not function to clarify whether or not chemical or elemental contamination contributed to the diffuse reaction observed to mouse antiserum for this artifact.

CA–SDI–23,234

Site CA–SDI–23,234 is also characterized as a disturbed precontact lithic scatter. It is situated on the west face of an east/west saddle surrounded by thick vegetation, and is disturbed by an east-to-west road cut that crosses the site boundary. Site investigation produced one assayed cobble, two cores, one scraper, and 22 flakes. From this assemblage, a groundstone artifact (Sample 3000) along with two associated soil controls (23234–1 and 23234–2) were submitted for protein residue analysis.

Sample 3000 was recovered approximately 10 cmbs from a moderately steep slope near the mesa top. Similar to Sample 9017, protein residue analysis for Sample 3000 did not produce conclusive positive results against any available antisera. It did, however, produce a diffuse reaction to goat antiserum, which necessitated testing the accompanying soil control samples. Two soil control samples collected from this site were submitted for testing in the event they were required to rule out contamination. Although the exact location of these soil controls was not specified, approximate distances from the artifact are provided. Sample 23234-1 was recovered as a soil control sample within the site boundary, collected approximately 4 meters from Sample 3000, while Sample 23234-2 was recovered approximately 22 meters from where the artifact was discovered. Although these control samples assist in characterizing the general sediments of the site area, they do not provide information concerning the effects of local concentrations of chemicals or ions on the protein record.

SUMMARY AND CONCLUSIONS

Samples 9017 (CA–SDI–23,233) and 3000 (CA–SDI–23,234) were submitted for protein residue (CIEP) analysis. These artifacts did not produce reportable results when tested against the extensive antisera catalog at PRI. The negative results could be explained by a number of factors, both natural and anthropogenic: degradation of the proteins over time; use of the tool to process an animal not represented in our antisera catalog; resharpening/ reshaping of the lithic after last tool use; or use of the tool for purposes other than those detectible using CIEP.

If researchers are considering future work at these sites, we recommend that additional artifacts (especially those categorized as cutting, scraping, or grinding tools) from secure depositional contexts be submitted for protein residue analysis, along with soil controls collected in direct proximity to each artifact.

TABLE 1
PROVENIENCE DATA FOR SAMPLES FROM SITES CA-SDI-23,233 AND CA-SDI-23,234
OTAY MESA, SAN DIEGO, CALIFORNIA

Sample No.	Site	Unit	Depth (cmbs)	Provenience/ Description	Analysis
9017	CA-SDI-23,233	1	10	Lithic tool collected from small drainage near mesa top.	Protein
3000	CA-SDI-23,234	1	10	Groundstone collected from moderately steep slope, near mesa top.	Protein
23233-1	CA-SDI-23,233			Soil control for sample 9017, was recovered within the site boundary, collected approximately 6 meters away .	Soil Control
23233-2	CA-SDI-23,233			Soil control for sample 9017, was recovered approximately 16 meters away from where the artifact was uncovered.	Soil Control
23234-1	CA-SDI-23,234			Soil control for sample 3000, was recovered from within the site boundary, collected approximately 4 meters away from the artifact.	Soil Control
23234-2	CA-SDI-23,234			Soil control for sample 3000, was recovered approximately 22 meters from where the artifact was discovered.	Soil Control

TABLE 2
LIST OF WHOLE SERUM ANTISERA USED IN TESTING ARTIFACTS
FROM SITES CA-SDI-23233 AND CA-SDI-23234 OTAY MESA, SAN DIEGO, CALIFORNIA

ANTISERUM	SOURCE	POSSIBLE RESULTS
MAMMALS:		
Bear		Ursidae (bear family) - *Ursus americana* (black bear), *Ursus arctos* (brown bear and grizzly bear), *Ursus maritimus* (polar bear)
Bison	Private	*Bison* sp. (bison) - *Bison occidentalis* (prehistoric bison), *Bison bison* (plains bison), *Bison athabascae* (mountain or wood bison); *Bos sp.* (cow), domestic bovids
Bovine		*Bos* sp. (cow), domestic bovids, *Bison* sp. (bison)
Camel	.	Camelidae (camelid family) - *Camelus* sp. (camel), *Lama glama* (llama), *Vicugna pacos* (alpaca), Prehistoric camelids
Cat		Felidae (cat family) - *Felis concolor* (mountain lion, cougar), *Felis rufus/Lynx rufus* (bobcat), *Felis catus* (domestic cat), and other wild cat species
Deer		Cervidae (deer family) - *Odocoileus hemionus* (mule deer or black-tailed deer), *Odocoileus virginianus* (white-tailed deer), *Cervus canadensis* (elk, wapiti), *Alces alces* (moose), *Rangifer* (caribou)
Dog		Canidae (dog family - coyote, wolf, fox, domestics), *Canis latrans* (coyote), *Canis lupus* (gray wolf), *Canis rufus* (red wolf), *Urocyon cinereoargenteus* (gray fox), *Urocyon littoralis* (island fox), *Vulpes vulpes* (red fox), *Vulpes macrotis* (kit fox), *Vulpes velox* (swift fox), *Canis familiaris* (domestic dog)
Dolphin	Bethyl	Delphinidae (oceanic dolphin family) - *Tursiops truncatus* (bottlenose dolphin)
Elephant	Private	Elephantidae (elephant family) - *Loxodonta africana* (African elephant), *Elephas maximus* (Asian elephant), *Mammuthus* sp. (mammoth)
Goat		*Antilocapra americana* (pronghorn); *Oreamnos americanus* (mountain goat), *Capra hircus* (domestic goat)

TABLE 2 (Continued)

ANTISERUM	SOURCE	POSSIBLE RESULTS
Guinea pig		*Castor* sp. (beaver); *Erethizon dorsatum* (porcupine); Sciuridae (rodent family including tree and ground squirrels, flying squirrels, chipmunks, prairie dogs, and marmots/woodchucks) - *Tamias striatus* (eastern chipmunk), *Marmota monax* (woodchuck), *Sciurus carolinensis* (gray squirrel), *Sciurus nigra* (fox squirrel), *Tamiasciurus hudsonicus* (red squirrel), *Glaucomys* sp. (flying squirrel), *Ammospermophilus leucurus* (whitetail antelope squirrel), *Spermophilus* sp./*Citellus* sp. (ground squirrel), *Sciurus griseus* (western gray squirrel); Caviidae (cavy family) - *Cavia porcellus* (guinea pig)
Horse		Equidae (horse family) - *Equus caballus* (horse), *Equus africanus* (donkey), *Equus hippotigris* and *Equus dolichohippus* (zebra), Extinct species of wild horse
Human		*Homo sapiens* (human)
Mouse		Members of Cricetidae (family of New World rats and mice, hamsters, and gerbils), and Members of Murinae (Old World rats and mice family)
Pig		Suidae (pig family) - *Sus scrofa* (domestic pig and wild pig/boar)
Rabbit		Leporidae (rabbit and jackrabbits/hare family) - *Sylvilagus floridanus* (Eastern cottontail), *Sylvilagus aquaticus* (swamp rabbit or cane-cutter rabbit), *Sylvilagus bachmani* (brush rabbit), *Sylvilagus audubonii* (desert cottontail), *Sylvilagus nuttallii* (mountain cottontail), *Sylvilagus transitionalis* (New England cottontail), *Oryctolagus cuniculus* (European rabbit), *Lepus californicus* (black-tailed jackrabbit), *Lepus townsendii* (white-tailed jackrabbit), *Lepus americanus* (snowshoe hare), *Lepus capensis* (European hare)
Rat		Members of Cricetidae (family of New World rats and mice, hamsters, and gerbils), and Members of Murinae (Old World rats and mice family)
Sheep		*Ovis canadensis* (bighorn sheep), *Ovis aries* (domestic sheep)
White Whale	Bethyl	Monodontidae (beluga family) - *Dephinapterus leucas* (beluga), *Monodon monoceros* (narwhal), Phocoenidae (porpoise family)

TABLE 2 (Continued)

ANTISERUM	SOURCE	POSSIBLE RESULTS
BIRDS:		
Chicken	Bethyl	Phasianidae (bird family including chicken, ptarmigan, pheasant, partridge and quail) - *Colinus virginianus* (common bobwhite), *Tympanuchus* (prairie chicken), *Callipepla californica/Laphortyx californicus* (California quail), *Callipepla gambelii/Lophortyx gambelii* (Gambel's quail), *Oreortyx pictus* (mountain quail); Tetraonidae (grouse family) - *Centrocercus urophasianus* (sage grouse), *Bonasa umbellus* (ruffed grouse); domestic chicken
Turkey		Phasianidae (bird family including pheasants, partridges, junglefowl, quail, peafowl, and chickens), *Meleagris gallopavo* (wild turkey), and domestic turkey; Anatidae (duck, geese, and swan family)
FISH:		
American Eel	Private	Anguillidae (freshwater eel family) - *Anguilla rostrata* (American eel)
Atlantic Croaker	Private	Perciformes order (Spiny-rayed [percoid] fishes)
Bay Anchovy	Private	Engraulidae (anchovy family) - *Anchoa hepsetus* (striped anchovy), *Anchoa mitchilli* (bay anchovy), *Engraulis eurystole* (silver anchovy), and *Engraulis mordax* (northern anchovy)
Catfish		Ictaluridae (catfish family), Cyprinidae (carp and minnow family), Catostomidae (sucker family)
Gizzard Shad	Private	*Dorosoma cepedianum* (gizzard shad); Clupeidae (herring family) - *Alosa aestivalis* (blueback herring), *Alosa mediocris* (hickory shad), *Alosa pseudoharengus* (alewife), *Alosa sapidissima* (American shad), *Brevoortia tyrannus* (Atlantic menhaden), *Clupea harengus* (Atlantic herring), *Etrumeus teres* (round herring), *Harengula jaguana* (scaled sardine), *Opisthonema oglinum* (Atlantic thread herring), and *Sardinella aurita* (Spanish sardine)
Phyllopod	Private	Shrimp
Striped Bass	Private	Perciformes order (Spiny-rayed [percoid] fish); Percichthyidae (temperate bass), Centrarchidae (sunfish), Percidae (perch), Cottidae (sculpin family), Kyphosidae (sea chubs), Embiotocidae (surfperch and seaperch family), Clinidae (clinids family), Stichaeidae (pricklebacks family), Gobiidae (gobies family), Scombridae (mackerel family), Scorpaenidae (scorpionfish family), Agonidae (poacher family)

TABLE 2 (Continued)

ANTISERUM	SOURCE	POSSIBLE RESULTS
Sturgeon	Private	Acipenseridae (sturgeon family) - *Acipenser brevirostrum* (shortnose sturgeon), and *Acipenser oxyrhnchus* (Atlantic sturgeon)
Trout		Salmonidae (trout and salmon family) - *Oncorhynchus* (salmon), *Salmo* (trout), *Salvelinus fontinalis* (brook trout), *Salvelinas namaycush* (lake trout), *Coregonus clupeaformis* (lake whitefish), *Prosopium cylindraceum* (round whitefish), *Thymallus arcticus* (arctic grayling), *Oncorhynchus mykiss* (rainbow trout), *Salmo salar* (Atlantic salmon), *Salmo trutta* (brown trout)
Weakfish	Private	Sciaenidae (fish family including drums, croakers, and hardheads) - *Cynoscion regalis* (weakfish)
INSECTS:		
Grasshopper	Prepared at PaleoResearch Institute	Unknown specificity, but would likely cross-react with many insects in the order Orthoptera, which includes grasshoppers, crickets, and locusts
ALGAE:		
Algae	Private	Algae
PLANTS:		
Acorn	Prepared at PaleoResearch Institute	Acorn
Agave	Prepared at PaleoResearch Institute	Agave, yucca, camas, aloe, & all members of the agave and lily families
Yucca	Prepared at PaleoResearch Institute	Yucca, agave, camas, aloe, & all members of the agave and lily families

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ATTACHMENT 1b

Protein Residue Analysis for Southwest Village/8868, CA-SDI-22936

PROTEIN RESIDUE ANALYSIS FOR SOUTHWEST VILLAGE/8868, CA-SDI-22936

By

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PaleoResearch Institute Technical Report 23-029

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RECON Environmental
San Diego, California

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INTRODUCTION

Three scrapers and one mano recovered at CA-SDI-122936, Southwest Village/8868, were submitted, along with a soil control sample, for protein residue analysis.

METHODS

Protein Residue

Successful identification of proteins from lithic artifacts relies on the biological activity of those proteins (Hyland *et al.* 1990:105) and recovery method. Protein residue analysis for lithic artifacts used counter immunoelectrophoresis (CIEP). We note that both cross-over and counter are used in the literature to describe this type of immunoelectrophoresis. This method is based on an antigen-antibody reaction, where a known antibody (immunoglobulin) is used to detect an unknown antigen (Bog-Hansen 1990).

Culliford's (1964, 1971) forensic CIEP methods used at the Royal Canadian Mounted Police Serology Laboratory, Ottawa, and the Centre of Forensic Sciences, Toronto, were modified by Newman and Julig (1989) for use on archaeological materials. Subsequently, PaleoResearch Institute enacted changes following the advice of Dr. Richard Marlar of the Thrombosis Research Laboratory, VA Medical Center, Denver, and the Health Sciences Center, University of Colorado. Although several different protein detection methods have been employed in archaeological analyses, including enzyme-linked immunosorbent assay (ELISA) and radioimmunoassay (RIA), the CIEP test is demonstrated to be extremely sensitive, with the detection of 10^{-8} g of protein possible (Culliford 1964:1092). Testing unknowns against non-immunized animal serum screens for the presence of reactive proteins that bind indiscriminately with numerous antisera, but are not species, genera, family, or group specific. Sediment controls are necessary to address the potential for false positives caused by compounds in sediments, including chlorophyll; bacteria; and metal cations, i.e. manganese, copper and iron oxide (Evershed *et al.* 1996); or proteins from modern animal activity, such as feces and urine.

The flaked lithics were washed using 0.5–1 ml of solution containing 0.02 M Tris hydrochloride, 0.5 M sodium chloride, and 0.5% Triton X-100 (Tris/NaCl/Triton). While in solution, the artifacts were placed in an ultrasonic bath for 30 minutes, on a rotating mixer for 30 minutes, back into an ultrasonic bath for an additional 30 minutes, and once again onto a rotating mixer for an additional 30 minutes. When removed from the ultrasonic bath, artifacts were rinsed using a small amount of reverse osmosis de-ionized (RODI) water to recover all of the protein wash solution.

The mano was washed using a sonicating toothbrush with a new head and 1.5 ml of a Tris/NaCl/Triton solution (0.02M Tris hydrochloride, 0.5M sodium chloride, and 0.5% Triton X-100). The artifact and toothbrush head were rinsed with reverse osmosis de-ionized (RODI) water to recover all of the protein wash solution. The solution recovered was centrifuged using a short-duration spin (10 seconds at 3000 rpm) to remove sediments, then was decanted into a Centriprep-10 centrifugal concentrator. The concentrator is equipped with a 10,000 molecular weight cut-off membrane that removes most of the water and small fragments of proteins (with molecular weights less than 10,000), concentrating the larger proteins in the remaining 1 ml of solution.

The first step tests all residue washes extracted from artifacts and the sediment controls, when present, against pre-immune goat serum (serum from a non-immunized animal) to screen for the presence of non-specific, indiscriminate binding of proteins. All of the artifact washes tested negative against pre-immune serum. Next, the samples were tested against prepared animal and plant antisera obtained from a variety of commercial and private sources. Appropriate positive and negative controls were run for each antiserum. The blood of an animal for which the antiserum tests positively constitutes the positive control, while negative controls use the serum of the type of animal in which the antiserum was raised, either rabbit or goat.

Agarose gel poured onto GelBond® film acts as the medium for CIEP. Four columns of paired wells (2 mm in diameter separated by 3 mm of gel) organized in a series of eight rows were punched into the gel. The anodic (-) well contained the antiserum while the cathodic (+) well held the artifact's protein extraction (the antigen). The samples were electrophoresed in Barbital buffer (pH 8.6) for 45 minutes at 130 V to drive the antigens and antibodies toward each other. Overnight, a 1 M NaCl bath removed extraneous proteins from the gel. The next morning the gel was pressed for 10 minutes, rinsed with RODI water for an hour, and then pressed for an additional 10 minutes. This sequence removes extraneous water and provides a rinse to remove the NaCl. The gels were air dried.

A positive reaction appears as a vertical line of precipitation between the two wells. Coomassie Blue stain was used to make the line of precipitation easier to see. When a positive reaction was obtained between the artifact wash (antigen) and an antiserum at the 1:5 dilution, the antigen from the artifact was retested and the soil control was tested using dilute antiserum also at a concentration of 1:5. Retests are performed when the original test did not yield conclusive reactions. Retests distinguish between true and false positives, identifying a true positive when they replicate the initial positive reaction and when that reaction is not observed in the accompanying soil control sample. Positive reactions obtained after the second test with dilute antisera were reported.

Identification of animals represented by positive results is usually made to the family level. All mammalian species share serum protein antigenic determinations (epitopes or sites on the surface of an antigen molecule to which the antibody binds); therefore, some cross-reactions occur between closely and sometimes distantly related animals (Gaensslen 1983:241). Examples of closely related reactivity include bovine antiserum reacting with bison blood, as well as deer antiserum reacting with other members of the Cervidae (deer) family, such as elk and moose. Positive reactions between distantly related (at the order level) animals include guinea pig antiserum reacting with squirrel blood. This similarity in epitopes (binding sites) is the reason that all labs test their antisera against the blood of many animals, not simply the one to which the antiserum was created. This testing builds lists of animals whose blood is recognized by each antiserum.

DISCUSSION AND CONCLUSIONS

Site CA-SDI-22936 is located in southern San Diego County in the upper reaches of Dillon Canyon. Local vegetation includes moderately dense coastal sage scrub. Three scrapers from this lithic scatter, along with a mano (Table 1), were submitted for protein residue analysis. They were tested against the antisera listed in Table 2.

All four artifacts yielded initial possible positive reactions to bison, bovine, guinea pig, or yucca, necessitating retesting. At this stage of testing none of these reactions were deemed sufficient to indicate true positive reactions. Retests yielded negative results to each of the animal antisera and a positive result to yucca antiserum for Sample 2, representing one of the scrapers. The soil control sample yielded a negative result to yucca antiserum. This suggests the presence of proteins obtained from yucca or a related plant in the Liliaceae or Agavaceae on this scraper.

Yucca, a genus of the Agavaceae (agave) family, are native, perennial succulents with white, waxy flowers. They range in size from small shrubs to large trees, with long, narrow, stiff, fibrous leaf clusters that often grow from short trunks or at ground level (Kirk 1975:281). *Yucca* grow in a variety of habitats, including Joshua-tree woodlands, chaparral, sandy plains, dry mesas, hillsides and rocky canyons, pine forests, creosote bush scrub, coastal scrub, desert scrub, pinon-juniper communities, desert flats, high plains, foothills, and grasslands (Hickman 1993:1210; Kearney and Peebles 1960:187-188; Niethammer 1974:29).

Some groups used *Yucca* as a starvation food, while others as a staple. The flowers, seeds, leaves, and fruits are edible. Tender leaves were cooked and added to soups or meat dishes. Flowers were eaten raw, roasted, boiled, or dried and ground into meal. Flower stalks and young shoots were boiled or roasted. Fruit was eaten raw, roasted, boiled, made into a syrup, pounded into a gravy, or was pulped and made into cakes or rolls and dried for future use; dried fruit is said to keep indefinitely. Additionally, fruits were boiled and fermented to create alcoholic drinks. Meal was also made from parched seeds (Niethammer 1974:29; Couplan 1998:527-28). Stems were peeled and baked, and the trunk was pit roasted and also sometimes dried for later consumption. Leaves were sometimes boiled and eaten with meat (Couplan 1998:527-529; Kirk 1975:279-281; Moerman 1998:603-609; Niethammer 1974:29-31).

Leaf infusions were anti-emetic, and raw fruit was considered cathartic. Roots were used as a disinfectant, laxative, and to treat certain skin diseases. Mashed roots treated stomachaches and were used as a salve on sores and skin outbreaks. Root poultices treated sprains, bleeding wounds, and sores (Kirk 1975:281; Moerman 1998:603-609. Root decoctions treated head lice, dandruff, sprains, and breaks (Moerman 1998:603-609).

Fibrous *Yucca* leaves were used to make mats, sandals, bags, and clothing. *Yucca* roots were crushed, mixed with water, and the resulting lather was used as shampoo, called *amole* (Couplan 1998:529; Kirk 1975:281; Moerman 1998:603-609; Niethammer 1974:29). The red roots of *Y. brevifolia* (Joshua tree) were used in basketry or were incorporated in basket designs. Several species were used to make red, black, and white dyes. Leaf fibers were used for cordage, bags, basketry, brushes, mats, nets, needle and thread, construction material, and to make balls, fabric, and clothing. *Yucca* leaves were used as fuel, juice was used as a varnish, and leaf pitch was used for waterproofing (Couplan 1998:527; Moerman 1998:603-609.

Yucca schidigera (Mojave yucca) is a shrub or small tree, that grows to 1-5 meters high with a rosette of spirally arranged, sword-like, spine-tipped leaves on a basal trunk. Mojave yucca grow in chaparral and creosote bush scrub communities in southern California, as well as in Baja California, southern Nevada, and western Arizona (Ebeling 1986:361; Hickman 1993:1210; Moerman 1998:608.

Mojave Yucca has pliant, fibrous leaves that are ideal for weaving; these leaves would be soaked and basted until the top layer of the leaf was removed, after which the leaves would be buried in mud to whiten them, and then combed out. They were then used to weave a variety of utilitarian items, such as sandals, saddles, mats, bowstrings, and brooms (Ebeling 1986:318, 361).

Yucca brevifolia (Joshua tree) is a subshrub or tree-like plant that produces rosettes of long, fibrous, serrated leaves at the ends of open branches. *Y. brevifolia* grows on dry flats and slopes in the Mojave Desert from California to southwest Utah and western Arizona (Hickman 1993:1210).

Y. baccata (banana yucca) is a shrub-like native perennial that produces rosettes of long, fibrous, blue-green leaves in small clumps or alone on branches. It grows in dry, Joshua-tree woodland, creosote bush, and desert shrub in California and other southwestern states, often with pinyon and juniper (Ebeling 1986:362; Hickman 1993:1210; Kearney and Peebles 1960:187; Kirk 1975:281).

The large, pulpy fruits of the banana yucca were boiled down to a paste, rolled out in sheets and dried, and then eaten as-is, or dissolved in water to make drinks (Kirk 1975:279-281; Moerman 1998:604).

TABLE 1
PROVENIENCE OF SAMPLES FROM CA-SDI-22936
SAN DIEGO COUNTY, CALIFORNIA

Sample No.	Cat. No.	Unit	Depth (cmbd)	Provenience/ Description	Analysis
1	3000	6	0–10	Mano	Protein
2	9026	6	0–10	Scraper	Protein
3	9025	5	20–30	Scraper	Protein
4	9027	7	40–50	Scraper	Protein
5	n/a			Sediment	Protein control

TABLE 2
LIST OF ANTISERA USED IN TESTING ARTIFACTS FROM SITE CA-SDI-22936

ANTISERUM	POSSIBLE RESULTS
MAMMALS:	
Bear	Ursidae (bear family) - *Ursus americana* (black bear), *Ursus arctos* (brown bear and grizzly bear), *Ursus maritimus* (polar bear)
Bison	*Bison* sp. (bison) - *Bison occidentalis* (prehistoric bison), *Bison bison* (plains bison), *Bison athabascae* (mountain or wood bison); *Bos sp.* (cow), domestic bovids
Bovine	*Bos* sp. (cow), domestic bovids, *Bison* sp. (bison)
Cat	Felidae (cat family) - *Felis concolor* (mountain lion, cougar), *Felis rufus/Lynx rufus* (bobcat), *Felis catus* (domestic cat), and other wild cat species
Deer	Cervidae (deer family) - *Odocoileus hemionus* (mule deer or black-tailed deer), *Odocoileus virginianus* (white-tailed deer), *Cervus canadensis* (elk, wapiti), *Alces alces* (moose), *Rangifer* (caribou)
Dog	Canidae (dog family - coyote, wolf, fox, domestics), *Canis latrans* (coyote), *Canis lupus* (gray wolf), *Canis rufus* (red wolf), *Urocyon cinereoargenteus* (gray fox), *Urocyon littoralis* (island fox), *Vulpes vulpes* (red fox), *Vulpes macrotis* (kit fox), *Vulpes velox* (swift fox), *Canis familiaris* (domestic dog)
Goat	*Antilocapra americana* (pronghorn); *Oreamnos americanus* (mountain goat), *Capra hircus* (domestic goat)
Guinea pig	*Castor* sp. (beaver); *Erethizon dorsatum* (porcupine); Sciuridae (rodent family including tree and ground squirrels, flying squirrels, chipmunks, prairie dogs, and marmots/woodchucks) - *Tamias striatus* (eastern chipmunk), *Marmota monax* (woodchuck), *Sciurus carolinensis* (gray squirrel), *Sciurus nigra* (fox squirrel), *Tamiasciurus hudsonicus* (red squirrel), *Glaucomys* sp. (flying squirrel), *Ammospermophilus leucurus* (whitetail antelope squirrel), *Spermophilus* sp./*Citellus* sp. (ground squirrel), *Sciurus griseus* (western gray squirrel); Caviidae (cavy family) - *Cavia porcellus* (guinea pig)
Mouse	Members of Cricetidae (family of New World rats and mice, hamsters, and gerbils), and Members of Murinae (Old World rats and mice family)
Pig	Suidae (pig family) - *Sus scrofa* (domestic pig and wild pig/boar, peccary)
Rabbit	Leporidae (rabbit and jackrabbits/hare family) - *Sylvilagus floridanus* (Eastern cottontail), *Sylvilagus aquaticus* (swamp rabbit or cane-cutter rabbit), *Sylvilagus bachmani* (brush rabbit), *Sylvilagus audubonii* (desert cottontail), *Sylvilagus nuttallii* (mountain cottontail), *Sylvilagus transitionalis* (New England cottontail), *Oryctolagus cuniculus* (European rabbit), *Lepus californicus* (black-tailed jackrabbit), *Lepus townsendii* (white-tailed jackrabbit), *Lepus americanus* (snowshoe hare), *Lepus capensis* (European hare)

TABLE 2 (Continued)

	POSSIBLE RESULTS ANTISERUM
Rat	Members of Cricetidae (family of New World rats and mice, hamsters, and gerbils), and Members of Murinae (Old World rats and mice family)
Sheep	*Ovis canadensis* (bighorn sheep), *Ovis aries* (domestic sheep)
BIRDS:	
Chicken	Phasianidae (bird family including chicken, ptarmigan, pheasant, partridge and quail) - *Colinus virginianus* (common bobwhite), *Tympanuchus* (prairie chicken), *Callipepla californica/Laphortyx californicus* (California quail), *Callipepla gambelii/Lophortyx gambelii* (Gambel's quail), *Oreortyx pictus* (mountain quail); Tetraonidae (grouse family) - *Centrocercus urophasianus* (sage grouse), *Bonasa umbellus* (ruffed grouse); domestic chicken
Turkey	Phasianidae (bird family including pheasants, partridges, junglefowl, quail, peafowl, and chickens), *Meleagris gallopavo* (wild turkey), and domestic turkey; Anatidae (duck, geese, and swan family)
FISH:	
American Eel	Anguillidae (freshwater eel family) - *Anguilla rostrata* (American eel)
Atlantic Croaker	Perciformes order (Spiny-rayed [percoid] fishes)
Catfish	Ictaluridae (catfish family), Cyprinidae (carp and minnow family), Catostomidae (sucker family)
Striped Bass	Perciformes order (Spiny-rayed [percoid] fish); Percichthyidae (temperate bass), Centrarchidae (sunfish), Percidae (perch), Cottidae (sculpin family), Kyphosidae (sea chubs), Embiotocidae (surfperch and seaperch family), Clinidae (clinids family), Stichaeidae (pricklebacks family), Gobiidae (gobies family), Scombridae (mackerel family), Scorpaenidae (scorpionfish family), Agonidae (poacher family)
Trout	Salmonidae (trout and salmon family) - *Oncorhynchus* (salmon), *Salmo* (trout), *Salvelinus fontinalis* (brook trout), *Salvelinas namaycush* (lake trout), *Coregonus clupeaformis* (lake whitefish), *Prosopium cylindraceum* (round whitefish), *Thymallus arcticus* (arctic grayling), *Oncorhynchus mykiss* (rainbow trout), *Salmo salar* (Atlantic salmon), *Salmo trutta* (brown trout)
INSECTS:	
Grasshopper	Unknown specificity, but would likely cross-react with many insects in the order Orthoptera, which includes grasshoppers, crickets, and locusts
PLANTS:	
Acorn	Acorn
Agave	Agave, yucca, camas, aloe, & all members of the agave and lily families

TABLE 2 (Continued)

	POSSIBLE RESULTS ANTISERUM
Yucca	Yucca, agave, camas, aloe, & all members of the agave and lily families

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ATTACHMENT 2

Native American Heritage Commission
Response Letter and Tribal Scoping Letters

ATTACHMENT 3

Catalog for CA-SDI-22,448

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASKNUMBER
1000	Debitage	Core reduction, basic shaping	FGPM	1	4.28							0-10	Unit 1
1001	Debitage	Cortex removal	FGM	1	65.1							0-10	Unit 1
1002	Debitage	Core reduction, basic shaping	FGPM	1	2.24							0-10	Unit 2
1003	Debitage	Secondary shatter	FGPM	1	13.49							0-10	Unit 2
1004	Debitage	Secondary shatter	CGPM	1	4.9							0-10	Unit 2
1005	Debitage	Primary shatter	FGM	1	2.54							0-10	Unit 2
1006	Debitage	Core reduction, basic shaping	FGPM	1	3.24							10-20	Unit 2
1007	Debitage	Cortex removal	FGPM	1	260.6							10-20	Unit 2
1008	Debitage	Primary shatter	FGM	2	89.3							10-20	Unit 2
1009	Debitage	Core reduction, basic shaping	FGM	1	16.11						Shot 2		Surface collection
1010	Debitage	Core reduction, basic shaping	FGPM	1	78.83						Shot 3		Surface collection
1011	Debitage	Secondary shatter	FGPM	1	0.81						Shot 4		Surface collection
3000	Groundstoı	Mano	Granite	1	1089.09	138	97	60	Whole unifacial unshaped		Shot 1		Surface collection
9000	FLA	Core	Quartzite	1	284.95	89	64	36	Whole		Unifacial; at least 5 flakes removed	0-10	Unit 1
9001	FLA	Utilized flake	FGPM	1	19.13	36	54	11	Whole		25 mm edge wear along one margin	0-10	Unit 2
9002	FLA	Core	FGPM	1	806.41	103	91	66	Whole		Mostly spall but at least one flake removed	0-10	Unit 2
9003	FLA	Core	FGPM	1	285.5	71	70	51	Whole		Bifacial; at least 3 flakes removed	10-20	Unit 2
9004	FLA	Core	FGM	1	392.84	104	82	64	Whole		Multidirectional	10-20	Unit 2
9005	FLA	Core	FGPM	1	285.43	88	74	50	Whole		Multidirectional	10-20	Unit 2
9006	FLA	Core	FGPM	1	182.09	62	58	48	Whole		Polyhedral; mostly spall; 1 flake removed	10-20	Unit 2
9007	FLA	Core	CGPM	1	247.31	101	51	44	Broken		Core fragment; 88 mm of use wear	10-20	Unit 2
9008	FLA	Retouched Flake	FGPM	1	161.97	108	56	35	Whole		Secondary shatter based; 3 flakes removed; 84 mm of modification	10-20	Unit 2

ATTACHMENT 4

Catalog for CA-SDI-10,206

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1000	Debitage	Finishing, resharpening	FGPM	1	0.15							0-10	Unit 2
1001	Debitage	Primary shatter	FGPM	1	1.43							0-10	Unit 2
1002	Debitage	Platform creation, cortex removal	FGPM	1	58.64							10-20	Unit 2
1003	Debitage	Primary shatter	FGM	1	10.46						Highly patinated	10-20	Unit 2
1004	Debitage	Primary shatter	FGPM	1	0.48							10-20	Unit 2
1005	Debitage	Secondary shatter	FGPM	2	0.15							10-20	Unit 2
1006	Debitage	Cortex removal	FGPM	1	1.77							20-30	Unit 2
1007	Debitage	Primary shatter	FGPM	1	0.48							20-30	Unit 2
1008	Debitage	Secondary shatter	Quartzite	1	0.75							20-30	Unit 2
1009	Debitage	Cortex removal	FGPM	1	18.37							0-10	Unit 3
1010	Debitage	Core reduction, basic shaping	FGPM	4	51.4							0-10	Unit 3
1011	Debitage	Finishing, resharpening	FGPM	1	0.3							0-10	Unit 3
1012	Debitage	Trimming	FGPM	1	0.81							0-10	Unit 3
1013	Debitage	Secondary shatter	FGPM	1	0.69							0-10	Unit 3
1014	Debitage	Primary shatter	FGM	1	7.22							0-10	Unit 3
1015	Debitage	Platform creation, cortex removal	FGPM	1	27.02							10-20	Unit 3
1016	Debitage	Cortex removal	FGPM	1	10.16							10-20	Unit 3
1017	Debitage	Core reduction, basic shaping	FGPM	4	46.64							10-20	Unit 3
1018	Debitage	Finishing, resharpening	FGPM	1	0.17							10-20	Unit 3
1019	Debitage	Secondary shatter	FGPM	1	2.32							10-20	Unit 3
1020	Debitage	Bifacial thinning flake	FGM	1	0.29							10-20	Unit 3
1021	Debitage	Cortex removal	FGM	1	41.68							10-20	Unit 3
1022	Debitage	Finishing, resharpening	FGM	2	0.43							10-20	Unit 3
1023	Debitage	Primary shatter	CGPM	2	5.33							10-20	Unit 3
1024	Debitage	Finishing, resharpening	FGM	1	2.24							10-20	Unit 5
1025	Debitage	Primary shatter	CGPM	1	13.43							20-30	Unit 5
1026	Debitage	Core reduction, basic shaping	FGPM	1	143.87							30-40	Unit 5
1027	Debitage	Finishing, resharpening	FGPM	1	0.4							30-40	Unit 5
1028	Debitage	Secondary shatter	FGPM	1	0.4							30-40	Unit 5
1029	Debitage	Trimming	FGPM	1	0.06							0-10	Unit 6
1030	Debitage	Secondary shatter	FGPM	1	1.47							Surface	SC 1
1031	Debitage	Core reduction, basic shaping	FGPM	1	4.15							Surface	SC 2
1032	Debitage	Platform creation, cortex removal	FGPM	1	85.01							Surface	SC 3
1033	Debitage	Platform creation, cortex removal	FGPM	1	19.11							Surface	SC 4
1034	Debitage	Secondary shatter	FGM	1	0.5							Surface	SC 5
1035	Debitage	Primary shatter	FGPM	1	3.2							Surface	SC 5
1036	Debitage	Finishing, resharpening	FGM	1	0.78							Surface	SC 6
1037	Debitage	Cortex removal	FGPM	1	24.29							Surface	SC 8
1038	Debitage	Core reduction, basic shaping	FGM	1	38.38							Surface	SC 10
1039	Debitage	Core reduction, basic shaping	FGPM	1	56.79							Surface	SC 11
1040	Debitage	Secondary shatter	FGPM	1	9.49							Surface	SC 12
1041	Debitage	Platform creation, cortex removal	FGM	1	5.68							Surface	SC 15
1042	Debitage	Finishing, resharpening	FGM	1	1.73							Surface	SC 16
1043	Debitage	Secondary shatter	FGM	2	5.05							Surface	SC 17
1044	Debitage	Core reduction, basic shaping	FGM	1	2.85							Surface	SC 18
1045	Debitage	Core reduction, basic shaping	FGM	1	10.89							Surface	SC 19
1046	Debitage	Core reduction, basic shaping	FGPM	1	9.63							Surface	SC 31
1047	Debitage	Core reduction, basic shaping	FGM	1	31.52							Surface	SC 32
1048	Debitage	Core reduction, basic shaping	FGPM	1	17.86							Surface	SC 32
1049	Debitage	Primary shatter	FGM	1	26.28							Surface	SC 33

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1050	Debitage	Platform creation, cortex removal	FGM	1	12.22							Surface	SC 34
1051	Debitage	Finishing, resharpening	FGM	1	2.59							Surface	SC 35
1052	Debitage	Primary shatter	FGM	1	8.19							Surface	SC 36
1053	Debitage	Secondary shatter	FGM	1	4.09							Surface	SC 36
1054	Debitage	Core reduction, basic shaping	FGM	1	4.56							Surface	SC 37
1055	Debitage	Trimming	FGM	1	2.05							Surface	SC 37
1056	Debitage	Primary shatter	FGM	1	3.5							Surface	SC 37
1057	Debitage	Secondary shatter	FGPM	1	0.53							Surface	SC 37
1058	Debitage	Platform creation, cortex removal	FGM	1	17.07							Surface	SC 38
1059	Debitage	Core reduction, basic shaping	FGM	1	6.55							Surface	SC 38
1060	Debitage	Finishing, resharpening	FGM	2	2.94							Surface	SC 38
1061	Debitage	Core reduction, basic shaping	FGPM	1	14.83							Surface	SC 38
1062	Debitage	Trimming	FGPM	1	0.65							Surface	SC 38
1063	Debitage	Secondary shatter	FGPM	1	2.37							Surface	SC 38
1064	Debitage	Primary shatter	Basalt	1	4.5							Surface	SC 38
1065	Debitage	Primary shatter	FGPM	1	1.7							Surface	SC 39
1066	Debitage	Core reduction, basic shaping	FGM	1	4.1							Surface	SC 40
1067	Debitage	Core reduction, basic shaping	FGPM	1	6.78							Surface	SC 40
1068	Debitage	Finishing, resharpening	FGPM	1	0.25							Surface	SC 40
1069	Debitage	Core reduction, basic shaping	FGM	2	6.36							Surface	SC 41
1070	Debitage	Finishing, resharpening	FGM	2	2.73							Surface	SC 41
1071	Debitage	Secondary shatter	FGM	1	1.36							Surface	SC 41
1072	Debitage	Core reduction, basic shaping	FGPM	5	116.62							Surface	SC 41
1073	Debitage	Finishing, resharpening	FGPM	1	1.43							Surface	SC 41
1074	Debitage	Primary shatter	FGPM	1	4.61							Surface	SC 41
1075	Debitage	Secondary shatter	FGPM	1	6.16							Surface	SC 41
1076	Debitage	Core reduction, basic shaping	FGM	1	5.87							Surface	SC 42
1077	Debitage	Finishing, resharpening	FGM	1	3.48							Surface	SC 42
1078	Debitage	Finishing, resharpening	FGPM	1	1.73							Surface	SC 42
1079	Debitage	Finishing, resharpening	FGM	2	0.29							Surface	SC 43
1080	Debitage	Core reduction, basic shaping	FGPM	1	31.59							Surface	SC 43
1081	Debitage	Cortex removal	FGPM	1	1.48							Surface	SC 44
1082	Debitage	Secondary shatter	FGPM	1	0.91							Surface	SC 44
1083	Debitage	Core reduction, basic shaping	FGM	1	4.37							Surface	SC 45
1084	Debitage	Finishing, resharpening	FGM	1	1.05							Surface	SC 45
1085	Debitage	Cortex removal	FGPM	1	47.44							Surface	SC 45
1086	Debitage	Core reduction, basic shaping	FGPM	7	90.86							Surface	SC 45
1087	Debitage	Finishing, resharpening	FGPM	1	2.31							Surface	SC 45
1088	Debitage	Secondary shatter	FGPM	2	11.95							Surface	SC 45
1089	Debitage	Core reduction, basic shaping	CGPM	2	53.07							Surface	SC 45
1090	Debitage	Secondary shatter	CGPM	1	1.08							Surface	SC 45
1091	Debitage	Core reduction, basic shaping	FGM	2	96.02							Surface	SC 46
1092	Debitage	Finishing, resharpening	FGM	2	1.53							Surface	SC 46
1093	Debitage	Trimming	FGM	1	1.3							Surface	SC 46
1094	Debitage	Secondary shatter	FGM	2	5.27							Surface	SC 46
1095	Debitage	Core reduction, basic shaping	FGPM	8	64.84							Surface	SC 46
1096	Debitage	Finishing, resharpening	FGPM	1	1.3							Surface	SC 46
1097	Debitage	Secondary shatter	FGPM	3	3.33							Surface	SC 46
1098	Debitage	Core reduction, basic shaping	CGPM	2	8.56							Surface	SC 46
1099	Debitage	Finishing, resharpening	CGPM	2	3.1							Surface	SC 46

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1100	Debitage	Core reduction, basic shaping	FGM	1	12.62							Surface	SC 47
1101	Debitage	Finishing, resharpening	FGM	2	4.49							Surface	SC 47
1102	Debitage	Primary shatter	FGM	1	0.32							Surface	SC 47
1103	Debitage	Secondary shatter	FGM	3	1.2							Surface	SC 47
1104	Debitage	Core reduction, basic shaping	FGPM	1	1.59							Surface	SC 47
1105	Debitage	Finishing, resharpening	CGM	1	0.52							Surface	SC 47
1106	Debitage	Trimming	CGM	1	0.23							Surface	SC 47
1107	Debitage	Cortex removal	FGM	1	23.18							Surface	SC 48
1108	Debitage	Secondary shatter	FGM	1	1.23							Surface	SC 48
1109	Debitage	Finishing, resharpening	FGPM	1	2.65							Surface	SC 48
1110	Debitage	Primary shatter	FGPM	1	3.36							Surface	SC 48
1111	Debitage	Bifacial thinning flake	FGM	1	0.98							Surface	SC 49
1112	Debitage	Core reduction, basic shaping	FGM	3	15.34							Surface	SC 49
1113	Debitage	Finishing, resharpening	FGM	1	2.76							Surface	SC 49
1114	Debitage	Secondary shatter	FGM	1	1.27							Surface	SC 49
1115	Debitage	Finishing, resharpening	FGPM	2	1.08							Surface	SC 49
1116	Debitage	Trimming	FGPM	1	0.41							Surface	SC 49
1117	Debitage	Secondary shatter	FGPM	1	0.43							Surface	SC 49
1118	Debitage	Secondary shatter	CGM	1	1.85							Surface	SC 49
1119	Debitage	Finishing, resharpening	CGPM	1	0.39							Surface	SC 49
1120	Debitage	Trimming	Granite	1	2.4							Surface	SC 49
1121	Debitage	Core reduction, basic shaping	Quartzite	1	26.78							Surface	SC 49
1122	Debitage	Core reduction, basic shaping	FGPM	1	4.43							Surface	SC 20
1123	Debitage	Finishing, resharpening	FGPM	1	2.48							Surface	SC 20
1124	Debitage	Core reduction, basic shaping	FGPM	4	41.11							Surface	SC 21
1125	Debitage	Trimming	FGM	1	0.8							Surface	SC 22
1126	Debitage	Cortex removal	FGM	1	8.41							Surface	SC 23
1127	Debitage	Core reduction, basic shaping	FGPM	2	12.98							Surface	SC 24
1128	Debitage	Core reduction, basic shaping	FGPM	1	2.83							Surface	SC 25
1129	Debitage	Secondary shatter	FGM	1	3.19							Surface	SC 26
1130	Debitage	Secondary shatter	FGM	1	0.23							Surface	SC 27
1131	Debitage	Core reduction, basic shaping	FGM	2	14.93							Surface	SC 28
1132	Debitage	Core reduction, basic shaping	FGM	2	23.48							Surface	SC 29
1133	Debitage	Core reduction, basic shaping	FGM	1	3.56							Surface	SC 50
1134	Debitage	Finishing, resharpening	FGM	1	1.35							Surface	SC 50
1135	Debitage	Secondary shatter	FGM	1	0.31							Surface	SC 50
1136	Debitage	Platform creation, cortex removal	FGPM	1	10							Surface	SC 50
1137	Debitage	Core reduction, basic shaping	FGPM	2	97.24							Surface	SC 50
1138	Debitage	Secondary shatter	FGPM	1	1.71							Surface	SC 50
1139	Debitage	Core reduction, basic shaping	FGPM	2	38.65							Surface	SC 51
1140	Debitage	Trimming	FGPM	1	1.38							Surface	SC 51
1141	Debitage	Core reduction, basic shaping	FGPM	3	56.97							Surface	SC 52
1142	Debitage	Core reduction, basic shaping	FGM	3	9.48							Surface	SC 53
1143	Debitage	Core reduction, basic shaping	FGPM	3	11.15							Surface	SC 53
1144	Debitage	Primary shatter	FGPM	1	0.28							Surface	SC 53
1145	Debitage	Finishing, resharpening	FGM	1	0.7							Surface	SC 54
1146	Debitage	Finishing, resharpening	FGPM	1	0.61							Surface	SC 54
1147	Debitage	Trimming	FGPM	1	0.29							Surface	SC 54
1148	Debitage	Finishing, resharpening	FGM	1	0.21							Surface	SC 55
1149	Debitage	Trimming	FGM	1	0.78							Surface	SC 55

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1150	Debitage	Core reduction, basic shaping	FGM	3	14.88							Surface	SC 56
1151	Debitage	Finishing, resharpening	FGM	2	1.77							Surface	SC 56
1152	Debitage	Primary shatter	FGM	1	6.38							Surface	SC 56
1153	Debitage	Core reduction, basic shaping	FGPM	5	72.44							Surface	SC 56
1154	Debitage	Finishing, resharpening	FGPM	2	5.53							Surface	SC 56
1155	Debitage	Secondary shatter	FGPM	1	5.45							Surface	SC 56
1156	Debitage	Core reduction, basic shaping	FGM	1	1.99							Surface	SC 58
1157	Debitage	Finishing, resharpening	FGM	1	0.7							Surface	SC 58
1158	Debitage	Core reduction, basic shaping	FGPM	1	4							Surface	SC 58
1159	Debitage	Secondary shatter	FGPM	2	2.6							Surface	SC 58
1160	Debitage	Finishing, resharpening	FGM	1	1.43							Surface	SC 59
1161	Debitage	Secondary shatter	FGM	1	1.9							Surface	SC 59
1162	Debitage	Cortex removal	FGPM	1	51.24							Surface	SC 59
1163	Debitage	Core reduction, basic shaping	FGPM	2	11.13							Surface	SC 59
1164	Debitage	Finishing, resharpening	FGPM	2	0.5							Surface	SC 59
1165	Debitage	Core reduction, basic shaping	FGPM	7	55.71							Surface	SC 61
1166	Debitage	Finishing, resharpening	FGPM	1	1.89							Surface	SC 61
1167	Debitage	Core reduction, basic shaping	FGM	1	23.2							Surface	SC 62
1168	Debitage	Finishing, resharpening	FGM	1	0.24							Surface	SC 62
1169	Debitage	Finishing, resharpening	FGPM	3	3.29							Surface	SC 62
1170	Debitage	Cortex removal	FGM	1	17.28							Surface	SC 63
1171	Debitage	Core reduction, basic shaping	FGM	1	7.93							Surface	SC 63
1172	Debitage	Finishing, resharpening	FGM	5	2.93							Surface	SC 63
1173	Debitage	Secondary shatter	FGM	1	0.12							Surface	SC 63
1174	Debitage	Core reduction, basic shaping	FGPM	6	28.45							Surface	SC 63
1175	Debitage	Finishing, resharpening	FGPM	10	7.73							Surface	SC 63
1176	Debitage	Trimming	FGPM	1	0.51							Surface	SC 63
1177	Debitage	Primary shatter	FGPM	3	41.63							Surface	SC 63
1178	Debitage	Secondary shatter	FGPM	2	0.49							Surface	SC 63
1179	Debitage	Core reduction, basic shaping	FGM	1	11.51							Surface	SC 64
1180	Debitage	Core reduction, basic shaping	FGPM	5	125.84							Surface	SC 64
1181	Debitage	Finishing, resharpening	FGPM	5	2.49							Surface	SC 64
1182	Debitage	Secondary shatter	FGPM	2	0.53							Surface	SC 64
1183	Debitage	Finishing, resharpening	FGM	6	5.65							Surface	SC 65
1184	Debitage	Primary shatter	FGM	1	12.82							Surface	SC 65
1185	Debitage	Secondary shatter	FGM	2	5.54							Surface	SC 65
1186	Debitage	Core reduction, basic shaping	FGPM	5	42.23							Surface	SC 65
1187	Debitage	Finishing, resharpening	FGPM	1	0.7							Surface	SC 65
1188	Debitage	Secondary shatter	FGPM	2	1.02							Surface	SC 65
1189	Debitage	Cortex removal	CGPM	1	2.6							Surface	SC 65
1190	Debitage	Secondary shatter	CGPM	1	0.16							Surface	SC 65
1191	Debitage	Finishing, resharpening	FGM	1	1.26							Surface	SC 66
1192	Debitage	Secondary shatter	FGM	2	0.74							Surface	SC 66
1193	Debitage	Core reduction, basic shaping	FGPM	6	27.98							Surface	SC 66
1194	Debitage	Finishing, resharpening	FGPM	2	1.07							Surface	SC 66
1195	Debitage	Primary shatter	FGPM	1	29.47							Surface	SC 66
1196	Debitage	Secondary shatter	FGPM	1	0.9							Surface	SC 66
1197	Debitage	Finishing, resharpening	FGM	1	0.27							Surface	SC 67
1198	Debitage	Core reduction, basic shaping	FGPM	3	12.21							Surface	SC 67
1199	Debitage	Trimming	FGPM	1	0.62							Surface	SC 67

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1200	Debitage	Primary shatter	FGPM	1	11.05							Surface	SC 67
1201	Debitage	Core reduction, basic shaping	FGM	1	7.28							Surface	SC 68
1202	Debitage	Finishing, resharpening	FGM	2	2.57							Surface	SC 68
1203	Debitage	Core reduction, basic shaping	FGPM	4	22.07							Surface	SC 68
1204	Debitage	Finishing, resharpening	FGPM	2	1.92							Surface	SC 68
1205	Debitage	Secondary shatter	FGPM	1	0.19							Surface	SC 68
1206	Debitage	Core reduction, basic shaping	CGPM	1	14.99							Surface	SC 68
1207	Debitage	Secondary shatter	CGPM	1	0.86							Surface	SC 68
1208	Debitage	Core reduction, basic shaping	FGM	2	26.74							Surface	SC 69
1209	Debitage	Finishing, resharpening	FGM	2	0.89							Surface	SC 69
1210	Debitage	Secondary shatter	FGM	1	2.24							Surface	SC 69
1211	Debitage	Core reduction, basic shaping	FGPM	6	202.17							Surface	SC 69
1212	Debitage	Finishing, resharpening	FGPM	1	0.76							Surface	SC 69
1213	Debitage	Secondary shatter	FGPM	2	1.09							Surface	SC 69
1214	Debitage	Primary shatter	CGM	1	6.92							Surface	SC 69
1215	Debitage	Finishing, resharpening	FGM	3	2.11							Surface	SC 70
1216	Debitage	Bifacial thinning flake	FGPM	1	0.75							Surface	SC 70
1217	Debitage	Finishing, resharpening	FGPM	6	2.65							Surface	SC 70
1218	Debitage	Secondary shatter	FGPM	1	0.72							Surface	SC 70
1219	Debitage	Cortex removal	FGPM	1	25.14							Surface	SC 71
1220	Debitage	Core reduction, basic shaping	FGPM	5	49.14							Surface	SC 71
1221	Debitage	Finishing, resharpening	FGPM	1	0.75							Surface	SC 71
1222	Debitage	Primary shatter	FGPM	1	0.13							Surface	SC 71
1223	Debitage	Secondary shatter	FGPM	2	1.19							Surface	SC 71
1224	Debitage	Bifacial thinning flake	FGM	1	0.25							Surface	SC 72
1225	Debitage	Finishing, resharpening	FGM	1	0.11							Surface	SC 72
1226	Debitage	Cortex removal	FGPM	1	3.76							Surface	SC 72
1227	Debitage	Core reduction, basic shaping	FGPM	4	25.06							Surface	SC 72
1228	Debitage	Finishing, resharpening	FGPM	4	6.77							Surface	SC 72
1229	Debitage	Trimming	FGPM	1	0.92							Surface	SC 72
1230	Debitage	Secondary shatter	FGPM	2	4.16							Surface	SC 72
1231	Debitage	Cortex removal	FGM	1	11.32							Surface	SC 73
1232	Debitage	Finishing, resharpening	FGM	2	1.13							Surface	SC 73
1233	Debitage	Platform creation, cortex removal	FGPM	1	15.26							Surface	SC 73
1234	Debitage	Cortex removal	FGPM	1	6.5							Surface	SC 73
1235	Debitage	Core reduction, basic shaping	FGPM	3	39.26							Surface	SC 73
1236	Debitage	Trimming	FGPM	1	0.86							Surface	SC 73
1237	Debitage	Finishing, resharpening	FGM	1	0.68							Surface	SC 74
1238	Debitage	Primary shatter	FGM	1	0.76							Surface	SC 74
1239	Debitage	Cortex removal	FGPM	1	12.72							Surface	SC 74
1240	Debitage	Core reduction, basic shaping	FGPM	2	3.03							Surface	SC 74
1241	Debitage	Finishing, resharpening	FGPM	2	4.68							Surface	SC 74
1242	Debitage	Core reduction, basic shaping	CGPM	1	2.89							Surface	SC 74
1243	Debitage	Platform creation, cortex removal	FGPM	1	26.33							Surface	SC 75
1244	Debitage	Core reduction, basic shaping	FGPM	3	43.6							Surface	SC 75
1245	Debitage	Finishing, resharpening	FGPM	1	1.12							Surface	SC 75
1246	Debitage	Trimming	FGPM	1	1.56							Surface	SC 75
1247	Debitage	Core reduction, basic shaping	FGPM	1	2.44							Surface	SC 77
1248	Debitage	Finishing, resharpening	FGPM	1	0.32							Surface	SC 77
1249	Debitage	Primary shatter	FGPM	1	6.56							Surface	SC 77

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1250	Debitage	Secondary shatter	FGPM	1	0.71							Surface	SC 77
1251	Debitage	Finishing, resharpening	FGM	3	3.67							Surface	SC 79
1252	Debitage	Cortex removal	FGPM	1	74.69							Surface	SC 79
1253	Debitage	Core reduction, basic shaping	FGPM	1	11.52							Surface	SC 79
1254	Debitage	Finishing, resharpening	FGPM	3	3.23							Surface	SC 79
1255	Debitage	Core reduction, basic shaping	FGM	1	1.72							Surface	SC 81
1256	Debitage	Core reduction, basic shaping	FGPM	3	92.33							Surface	SC 81
1257	Debitage	Cortex removal	FGM	1	15.94							Surface	SC 82
1258	Debitage	Core reduction, basic shaping	FGM	1	0.98							Surface	SC 82
1259	Debitage	Finishing, resharpening	FGM	1	0.64							Surface	SC 82
1260	Debitage	Secondary shatter	FGM	1	1.7							Surface	SC 82
1261	Debitage	Platform creation, cortex removal	FGPM	1	9.61							Surface	SC 82
1262	Debitage	Core reduction, basic shaping	FGPM	2	158.42							Surface	SC 82
1263	Debitage	Finishing, resharpening	FGPM	5	1.93							Surface	SC 82
1264	Debitage	Secondary shatter	FGPM	6	5.82							Surface	SC 82
1265	Debitage	Finishing, resharpening	CGPM	1	0.62							Surface	SC 82
1266	Debitage	Secondary shatter	CGPM	2	3.55							Surface	SC 82
1267	Debitage	Primary shatter	Quartzite	1	0.45							Surface	SC 82
1268	Debitage	Finishing, resharpening	MCQ	1	0.18							Surface	SC 82
1269	Debitage	Core reduction, basic shaping	FGM	2	16.95							Surface	SC 83
1270	Debitage	Finishing, resharpening	FGM	2	0.43							Surface	SC 83
1271	Debitage	Cortex removal	FGPM	1	46.19							Surface	SC 83
1272	Debitage	Core reduction, basic shaping	FGPM	5	74.28							Surface	SC 83
1273	Debitage	Finishing, resharpening	FGPM	4	1.12							Surface	SC 83
1274	Debitage	Trimming	FGPM	3	3.57							Surface	SC 83
1275	Debitage	Primary shatter	FGPM	1	18.58							Surface	SC 83
1276	Debitage	Secondary shatter	FGPM	4	2.52							Surface	SC 83
1277	Debitage	Platform creation, cortex removal	FGM	1	5.46							Surface	SC 84
1278	Debitage	Core reduction, basic shaping	FGM	1	5.94							Surface	SC 84
1279	Debitage	Finishing, resharpening	FGM	1	0.04							Surface	SC 84
1280	Debitage	Platform creation, cortex removal	FGPM	1	3.79							Surface	SC 84
1281	Debitage	Cortex removal	FGPM	1	5.88							Surface	SC 84
1282	Debitage	Core reduction, basic shaping	FGPM	4	21.11							Surface	SC 84
1283	Debitage	Finishing, resharpening	FGPM	2	0.13							Surface	SC 84
1284	Debitage	Trimming	FGPM	1	0.38							Surface	SC 84
1285	Debitage	Secondary shatter	FGPM	1	0.09							Surface	SC 84
1286	Debitage	Core reduction, basic shaping	CGPM	2	10.22							Surface	SC 84
1287	Debitage	Finishing, resharpening	CGPM	2	0.35							Surface	SC 84
1288	Debitage	Finishing, resharpening	FGM	2	0.12							Surface	SC 85
1289	Debitage	Secondary shatter	FGM	2	0.06							Surface	SC 85
1290	Debitage	Finishing, resharpening	FGPM	4	1.38							Surface	SC 85
1291	Debitage	Trimming	FGPM	2	0.55							Surface	SC 85
1292	Debitage	Secondary shatter	FGPM	7	1.3							Surface	SC 85
1293	Debitage	Finishing, resharpening	CGPM	3	0.81							Surface	SC 85
1294	Debitage	Trimming	CGPM	1	0.56							Surface	SC 85
1295	Debitage	Secondary shatter	CGPM	2	0.24							Surface	SC 85
1296	Debitage	Secondary shatter	MCQ	1	0.1							Surface	SC 85
1297	Debitage	Core reduction, basic shaping	FGM	2	10.62							Surface	SC 86
1298	Debitage	Finishing, resharpening	FGM	1	0.77							Surface	SC 86
1299	Debitage	Secondary shatter	FGM	1	3.03							Surface	SC 86

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1300	Debitage	Platform creation, cortex removal	FGPM	2	10.85							Surface	SC 86
1301	Debitage	Core reduction, basic shaping	FGPM	8	134.04							Surface	SC 86
1302	Debitage	Finishing, resharpening	FGPM	5	7.8							Surface	SC 86
1303	Debitage	Trimming	FGPM	1	0.35							Surface	SC 86
1304	Debitage	Primary shatter	FGPM	2	5.07							Surface	SC 86
1305	Debitage	Secondary shatter	FGPM	3	5.27							Surface	SC 86
1306	Debitage	Finishing, resharpening	CGPM	2	1.46							Surface	SC 86
1307	Debitage	Secondary shatter	CGPM	1	1.04							Surface	SC 86
1308	Debitage	Core reduction, basic shaping	FGM	1	2.09							Surface	SC 88
1309	Debitage	Finishing, resharpening	FGM	3	2.92							Surface	SC 88
1310	Debitage	Cortex removal	FGPM	2	17.46							Surface	SC 88
1311	Debitage	Core reduction, basic shaping	FGPM	3	33.6							Surface	SC 88
1312	Debitage	Finishing, resharpening	FGPM	7	5.21							Surface	SC 88
1313	Debitage	Primary shatter	FGPM	1	20.35							Surface	SC 88
1314	Debitage	Secondary shatter	FGPM	2	0.56							Surface	SC 88
1315	Debitage	Core reduction, basic shaping	FGM	1	3.6							Surface	SC 89
1316	Debitage	Trimming	FGM	1	0.2							Surface	SC 89
1317	Debitage	Primary shatter	FGM	2	0.29							Surface	SC 89
1318	Debitage	Core reduction, basic shaping	FGPM	6	24.64							Surface	SC 89
1319	Debitage	Finishing, resharpening	FGPM	6	0.95							Surface	SC 89
1320	Debitage	Trimming	FGPM	3	6.17							Surface	SC 89
1321	Debitage	Primary shatter	FGPM	2	0.76							Surface	SC 89
1322	Debitage	Finishing, resharpening	CGPM	1	0.28							Surface	SC 89
1323	Debitage	Finishing, resharpening	FGM	3	2.23							Surface	SC 90
1324	Debitage	Cortex removal	FGPM	1	3.73							Surface	SC 90
1325	Debitage	Core reduction, basic shaping	FGPM	3	38.33							Surface	SC 90
1326	Debitage	Finishing, resharpening	FGPM	1	0.26							Surface	SC 90
1327	Debitage	Trimming	FGPM	2	2.5							Surface	SC 90
1328	Debitage	Primary shatter	FGPM	1	1.89							Surface	SC 90
1329	Debitage	Core reduction, basic shaping	FGM	1	9.13							Surface	SC 91
1330	Debitage	Finishing, resharpening	FGM	1	1.1							Surface	SC 91
1331	Debitage	Secondary shatter	FGM	1	0.39							Surface	SC 91
1332	Debitage	Core reduction, basic shaping	FGPM	6	19.65							Surface	SC 91
1333	Debitage	Finishing, resharpening	FGPM	3	2.47							Surface	SC 91
1334	Debitage	Trimming	FGPM	1	0.41							Surface	SC 91
1335	Debitage	Primary shatter	FGPM	1	2.7							Surface	SC 91
1336	Debitage	Secondary shatter	FGPM	2	2.88							Surface	SC 91
1337	Debitage	Finishing, resharpening	CGPM	2	0.67							Surface	SC 91
1338	Debitage	Core reduction, basic shaping	FGM	2	10.45							Surface	SC 92
1339	Debitage	Finishing, resharpening	FGM	2	2.87							Surface	SC 92
1340	Debitage	Core reduction, basic shaping	FGPM	4	90.87							Surface	SC 92
1341	Debitage	Finishing, resharpening	FGPM	7	2.34							Surface	SC 92
1342	Debitage	Trimming	FGPM	2	2.09							Surface	SC 92
1343	Debitage	Primary shatter	FGPM	1	77.9							Surface	SC 92
1344	Debitage	Secondary shatter	FGPM	2	2.01							Surface	SC 92
1345	Debitage	Core reduction, basic shaping	CGPM	2	36.66							Surface	SC 92
1346	Debitage	Core reduction, basic shaping	FGM	1	0.81							Surface	SC 93
1347	Debitage	Finishing, resharpening	FGM	4	2.91							Surface	SC 93
1348	Debitage	Primary shatter	FGM	2	3.99							Surface	SC 93
1349	Debitage	Secondary shatter	FGM	3	1.17							Surface	SC 93

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1350	Debitage	Core reduction, basic shaping	FGPM	13	72.55							Surface	SC 93
1351	Debitage	Finishing, resharpening	FGPM	9	3.31							Surface	SC 93
1352	Debitage	Trimming	FGPM	6	11.59							Surface	SC 93
1353	Debitage	Secondary shatter	FGPM	5	1.32							Surface	SC 93
1354	Debitage	Finishing, resharpening	CGPM	1	0.33							Surface	SC 93
1355	Debitage	Finishing, resharpening	MCQ	1	0.1							Surface	SC 93
1356	Debitage	Core reduction, basic shaping	FGM	3	8.86							Surface	SC 94
1357	Debitage	Core reduction, basic shaping	FGPM	4	36.11							Surface	SC 94
1358	Debitage	Cortex removal	FGM	1	72.04							Surface	SC 96
1359	Debitage	Platform creation, cortex removal	FGPM	1	41.43							Surface	SC 96
1360	Debitage	Cortex removal	FGPM	2	81.64							Surface	SC 96
1361	Debitage	Core reduction, basic shaping	FGPM	7	77.18							Surface	SC 96
1362	Debitage	Finishing, resharpening	FGPM	7	9.66							Surface	SC 96
1363	Debitage	Trimming	FGPM	3	2.46							Surface	SC 96
1364	Debitage	Secondary shatter	FGPM	5	2.33							Surface	SC 96
1365	Debitage	Core reduction, basic shaping	CGPM	1	22.58							Surface	SC 96
1366	Debitage	Core reduction, basic shaping	FGM	2	31.65							Surface	SC 97
1367	Debitage	Finishing, resharpening	FGM	1	0.07							Surface	SC 97
1368	Debitage	Secondary shatter	FGM	1	0.84							Surface	SC 97
1369	Debitage	Core reduction, basic shaping	FGPM	11	39.18							Surface	SC 97
1370	Debitage	Finishing, resharpening	FGPM	6	6.22							Surface	SC 97
1371	Debitage	Primary shatter	FGPM	1	0.42							Surface	SC 97
1372	Debitage	Secondary shatter	FGPM	5	3.05							Surface	SC 97
1373	Debitage	Finishing, resharpening	MCQ	1	0.34							Surface	SC 97
1374	Debitage	Primary shatter	MCQ	2	7.62							Surface	SC 97
1375	Debitage	Secondary shatter	MCQ	2	3.29							Surface	SC 97
1376	Debitage	Secondary shatter	Granite	1	0.3							Surface	SC 97
1377	Debitage	Core reduction, basic shaping	FGM	1	25.71							Surface	SC 98
1378	Debitage	Finishing, resharpening	FGM	2	0.99							Surface	SC 98
1379	Debitage	Cortex removal	FGPM	1	8.54							Surface	SC 98
1380	Debitage	Core reduction, basic shaping	FGPM	3	5.22							Surface	SC 98
1381	Debitage	Finishing, resharpening	FGPM	3	0.8							Surface	SC 98
1382	Debitage	Primary shatter	FGPM	4	13.83							Surface	SC 98
1383	Debitage	Secondary shatter	FGPM	1	0.32							Surface	SC 98
1384	Debitage	Core reduction, basic shaping	CGPM	1	8.08							Surface	SC 98
1385	Debitage	Finishing, resharpening	MCQ	1	0.07							Surface	SC 98
1386	Debitage	Core reduction, basic shaping	FGM	1	2.09							Surface	SC 100
1387	Debitage	Finishing, resharpening	FGM	1	0.14							Surface	SC 100
1388	Debitage	Cortex removal	FGPM	1	11.35							Surface	SC 100
1389	Debitage	Core reduction, basic shaping	FGPM	5	17.37							Surface	SC 100
1390	Debitage	Trimming	FGPM	1	0.29							Surface	SC 100
1391	Debitage	Secondary shatter	FGPM	1	0.67							Surface	SC 100
1392	Debitage	Core reduction, basic shaping	FGM	3	29.64							Surface	SC 101
1393	Debitage	Finishing, resharpening	FGM	2	1.71							Surface	SC 101
1394	Debitage	Core reduction, basic shaping	FGPM	3	13.72							Surface	SC 101
1395	Debitage	Finishing, resharpening	FGPM	3	1.27							Surface	SC 101
1396	Debitage	Trimming	FGPM	1	2.81							Surface	SC 101
1397	Debitage	Cortex removal	FGM	1	31.02							Surface	SC 104
1398	Debitage	Core reduction, basic shaping	FGM	1	58.72							Surface	SC 104
1399	Debitage	Finishing, resharpening	FGM	2	2.75							Surface	SC 104

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1400	Debitage	Finishing, resharpening	FGM	2	1.23							Surface	SC 106
1401	Debitage	Platform creation, cortex removal	FGPM	1	2.88							Surface	SC 106
1402	Debitage	Core reduction, basic shaping	FGPM	3	25.82							Surface	SC 106
1403	Debitage	Finishing, resharpening	FGPM	1	0.19							Surface	SC 106
1404	Debitage	Finishing, resharpening	FGM	3	1.26							Surface	SC 107
1405	Debitage	Cortex removal	FGPM	1	64.27							Surface	SC 107
1406	Debitage	Core reduction, basic shaping	FGPM	9	59.5							Surface	SC 107
1407	Debitage	Finishing, resharpening	FGPM	3	0.9							Surface	SC 107
1408	Debitage	Primary shatter	FGPM	1	0.32							Surface	SC 107
1409	Debitage	Secondary shatter	FGPM	4	4.47							Surface	SC 107
1410	Debitage	Core reduction, basic shaping	CGPM	1	2.74							Surface	SC 107
1411	Debitage	Finishing, resharpening	CGPM	2	1.64							Surface	SC 107
1412	Debitage	Core reduction, basic shaping	FGM	2	14.33							Surface	SC 108
1413	Debitage	Finishing, resharpening	FGM	1	0.1							Surface	SC 108
1414	Debitage	Core reduction, basic shaping	FGPM	1	1.19							Surface	SC 108
1415	Debitage	Finishing, resharpening	FGPM	2	2.63							Surface	SC 108
1416	Debitage	Trimming	FGPM	1	0.29							Surface	SC 108
1417	Debitage	Cortex removal	FGPM	1	42.66							Surface	SC 109
1418	Debitage	Core reduction, basic shaping	FGPM	3	29.52							Surface	SC 109
1419	Debitage	Core reduction, basic shaping	CGPM	1	10.04							Surface	SC 109
1420	Debitage	Core reduction, basic shaping	FGM	1	50.21							Surface	SC 110
1421	Debitage	Finishing, resharpening	FGM	2	0.62							Surface	SC 110
1422	Debitage	Trimming	FGM	1	0.86							Surface	SC 110
1423	Debitage	Finishing, resharpening	FGPM	3	0.79							Surface	SC 110
1424	Debitage	Trimming	FGPM	2	4.27							Surface	SC 110
1425	Debitage	Primary shatter	FGPM	1	4.84							Surface	SC 110
1426	Debitage	Secondary shatter	FGPM	1	0.74							Surface	SC 110
1427	Debitage	Core reduction, basic shaping	FGPM	2	10.27							Surface	SC 111
1428	Debitage	Finishing, resharpening	FGPM	2	0.74							Surface	SC 111
1429	Debitage	Trimming	FGPM	1	2.74							Surface	SC 111
1430	Debitage	Core reduction, basic shaping	FGPM	1	4.71							Surface	SC 112
1431	Debitage	Finishing, resharpening	FGPM	2	0.26							Surface	SC 112
1432	Debitage	Secondary shatter	FGM	1	1.05							Surface	SC 113
1433	Debitage	Core reduction, basic shaping	FGPM	3	14.91							Surface	SC 113
1434	Debitage	Finishing, resharpening	FGPM	3	1.62							Surface	SC 113
1435	Debitage	Primary shatter	FGPM	1	18.96							Surface	SC 113
1436	Debitage	Core reduction, basic shaping	CGPM	2	6.51							Surface	SC 113
1437	Debitage	Secondary shatter	CGPM	1	0.07							Surface	SC 113
1438	Debitage	Core reduction, basic shaping	MCQ (PDL)	1	5.24						Piedra de Lumbre	Surface	SC 113
1439	Debitage	Core reduction, basic shaping	FGPM	1	2.91							Surface	SC 116
1440	Debitage	Core reduction, basic shaping	FGPM	1	4.38							Surface	SC 117
1441	Debitage	Finishing, resharpening	FGPM	3	1.44							Surface	SC 117
1442	Debitage	Finishing, resharpening	FGM	1	0.78							Surface	SC 118
1443	Debitage	Core reduction, basic shaping	FGPM	3	13.07							Surface	SC 118
1444	Debitage	Core reduction, basic shaping	FGPM	5	51.65							Surface	SC 119
1445	Debitage	Finishing, resharpening	FGPM	3	1.21							Surface	SC 119
1446	Debitage	Secondary shatter	FGPM	1	0.81							Surface	SC 119
1447	Debitage	Finishing, resharpening	FGM	1	0.44							Surface	SC 122
1448	Debitage	Finishing, resharpening	FGPM	2	1.08							Surface	SC 122
1449	Debitage	Trimming	FGPM	1	0.86							Surface	SC 122

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1450	Debitage	Core reduction, basic shaping	FGPM	1	22.72							Surface	SC 123
1451	Debitage	Core reduction, basic shaping	FGM	1	3.86							Surface	SC 124
1452	Debitage	Finishing, resharpening	FGM	1	0.2							Surface	SC 124
1453	Debitage	Core reduction, basic shaping	FGPM	1	0.91							Surface	SC 124
1454	Debitage	Secondary shatter	FGM	1	0.73							Surface	SC 125
1455	Debitage	Core reduction, basic shaping	FGPM	2	42.18							Surface	SC 125
1456	Debitage	Primary shatter	FGPM	1	2.12							Surface	SC 125
1457	Debitage	Secondary shatter	FGPM	1	98.49							Surface	SC 126
1458	Debitage	Primary shatter	FGPM	1	16.57							Surface	SC 127
1459	Debitage	Core reduction, basic shaping	FGPM	1	8.95							Surface	SC 128
1460	Debitage	Secondary shatter	FGPM	1	4.65							Surface	SC 129
1461	Debitage	Cortex removal	FGPM	1	22.62							Surface	SC 130
1462	Debitage	Core reduction, basic shaping	FGPM	1	14.59							Surface	SC 131
1463	Debitage	Primary shatter	FGPM	1	11.91							Surface	SC 132
1464	Debitage	Finishing, resharpening	FGM	1	0.79							Surface	SC 134
1465	Debitage	Core reduction, basic shaping	FGPM	1	2.95							Surface	SC 134
1466	Debitage	Finishing, resharpening	FGPM	3	4.8							Surface	SC 134
1467	Debitage	Primary shatter	FGPM	1	0.59							Surface	SC 134
1468	Debitage	Secondary shatter	CGPM	1	23.48							Surface	SC 134
1469	Debitage	Core reduction, basic shaping	FGPM	1	11.36							Surface	SC 135
1470	Debitage	Finishing, resharpening	FGPM	1	1.43							Surface	SC 135
1471	Debitage	Primary shatter	FGPM	1	2.21							Surface	SC 136
1472	Debitage	Platform creation, cortex removal	CGPM	1	7.08							Surface	SC 136
1473	Debitage	Core reduction, basic shaping	FGPM	2	55.21							Surface	SC 137
1474	Debitage	Core reduction, basic shaping	FGPM	2	65.75							Surface	SC 138
1475	Debitage	Core reduction, basic shaping	FGM	1	5.65							Surface	SC 139
1476	Debitage	Core reduction, basic shaping	FGPM	1	18.11							Surface	SC 140
1477	Debitage	Primary shatter	FGPM	1	1.51							Surface	SC 140
1478	Debitage	Core reduction, basic shaping	CGPM	1	3.71							Surface	SC 140
1479	Debitage	Cortex removal	FGPM	1	48.29							Surface	SC 141
1480	Debitage	Core reduction, basic shaping	CGM	1	14.66							Surface	SC 141
1481	Debitage	Core reduction, basic shaping	FGPM	1	21.88							Surface	SC 142
1482	Debitage	Core reduction, basic shaping	FGPM	1	5.32							Surface	SC 143
1483	Debitage	Core reduction, basic shaping	FGPM	2	29.92							Surface	SC 145
1484	Debitage	Cortex removal	FGPM	1	60.19							Surface	SC 146
1485	Debitage	Cortex removal	FGPM	1	23.34							Surface	SC 147
1486	Debitage	Core reduction, basic shaping	FGPM	1	81.57							Surface	SC 148
1487	Debitage	Core reduction, basic shaping	FGPM	2	32.02							Surface	SC 149
1488	Debitage	Finishing, resharpening	FGPM	1	2.45							Surface	SC 149
1489	Debitage	Core reduction, basic shaping	CGM	1	5.16							Surface	SC 149
1490	Debitage	Core reduction, basic shaping	FGM	3	12.92							Surface	SC 150
1491	Debitage	Trimming	FGM	1	0.54							Surface	SC 150
1492	Debitage	Core reduction, basic shaping	FGPM	1	8.12							Surface	SC 150
1493	Debitage	Core reduction, basic shaping	FGPM	6	45.99							Surface	SC 150
1494	Debitage	Finishing, resharpening	FGPM	4	3.2							Surface	SC 150
1495	Debitage	Trimming	FGPM	1	6.79							Surface	SC 150
1496	Debitage	Core reduction, basic shaping	CGM	2	10.42							Surface	SC 150
1497	Debitage	Core reduction, basic shaping	CGPM	5	27.32							Surface	SC 150
1498	Debitage	Finishing, resharpening	CGPM	1	0.26							Surface	SC 150
1499	Debitage	Secondary shatter	FGM	1	13.38						Crushed platform	Surface	SC 152

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1500	Debitage	Core reduction, basic shaping	FGPM	2	22.98							Surface	SC 152
1501	Debitage	Finishing, resharpening	FGPM	1	0.46							Surface	SC 152
1502	Debitage	Primary shatter	FGPM	1	1.96							Surface	SC 152
1503	Debitage	Finishing, resharpening	FGM	1	0.19							Surface	SC 153
1504	Debitage	Core reduction, basic shaping	FGPM	4	35.38							Surface	SC 153
1505	Debitage	Finishing, resharpening	FGPM	5	4.68							Surface	SC 153
1506	Debitage	Secondary shatter	FGPM	5	2.72							Surface	SC 153
1507	Debitage	Core reduction, basic shaping	CGM	1	4							Surface	SC 155
2000	Shell	Saxidomus sp.	Shell	0	0.6							0-10	Unit 4
2001	Shell	Saxidomus sp.	Shell	0	3.35							Surface	SC 13
2002	Shell	Saxidomus sp.	Shell	0	2.3							Surface	SC 14
2003	Shell	Saxidomus sp.	Shell	0	2.17							Surface	SC 30
2004	Shell	Laevicardium sp.	Shell	0	5.23							Surface	SC 78
2005	Shell	Laevicardium sp.	Shell	0	3.52							Surface	SC 95
2006	Shell	Pecten sp.	Shell	0	1.8							Surface	SC 95
2007	Shell	Chiton	Shell	0	0.79							Surface	SC 95
2008	Shell	Laevicardium sp.	Shell	0	2.65							Surface	SC 99
2009	Shell	Laevicardium sp.	Shell	0	1.22							Surface	SC 114
3000	Groundstone	Metate	Granite	1	58.85				Broken		6.3 x 3.1 grinding surface remains; small and shallow piece; towards edge of original surface; pecking; polish	0-10	Unit 3
5000	Non-Human Bone	Undifferentiated small mammal	Bone	1	0.07				Broken			0-10	Unit 2
5001	Non-Human Bone	Undifferentiated small mammal	Bone	1	0.02				Broken		Possible skull fragment	20-30	Unit 2
5002	Non-Human Bone	Undifferentiated small mammal	Bone	6	2.01				Broken			10-20	Unit 3
5003	Non-Human Bone	Undifferentiated small mammal	Bone	1	0.31				Broken and Burned		Long bone; several striations	Surface	SC 76
5004	Non-Human Bone	Undifferentiated small mammal	Bone	1	0.19				Broken and Burned		Long bone; several striations	Surface	SC 102
9000	FLA	Core	FGPM	1	34.76	38	36	27	Whole		Given the size, a possible expended core with 1 flake removed; all sides are angular; 1 side is a different patination	10-20	Unit 2
9001	FLA	Assayed Cobble	FGPM	1	16.74	29	26	21	Whole		More of a pebble; doesn't fit to be a core or a primary flake	20-30	Unit 2
9002	FLA	Modified flake	FGM	1	2.87	31	17	5	Whole		2 cm of work, at least 5 flakes removed	20-30	Unit 2
9003	FLA	Core	FGM	1	115.18	60	49	39	Whole		Several flakes removed; could likely be edge dameage to a fine grain material; 1 flake removal looks good	30-40	Unit 5
9004	FLA	Core	FGPM	1	102.31	61	58	44	Whole		Expended	Surface	SC 7
9005	FLA	Core	FGPM	1	216.75	96	67	34	Whole		Flake based	Surface	SC 9
9006	FLA	Core	FGPM	1	53.05	55	46	30	Whole		Collected with flakes and not separated at the time; small; expended; 4 flakes removed; area of dorsal scarring	Surface	SC 56
9007	FLA	Core	FGM	1	86.47	68	47	33	Whole		7 flakes removed	Surface	SC 57
9008	FLA	Hammerstone	FGPM	1	534.51	87	72	68	Whole		7 margins of use wear; 4 areas of battering	Surface	SC 60
9009	FLA	Core	FGPM	1	113.22	77	57	31	Whole		Collected with flakes and not separated at the time; flake based; several flakes removed	Surface	SC 63

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
9010	FLA	Scraper	FGPM	1	20.33	44	26	17	Broken		Collected with flakes; most likely broke during manufacture	Surface	SC 65
9011	FLA	Core	FGPM	1	57.77	60	40	32	Whole		Collected with flakes; multidirectional; at least 4 flakes removed; 30 % cortex remaining	Surface	SC 74
9012	FLA	Core	FGPM	1	118.53	64	58	30	Whole		Possible use as a scraper due to amount of micro flakes removed from margin	Surface	SC 80
9013	FLA	Core	FGPM	1	103.48	70	52	25	Whole		Flake based; at least 4 flakes removed; cortex remains towards apex of dorsal side	Surface	SC 87
9014	FLA	Core	FGPM	1	151.81	59	52	45	Whole		2.8 cm of battering along one margin; lots of dorsal scarring	Surface	SC 103
9015	FLA	Hammerstone	FGPM	1	215.61	71	65	38	Whole		11.2 cm of battering across three margins	Surface	SC 105
9016	FLA	Core	FGPM	1	654.76	115	106	52	Whole		At least 5 flakes removed; 1 flake removed from ventral/flake side; 5 cm of battering or dorsal scarring near one cortical margin; approx. 40% cortex remaining	Surface	SC 115
9017	FLA	Core	FGPM	1	69.99	57	38	29	Whole		Expended; small amount of cortex remains	Surface	SC 120
9018	FLA	Core	FGPM	1	350.4	92	81	34	Whole		Flake based; at least 8 flakes removed; multidirectional	Surface	SC 121
9019	FLA	Chopper	FGPM	1	243.63	65	58	53	Whole		Initially recorded as a core; 9 cm of battering/use wear along 2 margins; 1.5 cm of battering at apex of margins meeting at the connection at ventral side	Surface	SC 133
9020	FLA	Core	FGPM	1	44.26	39	32	29	Whole		Expended	Surface	SC 144
9021	FLA	Core	FGPM	1	91.93	55	42	38	Whole		Multidirectional	Surface	SC 151
9022	FLA	Core	FGPM	1	888.16	139	90	72	Whole		Several large flakes removed; areas of differing patination; minimal cortex remaining	Surface	SC 154

FLA = Flaked lithic artifact;
CGM = coarse-grained metavolcanic
CGPM = coarse-grained porphyrtic metavolanic
FGM = fine-grained metavolcanic
FGPM = fine-grained porphyritic metavolcanic
SC = surface collection

ATTACHMENT 5

Catalog for CA-SDI-23,232

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1000	Debitage	Core reduction, basic shaping	FGPM	1	13.75							Surface	SC 2
1001	Debitage	Secondary shatter	FGPM	1	3.31							Surface	SC 3
1002	Debitage	Secondary shatter	FGPM	1	0.93							Surface	SC 4
1003	Debitage	Core reduction, basic shaping	FGPM	1	10.2							Surface	SC 5
1004	Debitage	Core reduction, basic shaping	FGPM	1	4.81							Surface	SC 6
1005	Debitage	Core reduction, basic shaping	FGPM	1	8.41							Surface	SC 7
1006	Debitage	Platform creation, cortex removal	FGPM	1	8.06							Surface	SC 8
1007	Debitage	Core reduction, basic shaping	FGPM	1	274.19						Large flake; recorded as a tool; after inspection, the unifacial retouch along one margin is edge damage from most likely being in the road	Surface	SC 9
1008	Debitage	Cortex removal	FGPM	1	22.84							Surface	SC 14
1009	Debitage	Cortex removal	FGPM	1	103.68							Surface	SC 16
1010	Debitage	Cortex removal	FGPM	1	9.85							Surface	SC 17
1011	Debitage	Core reduction, basic shaping	CGPM	1	18.66							Surface	SC 20
1012	Debitage	Cortex removal	FGPM	1	29.34							Surface	SC 22
1013	Debitage	Core reduction, basic shaping	FGPM	1	13.7							Surface	SC 24
1014	Debitage	Core reduction, basic shaping	FGPM	1	24.37							Surface	SC 25
1015	Debitage	Core reduction, basic shaping	FGPM	1	7.39							Surface	SC 26
1016	Debitage	Platform creation, cortex removal	CGPM	1	740.17							Surface	SC 27
1017	Debitage	Cortex removal	CGPM	1	85.97							Surface	SC 28
1018	Debitage	Core reduction, basic shaping	CGPM	1	12.21							Surface	SC 29
1019	Debitage	Core reduction, basic shaping	FGPM	1	60.83							Surface	SC 30
1020	Debitage	Platform creation, cortex removal	FGPM	1	27.21							Surface	SC 31
1021	Debitage	Core reduction, basic shaping	FGM	1	27.22							Surface	SC 32
1022	Debitage	Cortex removal	FGPM	1	27.93							Surface	SC 33
1023	Debitage	Core reduction, basic shaping	FGPM	1	16.91							Surface	SC 35
1024	Debitage	Platform creation, cortex removal	FGPM	1	45.86							Surface	SC 36
1025	Debitage	Platform creation, cortex removal	FGPM	1	52.69							Surface	SC 37
1026	Debitage	Trimming	FGM	1	3.95							Surface	SC 38
1027	Debitage	Cortex removal	FGPM	1	112.93							Surface	SC 39
1028	Debitage	Cortex removal	FGPM	1	97.69							Surface	SC 42
1029	Debitage	Core reduction, basic shaping	FGPM	1	7.79							Surface	SC 43
1030	Debitage	Core reduction, basic shaping	FGPM	1	39.59							Surface	SC 44
1031	Debitage	Cortex removal	FGPM	1	36.48							Surface	SC 45
1032	Debitage	Core reduction, basic shaping	FGPM	1	207.56							Surface	SC 46
1033	Debitage	Cortex removal	FGPM	1	35.82							Surface	SC 47
1034	Debitage	Cortex removal	FGPM	1	55.64							Surface	SC 48
1035	Debitage	Core reduction, basic shaping	FGPM	1	85.55							Surface	SC 49
1036	Debitage	Cortex removal	FGPM	1	21.61							Surface	SC 50
1037	Debitage	Core reduction, basic shaping	FGPM	1	18.06							Surface	SC 50
1038	Debitage	Core reduction, basic shaping	FGPM	1	44.21						Initially recorded as a core	Surface	SC 51
1039	Debitage	Core reduction, basic shaping	FGPM	1	9.2							Surface	SC 52

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
1040	Debitage	Core reduction, basic shaping	FGM	1	15.7							Surface	SC 53
1041	Debitage	Trimming	FGPM	1	1.88							Surface	SC 54
1042	Debitage	Platform creation, cortex removal	FGM	1	9.87							Surface	SC 56
1043	Debitage	Core reduction, basic shaping	FGPM	1	21.97							Surface	SC 57
1044	Debitage	Core reduction, basic shaping	FGPM	1	4.5							Surface	SC 58
1045	Debitage	Trimming	FGPM	1	1.48							Surface	SC 59
1046	Debitage	Secondary shatter	FGPM	3	0.75							Surface	SC 59
1047	Debitage	Cortex removal	FGPM	1	58.8							Surface	SC 60
1048	Debitage	Core reduction, basic shaping	FGPM	2	13.37							Surface	SC 61
1049	Debitage	Finishing, resharpening	FGPM	2	1.29							Surface	SC 61
1050	Debitage	Trimming	FGPM	2	6.37							Surface	SC 61
1051	Debitage	Primary shatter	FGPM	1	0.2							Surface	SC 61
1052	Debitage	Secondary shatter	FGPM	3	0.72							Surface	SC 61
1053	Debitage	Cortex removal	FGPM	1	69.88							Surface	SC 62
1054	Debitage	Core reduction, basic shaping	FGPM	1	35.75							Surface	SC 62
1055	Debitage	Trimming	FGPM	2	1.09							Surface	SC 62
1056	Debitage	Secondary shatter	FGPM	6	20.07							Surface	SC 62
1057	Debitage	Platform creation, cortex removal	FGPM	1	412.95						Initially recorded as a core	Surface	SC 63
1058	Debitage	Core reduction, basic shaping	FGPM	1	10.86							Surface	SC 66
1059	Debitage	Cortex removal	FGPM	1	4.47							0-10	SS 2
1060	Debitage	Core reduction, basic shaping	FGPM	2	25.69							0-10	SS 2
1061	Debitage	Finishing, resharpening	CGPM	1	2.13							0-10	SS 2
1062	Debitage	Trimming	Granite	1	0.36							0-10	SS 2
1063	Debitage	Secondary shatter	FGPM	1	1.24							10-20	SS 2
1064	Debitage	Core reduction, basic shaping	FGM	1	19.45							20-30	SS 2
9000	FLA	Core	FGPM	1	175.4	69	60	44			5 flakes removed; one location of dorsal scaring; one small area cortex	Surface	SC 1
9001	FLA	Convergent Sidescraper	CGPM	1	224.75	69	82	35			Two adjacent sides converge at an offset extremity which give the offset dimensions; 9 flakes removed; microstepping damage within each removal; large flake platform with small amount of edge damage	Surface	SC 10
9002	FLA	Core	FGPM	1	108.43	66	46	34			5 flakes removed; dorsal scaring; 30% cortex remains	Surface	SC 11
9003	FLA	Convex Sidescraper	FGPM	1	109.91	78	53	28			6 flakes unifacially removed along one straight edge; 20% cortex remains on dorsal side; microstepping damage does appear; bifacial flaking appears to be recent damage from being in the road	Surface	SC 12
9004	FLA	Core	CGPM	1	104.45	78	44	33			3 flakes removed; recent edge damage	Surface	SC 13

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #
9005	FLA	Core	FGPM	1	94.12	69	51	29			At least 3 flakes removed; one small area of cortex remaining on multidirectional platform	Surface	SC 15
9006	FLA	Core	FGPM	1	184.54	79	65	40			At least 3 flakes removed; dorsal scaring; 30% cortex remaining on one face	Surface	SC 18
9007	FLA	Core	CGPM	1	251.03	85	73	41			At least 3 flakes removed; microstepping within 1 flake removal; 100% cortex on one face	Surface	SC 19
9008	FLA	Modified flake	FGPM	1	157.14	102	69	29			Listed as a flake; unifacial edge retouch along one 109 mm margin	Surface	SC 21
9009	FLA	Modified flake	FGPM	1	35.6	62	44	17			Listed as a flake; Bifacial retouch along one convex margin; unifacial retouch on opposite side save 1 bifacially removed flake from concave margin	Surface	SC 23
9010	FLA	Core	FGPM	1	124.3	53	49	33			2 flakes removed from one face	Surface	SC 34
9011	FLA	Core	FGPM	1	387.98	99	70	54			Looks like spall, however 1 removal looks like a flake scar	Surface	SC 40
9012	FLA	Chopper	FGPM	1	450.11	90	82	51			Core that exhibits a great deal of dorsal scaring along a bifacial margin with a small amount of crushing which indicates chopper morphology	Surface	SC 41
9013	FLA	Core	Quartzite	1	275.7	91	53	45			A lot of spall but one flake scar present	Surface	SC 55
9014	FLA	Straight Sidescraper	FGM	1	325.07	125	82	34			Cortical margin exhibits 127 mm of edge damage with little unifacial retouch, however, consistent microstepping; ventral margin appears to have recent damage	Surface	SC 64
9015	FLA	Hammerstone	FGPM	1	1237.15	141	104	72			Initially recorded as a core; battering and crushing on all margins; bifacial removal along one margin with crushing exhibited along 98 mm margin	Surface	SC 65

FLA = Flaked lithic artifact
CGM = coarse-grained metavolcanic
CGPM = coarse-grained porphyrtic metavolanic
FGM = fine-grained metavolcanic
FGPM = fine-grained porphyritic metavolcanic
SC = surface collection
SS = shovel scrape

ATTACHMENT 6

Catalog for CA-SDI-23,234

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK#
1000	Debitage	Platform creation, cortex removal	FGPM	1	24.45							Surface	SC 2
1001	Debitage	Cortex removal	FGM	1	12.01							Surface	SC 4
1002	Debitage	Core reduction, basic shaping	FGPM	1	13.11							Surface	SC 5
1003	Debitage	Core reduction, basic shaping	FGPM	2	42.34							Surface	SC 6
1004	Debitage	Secondary shatter	FGPM	1	10.16							Surface	SC 6
1005	Debitage	Secondary shatter	FGM	1	0.63							Surface	SC 6
1006	Debitage	Core reduction, basic shaping	FGPM	1	9.2							Surface	SC 7
1007	Debitage	Cortex removal	FGPM	1	37.07							Surface	SC 8
1008	Debitage	Core reduction, basic shaping	FGPM	1	112.47							Surface	SC 9
1009	Debitage	Cortex removal	FGM	1	33.83							Surface	SC 12
1010	Debitage	Core reduction, basic shaping	FGPM	1	32.57							Surface	SC 13
1011	Debitage	Finishing, resharpening	FGPM	1	6.15						PDL?	Surface	SC 13
1012	Debitage	Primary shatter	FGPM	1	4.37						PDL?	Surface	SC 13
1013	Debitage	Core reduction, basic shaping	CGPM	1	77.84							Surface	SC 14
1014	Debitage	Core reduction, basic shaping	FGPM	1	31.67							Surface	SC 16
1015	Debitage	Cortex removal	FGPM	1	89.21							Surface	SC 17
1016	Debitage	Cortex removal	FGPM	1	205.51							Surface	SC 18
1017	Debitage	Cortex removal	CGPM	1	221.61							Surface	SC 19
1018	Debitage	Cortex removal	FGPM	1	22.12							0-10	SS 1
1019	Debitage	Core reduction, basic shaping	FGPM	1	72.69							0-10	SS 1
1020	Debitage	Secondary shatter	FGPM	1	8.17							0-10	SS 1
1021	Debitage	Core reduction, basic shaping	FGM	2	27.42							0-10	SS 2
1022	Debitage	Finishing, resharpening	FGM	1	1.87							0-10	SS 2
1023	Debitage	Core reduction, basic shaping	FGPM	1	2.08							0-10	SS 2
3000	Groundstone	Mano	CGPM	1	354.89			55			Fragmented; long axis ends exhibit possible battering	0-10	SS 1
9000	FLA	Core	FGPM	1	255.37	54	74	54			2 flakes removed; lots of spall removal	Surface	SC 1
9001	FLA	Convex Sidescraper	FGM	1	230.73	121	47	42			Unifacial flake removal along 172 mm margin	Surface	SC 3
9002	FLA	Core	FGPM	1	35.72	52	32	22			Recorded as a flake; relatively small; 7 flakes removed	Surface	SC 10
9003	FLA	Modified flake	FGPM	1	3.89	28	21	9			Recorded as a flake; unifacial flaking along 22 mm margin	Surface	SC 11
9004	FLA	Convergent Sidescraper	FGPM	1	107.63	61	68	21			2 adjacent edges converge at distal extremity; core based; bifacial core(?); edge angles < ~ 20 degrees; two main bifacially flaked edges; width is greater than length	Surface	SC 15
9005	FLA	Core	FGPM	1	236.25	68	55	52			Remains more as a cobble; 3 multidirectional removal areas	Surface	SC 20
9006	FLA	Core	FGPM	1	162.79	62	61	36			7 flakes removed	Surface	SC 21

CAT .	CLASS	TYPE	MATERIAL	COUNT	WEIGHT	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK#
9007	FLA	Hammerstone	FGPM	1	5400	220	170	125			Location not recorded in the field, will possibly be added; 5.4 kg; large cobble; battering on protrudenences, high spots; one obvious area of removal but most likely due to battering or crushing, not intentional removal	Surface	SC
9008	FLA	Core	FGM	1	84.6	66	48	26			Multidirectional; at least 6 flakes removed; dorsal scarring on remaining cortex; patinated; small flakes bifacially removed along long margin that are patinated; small flakes removed that are not not patinated, possible recent damage; may have been preparation to use as a straight sidescraper	0-10	SS 1
9009	FLA	Core	FGM	1	229.82	87	76	36			Multidirectional removal; cortex completely removed; not expended; 10+ flakes removed	0-10	SS 1

FLA = Flaked lithic artifact
CGM = coarse-grained metavolcanic
CGPM = coarse-grained porphyrtic metavolanic
FGM = fine-grained metavolcanic
FGPM = fine-grained porphyritic metavolcanic
SC = surface collection
SS = shovel scrape

ATTACHMENT 7

Catalog for CA-SDI-23,235 (Loci E and W)

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT(g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK#	LOCUS
1000	Debitage	Core reduction, basic shaping	FGPM	1	60.98							Surface	SC 2	East
1001	Debitage	Core reduction, basic shaping	FGPM	1	28.2							Surface	SC 3	East
1002	Debitage	Finishing, resharpening	FGPM	1	0.46							Surface	SC 4	East
1003	Debitage	Core reduction, basic shaping	FGPM	1	1.91							Surface	SC 5	East
1004	Debitage	Secondary shatter	CGPM	1	18.05							Surface	SC 6	East
1005	Debitage	Platform creation, cortex removal	FGM	1	202.96							Surface	SC 7	East
1006	Debitage	Finishing, resharpening	FGM	1	0.27							Surface	SC 8	East
1007	Debitage	Platform creation, cortex removal	FGM	1	2.93							Surface	SC 9	East
1008	Debitage	Cortex removal	FGM	1	54.25							Surface	SC 9	East
1009	Debitage	Finishing, resharpening	FGM	1	4.13							Surface	SC 11	East
1010	Debitage	Trimming	FGM	1	0.49							Surface	SC 11	East
1011	Debitage	Core reduction, basic shaping	FGPM	1	6.12							Surface	SC 12	East
1012	Debitage	Cortex removal	FGPM	1	20.05							Surface	SC 13	East
1013	Debitage	Platform creation, cortex removal	FGPM	1	31.41							Surface	SC 14	East
1014	Debitage	Core reduction, basic shaping	FGPM	1	3.81							Surface	SC 14	East
1015	Debitage	Trimming	FGM	1	0.97							Surface	SC 14	East
1016	Debitage	Core reduction, basic shaping	FGPM	1	9.63							Surface	SC 15	East
1017	Debitage	Core reduction, basic shaping	FGPM	2	19.67							Surface	SC 16	East
1018	Debitage	Primary shatter	FGM	1	14.01							Surface	SC 16	East
1019	Debitage	Core reduction, basic shaping	CGPM	1	2.63							Surface	SC 19	East
1020	Debitage	Finishing, resharpening	CGPM	2	0.82							Surface	SC 19	East
1021	Debitage	Trimming	CGPM	1	0.35							Surface	SC 19	East
1022	Debitage	Primary shatter	CGPM	2	4.41							Surface	SC 19	East
1023	Debitage	Secondary shatter	CGPM	1	2.34							Surface	SC 19	East
1024	Debitage	Core reduction, basic shaping	FGPM	1	148.89							Surface	SC 20	East
1025	Debitage	Core reduction, basic shaping	CGPM	1	10.14							Surface	SC 21	East
1026	Debitage	Cortex removal	CGPM	1	111.81							Surface	SC 22	East
1027	Debitage	Cortex removal	FGPM	1	8.68							Surface	SC 23	East
1028	Debitage	Platform creation, cortex removal	CGPM	1	96.84							Surface	SC 24	East
1029	Debitage	Core reduction, basic shaping	CGPM	1	6.07							Surface	SC 24	East
1030	Debitage	Finishing, resharpening	CGPM	3	5.06							Surface	SC 24	East
1031	Debitage	Trimming	CGPM	1	0.76							Surface	SC 24	East
1032	Debitage	Secondary shatter	CGPM	1	16.39							Surface	SC 24	East
1033	Debitage	Platform creation, cortex removal	CGPM	1	499.09							Surface	SC 25	East
1034	Debitage	Finishing, resharpening	FGPM	1	1.44							Surface	SC 26	East
1035	Debitage	Secondary shatter	FGM	1	5.32							Surface	SC 27	East
1036	Debitage	Core reduction, basic shaping	CGPM	1	38.3							Surface	SC 29	East
1037	Debitage	Core reduction, basic shaping	CGPM	1	3.48							Surface	SC 31	East
1038	Debitage	Primary shatter	FGPM	1	6.57							Surface	SC 32	East
1039	Debitage	Core reduction, basic shaping	CGPM	1	100.91							Surface	SC 33	East
1040	Debitage	Core reduction, basic shaping	FGPM	1	31.45							Surface	SC 34	East
1041	Debitage	Core reduction, basic shaping	CGPM	1	10.4							Surface	SC 34	East
1042	Debitage	Platform creation, cortex removal	Quartzite	1	143.53							Surface	SC 35	East
1043	Debitage	Core reduction, basic shaping	CGPM	1	9.78							Surface	SC 36	East
1044	Debitage	Trimming	CGPM	1	0.85							Surface	SC 36	East
1045	Debitage	Core reduction, basic shaping	FGPM	1	195.74							Surface	SC 37	East
1046	Debitage	Core reduction, basic shaping	FGPM	1	21.36							Surface	SC 38	East
1047	Debitage	Platform creation, cortex removal	CGPM	1	55.6							Surface	SC 40	East
1048	Debitage	Primary shatter	CGPM	1	1.62							Surface	SC 40	East
1049	Debitage	Core reduction, basic shaping	FGPM	1	362.57							Surface	SC 41	East
1050	Debitage	Cortex removal	CGPM	1	256.26							Surface	SC 43	East
1051	Debitage	Core reduction, basic shaping	CGPM	1	30.54							Surface	SC 48	East
1052	Debitage	Trimming	CGPM	1	0.89							Surface	SC 50	East
1053	Debitage	Platform creation, cortex removal	FGM	1	62.27							Surface	SC 51	East
1054	Debitage	Platform creation, cortex removal	CGPM	1	93.31							Surface	SC 52	East

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT(g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK#	LOCUS
1055	Debitage	Platform creation, cortex removal	CGPM	1	3.98							Surface	SC 53	East
1056	Debitage	Core reduction, basic shaping	CGPM	1	8.01							Surface	SC 54	East
1057	Debitage	Primary shatter	CGPM	1	16.9							Surface	SC 61	East
1058	Debitage	Primary shatter	CGPM	1	3.8							Surface	SC 62	East
1059	Debitage	Core reduction, basic shaping	FGPM	1	6.63							Surface	SC 63	East
1060	Debitage	Platform creation, cortex removal	FGPM	1	90.96							Surface	SC 64	East
1061	Debitage	Cortex removal	FGPM	1	101.85							Surface	SC 65	East
1062	Debitage	Finishing, resharpening	FGPM	1	1.69							Surface	SC 66	East
1063	Debitage	Core reduction, basic shaping	FGPM	1	5.46							Surface	SC 68	East
1064	Debitage	Cortex removal	CGPM	1	17.54							Surface	SC 69	East
1065	Debitage	Core reduction, basic shaping	CGPM	1	12.59							Surface	SC 70	East
1066	Debitage	Core reduction, basic shaping	FGPM	1	3.27							Surface	SC 71	East
1067	Debitage	Core reduction, basic shaping	FGPM	1	3.66							Surface	SC 72	East
1068	Debitage	Cortex removal	CGPM	1	219.78							Surface	SC 73	East
1069	Debitage	Cortex removal	FGPM	1	81.93							Surface	SC 75	East
1070	Debitage	Core reduction, basic shaping	FGPM	1	189.29							Surface	SC 75	East
1071	Debitage	Cortex removal	CGPM	1	115.95							Surface	SC 76	East
1072	Debitage	Cortex removal	FGPM	1	5.43							Surface	SC 77	East
1073	Debitage	Primary shatter	FGM	1	19.11							Surface	SC 78	East
1074	Debitage	Primary shatter	FGPM	1	61.12							Surface	SC 79	East
1075	Debitage	Core reduction, basic shaping	FGPM	1	270.34							Surface	SC 80	East
1076	Debitage	Primary shatter	FGPM	1	228.12							Surface	SC 81	East
1077	Debitage	Core reduction, basic shaping	FGPM	1	33.66							Surface	SC 82	East
1078	Debitage	Cortex removal	FGPM	1	82.32							Surface	SC 83	East
1079	Debitage	Platform creation, cortex removal	CGPM	1	36.35							Surface	SC 84	East
1080	Debitage	Core reduction, basic shaping	FGM	1	16.01							Surface	SC 85	East
1081	Debitage	Core reduction, basic shaping	FGPM	1	1.44							Surface	SC 86	East
1082	Debitage	Core reduction, basic shaping	FGM	1	17.92							Surface	SC 87	East
1083	Debitage	Core reduction, basic shaping	FGPM	1	12.75							Surface	SC 88	East
1084	Debitage	Core reduction, basic shaping	FGPM	1	44.57							Surface	SC 89	East
1085	Debitage	Core reduction, basic shaping	FGPM	3	84.75							Surface	SC 91	East
1086	Debitage	Finishing, resharpening	FGPM	1	0.21							Surface	SC 91	East
1087	Debitage	Secondary shatter	FGPM	2	3.7							Surface	SC 91	East
1088	Debitage	Core reduction, basic shaping	FGPM	1	7.08							Surface	SC 92	East
1089	Debitage	Primary shatter	CGPM	1	5.91							Surface	SC 92	East
1090	Debitage	Platform creation, cortex removal	FGPM	1	23.69							Surface	SC 93	East
1091	Debitage	Core reduction, basic shaping	FGPM	4	8.2							Surface	SC 93	East
1092	Debitage	Primary shatter	FGPM	2	14.64							Surface	SC 93	East
1093	Debitage	Secondary shatter	FGPM	4	7.65							Surface	SC 93	East
1094	Debitage	Core reduction, basic shaping	FGPM	1	181.39							Surface	SC 94	East
1095	Debitage	Primary shatter	FGPM	1	11.06							Surface	SC 94	East
1096	Debitage	Primary shatter	FGPM	1	14.6							Surface	SC 95	East
1097	Debitage	Core reduction, basic shaping	CGPM	2	7.75							Surface	SC 96	East
1098	Debitage	Finishing, resharpening	CGPM	2	3.36							Surface	SC 96	East
1099	Debitage	Secondary shatter	CGPM	1	0.62							Surface	SC 96	East
1100	Debitage	Secondary shatter	CGPM	2	5.63							Surface	SC 97	East
1101	Debitage	Core reduction, basic shaping	CGPM	1	0.93							Surface	SC 98	East
1102	Debitage	Finishing, resharpening	CGPM	1	8.52							Surface	SC 99	East
1103	Debitage	Core reduction, basic shaping	CGPM	1	1.73							Surface	SC 100	East
1104	Debitage	Platform creation, cortex removal	FGM	1	3.87							Surface	SC 101	East
1105	Debitage	Cortex removal	CGPM	1	25.78							Surface	SC 102	East
1106	Debitage	Core reduction, basic shaping	CGPM	1	8.97							Surface	SC 102	East
1107	Debitage	Secondary shatter	FGPM	1	0.52							Surface	SC 102	East
1108	Debitage	Cortex removal	FGPM	1	485.37							Surface	SC 103	East
1109	Debitage	Core reduction, basic shaping	FGPM	1	1.7							Surface	SC 104	East

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT(g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK#	LOCUS
1110	Debitage	Cortex removal	FGPM	1	2.75							Surface	SC 105	East
1111	Debitage	Core reduction, basic shaping	FGPM	1	2.73							Surface	SC 105	East
1112	Debitage	Platform creation, cortex removal	CGPM	1	61.02							Surface	SC 106	East
1113	Debitage	Core reduction, basic shaping	FGM	1	12.34							Surface	SC 108	East
1114	Debitage	Platform creation, cortex removal	FGM	1	318.85							Surface	SC 109	East
1115	Debitage	Core reduction, basic shaping	FGM	1	88.22							Surface	SC 110	East
1116	Debitage	Cortex removal	FGM	1	233.13							Surface	SC 111	East
1117	Debitage	Core reduction, basic shaping	CGPM	1	17.85							Surface	SC 112	East
1118	Debitage	Core reduction, basic shaping	FGPM	1	77.16							Surface	SC 114	East
1119	Debitage	Core reduction, basic shaping	FGPM	1	3.53							Surface	SC 115	East
1120	Debitage	Primary shatter	FGM	1	48.8							Surface	SC 116	East
1121	Debitage	Finishing, resharpening	FGPM	1	4.04						In two pieces	Surface	SC 118	East
1122	Debitage	Core reduction, basic shaping	FGM	1	11.11							Surface	SC 120	East
1123	Debitage	Core reduction, basic shaping	FGM	1	34.6							Surface	SC 122	East
1124	Debitage	Core reduction, basic shaping	FGPM	1	51.46							Surface	SC 123	East
1125	Debitage	Core reduction, basic shaping	FGPM	1	6.11							Surface	SC 124	East
1126	Debitage	Platform creation, cortex removal	CGPM	1	42.28							Surface	SC 125	East
1127	Debitage	Core reduction, basic shaping	CGPM	1	240.61							Surface	SC 127	East
1128	Debitage	Core reduction, basic shaping	FGPM	2	46.37							0-10	01 SS 1	East
1129	Debitage	Finishing, resharpening	FGPM	3	1.26							0-10	01 SS 1	East
1130	Debitage	Primary shatter	FGPM	1	1.24							0-10	01 SS 1	East
1131	Debitage	Core reduction, basic shaping	CGPM	2	8.47							0-10	01 SS 1	East
1132	Debitage	Finishing, resharpening	CGPM	1	0.13							0-10	01 SS 1	East
1133	Debitage	Trimming	CGPM	4	2.34							0-10	01 SS 1	East
1134	Debitage	Cortex removal	FGPM	1	49.55							10-30	13 STP 1	East
1135	Debitage	Cortex removal	FGPM	2	29.45							0-10	01 SS 2	East
1136	Debitage	Finishing, resharpening	FGPM	3	3.08							0-10	01 SS 2	East
1137	Debitage	Cortex removal	Granite	1	551.37							0-20	02 SS 3	East
1138	Debitage	Cortex removal	FGPM	1	11.75							0-20	02 SS 3	East
1139	Debitage	Core reduction, basic shaping	FGPM	2	35.57							0-20	02 SS 3	East
1140	Debitage	Finishing, resharpening	FGPM	1	0.75							0-20	02 SS 3	East
1141	Debitage	Platform creation, cortex removal	CGPM	3	71.84							0-20	02 SS 3	East
1142	Debitage	Core reduction, basic shaping	CGPM	2	38.21							0-20	02 SS 3	East
1143	Debitage	Finishing, resharpening	CGPM	1	0.86							0-20	02 SS 3	East
1144	Debitage	Primary shatter	CGPM	1	23.17							0-20	02 SS 3	East
1145	Debitage	Cortex removal	Quartzite	1	46.61							0-20	02 SS 3	East
1146	Debitage	Trimming	Quartzite	1	2.82							0-20	02 SS 3	East
1147	Debitage	Trimming	CGPM	1	0.71							20-30	23 STP 3	East
1148	Debitage	Finishing, resharpening	FGM	1	2.21							0-10	01 SS 4	East
1149	Debitage	Finishing, resharpening	FGPM	4	6.55							0-10	01 SS 4	East
1150	Debitage	Platform creation, cortex removal	Quartzite	1	20.81							Surface	LC	West
1151	Debitage	Platform creation, cortex removal	FGPM	1	27.83							Surface	LC	West
1152	Debitage	Cortex removal	FGPM	1	26.84							Surface	LC	West
1153	Debitage	Finishing, resharpening	FGPM	1	1							Surface	LC	West
1154	Debitage	Trimming	FGPM	1	0.53							Surface	LC	West
1155	Debitage	Platform creation, cortex removal	CGPM	8	318.7							Surface	LC	West
1156	Debitage	Cortex removal	CGPM	12	275.53							Surface	LC	West
1157	Debitage	Core reduction, basic shaping	CGPM	52	732.09							Surface	LC	West
1158	Debitage	Finishing, resharpening	CGPM	31	41.68							Surface	LC	West
1159	Debitage	Trimming	CGPM	7	10.46							Surface	LC	West
1160	Debitage	Primary shatter	CGPM	8	75.86							Surface	LC	West
1161	Debitage	Secondary shatter	CGPM	36	135.06							Surface	LC	West
1162	Debitage	Core reduction, basic shaping	FGPM	1	24.85							Surface	SC 7	West
1163	Debitage	Core reduction, basic shaping	FGPM	1	14.48							Surface	SC 8	West
1164	Debitage	Core reduction, basic shaping	FGPM	1	16.09							Surface	SC 9	West

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT(g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK#	LOCUS
1165	Debitage	Platform creation, cortex removal	FGPM	1	112.66							Surface	SC 10	West
1166	Debitage	Core reduction, basic shaping	FGPM	1	11.12							Surface	SC 10	West
1167	Debitage	Secondary shatter	FGPM	1	3.19							Surface	SC 10	West
1168	Debitage	Cortex removal	FGPM	1	31.47							Surface	SC 11	West
1169	Debitage	Core reduction, basic shaping	FGPM	1	10.21							Surface	SC 11	West
1170	Debitage	Core reduction, basic shaping	FGPM	1	4.26							Surface	SC 12	West
1171	Debitage	Finishing, resharpening	FGPM	1	0.66							Surface	SC 12	West
1172	Debitage	Core reduction, basic shaping	FGPM	1	3.28							Surface	SC 13	West
1173	Debitage	Core reduction, basic shaping	FGPM	1	13.45							Surface	SC 14	West
1174	Debitage	Cortex removal	FGPM	1	9.75							Surface	SC 15	West
1175	Debitage	Primary shatter	FGPM	1	19.94							Surface	SC 16	West
1176	Debitage	Core reduction, basic shaping	FGPM	1	22.61							Surface	SC 17	West
1177	Debitage	Trimming	FGPM	1	2.65							Surface	SC 18	West
1178	Debitage	Finishing, resharpening	FGPM	1	0.24							Surface	SC 18	West
1179	Debitage	Secondary shatter	FGPM	1	0.36							Surface	SC 18	West
1180	Debitage	Platform creation, cortex removal	CGPM	1	283.55							Surface	SC 19	West
1181	Debitage	Finishing, resharpening	FGPM	1	1.11							Surface	SC 20	West
1182	Debitage	Core reduction, basic shaping	FGPM	1	1.17							Surface	SC 21	West
1183	Debitage	Finishing, resharpening	FGPM	1	0.41							Surface	SC 21	West
1184	Debitage	Finishing, resharpening	CGPM	1	1.72							Surface	SC 21	West
1185	Debitage	Cortex removal	CGPM	1	5.16							Surface	SC 22	West
1186	Debitage	Core reduction, basic shaping	FGPM	1	9.73							Surface	SC 23	West
1187	Debitage	Core reduction, basic shaping	FGPM	1	8.85							Surface	SC 24	West
1188	Debitage	Core reduction, basic shaping	FGPM	1	104.6							Surface	SC 25	West
1189	Debitage	Core reduction, basic shaping	FGPM	1	10.35							Surface	SC 26	West
1190	Debitage	Core reduction, basic shaping	CGPM	1	10.04							Surface	SC 26	West
1191	Debitage	Core reduction, basic shaping	CGPM	1	4.19							Surface	SC 27	West
1192	Debitage	Cortex removal	FGPM	1	83.69							Surface	SC 28	West
1193	Debitage	Core reduction, basic shaping	CGPM	1	38.93							Surface	SC 29	West
1194	Debitage	Core reduction, basic shaping	FGPM	1	22.01							Surface	SC 30	West
1195	Debitage	Core reduction, basic shaping	CGPM	1	20.44							Surface	SC 31	West
1196	Debitage	Core reduction, basic shaping	CGPM	1	28.5							Surface	SC 32	West
1197	Debitage	Core reduction, basic shaping	FGPM	1	27.03							Surface	SC 33	West
1198	Debitage	Core reduction, basic shaping	FGPM	3	223.14							Surface	SC 34	West
1199	Debitage	Primary shatter	FGPM	1	11.03							Surface	SC 34	West
1200	Debitage	Cortex removal	FGPM	1	236.92							Surface	SC 35	West
1201	Debitage	Primary shatter	FGPM	1	10.23							Surface	SC 36	West
1202	Debitage	Primary shatter	FGPM	1	155.55							Surface	SC 38	West
1203	Debitage	Cortex removal	FGPM	2	52.82							0-10	01 SS 1	West
1204	Debitage	Finishing, resharpening	FGPM	1	0.56							0-10	01 SS 1	West
1205	Debitage	Trimming	FGPM	1	0.37							0-10	01 SS 1	West
1206	Debitage	Primary shatter	FGPM	3	82.84							0-10	01 SS 1	West
1207	Debitage	Secondary shatter	FGPM	2	1.29							0-10	01 SS 1	West
1208	Debitage	Platform creation, cortex removal	CGPM	1	8.85							0-10	01 SS 1	West
1209	Debitage	Cortex removal	CGPM	1	10.46							0-10	01 SS 1	West
1210	Debitage	Finishing, resharpening	CGPM	1	2.02							0-10	01 SS 1	West
1211	Debitage	Trimming	CGPM	1	1.33							0-10	01 SS 1	West
1212	Debitage	Primary shatter	CGPM	6	76.59							0-10	01 SS 1	West
1213	Debitage	Core reduction, basic shaping	CGPM	1	7.8							10-20	12 STP 1	West
1214	Debitage	Cortex removal	Granite	1	3.79							0-10	01 SS 2	West
9000	FLA	Core	FGM	1	267.96	91	49	35	Whole		Patinated; at least 5 flakes removed	Surface	SC 1	East

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT(g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK#	LOCUS
9001	FLA	Convex Sidescraper	FGPM	1	24.08	60	25	20	Whole		Patinated; flake based; edge angle is approx 35 degrees; interior side of flake has recent edge damage	Surface	SC 7	East
9002	FLA	Modified flake	FGPM	1	337.74	121	100	32	Whole		Patinated; large flake; at least 3 flakes removed bifacially at distal end; dorsal scarring; patinated edge damage from previous crushing or battering	Surface	SC 17	East
9003	FLA	Core	FGPM	1	260.09	88	54	46	Whole		3 flakes removed; large removal area is spall as well as side opposite to 3 flake removal area	Surface	SC 18	East
9004	FLA	Hammerstone	FGM	1	47.68	71	36	22	Broken		Patinated; fragmented; 36 mm of battering along dorsal margin; new removal areas are spalls	Surface	SC 28	East
9005	FLA	Hammerstone	FGM	1	245.16	87	51	43	Whole		Patinated; battering along all margins	Surface	SC 30	East
9006	FLA	Hammerstone	CGPM	1	140.33	89	45	31	Broken		Patinated; 126 mm of battering along margin	Surface	SC 39	East
9007	FLA	Modified flake	FGPM	1	79.51	62	59	19	Whole		Core reduction flake; patinated; at least 7 unifacial removals	Surface	SC 42	East
9008	FLA	Core	FGPM	1	188.17	80	72	46	Whole		Cobble based; multidirectional	Surface	SC 44	East
9009	FLA	Convex-Concave Sidescraper	FGM	1	28.5	47	44	12	Whole		Flake based; unifacial retouch on core reduction flake; damage includes rounding and microstepping; picture worthy	Surface	SC 45	East
9010	FLA	Hammerstone	CGPM	1	415.29	95	76	60	Whole		Battering along 85 mm of remaining 55 degree margin; possible genesis of removals are from breaking due to hammering save for one removal showing dorsal scaring or microstepping in concave area between the cortex and a patinated removal	Surface	SC 46	East
9011	FLA	Double-Convex Sidescraper	FGM	1	146.5	88	72	26	Whole		Flake based; damage includes rounding and microstepping	Surface	SC 47	East
9012	FLA	Core	CGPM	1	80.38	52	42	32	Whole		Expended; coretex remaining on poles	Surface	SC 49	East
9013	FLA	Core	FGM	1	167.41	59	58	36	Whole		Multidirectional; cortex remaining	Surface	SC 55	East
9014	FLA	Hammerstone	FGM	1	284.97	108	71	41	Broken		Last action was breaking; battering along 84 remaining margin; appears as a platform creation / cortex removal 203 flake	Surface	SC 56	East
9015	FLA	Hammerstone	FGM	1	32.63	49	37	22	Broken		See 9014, SC #56; fragment of hammer; doesw not directly fit 9014; appears as a secondary shatter with battering; 42 mm of battering	Surface	SC 57	East

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT(g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK#	LOCUS
9016	FLA	Hammerstone	FGM	1	514.76	109	93	62	Broken		See 9014 and 9015, SC #'s 56 and 57; 9015 fits against this fragment; largest fragment of hammer; 230 mm of battering along 3 margins	Surface	SC 58	East
9017	FLA	Hammerstone	FGM	1	322.77	87	77	37	Whole		Tabular piece; 280 mm of battering along margins	Surface	SC 59	East
9018	FLA	Convex-Concave Sidescraper	FGPM	1	332.64	103	80	46	Whole		Patinated; flake based; retouch is subsequent to initial flaking; dorsal scarring on distal end; one convex retouched side with 91 mm of retouch; two non-adjacent concave retouched areas due to larger flake/retouch removals, step fractures associated in these areas; 54 and 37 mm of retouch	Surface	SC 60	East
9019	FLA	Core	FGPM	1	128.61	61	50	32	Whole		Patinated; multidirectional; at least 1 subsequent to patination removal	Surface	SC 67	East
9020	FLA	Core	Quartzite	1	174.02	67	49	41	Whole		Rounded cobble; cortex remaining	Surface	SC 74	East
9021	FLA	Core	FGPM	1	780.06	127	124	63	Whole		Multidirectional; cortex remaining	Surface	SC 90	East
9022	FLA	Hammerstone	FGPM	1	372.85	117	108	45	Broken		All non-cortical surfaces do not dorsal remains as in a core; the hammer broke most likely from use; battering evident along margins of remaining cortex	Surface	SC 107	East
9023	FLA	Double-Convergent Sidescraper	FGPM	1	503.8	118	68	48	Whole		Flake based; large ventral flake patinated surface; platform of flake forms the non-worked edge, which includes a hindge smooth fracture; the remaining convergent margins show intentional retouch	Surface	SC 113	East
9024	FLA	Core	Granite	1	176.26	87	67	27	Whole		Small and tubular in shape; at least two flakes removed	Surface	SC 117	East
9025	FLA	Core	FGPM	1	147.11	62	62	41	Whole		A cortex removal flake; six large flakes subsequently removed multidirectionally; hesitent to call it a modified flake	Surface	SC 121	East
9026	FLA	Modified flake	CGPM	1	2033.54	242	126	68	Whole		Large platform creation flake; could be a core but 5 flakes removed along one margin (120 mm modification area); initially, 3 flakes removed leaving hinge fractures up to cortex	Surface	SC 126	East
9027	FLA	Core	FGPM	1	767.63	136	102	59	Whole		Patinated cortex with dorsal scarring or heavy battering; subsequent removals	Surface	SC 127	East
9028	FLA	Hammerstone	CGPM	1	357.02	97	53	44	Broken		Cortex has 129 mm high ridge that exhibits battering	0-10	01 SS 4	East

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT(g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK#	LOCUS
9029	FLA	Modified flake	CGPM	1	202.44	154	67	26	Whole		Large 203 flake; retouch on both edges could just be downward pressure flakess from modern equipment	Surface	SC 36	West
9030	FLA	Core	FGPM	1	548.28	144	89	53	Whole		At least 4 removals	Surface	SC 37	West
9031	FLA	Core	FGPM	1	20.91	33	32	17	Whole		Expended	10-20	12 STP 1	West
	CGPM = Coarse-grained porphyritic metavolcanic													
	FGM = Fine-grained metavolcanic													
	FGPM = Fine-grained porphyritic metavolcanic													
	FLA = Flaked lithic artifact													
	LC = Lithic concentration													
	SC = Surface collection													
	SS = Shovel scrape													
	STP = Shovel test pit													

ATTACHMENT 8

Catalog for CA-SDI-22,939

Excavations at Southwest Village
CA-SDI-22,939
Excavated 2020
Master Catalog

Site #	Cat #	Recovery Type	Unit #	Depth (cm)	UTMs		Material Class	Artifact Type	Material	Qty	Weight (g)	Box #	Comments	Bag Log #
					Easting	Northing								
CA-SDI-22939	1	Unit	1	0-10			Flaked Stone	Debitage	Metavolcanic	1	16.1	1		1
CA-SDI-22939	2	Unit	2	0-10			Flaked Stone	Debitage	Metavolcanic	5	298.9	1		2
CA-SDI-22939	3	Unit	3	0-10			Flaked Stone	Debitage	Metavolcanic	10	21.5	1		3
CA-SDI-22939	4	Unit	3	0-10			Flaked Stone	Core	Metavolcanic	1	1010.0	1	Fragment; single platform; split cobble; 8.5 x 4.0 x 5.0cm	4
CA-SDI-22939	5	Unit	3	10-20			Flaked Stone	Debitage	Metavolcanic	2	11.9	1		5
CA-SDI-22939	6	Unit	4	0-10			Flaked Stone	Debitage	Metavolcanic	5	25.7	1		6
CA-SDI-22939	7	Unit	4	0-10			Flaked Stone	Debitage	Quartzite	1	6.6	1		6
CA-SDI-22939	8	Unit	4	10-20			Flaked Stone	Debitage	Metavolcanic	4	80.1	1		7
CA-SDI-22939	9	Unit	4	20-30			Flaked Stone	Debitage	Metavolcanic	3	111.2	1		8, 9, 10
CA-SDI-22939	10	Surface			497663	3601793	Flaked Stone	Debitage	Metavolcanic	1	489.0	1		20
CA-SDI-22939	11	Surface			497661	3601787	Flaked Stone	Debitage	Metavolcanic	1	54.7	1		21
CA-SDI-22939	12	Surface			497666	3601791	Flaked Stone	Debitage	Metavolcanic	1	292.3	1		22
CA-SDI-22939	13	Surface			497668	3601792	Flaked Stone	Debitage	Metavolcanic	1	529.4	1		23
CA-SDI-22939	14	Surface			497677	3601787	Flaked Stone	Debitage	Metavolcanic	1	12.3	1		24
CA-SDI-22939	15	Surface			497669	3601782	Flaked Stone	Debitage	Metavolcanic	1	8.2	1		25
CA-SDI-22939	16	Surface			497667	3601780	Flaked Stone	Debitage	Metavolcanic	1	4.5	1		26
CA-SDI-22939	17	Surface			497669	3601781	Flaked Stone	Debitage	Metavolcanic	1	58.7	1		27
CA-SDI-22939	18	Surface			497671	3601786	Flaked Stone	Debitage	Metavolcanic	1	15.3	1		28
CA-SDI-22939	19	Surface			497679	3601771	Flaked Stone	Debitage	Metavolcanic	1	51.9	1		29
CA-SDI-22939	20	Surface			497682	3601768	Flaked Stone	Debitage	Metavolcanic	1	28.9	1		30
CA-SDI-22939	21	Surface			497683	3601770	Flaked Stone	Debitage	Metavolcanic	1	35.7	1		31
CA-SDI-22939	22	Surface			479685	3601770	Flaked Stone	Debitage	Metavolcanic	1	105.0	1		32
CA-SDI-22939	23	Surface			479686	3601769	Flaked Stone	Debitage	Metavolcanic	1	52.1	1		33
CA-SDI-22939	24	Surface			497686	3601766	Flaked Stone	Debitage	Metavolcanic	1	29.6	1		34
CA-SDI-22939	25	Surface			497683	3601765	Flaked Stone	Debitage	Metavolcanic	1	10.3	1		35
CA-SDI-22939	26	Surface			497682	3601766	Flaked Stone	Debitage	Metavolcanic	1	14.9	1		36
CA-SDI-22939	27	Surface			497686	3601767	Flaked Stone	Debitage	Metavolcanic	1	6.5	1		37
CA-SDI-22939	28	Surface			497679	3601765	Flaked Stone	Debitage	Metavolcanic	1	28.1	1		38
CA-SDI-22939	29	Surface			497679	3601765	Flaked Stone	Debitage	Metavolcanic	1	12.3	1		39
CA-SDI-22939	30	Surface			497680	3601764	Flaked Stone	Debitage	Metavolcanic	1	26.1	1		40

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CA-SDI-22939	31	Surface			497679	3601765	Flaked Stone	Debitage	Metavolcanic	1	11.7	1		41
CA-SDI-22939	32	Surface			497679	3601765	Flaked Stone	Debitage	Metavolcanic	1	16.0	1		42
CA-SDI-22939	33	Surface			497679	3601767	Flaked Stone	Debitage	Metavolcanic	1	58.6	1		43
CA-SDI-22939	34	**Number not used**												
CA-SDI-22939	35	Surface			497679	3601768	Flaked Stone	Debitage	Metavolcanic	1	24.7	1		45
CA-SDI-22939	36	**Number not used**												
CA-SDI-22939	37	Surface			497687	3601771	Flaked Stone	Tool	Metavolcanic	1	203.4	1	Modified flake; distal end and portion of 1 lateral margin; 5.9 x 5.5 x 2.6cm	47
CA-SDI-22939	38	Surface			497687	3601765	Flaked Stone	Debitage	Metavolcanic	1	26.0	1		48
CA-SDI-22939	39	Surface			497686	3601765	Flaked Stone	Debitage	Metavolcanic	1	95.7	1		49
CA-SDI-22939	40	Surface			497686	3601765	Flaked Stone	Debitage	Metavolcanic	1	52.8	1		50
CA-SDI-22939	41	Surface			497686	3601765	Flaked Stone	Debitage	Metavolcanic	1	169.5	1		51
CA-SDI-22939	42	Surface			497684	3601760	Flaked Stone	Debitage	Metavolcanic	1	87.8	1		52
CA-SDI-22939	43	Surface			497685	3601762	Flaked Stone	Debitage	Metavolcanic	1	6.9	1		53
CA-SDI-22939	44	Surface			497686	3601762	Flaked Stone	Debitage	Metavolcanic	1	9.0	1		54
CA-SDI-22939	45	Surface			497686	3601762	Flaked Stone	Debitage	Metavolcanic	1	13.9	1		55
CA-SDI-22939	46	Surface			497686	3601761	Flaked Stone	Debitage	Metavolcanic	1	66.2	1		56
CA-SDI-22939	47	Surface			497687	3601759	Flaked Stone	Debitage	Metavolcanic	1	4.9	1		57
CA-SDI-22939	48	Surface			497688	3601759	Flaked Stone	Debitage	Metavolcanic	1	66.9	1		58
CA-SDI-22939	49	Surface			497688	3601758	Flaked Stone	Debitage	Metavolcanic	1	4.6	1		59
CA-SDI-22939	50	Surface			497689	3601758	Flaked Stone	Debitage	Metavolcanic	1	2.8	1		60
CA-SDI-22939	51	Surface			497690	3601760	Flaked Stone	Debitage	Metavolcanic	1	47.0	1		61
CA-SDI-22939	52	Surface			497690	3601761	Flaked Stone	Debitage	Metavolcanic	1	202.7	1		62
CA-SDI-22939	53	Surface			497690	3601763	Flaked Stone	Debitage	Metavolcanic	1	72.5	1		63
CA-SDI-22939	54	Surface			497691	3601761	Flaked Stone	Debitage	Metavolcanic	1	59.8	1		64
CA-SDI-22939	55	Surface			497693	3601760	Flaked Stone	Debitage	Metavolcanic	1	156.2	1		65
CA-SDI-22939	56	Surface			497696	3601760	Flaked Stone	Debitage	Metavolcanic	1	14.3	1		66
CA-SDI-22939	57	Surface			497696	3601760	Groundstone	Mano	Granitic	1	816.5	1	Bifacial, pecking; 12.5 x 11.4 x 5.3cm	67
CA-SDI-22939	58	Surface			497697	3601761	Flaked Stone	Debitage	Metavolcanic	1	13.4	1		68

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CA-SDI-22939	59	Surface			497699	3601761	Flaked Stone	Debitage	Metavolcanic	1	21.8	1		69
CA-SDI-22939	60	Surface			497697	3601743	Flaked Stone	Debitage	Metavolcanic	1	19.0	1		70
CA-SDI-22939	61	Surface			497697	3601743	Flaked Stone	Debitage	Metavolcanic	1	13.3	1		71
CA-SDI-22939	62	Surface			497761	3601743	Flaked Stone	Debitage	Metavolcanic	1	173.9	1		72
CA-SDI-22939	63	Surface			497663	3601792	Flaked Stone	Core	Metavolcanic	1	1097.6	1	Multidirectional platforms; split cobble; 10.2 x 5.6 x.4.5cm	73
CA-SDI-22939	64	Surface			497711	3601741	Flaked Stone	Debitage	Metavolcanic	1	7.4	1		74
CA-SDI-22939	65	Surface			497712	3601741	Flaked Stone	Debitage	Metavolcanic	1	13.2	1		75
CA-SDI-22939	66	Surface			497712	3601742	Flaked Stone	Core	Metavolcanic	1	997.9	1	Multidirectional platforms; split cobble; 13.9 x 11.5 x 8.0cm	76
CA-SDI-22939	67	Surface			497715	3601738	Flaked Stone	Debitage	Metavolcanic	1	48.1	1		77
CA-SDI-22939	68	Surface			497715	3601737	Flaked Stone	Debitage	Metavolcanic	1	170.4	1		78
CA-SDI-22939	69	Surface			497716	3601735	Flaked Stone	Debitage	Metavolcanic	1	7.7	1		79
CA-SDI-22939	70	Surface			497716	3601734	Flaked Stone	Debitage	Metavolcanic	1	10.4	1		80
CA-SDI-22939	71	Surface			497717	3601735	Flaked Stone	Debitage	Metavolcanic	1	23.2	1		81
CA-SDI-22939	72	Surface			497717	3601734	Flaked Stone	Debitage	Metavolcanic	1	69.7	1		82
CA-SDI-22939	73	Surface			497715	3601732	Flaked Stone	Debitage	Metavolcanic	1	23.9	1		83
CA-SDI-22939	74	Surface			497715	3601732	Flaked Stone	Debitage	Metavolcanic	1	54.2	1		84
CA-SDI-22939	75	Surface			497716	3601731	Flaked Stone	Debitage	Metavolcanic	1	25.7	1		85
CA-SDI-22939	76	Surface			497718	3601732	Flaked Stone	Debitage	Metavolcanic	1	11.4	1		86
CA-SDI-22939	77	Surface			497719	3601732	Flaked Stone	Debitage	Metavolcanic	1	81.9	1		87
CA-SDI-22939	78	Surface			497719	3601733	Flaked Stone	Debitage	Metavolcanic	1	12.5	1		88
CA-SDI-22939	79	Surface			497718	3601734	Flaked Stone	Debitage	Metavolcanic	1	39.2	1		89
CA-SDI-22939	80	Surface			497719	3601734	Flaked Stone	Debitage	Metavolcanic	1	16.6	1		90
CA-SDI-22939	81	Surface			497721	3601737	Flaked Stone	Core	Metavolcanic	1	885.1	1	Single platform; 26.0 x 14.6 x 12.2cm	91

Excavations at Southwest Village
CA-SDI-22,939
Excavated 2020
Master Catalog

Site #	Cat #	Recovery Type	Unit #	Depth (cm)	UTMs Easting	UTMs Northing	Material Class	Artifact Type	Material	Qty	Weight (g)	Box #	Comments	Bag Log #
CA-SDI-22939	82	Surface			497722	3601733	Flaked Stone	Debitage	Metavolcanic	1	128.0	1		92
CA-SDI-22939	83	Surface			497722	3601732	Flaked Stone	Debitage	Metavolcanic	1	132.8	1		93
CA-SDI-22939	84	Surface			497715	3601726	Flaked Stone	Core	Metavolcanic	1	2631.0	1	Multidirectional platforms; 15.3.x 13.4 x 8.5cm	94
CA-SDI-22939	85	Surface			497718	3601728	Flaked Stone	Debitage	Metavolcanic	1	44.7	1		95
CA-SDI-22939	86	Surface			497718	3601728	Flaked Stone	Debitage	Metavolcanic	1	33.0	1		96
CA-SDI-22939	87	Surface			497718	3601729	Flaked Stone	Debitage	Metavolcanic	1	22.8	1		97
CA-SDI-22939	88	Surface			497718	3601729	Flaked Stone	Debitage	Metavolcanic	1	13.3	1		98
CA-SDI-22939	89	Surface			497723	3601727	Flaked Stone	Debitage	Metavolcanic	1	10.4	1		99
CA-SDI-22939	90	Surface			497723	3601723	Flaked Stone	Debitage	Metavolcanic	1	15.1	1		100
CA-SDI-22939	91	Surface			497722	3601719	Flaked Stone	Core	Metavolcanic	1	3266.0	1	Single platform; split cobble; 12.4 x 4.8 x 3.2cm	101
CA-SDI-22939	92	Surface			497730	3601719	Flaked Stone	Debitage	Metavolcanic	1	20.5	1		102
CA-SDI-22939	93	Surface			497731	3601716	Flaked Stone	Debitage	Metavolcanic	1	67.3	1		103
CA-SDI-22939	94	Surface			497731	3601716	Flaked Stone	Debitage	Metavolcanic	1	100.1	1		104

ATTACHMENT 9

Catalog for CA-SDI-22,936

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1000	Debitage	Core reduction, basic shaping	FGPM	1	6.31							0	1	Surface collection
10000	Debitage	Finishing, resharpening	FGPM	1	0.29	0	0	0				10-20	Unit 6	1m x 1m unit
10001	Debitage	Finishing, resharpening	CGM	1	0.65	0	0	0				10-20	Unit 6	1m x 1m unit
10002	Debitage	Platform creation, cortex removal	CGPM	1	39.88	0	0	0				10-20	Unit 6	1m x 1m unit
10003	Debitage	Core reduction, basic shaping	CGPM	2	33.68	0	0	0				10-20	Unit 6	1m x 1m unit
10004	Debitage	Finishing, resharpening	CGPM	2	1.93	0	0	0				10-20	Unit 6	1m x 1m unit
10005	Debitage	Trimming	CGPM	1	1.62	0	0	0				10-20	Unit 6	1m x 1m unit
10006	Debitage	Secondary shatter	CGPM	1	0.61	0	0	0				10-20	Unit 6	1m x 1m unit
10007	Debitage	Cortex removal	FGM	1	2.18	0	0	0				20-30	Unit 6	1m x 1m unit
10008	Debitage	Platform creation, cortex removal	CGPM	1	23.87	0	0	0				20-30	Unit 6	1m x 1m unit
10009	Debitage	Finishing, resharpening	CGPM	1	0.23	0	0	0				20-30	Unit 6	1m x 1m unit
1001	Debitage	Finishing, resharpening	FGM	1	1.81							0	2	Surface collection
10010	Debitage	Core reduction, basic shaping	FGM	2	22.88	0	0	0				0-10	Unit 7	1m x 1m unit
10011	Debitage	Secondary shatter	FGM	1	0.1	0	0	0				0-10	Unit 7	1m x 1m unit
10012	Debitage	Core reduction, basic shaping	FGPM	5	26.94	0	0	0				0-10	Unit 7	1m x 1m unit
10013	Debitage	Finishing, resharpening	FGPM	9	4.82	0	0	0				0-10	Unit 7	1m x 1m unit
10014	Debitage	Trimming	FGPM	1	1.03	0	0	0				0-10	Unit 7	1m x 1m unit
10015	Debitage	Primary shatter	FGPM	1	4.26	0	0	0				0-10	Unit 7	1m x 1m unit
10016	Debitage	Secondary shatter	FGPM	6	2.01	0	0	0				0-10	Unit 7	1m x 1m unit
10017	Debitage	Finishing, resharpening	CGM	1	0.79	0	0	0				0-10	Unit 7	1m x 1m unit
10018	Debitage	Secondary shatter	CGM	2	1.23	0	0	0				0-10	Unit 7	1m x 1m unit
10019	Debitage	Platform creation, cortex removal	CGPM	1	83.09	0	0	0				0-10	Unit 7	1m x 1m unit
1002	Debitage	Secondary shatter	FGM	1	1.05							0	3	Surface collection
10020	Debitage	Cortex removal	CGPM	1	9.42	0	0	0				0-10	Unit 7	1m x 1m unit
10021	Debitage	Core reduction, basic shaping	CGPM	1	4.18	0	0	0				0-10	Unit 7	1m x 1m unit
10022	Debitage	Finishing, resharpening	CGPM	3	1.8	0	0	0				0-10	Unit 7	1m x 1m unit
10023	Debitage	Primary shatter	CGPM	1	1.01	0	0	0				0-10	Unit 7	1m x 1m unit
10024	Debitage	Secondary shatter	CGPM	1	0.98	0	0	0				0-10	Unit 7	1m x 1m unit
10025	Debitage	Cortex removal	MCQ (Chalcedony)	1	13.53	0	0	0				0-10	Unit 7	1m x 1m unit
10026	Debitage	Primary shatter	MCQ (Chalcedony)	1	4.2	0	0	0				10-20	Unit 7	1m x 1m unit
10027	Debitage	Core reduction, basic shaping	FGM	1	2.63	0	0	0				10-20	Unit 7	1m x 1m unit
10028	Debitage	Cortex removal	FGPM	2	27.03	0	0	0				10-20	Unit 7	1m x 1m unit
10029	Debitage	Core reduction, basic shaping	FGPM	9	93.7	0	0	0				10-20	Unit 7	1m x 1m unit
1003	Debitage	Core reduction, basic shaping	FGPM	1	1.42							0	4	Surface collection
10030	Debitage	Finishing, resharpening	FGPM	5	2.23	0	0	0				10-20	Unit 7	1m x 1m unit
10031	Debitage	Trimming	FGPM	1	0.78	0	0	0				10-20	Unit 7	1m x 1m unit
10032	Debitage	Primary shatter	FGPM	1	24.97	0	0	0				10-20	Unit 7	1m x 1m unit
10033	Debitage	Secondary shatter	FGPM	4	40.81	0	0	0				10-20	Unit 7	1m x 1m unit
10034	Debitage	Core reduction, basic shaping	CGM	1	4.43	0	0	0				10-20	Unit 7	1m x 1m unit
10035	Debitage	Platform creation, cortex removal	CGPM	1	12.07	0	0	0				10-20	Unit 7	1m x 1m unit
10036	Debitage	Cortex removal	CGPM	3	28.7	0	0	0				10-20	Unit 7	1m x 1m unit
10037	Debitage	Core reduction, basic shaping	CGPM	3	22.35	0	0	0				10-20	Unit 7	1m x 1m unit
10038	Debitage	Finishing, resharpening	CGPM	5	4.23	0	0	0				10-20	Unit 7	1m x 1m unit
10039	Debitage	Trimming	CGPM	2	2.28	0	0	0				10-20	Unit 7	1m x 1m unit
1004	Debitage	Finishing, resharpening	FGPM	1	0.48								5	Surface collection
10040	Debitage	Secondary shatter	CGPM	4	4.94	0	0	0				10-20	Unit 7	1m x 1m unit
10041	Debitage	Finishing, resharpening	FGM	1	0.79	0	0	0				20-30	Unit 7	1m x 1m unit
10042	Debitage	Secondary shatter	FGM	1	2.38	0	0	0				20-30	Unit 7	1m x 1m unit
10043	Debitage	Bifacial thinning flake	FGPM	1	0.67	0	0	0				20-30	Unit 7	1m x 1m unit
10044	Debitage	Cortex removal	FGPM	2	450.61	0	0	0				20-30	Unit 7	1m x 1m unit
10045	Debitage	Core reduction, basic shaping	FGPM	5	125.5	0	0	0				20-30	Unit 7	1m x 1m unit
10046	Debitage	Finishing, resharpening	FGPM	10	4.89	0	0	0				20-30	Unit 7	1m x 1m unit
10047	Debitage	Trimming	FGPM	3	1.01	0	0	0				20-30	Unit 7	1m x 1m unit
10048	Debitage	Primary shatter	FGPM	3	14.9	0	0	0				20-30	Unit 7	1m x 1m unit

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
10049	Debitage	Secondary shatter	FGPM	1	28.12	0	0	0				20-30	Unit 7	1m x 1m unit
1005	Debitage	Finishing, resharpening	FGPM	1	0.25								6	Surface collection
10050	Debitage	Platform creation, cortex removal	CGPM	3	92.37	0	0	0				20-30	Unit 7	1m x 1m unit
10051	Debitage	Cortex removal	CGPM	3	23.36	0	0	0				20-30	Unit 7	1m x 1m unit
10052	Debitage	Core reduction, basic shaping	CGPM	3	51.27	0	0	0				20-30	Unit 7	1m x 1m unit
10053	Debitage	Finishing, resharpening	CGPM	6	3.79	0	0	0				20-30	Unit 7	1m x 1m unit
10054	Debitage	Trimming	CGPM	1	0.54	0	0	0				20-30	Unit 7	1m x 1m unit
10055	Debitage	Primary shatter	CGPM	2	88.79	0	0	0				20-30	Unit 7	1m x 1m unit
10056	Debitage	Finishing, resharpening	FGM	1	0.07	0	0	0				30-40	Unit 7	1m x 1m unit
10057	Debitage	Secondary shatter	FGM	1	0.53	0	0	0				30-40	Unit 7	1m x 1m unit
10058	Debitage	Core reduction, basic shaping	FGPM	1	9.73	0	0	0				30-40	Unit 7	1m x 1m unit
10059	Debitage	Finishing, resharpening	FGPM	2	0.65	0	0	0				30-40	Unit 7	1m x 1m unit
1006	Debitage	Core reduction, basic shaping	FGPM	1	12.03								7	Surface collection
10060	Debitage	Trimming	FGPM	1	1.02	0	0	0				30-40	Unit 7	1m x 1m unit
10061	Debitage	Secondary shatter	FGPM	2	4.8	0	0	0				30-40	Unit 7	1m x 1m unit
10062	Debitage	Finishing, resharpening	FGM	1	1.48	0	0	0				40-50	Unit 7	1m x 1m unit
10063	Debitage	Core reduction, basic shaping	FGPM	1	2.42	0	0	0				40-50	Unit 7	1m x 1m unit
10064	Debitage	Finishing, resharpening	FGPM	1	0.26	0	0	0				40-50	Unit 7	1m x 1m unit
10065	Debitage	Core reduction, basic shaping	CGPM	1	1.64	0	0	0				40-50	Unit 7	1m x 1m unit
10066	Debitage	Finishing, resharpening	CGPM	4	4.65	0	0	0				40-50	Unit 7	1m x 1m unit
10067	Debitage	Primary shatter	CGPM	1	0.67	0	0	0				40-50	Unit 7	1m x 1m unit
10068	Debitage	Secondary shatter	CGPM	1	7.5	0	0	0				40-50	Unit 7	1m x 1m unit
10069	Debitage	Core reduction, basic shaping	FGM	1	3.22	0	0	0				0-10	Unit 8	1m x 1m unit
1007	Debitage	Core reduction, basic shaping	FGPM	1	5.5								8	Surface collection
10070	Debitage	Finishing, resharpening	FGM	1	0.71	0	0	0				0-10	Unit 8	1m x 1m unit
10071	Debitage	Secondary shatter	FGM	1	10.77	0	0	0				0-10	Unit 8	1m x 1m unit
10072	Debitage	Platform creation, cortex removal	FGPM	1	3.61	0	0	0				0-10	Unit 8	1m x 1m unit
10073	Debitage	Core reduction, basic shaping	FGPM	1	6.47	0	0	0				0-10	Unit 8	1m x 1m unit
10074	Debitage	Finishing, resharpening	FGPM	2	0.37	0	0	0				0-10	Unit 8	1m x 1m unit
10075	Debitage	Primary shatter	FGPM	1	5.36	0	0	0				0-10	Unit 8	1m x 1m unit
10076	Debitage	Core reduction, basic shaping	CGM	1	0.94	0	0	0				0-10	Unit 8	1m x 1m unit
10077	Debitage	Finishing, resharpening	CGM	1	1.95	0	0	0				0-10	Unit 8	1m x 1m unit
10078	Debitage	Trimming	CGM	2	0.28	0	0	0				0-10	Unit 8	1m x 1m unit
10079	Debitage	Secondary shatter	CGM	3	8.55	0	0	0				0-10	Unit 8	1m x 1m unit
1008	Debitage	Finishing, resharpening	FGM	1	0.36								9	Surface collection
10080	Debitage	Cortex removal	CGPM	1	4.27	0	0	0				0-10	Unit 8	1m x 1m unit
10081	Debitage	Core reduction, basic shaping	CGPM	4	25.73	0	0	0				0-10	Unit 8	1m x 1m unit
10082	Debitage	Trimming	CGPM	1	1.17	0	0	0				0-10	Unit 8	1m x 1m unit
10083	Debitage	Finishing, resharpening	MCQ (Chalcedony)	1	0.77	0	0	0				10-20	Unit 8	1m x 1m unit
10084	Debitage	Trimming	FGM	1	0.55	0	0	0				10-20	Unit 8	1m x 1m unit
10085	Debitage	Secondary shatter	FGM	2	0.22	0	0	0				10-20	Unit 8	1m x 1m unit
10086	Debitage	Cortex removal	FGPM	1	7.36	0	0	0				10-20	Unit 8	1m x 1m unit
10087	Debitage	Core reduction, basic shaping	FGPM	5	59.73	0	0	0				10-20	Unit 8	1m x 1m unit
10088	Debitage	Finishing, resharpening	FGPM	4	4.64	0	0	0				10-20	Unit 8	1m x 1m unit
10089	Debitage	Primary shatter	FGPM	3	46.27	0	0	0				10-20	Unit 8	1m x 1m unit
1009	Debitage	Core reduction, basic shaping	FGPM	1	11.74								10	Surface collection
10090	Debitage	Secondary shatter	FGPM	2	23.19	0	0	0				10-20	Unit 8	1m x 1m unit
10091	Debitage	Platform creation, cortex removal	CGPM	2	70.48	0	0	0				10-20	Unit 8	1m x 1m unit
10092	Debitage	Cortex removal	CGPM	1	12.79	0	0	0				10-20	Unit 8	1m x 1m unit
10093	Debitage	Core reduction, basic shaping	CGPM	3	15.72	0	0	0				10-20	Unit 8	1m x 1m unit
10094	Debitage	Finishing, resharpening	CGPM	3	1.35	0	0	0				10-20	Unit 8	1m x 1m unit
10095	Debitage	Primary shatter	CGPM	1	8.85	0	0	0				10-20	Unit 8	1m x 1m unit
10096	Debitage	Secondary shatter	CGM	1	0.12	0	0	0				10-20	Unit 8	1m x 1m unit
10097	Debitage	Core reduction, basic shaping	FGPM	2	23.64	0	0	0				20-30	Unit 8	1m x 1m unit

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
10098	Debitage	Finishing, resharpening	FGPM	2	0.99	0	0	0				20-30	Unit 8	1m x 1m unit
10099	Debitage	Trimming	FGPM	1	1.01	0	0	0				20-30	Unit 8	1m x 1m unit
1010	Debitage	Finishing, resharpening	FGPM	1	0.49								11	Surface collection
10100	Debitage	Secondary shatter	FGPM	3	2.2	0	0	0				20-30	Unit 8	1m x 1m unit
10101	Debitage	Core reduction, basic shaping	CGPM	2	5.47	0	0	0				20-30	Unit 8	1m x 1m unit
10102	Debitage	Primary shatter	CGPM	1	8.88	0	0	0				20-30	Unit 8	1m x 1m unit
10103	Debitage	Core reduction, basic shaping	FGPM	1	2.43	0	0	0				0-20	STP 2	Shovel test pit
1011	Debitage	Secondary shatter	FGPM	1	0.52								14	Surface collection
1012	Debitage	Finishing, resharpening	FGM	1	0.37								15	Surface collection
1013	Debitage	Secondary shatter	CGPM	1	1.02								16	Surface collection
1014	Debitage	Platform creation, cortex removal	FGPM	1	9.92								17	Surface collection
1015	Debitage	Finishing, resharpening	FGPM	1	0.4								18	Surface collection
1016	Debitage	Core reduction, basic shaping	FGPM	1	35.32								19	Surface collection
1017	Debitage	Finishing, resharpening	FGPM	1	0.54								20	Surface collection
1018	Debitage	Finishing, resharpening	FGPM	1	1.46								21	Surface collection
1019	Debitage	Core reduction, basic shaping	FGPM	1	4.15								22	Surface collection
1020	Debitage	Core reduction, basic shaping	FGPM	1	10.7								23	Surface collection
1021	Debitage	Core reduction, basic shaping	FGPM	1	3.78								24	Surface collection
1022	Debitage	Core reduction, basic shaping	FGPM	1	19.48								25	Surface collection
1023	Debitage	Core reduction, basic shaping	FGPM	1	7.56								26	Surface collection
1024	Debitage	Core reduction, basic shaping	FGPM	1	10								27	Surface collection
1025	Debitage	Core reduction, basic shaping	FGPM	1	4.81								28	Surface collection
1026	Debitage	Finishing, resharpening	FGPM	1	4.21								29	Surface collection
1027	Debitage	Core reduction, basic shaping	FGPM	1	6.8								30	Surface collection
1028	Debitage	Secondary shatter	CGPM	1	11.57								31	Surface collection
1029	Debitage	Secondary shatter	FGPM	1	27.01								32	Surface collection
1030	Debitage	Core reduction, basic shaping	FGM	1	11.53								33	Surface collection
1031	Debitage	Cortex removal	FGM	1	37.15								34	Surface collection
1032	Debitage	Core reduction, basic shaping	FGPM	1	37.69								35	Surface collection
1033	Debitage	Finishing, resharpening	FGM	1	0.49								36	Surface collection
1034	Debitage	Core reduction, basic shaping	CGPM	1	4.34								37	Surface collection
1035	Debitage	Primary shatter	CGPM	1	14								37	Surface collection
1036	Debitage	Finishing, resharpening	FGPM	1	0.18								37	Surface collection
1037	Debitage	Secondary shatter	FGPM	1	1.28								37	Surface collection
1038	Debitage	Primary shatter	FGM	1	15.47								38	Surface collection
1039	Debitage	Core reduction, basic shaping	FGPM	1	8.2								39	Surface collection
1040	Debitage	Secondary shatter	FGPM	1	8.52								40	Surface collection
1041	Debitage	Finishing, resharpening	FGM	1	0.43								40	Surface collection
1042	Debitage	Finishing, resharpening	FGM	1	1.62								41	Surface collection
1043	Debitage	Cortex removal	FGPM	1	2.31								42	Surface collection
1044	Debitage	Core reduction, basic shaping	FGPM	1	2.3								43	Surface collection
1045	Debitage	Core reduction, basic shaping	FGPM	1	6.21								45	Surface collection
1046	Debitage	Finishing, resharpening	FGPM	1	0.46								46	Surface collection
1047	Debitage	Platform creation, cortex removal	FGPM	1	30.79								47	Surface collection
1048	Debitage	Finishing, resharpening	FGM	1	0.45								48	Surface collection
1049	Debitage	Finishing, resharpening	FGPM	1	1.51								48	Surface collection
1050	Debitage	Core reduction, basic shaping	CGPM	1	20.9								49	Surface collection
1051	Debitage	Primary shatter	CGPM	1	1.14								49	Surface collection
1052	Debitage	Finishing, resharpening	FGPM	2	1.12								49	Surface collection
1053	Debitage	Trimming	FGPM	1	1.05								49	Surface collection
1054	Debitage	Cortex removal	FGPM	1	5.29								50	Surface collection
1055	Debitage	Core reduction, basic shaping	FGPM	1	1.61								50	Surface collection
1056	Debitage	Finishing, resharpening	FGPM	1	0.54								51	Surface collection
1057	Debitage	Secondary shatter	FGPM	2	8.41								51	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1058	Debitage	Core reduction, basic shaping	CGPM	1	36.65								52	Surface collection
1059	Debitage	Finishing, resharpening	FGPM	1	0.4								52	Surface collection
1060	Debitage	Primary shatter	CGPM	1	6.96								53	Surface collection
1061	Debitage	Bifacial thinning flake	FGM	1	0.65								53	Surface collection
1062	Debitage	Core reduction, basic shaping	FGPM	1	3.53								53	Surface collection
1063	Debitage	Core reduction, basic shaping	FGPM	1	10.74								54	Surface collection
1064	Debitage	Primary shatter	CGPM	1	26.42								54	Surface collection
1065	Debitage	Secondary shatter	FGM	1	0.15								54	Surface collection
1066	Debitage	Core reduction, basic shaping	FGPM	1	1.36								55	Surface collection
1067	Debitage	Finishing, resharpening	FGM	1	0.62								55	Surface collection
1068	Debitage	Core reduction, basic shaping	CGPM	1	5.23								56	Surface collection
1069	Debitage	Core reduction, basic shaping	FGPM	1	1.82								57	Surface collection
1070	Debitage	Finishing, resharpening	FGPM	1	0.77								57	Surface collection
1071	Debitage	Core reduction, basic shaping	FGPM	1	65.53								58	Surface collection
1072	Debitage	Platform creation, cortex removal	Quartzite	1	10.3								60	Surface collection
1073	Debitage	Trimming	FGPM	1	2.22								60	Surface collection
1074	Debitage	Secondary shatter	CGPM	1	1.33								60	Surface collection
1075	Debitage	Core reduction, basic shaping	FGPM	1	4.5								61	Surface collection
1076	Debitage	Core reduction, basic shaping	FGPM	1	11.88								62	Surface collection
1077	Debitage	Core reduction, basic shaping	CGPM	1	7.8								62	Surface collection
1078	Debitage	Core reduction, basic shaping	FGPM	1	4.11								63	Surface collection
1079	Debitage	Core reduction, basic shaping	CGPM	2	43.03								63	Surface collection
1080	Debitage	Finishing, resharpening	FGPM	1	0.3								64	Surface collection
1081	Debitage	Core reduction, basic shaping	FGPM	2	8.76								65	Surface collection
1082	Debitage	Secondary shatter	FGM	1	0.18								65	Surface collection
1083	Debitage	Core reduction, basic shaping	CGPM	1	5.75								66	Surface collection
1084	Debitage	Core reduction, basic shaping	FGPM	2	56.64								67	Surface collection
1085	Debitage	Core reduction, basic shaping	CGPM	1	3.92								68	Surface collection
1086	Debitage	Primary shatter	CGPM	1	9.68								69	Surface collection
1087	Debitage	Core reduction, basic shaping	FGM	1	16.14								70	Surface collection
1088	Debitage	Finishing, resharpening	FGPM	2	3.94								71	Surface collection
1089	Debitage	Core reduction, basic shaping	CGPM	1	2.95								71	Surface collection
1090	Debitage	Core reduction, basic shaping	FGPM	1	2.74								72	Surface collection
1091	Debitage	Primary shatter	CGPM	1	2.64								73	Surface collection
1092	Debitage	Finishing, resharpening	FGM	1	0.25								74	Surface collection
1093	Debitage	Core reduction, basic shaping	FGPM	1	45.28								76	Surface collection
1094	Debitage	Core reduction, basic shaping	FGPM	1	4.19								77	Surface collection
1095	Debitage	Platform creation, cortex removal	CGPM	1	218.23								78	Surface collection
1096	Debitage	Secondary shatter	FGM	1	0.09								78	Surface collection
1097	Debitage	Bifacial thinning flake	FGPM	1	0.91						One discard		79	Surface collection
1098	Debitage	Core reduction, basic shaping	CGPM	1	2.27								80	Surface collection
1099	Debitage	Primary shatter	CGPM	1	36.7								81	Surface collection
1100	Debitage	Core reduction, basic shaping	FGPM	2	38.64								82	Surface collection
1101	Debitage	Secondary shatter	FGPM	1	0.57								82	Surface collection
1102	Debitage	Core reduction, basic shaping	FGM	1	3.43								82	Surface collection
1103	Debitage	Primary shatter	CGPM	1	75.17								83	Surface collection
1104	Debitage	Finishing, resharpening	FGPM	1	0.36								84	Surface collection
1105	Debitage	Secondary shatter	FGPM	1	5.43								84	Surface collection
1106	Debitage	Platform creation, cortex removal	CGPM	1	11.39								85	Surface collection
1107	Debitage	Core reduction, basic shaping	CGPM	1	94.26								86	Surface collection
1108	Debitage	Core reduction, basic shaping	FGPM	1	1.92								86	Surface collection
1109	Debitage	Core reduction, basic shaping	FGPM	1	5.64								87	Surface collection
1110	Debitage	Secondary shatter	FGPM	1	4.86						Patinated		87	Surface collection
1111	Debitage	Finishing, resharpening	FGM	1	1.89								88	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1112	Debitage	Core reduction, basic shaping	FGPM	1	3.6								89	Surface collection
1113	Debitage	Trimming	FGPM	1	0.81								89	Surface collection
1114	Debitage	Finishing, resharpening	FGM	1	0.48								89	Surface collection
1115	Debitage	Platform creation, cortex removal	FGPM	1	12.63								90	Surface collection
1116	Debitage	Core reduction, basic shaping	FGPM	1	3.04								91	Surface collection
1117	Debitage	Primary shatter	FGPM	1	105.21								91	Surface collection
1118	Debitage	Cortex removal	CGPM	1	15.61								92	Surface collection
1119	Debitage	Platform creation, cortex removal	FGPM	1	5.87								93	Surface collection
1120	Debitage	Core reduction, basic shaping	FGPM	1	17.59								94	Surface collection
1121	Debitage	Finishing, resharpening	FGPM	1	1.13								94	Surface collection
1122	Debitage	Finishing, resharpening	FGM	1	1.09								95	Surface collection
1123	Debitage	Finishing, resharpening	FGPM	1	2.4								96	Surface collection
1124	Debitage	Primary shatter	FGPM	1	0.63								96	Surface collection
1125	Debitage	Primary shatter	FGPM	1	6.56								97	Surface collection
1126	Debitage	Core reduction, basic shaping	FGM	1	20.61								99	Surface collection
1127	Debitage	Primary shatter	FGM	1	2.27								99	Surface collection
1128	Debitage	Core reduction, basic shaping	FGPM	2	9.41								100	Surface collection
1129	Debitage	Core reduction, basic shaping	FGPM	1	10.79								101	Surface collection
1130	Debitage	Core reduction, basic shaping	FGPM	1	3.78								102	Surface collection
1131	Debitage	Finishing, resharpening	FGPM	1	0.94								102	Surface collection
1132	Debitage	Finishing, resharpening	FGM	1	0.99								102	Surface collection
1133	Debitage	Core reduction, basic shaping	FGPM	2	7.13								103	Surface collection
1134	Debitage	Finishing, resharpening	CGPM	1	0.45								103	Surface collection
1135	Debitage	Core reduction, basic shaping	FGPM	1	3.13								104	Surface collection
1136	Debitage	Trimming	CGPM	1	1.38								104	Surface collection
1137	Debitage	Core reduction, basic shaping	FGPM	1	2.72								105	Surface collection
1138	Debitage	Cortex removal	CGPM	1	3.42								105	Surface collection
1139	Debitage	Finishing, resharpening	FGPM	1	3.46								106	Surface collection
1140	Debitage	Core reduction, basic shaping	FGM	1	42.13								107	Surface collection
1141	Debitage	Bifacial thinning flake	FGPM	1	2.27								107	Surface collection
1142	Debitage	Core reduction, basic shaping	FGPM	1	2.26								107	Surface collection
1143	Debitage	Finishing, resharpening	FGPM	1	1.1								107	Surface collection
1144	Debitage	Primary shatter	FGPM	1	10.21								108	Surface collection
1145	Debitage	Core reduction, basic shaping	FGPM	1	23.95								109	Surface collection
1146	Debitage	Cortex removal	FGPM	1	36.02								110	Surface collection
1147	Debitage	Core reduction, basic shaping	FGM	2	13.67								112	Surface collection
1148	Debitage	Finishing, resharpening	FGPM	1	0.59								113	Surface collection
1149	Debitage	Core reduction, basic shaping	FGPM	1	4.58								114	Surface collection
1150	Debitage	Primary shatter	CGPM	1	30.41								115	Surface collection
1151	Debitage	Finishing, resharpening	FGM	1	1.03								115	Surface collection
1152	Debitage	Secondary shatter	FGM	1	13.78								115	Surface collection
1153	Debitage	Core reduction, basic shaping	CGPM	1	4.25								116	Surface collection
1154	Debitage	Core reduction, basic shaping	FGM	1	0.92								117	Surface collection
1155	Debitage	Secondary shatter	FGM	1	5.02								118	Surface collection
1156	Debitage	Finishing, resharpening	CGPM	1	1.44								119	Surface collection
1157	Debitage	Secondary shatter	CGPM	1	4.2								119	Surface collection
1158	Debitage	Trimming	FGPM	1	0.4								119	Surface collection
1159	Debitage	Core reduction, basic shaping	CGPM	1	1.05								120	Surface collection
1160	Debitage	Core reduction, basic shaping	FGPM	1	13.87								121	Surface collection
1161	Debitage	Core reduction, basic shaping	FGPM	1	5.25								122	Surface collection
1162	Debitage	Platform creation, cortex removal	CGPM	1	58.19								123	Surface collection
1163	Debitage	Core reduction, basic shaping	CGPM	1	18.36								124	Surface collection
1164	Debitage	Core reduction, basic shaping	FGPM	1	6.63								124	Surface collection
1165	Debitage	Core reduction, basic shaping	CGPM	1	52.21								127	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1166	Debitage	Core reduction, basic shaping	CGPM	1	31.85								128	Surface collection
1167	Debitage	Core reduction, basic shaping	FGPM	1	8.31								131	Surface collection
1168	Debitage	Core reduction, basic shaping	CGM	1	7.15								132	Surface collection
1169	Debitage	Platform creation, cortex removal	FGM	1	56.89								133	Surface collection
1170	Debitage	Core reduction, basic shaping	CGM	1	14.32								135	Surface collection
1171	Debitage	Core reduction, basic shaping	CGPM	1	3.24								136	Surface collection
1172	Debitage	Primary shatter	CGPM	1	46.35								136	Surface collection
1173	Debitage	Secondary shatter	CGPM	1	1.19								136	Surface collection
1174	Debitage	Core reduction, basic shaping	FGM	1	46.33								137	Surface collection
1175	Debitage	Cortex removal	FGM	1	16.97								138	Surface collection
1176	Debitage	Primary shatter	Quartzite	1	40.94								139	Surface collection
1177	Debitage	Cortex removal	FGPM	1	12.42								140	Surface collection
1178	Debitage	Core reduction, basic shaping	FGPM	1	9.01								140	Surface collection
1179	Debitage	Finishing, resharpening	FGPM	1	1.34								140	Surface collection
1180	Debitage	Core reduction, basic shaping	FGPM	1	22.4								141	Surface collection
1181	Debitage	Core reduction, basic shaping	CGPM	1	4.09						1 discard		143	Surface collection
1182	Debitage	Cortex removal	CGPM	1	28.8								144	Surface collection
1183	Debitage	Secondary shatter	FGPM	1	1.67								144	Surface collection
1184	Debitage	Primary shatter	FGM	1	8.38								145	Surface collection
1185	Debitage	Core reduction, basic shaping	FGPM	1	10.22								145	Surface collection
1186	Debitage	Finishing, resharpening	FGPM	1	5.38								145	Surface collection
1187	Debitage	Primary shatter	FGPM	1	4.44								145	Surface collection
1188	Debitage	Bifacial thinning flake	FGM	1	0.68								147	Surface collection
1189	Debitage	Finishing, resharpening	FGPM	1	0.59								148	Surface collection
1190	Debitage	Trimming	FGPM	1	3.64						Patinated		149	Surface collection
1191	Debitage	Finishing, resharpening	CGPM	1	1.29								150	Surface collection
1192	Debitage	Finishing, resharpening	FGPM	2	1.54								151	Surface collection
1193	Debitage	Secondary shatter	FGPM	2	3.21								151	Surface collection
1194	Debitage	Core reduction, basic shaping	FGPM	1	8.87								152	Surface collection
1195	Debitage	Finishing, resharpening	FGPM	1	0.1								152	Surface collection
1196	Debitage	Finishing, resharpening	FGM	1	0.55								152	Surface collection
1197	Debitage	Finishing, resharpening	FGPM	1	1.1								154	Surface collection
1198	Debitage	Core reduction, basic shaping	FGPM	1	36.48								155	Surface collection
1199	Debitage	Core reduction, basic shaping	FGPM	1	10.55								156	Surface collection
1200	Debitage	Finishing, resharpening	FGPM	1	1.55								157	Surface collection
1201	Debitage	Cortex removal	FGPM	1	30.92								158	Surface collection
1202	Debitage	Core reduction, basic shaping	FGPM	1	7.46								159	Surface collection
1203	Debitage	Core reduction, basic shaping	FGM	1	18.68								159	Surface collection
1204	Debitage	Secondary shatter	FGPM	1	17.92								160	Surface collection
1205	Debitage	Core reduction, basic shaping	FGPM	1	9.25								161	Surface collection
1206	Debitage	Core reduction, basic shaping	FGPM	1	5.69								162	Surface collection
1207	Debitage	Finishing, resharpening	FGM	1	0.59								162	Surface collection
1208	Debitage	Core reduction, basic shaping	FGPM	1	32.69								163	Surface collection
1209	Debitage	Core reduction, basic shaping	FGPM	3	36.33								164	Surface collection
1210	Debitage	Finishing, resharpening	FGPM	1	0.35								164	Surface collection
1211	Debitage	Secondary shatter	FGM	1	5.75								164	Surface collection
1212	Debitage	Cortex removal	FGPM	1	55.06								166	Surface collection
1213	Debitage	Trimming	FGPM	1	3.6								167	Surface collection
1214	Debitage	Cortex removal	FGPM	1	45.89								168	Surface collection
1215	Debitage	Finishing, resharpening	FGPM	1	0.57								169	Surface collection
1216	Debitage	Secondary shatter	FGPM	1	14.56								169	Surface collection
1217	Debitage	Core reduction, basic shaping	FGPM	2	132.8								170	Surface collection
1218	Debitage	Secondary shatter	FGPM	1	0.7								170	Surface collection
1219	Debitage	Primary shatter	CGPM	1	4.97								170	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1220	Debitage	Trimming	FGPM	1	1.29								171	Surface collection
1221	Debitage	Secondary shatter	CGPM	1	2.7								172	Surface collection
1222	Debitage	Cortex removal	CGPM	1	17.6								173	Surface collection
1223	Debitage	Core reduction, basic shaping	FGPM	1	9.21								173	Surface collection
1224	Debitage	Finishing, resharpening	FGM	1	1.13								173	Surface collection
1225	Debitage	Platform creation, cortex removal	CGPM	1	52.79								174	Surface collection
1226	Debitage	Core reduction, basic shaping	FGM	1	40.68								175	Surface collection
1227	Debitage	Platform creation, cortex removal	CGPM	1	60.58								176	Surface collection
1228	Debitage	Core reduction, basic shaping	CGM	1	20.14								177	Surface collection
1229	Debitage	Secondary shatter	FGPM	1	5.71								177	Surface collection
1230	Debitage	Finishing, resharpening	FGPM	1	1.75								178	Surface collection
1231	Debitage	Core reduction, basic shaping	FGPM	2	50.13								179	Surface collection
1232	Debitage	Secondary shatter	CGM	1	2.34								179	Surface collection
1233	Debitage	Primary shatter	FGM	1	17.52								179	Surface collection
1234	Debitage	Core reduction, basic shaping	FGPM	3	44.43								180	Surface collection
1235	Debitage	Secondary shatter	FGPM	1	1.08								180	Surface collection
1236	Debitage	Finishing, resharpening	FGM	1	1.14								180	Surface collection
1237	Debitage	Core reduction, basic shaping	CGPM	1	10.45								181	Surface collection
1238	Debitage	Core reduction, basic shaping	FGPM	1	3.06								182	Surface collection
1239	Debitage	Cortex removal	FGPM	1	167.35								183	Surface collection
1240	Debitage	Core reduction, basic shaping	FGPM	1	39.71								183	Surface collection
1241	Debitage	Core reduction, basic shaping	FGM	1	131.16								184	Surface collection
1242	Debitage	Secondary shatter	FGPM	1	5.32								185	Surface collection
1243	Debitage	Primary shatter	CGPM	1	133.3								186	Surface collection
1244	Debitage	Secondary shatter	CGM	1	0.84								187	Surface collection
1245	Debitage	Primary shatter	CGPM	1	33.14								188	Surface collection
1246	Debitage	Core reduction, basic shaping	FGPM	2	61.5								189	Surface collection
1247	Debitage	Cortex removal	CGPM	1	37.23								189	Surface collection
1248	Debitage	Primary shatter	CGPM	1	43.89								189	Surface collection
1249	Debitage	Core reduction, basic shaping	FGM	1	2.32								190	Surface collection
1250	Debitage	Finishing, resharpening	FGM	1	0.73								190	Surface collection
1251	Debitage	Core reduction, basic shaping	CGPM	2	56								191	Surface collection
1252	Debitage	Primary shatter	FGPM	2	53.86								191	Surface collection
1253	Debitage	Platform creation, cortex removal	CGPM	1	489.57								192	Surface collection
1254	Debitage	Primary shatter	FGPM	1	9.6								192	Surface collection
1255	Debitage	Platform creation, cortex removal	FGPM	1	20.18								194	Surface collection
1256	Debitage	Core reduction, basic shaping	FGPM	1	8.03								196	Surface collection
1257	Debitage	Finishing, resharpening	FGM	1	0.51								196	Surface collection
1258	Debitage	Core reduction, basic shaping	FGPM	1	67.55								197	Surface collection
1259	Debitage	Core reduction, basic shaping	FGPM	1	13.88								198	Surface collection
1260	Debitage	Primary shatter	FGM	1	2.37								198	Surface collection
1261	Debitage	Core reduction, basic shaping	CGPM	1	2.2								200	Surface collection
1262	Debitage	Core reduction, basic shaping	FGPM	1	2.66								200	Surface collection
1263	Debitage	Core reduction, basic shaping	FGM	1	10.11								201	Surface collection
1264	Debitage	Core reduction, basic shaping	FGM	1	2.97								202	Surface collection
1265	Debitage	Finishing, resharpening	CGPM	1	0.76								203	Surface collection
1266	Debitage	Core reduction, basic shaping	FGPM	1	3.34								204	Surface collection
1267	Debitage	Finishing, resharpening	FGPM	1	1.81								204	Surface collection
1268	Debitage	Finishing, resharpening	CGM	1	1.19								205	Surface collection
1269	Debitage	Core reduction, basic shaping	FGPM	1	39.16								206	Surface collection
1270	Debitage	Cortex removal	FGPM	1	40.46								207	Surface collection
1271	Debitage	Core reduction, basic shaping	FGM	1	17.76								208	Surface collection
1272	Debitage	Primary shatter	CGPM	1	26.42								210	Surface collection
1273	Debitage	Cortex removal	FGPM	1	53.44								211	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1274	Debitage	Core reduction, basic shaping	FGPM	1	9.43								212	Surface collection
1275	Debitage	Core reduction, basic shaping	CGPM	1	20.6								214	Surface collection
1276	Debitage	Trimming	CGPM	1	0.92								214	Surface collection
1277	Debitage	Finishing, resharpening	FGPM	1	1.11								214	Surface collection
1278	Debitage	Secondary shatter	FGPM	1	9.47								214	Surface collection
1279	Debitage	Secondary shatter	FGPM	2	5.83								215	Surface collection
1280	Debitage	Core reduction, basic shaping	FGPM	1	5.16								216	Surface collection
1281	Debitage	Finishing, resharpening	Quartzite	1	0.23								216	Surface collection
1282	Debitage	Core reduction, basic shaping	CGPM	1	51.52								217	Surface collection
1283	Debitage	Core reduction, basic shaping	FGPM	1	33.51								218	Surface collection
1284	Debitage	Cortex removal	CGPM	1	78.1								219	Surface collection
1285	Debitage	Cortex removal	CGPM	1	4.16								220	Surface collection
1286	Debitage	Core reduction, basic shaping	CGPM	1	6.74								220	Surface collection
1287	Debitage	Finishing, resharpening	CGPM	5	1.97								220	Surface collection
1288	Debitage	Trimming	CGPM	2	5.25								220	Surface collection
1289	Debitage	Primary shatter	CGPM	1	0.47								220	Surface collection
1290	Debitage	Secondary shatter	CGPM	3	3.35								220	Surface collection
1291	Debitage	Core reduction, basic shaping	FGPM	1	1.03								220	Surface collection
1292	Debitage	Core reduction, basic shaping	CGPM	1	2.5								221	Surface collection
1293	Debitage	Finishing, resharpening	CGPM	3	0.58								221	Surface collection
1294	Debitage	Trimming	CGPM	2	4.51								221	Surface collection
1295	Debitage	Primary shatter	CGPM	1	5.09								221	Surface collection
1296	Debitage	Secondary shatter	CGPM	1	0.17								221	Surface collection
1297	Debitage	Core reduction, basic shaping	FGM	1	39.19								222	Surface collection
1298	Debitage	Finishing, resharpening	CGPM	1	1.7								222	Surface collection
1299	Debitage	Cortex removal	FGPM	1	16.3								223	Surface collection
1300	Debitage	Cortex removal	CGPM	1	1.64								223	Surface collection
1301	Debitage	Platform creation, cortex removal	CGPM	1	12.09								224	Surface collection
1302	Debitage	Primary shatter	FGPM	1	169.5								225	Surface collection
1303	Debitage	Primary shatter	CGPM	1	72.9								225	Surface collection
1304	Debitage	Core reduction, basic shaping	CGPM	1	96.79								226	Surface collection
1305	Debitage	Core reduction, basic shaping	FGPM	1	15.91								229	Surface collection
1306	Debitage	Core reduction, basic shaping	FGPM	1	2.52								230	Surface collection
1307	Debitage	Core reduction, basic shaping	FGPM	1	7.42								231	Surface collection
1308	Debitage	Platform creation, cortex removal	CGPM	1	43.99								232	Surface collection
1309	Debitage	Secondary shatter	CGPM	1	0.66								233	Surface collection
1310	Debitage	Core reduction, basic shaping	FGPM	2	6.88								235	Surface collection
1311	Debitage	Finishing, resharpening	FGPM	1	1.05								235	Surface collection
1312	Debitage	Finishing, resharpening	FGPM	2	15.93								236	Surface collection
1313	Debitage	Secondary shatter	FGPM	1	1.46								236	Surface collection
1314	Debitage	Secondary shatter	CGPM	1	18.25								237	Surface collection
1315	Debitage	Platform creation, cortex removal	CGPM	1	7.72								238	Surface collection
1316	Debitage	Primary shatter	CGPM	1	169.27								238	Surface collection
1317	Debitage	Core reduction, basic shaping	FGPM	1	4.42								239	Surface collection
1318	Debitage	Core reduction, basic shaping	FGPM	2	27.35								240	Surface collection
1319	Debitage	Trimming	FGM	1	1.31								240	Surface collection
1320	Debitage	Finishing, resharpening	CGPM	1	1.14								240	Surface collection
1321	Debitage	Bifacial thinning flake	FGPM	1	4.56								241	Surface collection
1322	Debitage	Secondary shatter	FGPM	1	1.49								242	Surface collection
1323	Debitage	Finishing, resharpening	CGPM	1	1.62								242	Surface collection
1324	Debitage	Core reduction, basic shaping	FGPM	1	10.26								243	Surface collection
1325	Debitage	Core reduction, basic shaping	FGM	1	10.51								244	Surface collection
1326	Debitage	Secondary shatter	FGPM	1	5.26								244	Surface collection
1327	Debitage	Core reduction, basic shaping	FGPM	1	40.32								245	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1328	Debitage	Core reduction, basic shaping	CGPM	1	12.59								246	Surface collection
1329	Debitage	Secondary shatter	CGPM	1	22.42								247	Surface collection
1330	Debitage	Platform creation, cortex removal	CGPM	1	94.75								248	Surface collection
1331	Debitage	Cortex removal	FGPM	1	46.67								248	Surface collection
1332	Debitage	Platform creation, cortex removal	CGM	1	24.11								250	Surface collection
1333	Debitage	Platform creation, cortex removal	Quartzite	1	38.24								251	Surface collection
1334	Debitage	Core reduction, basic shaping	FGPM	1	10.19								252	Surface collection
1335	Debitage	Cortex removal	FGM	1	83.99								253	Surface collection
1336	Debitage	Core reduction, basic shaping	FGPM	1	10.04								253	Surface collection
1337	Debitage	Finishing, resharpening	FGPM	1	2.18								253	Surface collection
1338	Debitage	Core reduction, basic shaping	FGPM	1	6.92								254	Surface collection
1339	Debitage	Primary shatter	CGPM	2	391.17						255 was platform creation flake; matched with 272 fo		255	Surface collection
1340	Debitage	Platform creation, cortex removal	CGPM	1	229.58								256	Surface collection
1341	Debitage	Secondary shatter	CGPM	1	94.92								256	Surface collection
1342	Debitage	Core reduction, basic shaping	FGPM	1	141.86								256	Surface collection
1343	Debitage	Platform creation, cortex removal	CGPM	2	568.87								257	Surface collection
1344	Debitage	Primary shatter	CGPM	1	39.45								257	Surface collection
1345	Debitage	Core reduction, basic shaping	FGPM	1	83.04								258	Surface collection
1346	Debitage	Core reduction, basic shaping	FGPM	2	20.75								260	Surface collection
1347	Debitage	Finishing, resharpening	FGPM	1	1.05								260	Surface collection
1348	Debitage	Primary shatter	CGPM	1	16.42								260	Surface collection
1349	Debitage	Core reduction, basic shaping	FGPM	1	4.52								261	Surface collection
1350	Debitage	Primary shatter	FGPM	1	27.1								262	Surface collection
1351	Debitage	Bifacial thinning flake	FGPM	1	1.39								262	Surface collection
1352	Debitage	Core reduction, basic shaping	FGPM	1	8.14								262	Surface collection
1353	Debitage	Platform creation, cortex removal	CGPM	1	5.8								262	Surface collection
1354	Debitage	Cortex removal	CGPM	2	20.23								262	Surface collection
1355	Debitage	Finishing, resharpening	FGM	1	0.39								263	Surface collection
1356	Debitage	Trimming	FGPM	1	3.87								263	Surface collection
1357	Debitage	Platform creation, cortex removal	CGPM	1	172.58								263	Surface collection
1358	Debitage	Primary shatter	CGPM	1	37.07								263	Surface collection
1359	Debitage	Core reduction, basic shaping	FGPM	1	87.09								264	Surface collection
1360	Debitage	Platform creation, cortex removal	CGPM	1	12.33								264	Surface collection
1361	Debitage	Core reduction, basic shaping	FGPM	3	47.35								265	Surface collection
1362	Debitage	Core reduction, basic shaping	FGPM	2	3.1								266	Surface collection
1363	Debitage	Finishing, resharpening	FGM	1	4								268	Surface collection
1364	Debitage	Cortex removal	FGPM	1	23.82								268	Surface collection
1365	Debitage	Finishing, resharpening	FGPM	1	0.25								268	Surface collection
1366	Debitage	Core reduction, basic shaping	CGM	1	38.91								270	Surface collection
1367	Debitage	Cortex removal	FGPM	1	21.27						see 1339 for moved singular fragment		272	Surface collection
1368	Debitage	Secondary shatter	FGPM	1	6.08								272	Surface collection
1369	Debitage	Primary shatter	CGPM	1	26.25								272	Surface collection
1370	Debitage	Primary shatter	FGPM	1	101.89								275	Surface collection
1371	Debitage	Core reduction, basic shaping	CGPM	1	9.46								275	Surface collection
1372	Debitage	Core reduction, basic shaping	CGPM	1	2.34								276	Surface collection
1373	Debitage	Secondary shatter	FGPM	1	15.83								276	Surface collection
1374	Debitage	Cortex removal	FGPM	1	8.44								277	Surface collection
1375	Debitage	Core reduction, basic shaping	FGPM	1	20.57								277	Surface collection
1376	Debitage	Cortex removal	CGPM	1	28.53								278	Surface collection
1377	Debitage	Primary shatter	CGPM	1	208.55								279	Surface collection
1378	Debitage	Primary shatter	CGPM	1	63.58								280	Surface collection
1379	Debitage	Core reduction, basic shaping	FGM	1	16.87								281	Surface collection
1380	Debitage	Finishing, resharpening	CGM	1	4.26								281	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1381	Debitage	Primary shatter	CGPM	1	58.6								282	Surface collection
1382	Debitage	Core reduction, basic shaping	FGPM	2	19.4								284	Surface collection
1383	Debitage	Core reduction, basic shaping	CGPM	1	8.19								284	Surface collection
1384	Debitage	Platform creation, cortex removal	CGPM	1	127.2								285	Surface collection
1385	Debitage	Core reduction, basic shaping	FGPM	1	63.29								285	Surface collection
1386	Debitage	Core reduction, basic shaping	CGPM	1	8.82								286	Surface collection
1387	Debitage	Trimming	CGPM	2	2.72								286	Surface collection
1388	Debitage	Core reduction, basic shaping	CGPM	1	15.72								287	Surface collection
1389	Debitage	Core reduction, basic shaping	FGPM	1	4.73								288	Surface collection
1390	Debitage	Finishing, resharpening	FGPM	2	0.7								288	Surface collection
1391	Debitage	Finishing, resharpening	CGM	1	0.7								288	Surface collection
1392	Debitage	Core reduction, basic shaping	FGPM	1	4.48								289	Surface collection
1393	Debitage	Finishing, resharpening	CGPM	1	5.78								289	Surface collection
1394	Debitage	Finishing, resharpening	CGPM	1	1.92								290	Surface collection
1395	Debitage	Finishing, resharpening	FGPM	1	0.31								290	Surface collection
1396	Debitage	Secondary shatter	FGPM	1	8.44								290	Surface collection
1397	Debitage	Core reduction, basic shaping	FGPM	1	1.71								291	Surface collection
1398	Debitage	Secondary shatter	CGM	1	17.19								292	Surface collection
1399	Debitage	Secondary shatter	FGPM	1	2.91								293	Surface collection
1400	Debitage	Secondary shatter	FGPM	1	5.87								294	Surface collection
1401	Debitage	Core reduction, basic shaping	FGPM	2	7.94								295	Surface collection
1402	Debitage	Finishing, resharpening	FGPM	1	0.48								295	Surface collection
1403	Debitage	Primary shatter	FGPM	1	5.34								295	Surface collection
1404	Debitage	Primary shatter	CGPM	1	108.57								296	Surface collection
1405	Debitage	Finishing, resharpening	CGM	1	1.23								296	Surface collection
1406	Debitage	Finishing, resharpening	CGPM	3	1.41								298	Surface collection
1407	Debitage	Secondary shatter	FGM	2	8.46								299	Surface collection
1408	Debitage	Core reduction, basic shaping	FGPM	1	10.25								301	Surface collection
1409	Debitage	Secondary shatter	FGPM	2	3.27								301	Surface collection
1410	Debitage	Finishing, resharpening	FGM	1	1.11								301	Surface collection
1411	Debitage	Cortex removal	CGPM	1	11.74								302	Surface collection
1412	Debitage	Secondary shatter	FGPM	1	2.34								302	Surface collection
1413	Debitage	Core reduction, basic shaping	FGPM	1	50.07								303	Surface collection
1414	Debitage	Finishing, resharpening	CGPM	1	0.75								303	Surface collection
1415	Debitage	Secondary shatter	FGPM	1	18.4								305	Surface collection
1416	Debitage	Finishing, resharpening	FGPM	1	0.23								305	Surface collection
1417	Debitage	Secondary shatter	CGPM	1	2.34								305	Surface collection
1418	Debitage	Core reduction, basic shaping	FGPM	1	29.13								306	Surface collection
1419	Debitage	Finishing, resharpening	FGPM	1	0.8								306	Surface collection
1420	Debitage	Core reduction, basic shaping	CGPM	1	4.67								306	Surface collection
1421	Debitage	Secondary shatter	CGPM	1	3.42								306	Surface collection
1422	Debitage	Core reduction, basic shaping	FGPM	1	106.88								307	Surface collection
1423	Debitage	Primary shatter	FGPM	1	58.68								307	Surface collection
1424	Debitage	Core reduction, basic shaping	CGPM	1	7.65								307	Surface collection
1425	Debitage	Secondary shatter	CGPM	1	11.66								307	Surface collection
1426	Debitage	Cortex removal	FGPM	2	68.75								308	Surface collection
1427	Debitage	Core reduction, basic shaping	FGPM	1	2.63								308	Surface collection
1428	Debitage	Finishing, resharpening	FGPM	1	1.5								308	Surface collection
1429	Debitage	Secondary shatter	FGPM	1	0.82								308	Surface collection
1430	Debitage	Cortex removal	CGPM	1	7.58								308	Surface collection
1431	Debitage	Core reduction, basic shaping	FGPM	1	10.72								309	Surface collection
1432	Debitage	Secondary shatter	CGPM	1	53.66								309	Surface collection
1433	Debitage	Core reduction, basic shaping	FGM	1	70								310	Surface collection
1434	Debitage	Core reduction, basic shaping	CGM	2	22.73								311	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1435	Debitage	Finishing, resharpening	CGM	3	1.94								312	Surface collection
1436	Debitage	Core reduction, basic shaping	CGM	1	3.43								313	Surface collection
1437	Debitage	Finishing, resharpening	CGM	1	0.89								313	Surface collection
1438	Debitage	Core reduction, basic shaping	CGPM	2	3.14								313	Surface collection
1439	Debitage	Finishing, resharpening	CGPM	1	0.81								313	Surface collection
1440	Debitage	Core reduction, basic shaping	FGPM	1	3.34								314	Surface collection
1441	Debitage	Secondary shatter	FGPM	1	0.57								314	Surface collection
1442	Debitage	Bifacial thinning flake	FGPM	1	5.09								315	Surface collection
1443	Debitage	Core reduction, basic shaping	FGPM	2	19.14								315	Surface collection
1444	Debitage	Finishing, resharpening	FGPM	1	2.13								315	Surface collection
1445	Debitage	Core reduction, basic shaping	FGPM	1	14.54								316	Surface collection
1446	Debitage	Core reduction, basic shaping	CGPM	2	9.34								316	Surface collection
1447	Debitage	Bifacial thinning flake	FGM	1	0.27								317	Surface collection
1448	Debitage	Platform creation, cortex removal	FGM	1	3.84								317	Surface collection
1449	Debitage	Finishing, resharpening	FGM	1	0.47								317	Surface collection
1450	Debitage	Platform creation, cortex removal	FGPM	1	87.49								317	Surface collection
1451	Debitage	Cortex removal	FGPM	1	26.12								317	Surface collection
1452	Debitage	Finishing, resharpening	CGM	1	0.41								317	Surface collection
1453	Debitage	Cortex removal	CGPM	1	10								317	Surface collection
1454	Debitage	Core reduction, basic shaping	CGPM	1	29.28								317	Surface collection
1455	Debitage	Finishing, resharpening	CGPM	1	0.68								317	Surface collection
1456	Debitage	Secondary shatter	CGPM	1	5.46								317	Surface collection
1457	Debitage	Core reduction, basic shaping	FGM	1	10.63								318	Surface collection
1458	Debitage	Finishing, resharpening	FGM	2	1.32								318	Surface collection
1459	Debitage	Secondary shatter	FGM	1	0.35								318	Surface collection
1460	Debitage	Core reduction, basic shaping	FGPM	1	6.71								318	Surface collection
1461	Debitage	Primary shatter	FGPM	1	3.35								318	Surface collection
1462	Debitage	Core reduction, basic shaping	CGPM	2	34.28								318	Surface collection
1463	Debitage	Finishing, resharpening	CGPM	1	1.02								318	Surface collection
1464	Debitage	Primary shatter	CGPM	1	17.46								318	Surface collection
1465	Debitage	Cortex removal	CGPM	1	12.73								319	Surface collection
1466	Debitage	Core reduction, basic shaping	CGPM	2	9.65								319	Surface collection
1467	Debitage	Trimming	CGPM	1	1.34								319	Surface collection
1468	Debitage	Core reduction, basic shaping	FGPM	1	12.15								320	Surface collection
1469	Debitage	Secondary shatter	FGPM	1	11.27								320	Surface collection
1470	Debitage	Cortex removal	FGPM	1	62.44								321	Surface collection
1471	Debitage	Finishing, resharpening	FGPM	1	1								321	Surface collection
1472	Debitage	Secondary shatter	FGM	2	1.95								321	Surface collection
1473	Debitage	Core reduction, basic shaping	FGPM	1	7.31								322	Surface collection
1474	Debitage	Finishing, resharpening	FGPM	1	1.37								323	Surface collection
1475	Debitage	Core reduction, basic shaping	CGPM	1	25.52								323	Surface collection
1476	Debitage	Core reduction, basic shaping	FGPM	2	18.03								324	Surface collection
1477	Debitage	Secondary shatter	FGPM	1	25.93								324	Surface collection
1478	Debitage	Core reduction, basic shaping	CGPM	1	26.47								325	Surface collection
1479	Debitage	Core reduction, basic shaping	FGM	1	7.63								325	Surface collection
1480	Debitage	Cortex removal	FGPM	1	22.68								326	Surface collection
1481	Debitage	Finishing, resharpening	FGPM	1	0.88								326	Surface collection
1482	Debitage	Core reduction, basic shaping	CGPM	1	1.54								326	Surface collection
1483	Debitage	Core reduction, basic shaping	FGM	1	5.16								327	Surface collection
1484	Debitage	Primary shatter	FGM	1	2.53								327	Surface collection
1485	Debitage	Finishing, resharpening	FGPM	1	2.84								327	Surface collection
1486	Debitage	Cortex removal	CGPM	1	9.85								327	Surface collection
1487	Debitage	Trimming	CGPM	2	13.01								327	Surface collection
1488	Debitage	Secondary shatter	FGPM	1	10.17								328	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1489	Debitage	Finishing, resharpening	CGPM	1	0.28								328	Surface collection
1490	Debitage	Core reduction, basic shaping	FGPM	1	25.75								329	Surface collection
1491	Debitage	Secondary shatter	FGM	1	3.9								330	Surface collection
1492	Debitage	Core reduction, basic shaping	FGPM	1	5.4								330	Surface collection
1493	Debitage	Core reduction, basic shaping	CGM	1	2.7								330	Surface collection
1494	Debitage	Primary shatter	CGPM	1	3.5								330	Surface collection
1495	Debitage	Finishing, resharpening	FGM	1	0.35								331	Surface collection
1496	Debitage	Secondary shatter	FGM	1	1.13								331	Surface collection
1497	Debitage	Finishing, resharpening	FGPM	1	0.91								331	Surface collection
1498	Debitage	Cortex removal	FGM	1	59.11								332	Surface collection
1499	Debitage	Finishing, resharpening	FGM	1	2.1								332	Surface collection
1500	Debitage	Cortex removal	FGPM	1	24.02								332	Surface collection
1501	Debitage	Primary shatter	FGPM	1	9.87								332	Surface collection
1502	Debitage	Secondary shatter	FGPM	1	15.07								332	Surface collection
1503	Debitage	Core reduction, basic shaping	FGPM	1	1.62								333	Surface collection
1504	Debitage	Core reduction, basic shaping	FGM	1	5.8								334	Surface collection
1505	Debitage	Core reduction, basic shaping	FGPM	2	39.43								334	Surface collection
1506	Debitage	Core reduction, basic shaping	CGM	1	6.97								334	Surface collection
1507	Debitage	Core reduction, basic shaping	CGPM	2	11.66								334	Surface collection
1508	Debitage	Finishing, resharpening	CGPM	1	1.21								334	Surface collection
1509	Debitage	Platform creation, cortex removal	FGM	1	4								335	Surface collection
1510	Debitage	Finishing, resharpening	FGM	1	0.1								335	Surface collection
1511	Debitage	Core reduction, basic shaping	FGPM	1	1.83								335	Surface collection
1512	Debitage	Core reduction, basic shaping	CGPM	1	3.05								335	Surface collection
1513	Debitage	Finishing, resharpening	CGPM	1	1.14								335	Surface collection
1514	Debitage	Cortex removal	FGPM	1	28.75								337	Surface collection
1515	Debitage	Core reduction, basic shaping	FGPM	1	1.51								337	Surface collection
1516	Debitage	Core reduction, basic shaping	CGPM	1	9.68								337	Surface collection
1517	Debitage	Bifacial thinning flake	FGM	1	0.45								338	Surface collection
1518	Debitage	Core reduction, basic shaping	FGPM	2	3.86								338	Surface collection
1519	Debitage	Secondary shatter	CGPM	1	1.25								338	Surface collection
1520	Debitage	Cortex removal	CGPM	1	10.09								339	Surface collection
1521	Debitage	Core reduction, basic shaping	FGPM	2	18.1								339	Surface collection
1522	Debitage	Secondary shatter	FGPM	1	33.69								339	Surface collection
1523	Debitage	Platform creation, cortex removal	FGPM	1	3.95								340	Surface collection
1524	Debitage	Core reduction, basic shaping	FGPM	2	23.59								340	Surface collection
1525	Debitage	Secondary shatter	FGM	1	3.45								340	Surface collection
1526	Debitage	Finishing, resharpening	CGPM	1	1.48								340	Surface collection
1527	Debitage	Secondary shatter	CGPM	1	4.91								340	Surface collection
1528	Debitage	Core reduction, basic shaping	FGPM	1	7.56								341	Surface collection
1529	Debitage	Core reduction, basic shaping	CGPM	1	9.86								342	Surface collection
1530	Debitage	Core reduction, basic shaping	FGPM	1	1.77								343	Surface collection
1531	Debitage	Core reduction, basic shaping	FGM	1	2.12								344	Surface collection
1532	Debitage	Cortex removal	CGPM	1	4.54								345	Surface collection
1533	Debitage	Cortex removal	CGPM	3	36.18								346	Surface collection
1534	Debitage	Core reduction, basic shaping	CGPM	2	35.34								346	Surface collection
1535	Debitage	Finishing, resharpening	FGPM	1	2.07								346	Surface collection
1536	Debitage	Secondary shatter	FGPM	1	0.28								346	Surface collection
1537	Debitage	Core reduction, basic shaping	FGPM	2	33.5								347	Surface collection
1538	Debitage	Primary shatter	FGPM	1	1.75								347	Surface collection
1539	Debitage	Secondary shatter	FGPM	1	6.26								347	Surface collection
1540	Debitage	Platform creation, cortex removal	CGPM	1	12.23								347	Surface collection
1541	Debitage	Core reduction, basic shaping	CGPM	1	12.88								347	Surface collection
1542	Debitage	Finishing, resharpening	Quartzite	1	0.59								347	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1543	Debitage	Core reduction, basic shaping	FGPM	2	37.53								348	Surface collection
1544	Debitage	Primary shatter	FGPM	1	3.81								348	Surface collection
1545	Debitage	Secondary shatter	FGPM	1	3.85								348	Surface collection
1546	Debitage	Finishing, resharpening	FGM	2	1.89								348	Surface collection
1547	Debitage	Trimming	FGM	1	1.99								348	Surface collection
1548	Debitage	Secondary shatter	FGM	1	0.2								348	Surface collection
1549	Debitage	Core reduction, basic shaping	CGPM	1	3.36								348	Surface collection
1550	Debitage	Core reduction, basic shaping	FGM	2	30.49								349	Surface collection
1551	Debitage	Cortex removal	FGPM	1	2.26								349	Surface collection
1552	Debitage	Core reduction, basic shaping	FGPM	2	16.34								349	Surface collection
1553	Debitage	Finishing, resharpening	FGPM	1	0.75								349	Surface collection
1554	Debitage	Core reduction, basic shaping	CGPM	1	2.89								349	Surface collection
1555	Debitage	Finishing, resharpening	CGPM	2	1.39								349	Surface collection
1556	Debitage	Secondary shatter	CGPM	1	0.29								349	Surface collection
1557	Debitage	Cortex removal	FGPM	1	7.46								350	Surface collection
1558	Debitage	Finishing, resharpening	FGPM	2	3.16								350	Surface collection
1559	Debitage	Core reduction, basic shaping	CGPM	3	24.61								350	Surface collection
1560	Debitage	Finishing, resharpening	CGPM	2	1.06								350	Surface collection
1561	Debitage	Secondary shatter	CGPM	1	0.21								350	Surface collection
1562	Debitage	Finishing, resharpening	CGM	1	0.94								350	Surface collection
1563	Debitage	Finishing, resharpening	FGPM	1	0.3								351	Surface collection
1564	Debitage	Primary shatter	FGPM	1	1.01								351	Surface collection
1565	Debitage	Platform creation, cortex removal	Quartzite	1	21.74								352	Surface collection
1566	Debitage	Core reduction, basic shaping	CGPM	1	30.66								353	Surface collection
1567	Debitage	Bifacial thinning flake	FGM	1	2.05								354	Surface collection
1568	Debitage	Core reduction, basic shaping	FGM	1	6.84								354	Surface collection
1569	Debitage	Secondary shatter	FGM	1	3.11								354	Surface collection
1570	Debitage	Core reduction, basic shaping	FGPM	1	4.68								354	Surface collection
1571	Debitage	Finishing, resharpening	FGPM	1	2.9								354	Surface collection
1572	Debitage	Core reduction, basic shaping	CGPM	1	5.11								354	Surface collection
1573	Debitage	Secondary shatter	FGM	1	0.35								355	Surface collection
1574	Debitage	Core reduction, basic shaping	FGPM	1	3.89								355	Surface collection
1575	Debitage	Finishing, resharpening	FGPM	1	0.14								355	Surface collection
1576	Debitage	Primary shatter	FGPM	1	0.44								355	Surface collection
1577	Debitage	Core reduction, basic shaping	CGPM	1	5.83								355	Surface collection
1578	Debitage	Trimming	CGPM	1	1.94								355	Surface collection
1579	Debitage	Platform creation, cortex removal	FGPM	1	0.95								356	Surface collection
1580	Debitage	Core reduction, basic shaping	FGPM	1	5.71								356	Surface collection
1581	Debitage	Core reduction, basic shaping	CGPM	1	3.13								356	Surface collection
1582	Debitage	Finishing, resharpening	CGPM	3	1.89								356	Surface collection
1583	Debitage	Core reduction, basic shaping	FGPM	1	7.96								357	Surface collection
1584	Debitage	Core reduction, basic shaping	CGPM	2	11.6								357	Surface collection
1585	Debitage	Finishing, resharpening	CGPM	1	0.13								357	Surface collection
1586	Debitage	Secondary shatter	CGPM	1	4.6								357	Surface collection
1587	Debitage	Cortex removal	FGPM	2	17.37								358	Surface collection
1588	Debitage	Finishing, resharpening	FGPM	1	0.29								358	Surface collection
1589	Debitage	Cortex removal	CGPM	1	8.7								358	Surface collection
1590	Debitage	Finishing, resharpening	CGPM	1	1.69								358	Surface collection
1591	Debitage	Trimming	CGPM	1	2.19								358	Surface collection
1592	Debitage	Platform creation, cortex removal	CGPM	1	33.71								359	Surface collection
1593	Debitage	Cortex removal	CGPM	1	15								359	Surface collection
1594	Debitage	Core reduction, basic shaping	CGPM	2	15.97								359	Surface collection
1595	Debitage	Trimming	CGPM	1	0.93								359	Surface collection
1596	Debitage	Core reduction, basic shaping	FGPM	1	2.71								360	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1597	Debitage	Finishing, resharpening	FGPM	2	2.01								360	Surface collection
1598	Debitage	Trimming	CGPM	1	1.31								360	Surface collection
1599	Debitage	Secondary shatter	CGPM	1	2.48								360	Surface collection
1600	Debitage	Secondary shatter	FGM	1	0.87								361	Surface collection
1601	Debitage	Core reduction, basic shaping	FGPM	1	2.81								361	Surface collection
1602	Debitage	Secondary shatter	FGPM	1	0.42								361	Surface collection
1603	Debitage	Finishing, resharpening	CGPM	1	3.09								361	Surface collection
1604	Debitage	Primary shatter	CGPM	1	6.72								361	Surface collection
1605	Debitage	Secondary shatter	CGPM	1	1.3								361	Surface collection
1606	Debitage	Bifacial thinning flake	FGM	1	0.57								362	Surface collection
1607	Debitage	Core reduction, basic shaping	FGPM	1	0.67								362	Surface collection
1608	Debitage	Core reduction, basic shaping	CGPM	1	19.23								362	Surface collection
1609	Debitage	Core reduction, basic shaping	FGM	2	4.66								363	Surface collection
1610	Debitage	Trimming	FGM	1	3.8								363	Surface collection
1611	Debitage	Primary shatter	FGPM	1	0.63								363	Surface collection
1612	Debitage	Core reduction, basic shaping	CGPM	2	7.2								363	Surface collection
1613	Debitage	Finishing, resharpening	CGPM	1	0.33								363	Surface collection
1614	Debitage	Secondary shatter	CGPM	1	0.32								363	Surface collection
1615	Debitage	Finishing, resharpening	FGPM	1	0.56								364	Surface collection
1616	Debitage	Secondary shatter	FGM	1	1.25								364	Surface collection
1617	Debitage	Finishing, resharpening	CGPM	1	0.54								364	Surface collection
1618	Debitage	Bifacial thinning flake	FGPM	1	0.7								365	Surface collection
1619	Debitage	Cortex removal	FGPM	1	43.3								365	Surface collection
1620	Debitage	Finishing, resharpening	FGPM	1	0.96								365	Surface collection
1621	Debitage	Core reduction, basic shaping	CGM	2	7.97								365	Surface collection
1622	Debitage	Finishing, resharpening	CGM	1	1.31								365	Surface collection
1623	Debitage	Secondary shatter	CGPM	1	3.95								365	Surface collection
1624	Debitage	Secondary shatter	FGPM	1	26.83								366	Surface collection
1625	Debitage	Primary shatter	FGPM	1	8.61								367	Surface collection
1626	Debitage	Core reduction, basic shaping	FGPM	1	20.57								367	Surface collection
1627	Debitage	Cortex removal	FGPM	1	5.63								368	Surface collection
1628	Debitage	Finishing, resharpening	FGPM	1	3.16								368	Surface collection
1629	Debitage	Secondary shatter	FGM	1	1.91								368	Surface collection
1630	Debitage	Core reduction, basic shaping	CGPM	1	2.98								368	Surface collection
1631	Debitage	Finishing, resharpening	CGPM	1	1.36								368	Surface collection
1632	Debitage	Finishing, resharpening	FGM	1	0.52								369	Surface collection
1633	Debitage	Core reduction, basic shaping	FGPM	1	1.43								369	Surface collection
1634	Debitage	Finishing, resharpening	CGM	1	2.99								369	Surface collection
1635	Debitage	Finishing, resharpening	CGPM	2	2.16								369	Surface collection
1636	Debitage	Cortex removal	CGPM	2	36.96								370	Surface collection
1637	Debitage	Core reduction, basic shaping	CGPM	2	18.9								370	Surface collection
1638	Debitage	Core reduction, basic shaping	FGPM	1	5.16								370	Surface collection
1639	Debitage	Core reduction, basic shaping	FGPM	1	7.3								371	Surface collection
1640	Debitage	Finishing, resharpening	FGPM	2	2.35								371	Surface collection
1641	Debitage	Core reduction, basic shaping	FGPM	2	3.52								372	Surface collection
1642	Debitage	Secondary shatter	FGPM	2	22.31								372	Surface collection
1643	Debitage	Finishing, resharpening	FGM	1	1.59								372	Surface collection
1644	Debitage	Secondary shatter	FGM	2	5.05								372	Surface collection
1645	Debitage	Finishing, resharpening	CGPM	2	2.02								372	Surface collection
1646	Debitage	Cortex removal	FGPM	1	12.42								373	Surface collection
1647	Debitage	Finishing, resharpening	FGPM	2	4.98								373	Surface collection
1648	Debitage	Finishing, resharpening	FGM	2	1.83								373	Surface collection
1649	Debitage	Core reduction, basic shaping	FGPM	1	10.52								374	Surface collection
1650	Debitage	Core reduction, basic shaping	CGPM	1	8.29								374	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1651	Debitage	Core reduction, basic shaping	FGPM	1	16.05								375	Surface collection
1652	Debitage	Secondary shatter	FGPM	1	5.94								375	Surface collection
1653	Debitage	Core reduction, basic shaping	CGPM	2	31.11								375	Surface collection
1654	Debitage	Cortex removal	FGPM	2	21.91								376	Surface collection
1655	Debitage	Core reduction, basic shaping	FGPM	1	8.49								376	Surface collection
1656	Debitage	Cortex removal	FGPM	1	23.97								377	Surface collection
1657	Debitage	Core reduction, basic shaping	FGPM	1	5.36								377	Surface collection
1658	Debitage	Secondary shatter	CGPM	1	4.05								377	Surface collection
1659	Debitage	Core reduction, basic shaping	CGPM	1	3.42								378	Surface collection
1660	Debitage	Finishing, resharpening	FGM	1	0.21								378	Surface collection
1661	Debitage	Finishing, resharpening	FGPM	1	1.51								378	Surface collection
1662	Debitage	Finishing, resharpening	FGM	1	2.05								379	Surface collection
1663	Debitage	Secondary shatter	FGM	1	1.51								379	Surface collection
1664	Debitage	Core reduction, basic shaping	FGPM	2	10.21								379	Surface collection
1665	Debitage	Finishing, resharpening	FGPM	2	2.77								379	Surface collection
1666	Debitage	Primary shatter	FGPM	3	21.75								379	Surface collection
1667	Debitage	Secondary shatter	FGPM	1	1.35								379	Surface collection
1668	Debitage	Cortex removal	CGPM	1	8.56								379	Surface collection
1669	Debitage	Core reduction, basic shaping	CGPM	2	19.75								379	Surface collection
1670	Debitage	Primary shatter	CGPM	1	0.69								379	Surface collection
1671	Debitage	Secondary shatter	CGPM	1	0.21								379	Surface collection
1672	Debitage	Platform creation, cortex removal	FGPM	1	48.26								380	Surface collection
1673	Debitage	Core reduction, basic shaping	FGPM	2	30.16								380	Surface collection
1674	Debitage	Secondary shatter	FGM	1	1.16								380	Surface collection
1675	Debitage	Core reduction, basic shaping	CGM	2	13.07								380	Surface collection
1676	Debitage	Secondary shatter	CGM	1	4.92								380	Surface collection
1677	Debitage	Core reduction, basic shaping	CGPM	1	7.06								380	Surface collection
1678	Debitage	Core reduction, basic shaping	Quartzite	1	9.46								380	Surface collection
1679	Debitage	Primary shatter	Conglomerate	1	85.77								380	Surface collection
1680	Debitage	Core reduction, basic shaping	FGM	2	17.99								381	Surface collection
1681	Debitage	Secondary shatter	FGM	1	2.19								381	Surface collection
1682	Debitage	Core reduction, basic shaping	FGPM	3	49.26								381	Surface collection
1683	Debitage	Finishing, resharpening	FGPM	1	1.8								381	Surface collection
1684	Debitage	Secondary shatter	FGPM	1	1.96								381	Surface collection
1685	Debitage	Cortex removal	CGPM	1	27.21								381	Surface collection
1686	Debitage	Core reduction, basic shaping	CGPM	1	3.86								381	Surface collection
1687	Debitage	Core reduction, basic shaping	FGPM	2	32.48								382	Surface collection
1688	Debitage	Finishing, resharpening	FGPM	2	3.47								382	Surface collection
1689	Debitage	Secondary shatter	FGPM	1	1.17								382	Surface collection
1690	Debitage	Finishing, resharpening	FGM	1	0.75								382	Surface collection
1691	Debitage	Core reduction, basic shaping	CGPM	1	2.27								382	Surface collection
1692	Debitage	Finishing, resharpening	CGPM	4	3.63								382	Surface collection
1693	Debitage	Secondary shatter	CGPM	1	5.31								382	Surface collection
1694	Debitage	Core reduction, basic shaping	FGPM	2	14.63								383	Surface collection
1695	Debitage	Finishing, resharpening	FGPM	1	0.18								383	Surface collection
1696	Debitage	Bifacial thinning flake	FGM	1	1								384	Surface collection
1697	Debitage	Core reduction, basic shaping	FGM	1	1.37								384	Surface collection
1698	Debitage	Finishing, resharpening	FGM	1	1.29								384	Surface collection
1699	Debitage	Finishing, resharpening	FGPM	2	2.42								384	Surface collection
1700	Debitage	Core reduction, basic shaping	CGM	1	7.61								385	Surface collection
1701	Debitage	Cortex removal	CGPM	1	17.39								386	Surface collection
1702	Debitage	Finishing, resharpening	FGM	1	1.39								386	Surface collection
1703	Debitage	Trimming	FGPM	2	7.9								386	Surface collection
1704	Debitage	Core reduction, basic shaping	CGPM	2	3.08								387	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1705	Debitage	Finishing, resharpening	FGM	1	0.54								387	Surface collection
1706	Debitage	Trimming	FGM	1	1.48								387	Surface collection
1707	Debitage	Core reduction, basic shaping	FGM	1	1.37								388	Surface collection
1708	Debitage	Core reduction, basic shaping	FGPM	1	40.77								388	Surface collection
1709	Debitage	Finishing, resharpening	FGPM	1	2.17								388	Surface collection
1710	Debitage	Secondary shatter	FGPM	1	34.51								388	Surface collection
1711	Debitage	Core reduction, basic shaping	CGPM	1	4.78								388	Surface collection
1712	Debitage	Core reduction, basic shaping	FGPM	1	15.95								389	Surface collection
1713	Debitage	Cortex removal	CGPM	1	8.32								390	Surface collection
1714	Debitage	Core reduction, basic shaping	CGPM	5	69.17								390	Surface collection
1715	Debitage	Finishing, resharpening	CGPM	1	2.79								390	Surface collection
1716	Debitage	Core reduction, basic shaping	CGM	1	4.46								390	Surface collection
1717	Debitage	Core reduction, basic shaping	CGPM	2	42.94								391	Surface collection
1718	Debitage	Finishing, resharpening	CGPM	1	1.77								391	Surface collection
1719	Debitage	Finishing, resharpening	FGPM	1	1.12								392	Surface collection
1720	Debitage	Trimming	FGPM	1	2.5								392	Surface collection
1721	Debitage	Secondary shatter	FGPM	1	1.56								392	Surface collection
1722	Debitage	Core reduction, basic shaping	CGPM	1	3								392	Surface collection
1723	Debitage	Finishing, resharpening	CGPM	1	1.49								392	Surface collection
1724	Debitage	Trimming	CGPM	1	1.6								392	Surface collection
1725	Debitage	Core reduction, basic shaping	FGM	1	2.16								393	Surface collection
1726	Debitage	Platform creation, cortex removal	FGPM	1	6.08								393	Surface collection
1727	Debitage	Finishing, resharpening	FGPM	1	1.01								393	Surface collection
1728	Debitage	Trimming	FGPM	1	0.18								393	Surface collection
1729	Debitage	Finishing, resharpening	CGM	1	0.24								393	Surface collection
1730	Debitage	Core reduction, basic shaping	CGPM	1	4.22								393	Surface collection
1731	Debitage	Finishing, resharpening	CGPM	1	0.6								393	Surface collection
1732	Debitage	Secondary shatter	CGPM	1	3.71								393	Surface collection
1733	Debitage	Core reduction, basic shaping	FGM	1	5.49								394	Surface collection
1734	Debitage	Cortex removal	FGPM	1	8.88								394	Surface collection
1735	Debitage	Core reduction, basic shaping	FGPM	1	4.33								394	Surface collection
1736	Debitage	Finishing, resharpening	FGPM	1	0.57								394	Surface collection
1737	Debitage	Secondary shatter	FGPM	1	8.41								394	Surface collection
1738	Debitage	Trimming	FGPM	1	2.07								395	Surface collection
1739	Debitage	Finishing, resharpening	CGPM	1	2.81								395	Surface collection
1740	Debitage	Secondary shatter	CGPM	3	8.78								395	Surface collection
1741	Debitage	Core reduction, basic shaping	FGPM	1	2.91								396	Surface collection
1742	Debitage	Secondary shatter	FGPM	1	8.02								396	Surface collection
1743	Debitage	Core reduction, basic shaping	CGPM	1	6.45								396	Surface collection
1744	Debitage	Secondary shatter	FGPM	1	4.02								397	Surface collection
1745	Debitage	Cortex removal	CGPM	1	3.81								397	Surface collection
1746	Debitage	Core reduction, basic shaping	CGPM	1	5.13								397	Surface collection
1747	Debitage	Finishing, resharpening	CGPM	1	1.02								397	Surface collection
1748	Debitage	Secondary shatter	CGPM	1	3.93								397	Surface collection
1749	Debitage	Cortex removal	FGM	1	22.3								398	Surface collection
1750	Debitage	Finishing, resharpening	FGM	1	0.08								398	Surface collection
1751	Debitage	Finishing, resharpening	FGPM	1	2.22								398	Surface collection
1752	Debitage	Finishing, resharpening	CGPM	1	5.57								398	Surface collection
1753	Debitage	Secondary shatter	CGPM	1	1.43								398	Surface collection
1754	Debitage	Core reduction, basic shaping	Quartzite	1	3.21								398	Surface collection
1755	Debitage	Cortex removal	FGPM	1	10.07								399	Surface collection
1756	Debitage	Core reduction, basic shaping	CGPM	2	29.55								399	Surface collection
1757	Debitage	Secondary shatter	CGPM	1	4.12								399	Surface collection
1758	Debitage	Core reduction, basic shaping	FGPM	1	1.94								400	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1759	Debitage	Secondary shatter	CGPM	1	2.96								400	Surface collection
1760	Debitage	Core reduction, basic shaping	CGPM	1	9.68								401	Surface collection
1761	Debitage	Primary shatter	CGPM	2	86.63								401	Surface collection
1762	Debitage	Finishing, resharpening	CGPM	2	2.57								402	Surface collection
1763	Debitage	Trimming	CGPM	1	0.63								402	Surface collection
1764	Debitage	Secondary shatter	CGPM	2	7.11								402	Surface collection
1765	Debitage	Core reduction, basic shaping	FGPM	2	5.95								403	Surface collection
1766	Debitage	Secondary shatter	CGPM	1	0.47								405	Surface collection
1767	Debitage	Core reduction, basic shaping	FGM	1	37.24								406	Surface collection
1768	Debitage	Cortex removal	CGPM	1	42.25								406	Surface collection
1769	Debitage	Core reduction, basic shaping	CGPM	1	6.85								407	Surface collection
1770	Debitage	Primary shatter	FGPM	1	7.95								409	Surface collection
1771	Debitage	Cortex removal	CGPM	1	5.94								409	Surface collection
1772	Debitage	Bifacial thinning flake	FGPM	1	1.19								411	Surface collection
1773	Debitage	Core reduction, basic shaping	FGPM	1	10.14								411	Surface collection
1774	Debitage	Finishing, resharpening	CGM	1	1.35								411	Surface collection
1775	Debitage	Primary shatter	CGPM	1	5.98								411	Surface collection
1776	Debitage	Cortex removal	CGPM	1	13.33								413	Surface collection
1777	Debitage	Finishing, resharpening	FGM	1	1.17								416	Surface collection
1778	Debitage	Finishing, resharpening	FGPM	1	0.65								416	Surface collection
1779	Debitage	Primary shatter	CGPM	1	2.85								416	Surface collection
1780	Debitage	Cortex removal	FGM	1	5.72								417	Surface collection
1781	Debitage	Core reduction, basic shaping	FGPM	1	6.82								418	Surface collection
1782	Debitage	Trimming	FGPM	1	1.05								418	Surface collection
1783	Debitage	Platform creation, cortex removal	CGPM	1	5.59								419	Surface collection
1784	Debitage	Platform creation, cortex removal	CGPM	1	21.13								420	Surface collection
1785	Debitage	Primary shatter	CGPM	1	24.33								420	Surface collection
1786	Debitage	Cortex removal	CGPM	1	59.3								421	Surface collection
1787	Debitage	Primary shatter	CGPM	1	27.92								422	Surface collection
1788	Debitage	Core reduction, basic shaping	FGPM	2	1.58								423	Surface collection
1789	Debitage	Primary shatter	CGPM	1	59.2								423	Surface collection
1790	Debitage	Core reduction, basic shaping	CGPM	1	3.11								425	Surface collection
1791	Debitage	Cortex removal	CGPM	1	60.35								428	Surface collection
1792	Debitage	Core reduction, basic shaping	CGPM	1	6.45								428	Surface collection
1793	Debitage	Finishing, resharpening	CGPM	1	1.14								428	Surface collection
1794	Debitage	Primary shatter	CGPM	1	9.49								429	Surface collection
1795	Debitage	Trimming	FGPM	1	0.68								429	Surface collection
1796	Debitage	Core reduction, basic shaping	FGPM	1	2.51								430	Surface collection
1797	Debitage	Finishing, resharpening	FGPM	1	0.89								431	Surface collection
1798	Debitage	Core reduction, basic shaping	CGPM	1	9.18								432	Surface collection
1799	Debitage	Core reduction, basic shaping	FGPM	2	8.81								433	Surface collection
1800	Debitage	Finishing, resharpening	FGM	2	2.05								433	Surface collection
1801	Debitage	Core reduction, basic shaping	CGPM	1	1.82								434	Surface collection
1802	Debitage	Finishing, resharpening	FGM	1	1.28								435	Surface collection
1803	Debitage	Core reduction, basic shaping	FGPM	1	3.99								435	Surface collection
1804	Debitage	Primary shatter	FGPM	1	5.4								435	Surface collection
1805	Debitage	Core reduction, basic shaping	FGPM	1	36.91								436	Surface collection
1806	Debitage	Primary shatter	FGM	1	1.26								437	Surface collection
1807	Debitage	Cortex removal	CGPM	1	18.81								437	Surface collection
1808	Debitage	Finishing, resharpening	CGPM	1	2.28								503	Surface collection
1809	Debitage	Platform creation, cortex removal	CGPM	1	16.21								504	Surface collection
1810	Debitage	Core reduction, basic shaping	FGPM	1	3.19								504	Surface collection
1811	Debitage	Cortex removal	FGPM	1	22								505	Surface collection
1812	Debitage	Core reduction, basic shaping	FGPM	1	5.04								505	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1813	Debitage	Secondary shatter	FGPM	1	5.4								505	Surface collection
1814	Debitage	Core reduction, basic shaping	FGM	1	9.27								505	Surface collection
1815	Debitage	Core reduction, basic shaping	CGPM	1	12.98								505	Surface collection
1816	Debitage	Core reduction, basic shaping	CGPM	1	5.08								506	Surface collection
1817	Debitage	Finishing, resharpening	CGPM	1	0.72								506	Surface collection
1818	Debitage	Primary shatter	CGPM	2	4.71								506	Surface collection
1819	Debitage	Primary shatter	FGPM	1	1.93								506	Surface collection
1820	Debitage	Finishing, resharpening	FGPM	1	1.02								507	Surface collection
1821	Debitage	Primary shatter	FGPM	1	6.49								507	Surface collection
1822	Debitage	Core reduction, basic shaping	FGPM	1	9.75								508	Surface collection
1823	Debitage	Finishing, resharpening	FGPM	1	1.85								508	Surface collection
1824	Debitage	Primary shatter	FGPM	1	34.58								409	Surface collection
1825	Debitage	Platform creation, cortex removal	Quartzite	1	91.42						In 3 pieces		510	Surface collection
1826	Debitage	Finishing, resharpening	CGPM	1	1.15								511	Surface collection
1827	Debitage	Core reduction, basic shaping	FGPM	1	3.53								512	Surface collection
1828	Debitage	Core reduction, basic shaping	FGPM	1	4.25								513	Surface collection
1829	Debitage	Core reduction, basic shaping	FGPM	1	21.91								514	Surface collection
1830	Debitage	Core reduction, basic shaping	FGPM	1	17.31								515	Surface collection
1831	Debitage	Core reduction, basic shaping	FGM	1	32.84								516	Surface collection
1832	Debitage	Core reduction, basic shaping	FGM	1	20.37								517	Surface collection
1833	Debitage	Core reduction, basic shaping	FGPM	1	1.89								517	Surface collection
1834	Debitage	Core reduction, basic shaping	CGPM	1	17.5								517	Surface collection
1835	Debitage	Secondary shatter	CGPM	1	1.31								517	Surface collection
1836	Debitage	Core reduction, basic shaping	FGM	1	12.76								518	Surface collection
1837	Debitage	Core reduction, basic shaping	CGPM	1	16.09								518	Surface collection
1838	Debitage	Core reduction, basic shaping	FGPM	1	3.72								519	Surface collection
1839	Debitage	Core reduction, basic shaping	FGM	1	14.86								520	Surface collection
1840	Debitage	Core reduction, basic shaping	CGPM	1	2.2								521	Surface collection
1841	Debitage	Secondary shatter	CGPM	1	7.9								521	Surface collection
1842	Debitage	Core reduction, basic shaping	FGM	1	13.73								522	Surface collection
1843	Debitage	Primary shatter	CGPM	1	14.34								522	Surface collection
1844	Debitage	Core reduction, basic shaping	FGPM	1	17.65								523	Surface collection
1845	Debitage	Finishing, resharpening	FGPM	1	1.75								523	Surface collection
1846	Debitage	Platform creation, cortex removal	FGM	1	32.27								524	Surface collection
1847	Debitage	Finishing, resharpening	CGPM	1	0.71								524	Surface collection
1848	Debitage	Platform creation, cortex removal	CGPM	1	55.26								525	Surface collection
1849	Debitage	Cortex removal	FGPM	1	32.97								526	Surface collection
1850	Debitage	Platform creation, cortex removal	CGPM	1	33.37								527	Surface collection
1851	Debitage	Finishing, resharpening	FGM	1	0.56							0-10	Unit 1	1m x 1m unit
1852	Debitage	Trimming	FGM	1	1.71							0-10	Unit 1	1m x 1m unit
1853	Debitage	Secondary shatter	FGM	1	1.14							0-10	Unit 1	1m x 1m unit
1854	Debitage	Cortex removal	FGPM	1	3.04							0-10	Unit 1	1m x 1m unit
1855	Debitage	Core reduction, basic shaping	FGPM	5	149.31							0-10	Unit 1	1m x 1m unit
1856	Debitage	Finishing, resharpening	FGPM	1	0.05							0-10	Unit 1	1m x 1m unit
1857	Debitage	Trimming	FGPM	1	2.71							0-10	Unit 1	1m x 1m unit
1858	Debitage	Core reduction, basic shaping	CGPM	1	85.02							0-10	Unit 1	1m x 1m unit
1859	Debitage	Finishing, resharpening	CGPM	2	3.1							0-10	Unit 1	1m x 1m unit
1860	Debitage	Secondary shatter	CGPM	1	55.47							0-10	Unit 1	1m x 1m unit
1861	Debitage	Finishing, resharpening	FGPM	2	1.81							10-20	Unit 1	1m x 1m unit
1862	Debitage	Primary shatter	FGPM	1	6.33							10-20	Unit 1	1m x 1m unit
1863	Debitage	Secondary shatter	FGPM	1	36.06							10-20	Unit 1	1m x 1m unit
1864	Debitage	Core reduction, basic shaping	FGPM	1	2.27							20-30	Unit 1	1m x 1m unit
1865	Debitage	Finishing, resharpening	FGPM	1	0.41							20-30	Unit 1	1m x 1m unit
1866	Debitage	Core reduction, basic shaping	FGM	4	15.06							0-10	Unit 2	1m x 1m unit

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1867	Debitage	Finishing, resharpening	FGM	2	1.49							0-10	Unit 2	1m x 1m unit
1868	Debitage	Trimming	FGM	1	0.19							0-10	Unit 2	1m x 1m unit
1869	Debitage	Secondary shatter	FGM	1	0.01							0-10	Unit 2	1m x 1m unit
1870	Debitage	Cortex removal	FGPM	2	32.94							0-10	Unit 2	1m x 1m unit
1871	Debitage	Core reduction, basic shaping	FGPM	2	12.79							0-10	Unit 2	1m x 1m unit
1872	Debitage	Finishing, resharpening	FGPM	1	0.79							0-10	Unit 2	1m x 1m unit
1873	Debitage	Secondary shatter	FGPM	4	113.86							0-10	Unit 2	1m x 1m unit
1874	Debitage	Platform creation, cortex removal	CGPM	1	6.05							0-10	Unit 2	1m x 1m unit
1875	Debitage	Cortex removal	CGPM	5	117.04							0-10	Unit 2	1m x 1m unit
1876	Debitage	Core reduction, basic shaping	CGPM	9	53.69						1 in 2 pieces	0-10	Unit 2	1m x 1m unit
1877	Debitage	Finishing, resharpening	CGPM	2	1.2							0-10	Unit 2	1m x 1m unit
1878	Debitage	Trimming	CGPM	2	2.1							0-10	Unit 2	1m x 1m unit
1879	Debitage	Primary shatter	CGPM	2	9.95							0-10	Unit 2	1m x 1m unit
1880	Debitage	Secondary shatter	CGPM	7	35.28							0-10	Unit 2	1m x 1m unit
1881	Debitage	Core reduction, basic shaping	FGM	1	7.75							10-20	Unit 2	1m x 1m unit
1882	Debitage	Secondary shatter	FGM	1	11.9							10-20	Unit 2	1m x 1m unit
1883	Debitage	Cortex removal	FGPM	1	8.34							10-20	Unit 2	1m x 1m unit
1884	Debitage	Core reduction, basic shaping	FGPM	3	76.22							10-20	Unit 2	1m x 1m unit
1885	Debitage	Primary shatter	FGPM	5	180.66							10-20	Unit 2	1m x 1m unit
1886	Debitage	Secondary shatter	FGPM	2	164.72							10-20	Unit 2	1m x 1m unit
1887	Debitage	Platform creation, cortex removal	CGPM	2	48.98							10-20	Unit 2	1m x 1m unit
1888	Debitage	Cortex removal	CGPM	2	249.15							10-20	Unit 2	1m x 1m unit
1889	Debitage	Core reduction, basic shaping	CGPM	6	163.97							10-20	Unit 2	1m x 1m unit
1890	Debitage	Primary shatter	CGPM	4	73.67							10-20	Unit 2	1m x 1m unit
1891	Debitage	Secondary shatter	CGPM	1	37.26							10-20	Unit 2	1m x 1m unit
1892	Debitage	Primary shatter	Quartzite	1	42.05							10-20	Unit 2	1m x 1m unit
1893	Debitage	Bifacial thinning flake	FGM	1	0.15							20-30	Unit 2	1m x 1m unit
1894	Debitage	Finishing, resharpening	FGM	1	0.4							20-30	Unit 2	1m x 1m unit
1895	Debitage	Core reduction, basic shaping	FGPM	3	50.41							20-30	Unit 2	1m x 1m unit
1896	Debitage	Cortex removal	CGPM	1	118.96							20-30	Unit 2	1m x 1m unit
1897	Debitage	Core reduction, basic shaping	CGPM	4	8.44							20-30	Unit 2	1m x 1m unit
1898	Debitage	Finishing, resharpening	CGPM	1	1.12							20-30	Unit 2	1m x 1m unit
1899	Debitage	Primary shatter	CGPM	3	140.74							20-30	Unit 2	1m x 1m unit
1900	Debitage	Secondary shatter	CGPM	1	5.58							20-30	Unit 2	1m x 1m unit
1901	Debitage	Primary shatter	Granite	1	27.21							20-30	Unit 2	1m x 1m unit
1902	Debitage	Cortex removal	FGPM	1	9.61							0-10	Unit 3	1m x 1m unit
1903	Debitage	Core reduction, basic shaping	FGPM	2	30.29							0-10	Unit 3	1m x 1m unit
1904	Debitage	Finishing, resharpening	FGPM	1	0.3							0-10	Unit 3	1m x 1m unit
1905	Debitage	Finishing, resharpening	FGM	2	0.28							0-10	Unit 4	1m x 1m unit
1906	Debitage	Platform creation, cortex removal	FGPM	2	103.7							0-10	Unit 4	1m x 1m unit
1907	Debitage	Core reduction, basic shaping	FGPM	10	43.46							0-10	Unit 4	1m x 1m unit
1908	Debitage	Finishing, resharpening	FGPM	7	8.4							0-10	Unit 4	1m x 1m unit
1909	Debitage	Primary shatter	FGPM	3	7.94							0-10	Unit 4	1m x 1m unit
1910	Debitage	Secondary shatter	FGPM	2	1.39							0-10	Unit 4	1m x 1m unit
1911	Debitage	Platform creation, cortex removal	CGPM	2	13.02							0-10	Unit 4	1m x 1m unit
1912	Debitage	Cortex removal	CGPM	5	45.35							0-10	Unit 4	1m x 1m unit
1913	Debitage	Core reduction, basic shaping	CGPM	15	80.86							0-10	Unit 4	1m x 1m unit
1914	Debitage	Finishing, resharpening	CGPM	6	4.41							0-10	Unit 4	1m x 1m unit
1915	Debitage	Trimming	CGPM	2	0.99							0-10	Unit 4	1m x 1m unit
1916	Debitage	Primary shatter	CGPM	4	109.52							0-10	Unit 4	1m x 1m unit
1917	Debitage	Secondary shatter	CGPM	3	1.21							0-10	Unit 4	1m x 1m unit
1918	Debitage	Primary shatter	Quartzite	3	70.92							0-10	Unit 4	1m x 1m unit
1919	Debitage	Finishing, resharpening	FGM	1	0.13							10-20	Unit 4	1m x 1m unit
1920	Debitage	Cortex removal	FGPM	5	252.02							10-20	Unit 4	1m x 1m unit

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1921	Debitage	Core reduction, basic shaping	FGPM	1	24.3							10-20	Unit 4	1m x 1m unit
1922	Debitage	Finishing, resharpening	FGPM	2	3.97							10-20	Unit 4	1m x 1m unit
1923	Debitage	Primary shatter	FGPM	1	6.36							10-20	Unit 4	1m x 1m unit
1924	Debitage	Core reduction, basic shaping	CGM	3	38.54							10-20	Unit 4	1m x 1m unit
1925	Debitage	Finishing, resharpening	CGM	1	2.58							10-20	Unit 4	1m x 1m unit
1926	Debitage	Cortex removal	CGPM	3	71.65							10-20	Unit 4	1m x 1m unit
1927	Debitage	Core reduction, basic shaping	CGPM	5	46.35							10-20	Unit 4	1m x 1m unit
1928	Debitage	Primary shatter	CGPM	3	33.18							10-20	Unit 4	1m x 1m unit
1929	Debitage	Secondary shatter	FGPM	1	29.79							10-20	Unit 4	1m x 1m unit
1930	Debitage	Cortex removal	FGPM	1	5.57							20-28	Unit 4	1m x 1m unit
1931	Debitage	Finishing, resharpening	FGM	1	0.71							0-10	Unit 5	1m x 1m unit
1932	Debitage	Cortex removal	FGPM	2	13.64							0-10	Unit 5	1m x 1m unit
1933	Debitage	Core reduction, basic shaping	FGPM	7	69.38							0-10	Unit 5	1m x 1m unit
1934	Debitage	Finishing, resharpening	FGPM	2	5.06							0-10	Unit 5	1m x 1m unit
1935	Debitage	Secondary shatter	FGPM	3	3.84							0-10	Unit 5	1m x 1m unit
1936	Debitage	Finishing, resharpening	CGM	2	2.12							0-10	Unit 5	1m x 1m unit
1937	Debitage	Primary shatter	CGM	1	11.82							0-10	Unit 5	1m x 1m unit
1938	Debitage	Secondary shatter	CGM	1	0.61							0-10	Unit 5	1m x 1m unit
1939	Debitage	Cortex removal	CGPM	2	17.65							0-10	Unit 5	1m x 1m unit
1940	Debitage	Core reduction, basic shaping	CGPM	6	76.48							0-10	Unit 5	1m x 1m unit
1941	Debitage	Finishing, resharpening	CGPM	2	2.05							0-10	Unit 5	1m x 1m unit
1942	Debitage	Primary shatter	CGPM	1	0.54							0-10	Unit 5	1m x 1m unit
1943	Debitage	Secondary shatter	CGPM	1	1.41							0-10	Unit 5	1m x 1m unit
1944	Debitage	Cortex removal	Quartzite	1	20.53							0-10	Unit 5	1m x 1m unit
1945	Debitage	Finishing, resharpening	Quartz	1	2.11							0-10	Unit 5	1m x 1m unit
1946	Debitage	Platform creation, cortex removal	Granite	1	4.15							0-10	Unit 5	1m x 1m unit
1947	Debitage	Core reduction, basic shaping	FGM	2	6.48							10-20	Unit 5	1m x 1m unit
1948	Debitage	Finishing, resharpening	FGM	1	0.58							10-20	Unit 5	1m x 1m unit
1949	Debitage	Platform creation, cortex removal	FGPM	1	18.19							10-20	Unit 5	1m x 1m unit
1950	Debitage	Cortex removal	FGPM	1	1.67							10-20	Unit 5	1m x 1m unit
1951	Debitage	Core reduction, basic shaping	FGPM	11	63.88							10-20	Unit 5	1m x 1m unit
1952	Debitage	Finishing, resharpening	FGPM	7	3.31							10-20	Unit 5	1m x 1m unit
1953	Debitage	Trimming	FGPM	1	1.08							10-20	Unit 5	1m x 1m unit
1954	Debitage	Primary shatter	FGPM	3	40.37							10-20	Unit 5	1m x 1m unit
1955	Debitage	Platform creation, cortex removal	CGPM	3	157.72							10-20	Unit 5	1m x 1m unit
1956	Debitage	Cortex removal	CGPM	1	151.62							10-20	Unit 5	1m x 1m unit
1957	Debitage	Core reduction, basic shaping	CGPM	11	144.69							10-20	Unit 5	1m x 1m unit
1958	Debitage	Finishing, resharpening	CGPM	1	1.98							10-20	Unit 5	1m x 1m unit
1959	Debitage	Trimming	CGPM	1	3.54							10-20	Unit 5	1m x 1m unit
1960	Debitage	Primary shatter	CGPM	8	559.98							10-20	Unit 5	1m x 1m unit
1961	Debitage	Secondary shatter	CGPM	3	7.67							10-20	Unit 5	1m x 1m unit
1962	Debitage	Platform creation, cortex removal	Quartzite	1	114.74							10-20	Unit 5	1m x 1m unit
1963	Debitage	Cortex removal	FGPM	1	63.96							20-30	Unit 5	1m x 1m unit
1964	Debitage	Core reduction, basic shaping	FGPM	6	31.56							20-30	Unit 5	1m x 1m unit
1965	Debitage	Finishing, resharpening	FGPM	1	1.69							20-30	Unit 5	1m x 1m unit
1966	Debitage	Primary shatter	FGPM	1	27.44							20-30	Unit 5	1m x 1m unit
1967	Debitage	Secondary shatter	FGPM	1	25.22							20-30	Unit 5	1m x 1m unit
1968	Debitage	Core reduction, basic shaping	CGM	2	29.56							20-30	Unit 5	1m x 1m unit
1969	Debitage	Finishing, resharpening	CGM	1	4.12							20-30	Unit 5	1m x 1m unit
1970	Debitage	Platform creation, cortex removal	CGPM	1	109.92							20-30	Unit 5	1m x 1m unit
1971	Debitage	Cortex removal	CGPM	1	9.03							20-30	Unit 5	1m x 1m unit
1972	Debitage	Core reduction, basic shaping	CGPM	9	246.18							20-30	Unit 5	1m x 1m unit
1973	Debitage	Finishing, resharpening	CGPM	2	3.81							20-30	Unit 5	1m x 1m unit
1974	Debitage	Secondary shatter	CGPM	1	0.98							20-30	Unit 5	1m x 1m unit

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
1975	Debitage	Platform creation, cortex removal	FGPM	1	8.43							30-40	Unit 5	1m x 1m unit
1976	Debitage	Cortex removal	FGPM	1	18.03							30-40	Unit 5	1m x 1m unit
1977	Debitage	Core reduction, basic shaping	FGPM	5	55.69							30-40	Unit 5	1m x 1m unit
1978	Debitage	Trimming	FGPM	1	0.38							30-40	Unit 5	1m x 1m unit
1979	Debitage	Primary shatter	FGPM	1	1.99							30-40	Unit 5	1m x 1m unit
1980	Debitage	Platform creation, cortex removal	CGPM	1	20.35							30-40	Unit 5	1m x 1m unit
1981	Debitage	Cortex removal	CGPM	1	156.31							30-40	Unit 5	1m x 1m unit
1982	Debitage	Core reduction, basic shaping	CGPM	3	11.49							30-40	Unit 5	1m x 1m unit
1983	Debitage	Trimming	CGPM	1	2.51							30-40	Unit 5	1m x 1m unit
1984	Debitage	Finishing, resharpening	FGM	1	0.65							0-10	Unit 6	1m x 1m unit
1985	Debitage	Cortex removal	FGPM	1	215.34							0-10	Unit 6	1m x 1m unit
1986	Debitage	Core reduction, basic shaping	FGPM	4	139.18							0-10	Unit 6	1m x 1m unit
1987	Debitage	Finishing, resharpening	FGPM	1	1.23							0-10	Unit 6	1m x 1m unit
1988	Debitage	Primary shatter	FGPM	2	69.79							0-10	Unit 6	1m x 1m unit
1989	Debitage	Secondary shatter	FGPM	1	2.38							0-10	Unit 6	1m x 1m unit
1990	Debitage	Core reduction, basic shaping	CGM	1	2.34							0-10	Unit 6	1m x 1m unit
1991	Debitage	Finishing, resharpening	CGM	1	1.41							0-10	Unit 6	1m x 1m unit
1992	Debitage	Secondary shatter	CGM	1	1.92							0-10	Unit 6	1m x 1m unit
1993	Debitage	Platform creation, cortex removal	CGPM	1	31.23							0-10	Unit 6	1m x 1m unit
1994	Debitage	Cortex removal	CGPM	2	449.29							0-10	Unit 6	1m x 1m unit
1995	Debitage	Core reduction, basic shaping	CGPM	20	216.63							0-10	Unit 6	1m x 1m unit
1996	Debitage	Finishing, resharpening	CGPM	1	0.63							0-10	Unit 6	1m x 1m unit
1997	Debitage	Primary shatter	CGPM	5	100.23							0-10	Unit 6	1m x 1m unit
1998	Debitage	Secondary shatter	CGPM	2	8.19							0-10	Unit 6	1m x 1m unit
1999	Debitage	Core reduction, basic shaping	FGPM	4	96.25							10-20	Unit 6	1m x 1m unit
2000	Shell	Haliotis sp.	Shell		2.75				Broken			0-10	Unit 2	1m x 1m unit
3000	Groundstor	Mano	Granite	1	648.36	93	79	50	Whole bifacial unshaped	Special Study	Check material type after cleaning; pecked; mild shoulder	0-10	Unit 6	1m x 1m unit
7000	Historic	Munitions Group Item	Lead	1	8.38	15	9		Whole		Bullet (projectile alone)	0-10	Unit 8	1m x 1m unit
9000	FLA	Hammerstone	CGPM	1	641.41	101	84	67	Whole		Core-based; at least 5 removals; 330 mm of battering along one margin that includes one 41 mm cortical portion		12	Surface collection
9001	FLA	Domed Sidescraper	FGPM	1	209.93	77	70	43	Whole		Domed sidescraper; steep edge is 85 degrees, remaining edges are 70 degrees and lower; one platform has dorsal scarring where remaining edges are unifacially prepped with microstepping damage		13	Surface collection
9002	FLA	Hammerstone	CGPM	1	591.37	131	107	51	Whole		Fragment; does not appear to be utilzed as a core past breaking; 110 mm of battering along extant cortical margin		19a	Surface collection
9003	FLA	Domed Sidescraper	FGPM	1	452.05	69	68	68	Whole		Domed sidescraper; steep edge is 90 degrees and has cortex down to the plane bottom, remaining edges are over 90 degrees as the plane bottom has a smaller diameter than the girth of the mid section; edges are unifacially prepped with microstepping; photo candidate		44	Surface collection
9004	FLA	Sidescraper	FGPM	1	78.74	67	55	23	Whole		Consistent unifacial edge prep; edge wear along entire 190 mm margin		47	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
9005	FLA	Domed Sidescraper	FGM	1	106.99	58	57	32	Whole		Domed sidescraper; plane bottom; steep edge angles, one approaching 90 degrees; cortex on proximal end only; unifacial prepping; microstepping along margin		59	Surface collection
9006	FLA	Core	FGPM	1	97.09	66	48	32	Whole		At least 3 flakes removed		73	Surface collection
9007	FLA	Core	CGPM	1	75.18	67	49	25	Whole		At least 4 flakes removed		74	Surface collection
9008	FLA	Core	CGPM	1	248.82	68	53	48	Whole		At least 4 flakes removed		75	Surface collection
9009	FLA	Core	CGPM	1	120.51	59	45	40	Whole		At least 4 flakes removed		78	Surface collection
9010	FLA	Convex Sidescraper	FGM	1	42.32	56	38	21	Whole		5 flakes removed along 80 mm convex margin; cortex on proximal "crown" only		98	Surface collection
9011	FLA	Utilized flake	FGM	1	13.66	42	30	14	Whole		Secondary shatter based; microstepping along one 46 mm convex margin; photo candidate		111	Surface collection
9012	FLA	Convex Sidescraper	FGPM	1	22.9	53	40	15	Whole		Secondary shatter; one 70 mm unifacially prepped margin		125	Surface collection
9013	FLA	Core	Quartzite	1	30.31	44	36	23	Whole		At least 5 flakes removed; expended		126	Surface collection
9014	FLA	Modified flake	FGM	1	35.75	53	33	20	Whole		A cortex removal flake with areas of retouch, mostly in the area of the non-extant platform		129	Surface collection
9015	FLA	Core	CGPM	1	109.34	70	44	39	Broken		Core fragment		130	Surface collection
9016	FLA	Core	CGPM	1	123.38	70	40	32	Whole		Multidirectional removal; at least 4 flakes removed; cortex with some dorsal scarring across one plane		134	Surface collection
9017	FLA	Combination	FGPM	1	141.01	88	37	31	Broken		Hammer/convex sidescraper; first used as a hammer with cortical portion exhibiting broad-placed battering; convex margin exhibits unifacial retouch with microstep damage		142	Surface collection
9018	FLA	Combination	FGPM	1	134.34	75	49	39	Whole		Hammer/core; primary flake with at least 4 flakes removed; battering along prominent ridge of cortex		146	Surface collection
9019	FLA	Core	CGPM	1	82.19	65	38	26	Whole		At least 4 flakes removed		153	Surface collection
9020	FLA	Convex Sidescraper	FGPM	1	45.21	49	33	32	Whole		Could be a fragmented domed sidescraper as the tool appears to be split in half; 94 mm of unifacially prepped margin; microstepping along plane edge		162	Surface collection
9021	FLA	Endscraper	FGPM	1	39.22	56	44	17	Whole		A core reduction flake; exhibiting bifacial retouch with microstepping; photo candidate		164	Surface collection
9022	FLA	Core	FGPM	1	21.38	39	30	20	Whole		Expended; dorsal scarring evident on cortical edge		165	Surface collection
9023	FLA	Core	CGPM	1	80.96	57	36	33	Whole		At least 3 flakes removed		169	Surface collection
9024	FLA	Convergent Sidescraper	FGM	1	57.93	52	48	22	Whole		Cortex removal flake; with two adjacent edges, one lateral and the distal edges, converge; opposite edge unifacial retouch with microstep damage		173	Surface collection
9025	FLA	Convex Sidescraper	FGPM	1	122.8	97	55	22	Whole	Special Study	Core reduction flake with unifacial prepping along convex margin; check material type after cleaning	20-30	Unit 5	1m x 1m unit

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
9026	FLA	Domed Sidescraper	FGPM	1	466.28	100	100	50	Whole	Special Study	Domed sidescraper; plane bottom; edges are unifacially prepped with microstepping; check material type after cleaning	0-10	Unit 6	1m x 1m unit
9027	FLA	Convex Sidescraper	FGPM	1	238.39	114	72	32	Whole	Special Study	Core reduction flake with unifacial prepping along convex margin; microstepping damage near proximal end; check material type after cleaning	40-50	Unit 7	1m x 1m unit
9028	FLA	Core	CGPM	1	165.78	84	62	34	Whole		At least 1 flake removed; natural plane fracture; cortex for the remiander		193	Surface collection
9029	FLA	Multiple Scraper	FGPM	1	90.45	63	51	27	Whole		Two opposite and inverse unifacially prepped edges each exhibiting microstep damage		195	Surface collection
9030	FLA	Domed Sidescraper	FGPM	1	172.11	73	72	39	Whole		Domed sidescraper; plane bottom; edges are unifacially prepped with microstepping		197	Surface collection
9031	FLA	Convex Sidescraper	FGPM	1	28.57	47	9	37	Whole		Primary shatter-based; tall but thin; plane bottom; unifacial removal of at least 4 flakes; microstep damage		199	Surface collection
9032	FLA	Core	FGPM	1	251.56	87	69	40	Whole		Multifaceted; multidirectional; areas of dorsal scarring		209	Surface collection
9033	FLA	Core	CGPM	1	346.08	88	82	52	Whole		Appears as a spall; natural fractures; at least 1 small flake removal from small cortex area		213	Surface collection
9034	FLA	Core	CGPM	1	197.5	69	67	45	Whole		Multidirectional; appears spallish; split with 9035		227	Surface collection
9035	FLA	Core	CGPM	1	228.63	60	58	48	Whole		Multidirectional; appears spallish; split with 9034		228	Surface collection
9036	FLA	Combination	FGPM	1	1140.85	122	103	85	Whole		Hammer/core; 250 mm of battering along prominent cortical margin; at least 2 flakes removed		234	Surface collection
9037	FLA	Hammerstone	CGPM	1	1189.68	126	119	91	Broken		Hammerstone fragment; one 38mm area of cortical battering; one 27mm area of cortical battering; two areas of fragmented removal		237	Surface collection
9038	FLA	Core	CGPM	1	1143.82	138	98	73	Whole		Multidirectional; at least 7 flakes removed; 1 large primary flake last removed from proximal pole		237	Surface collection
9039	FLA	Core	CGPM	1	164.64	71	39	38	Whole		Multidirectional; 3 flakes removed		242	Surface collection
9040	FLA	Utilized flake	FGPM	1	8.92	37	26	9	Broken		Possibly was larger, snapped from use; based on a 205; 74mm of unifacial prep along two convergent margins, use wear and microstepping apparent along same area; photo candidate		247	Surface collection
9041	FLA	Core	FGM	1	200.15	77	62	49	Whole		Multidirectional removal; at least 4 flakes removed; cortex remaining		249	Surface collection
9042	FLA	Core	FGM	1	71.79	62	42	28	Whole		Two flakes removed; two areas of dorsal scarring		254	Surface collection
9043	FLA	Core	FGM	1	68.74	56	34	32	Whole		Two flakes removed		259	Surface collection

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9044	FLA	Double-Convex Sidescraper	FGPM	1	115.21	70	59	27	Whole		205-based; four flakes removed on one edge; one flake removed at distal edge has no prep or use-wear; other edge has two flakes removed, one with small unifacial prepwork; not much use-wear and microstepping overall		263	Surface collection
9045	FLA	Core	CGPM	1	269.4	92	49	44	Whole		At least three flakes removed		267	Surface collection
9046	FLA	Core	FGPM	1	48.75	54	34	27	Whole		Multidirectional removal; expended		268	Surface collection
9047	FLA	Core	Granite	1	198.44	88	64	46	Broken		In two pieces (one primary flake); multidirectional removal; at least 3 flakes removed		269	Surface collection
9048	FLA	Core	FGM	1	68.75	76	41	25	Whole		Patinated; dorsal scarring evident on one margin; one flake removed		269	Surface collection
9049	FLA	Domed Sidescraper	FGPM	1	81.84	60	49	29	Whole		Domed sidescraper; plane bottom; edges are unifacially prepped with microstepping		270	Surface collection
9050	FLA	Core	CGPM	1	149.31	74	72	41	Whole		Multidirectional removal; at least 6 flakes removed		270	Surface collection
9051	FLA	Utilized flake	FGM	1	9.93	39	25	12	Whole		45mm of use wear along two margins; minor areas of rounding and microstepping		271	Surface collection
9052	FLA	Utilized flake	FGPM	1	38.47	73	32	26	Whole		104 mm use-wear with microstepping and small amounts of unifacial retouch wraps around one of the poles; opposite site exhibits at least three primary points of percussion with microstep dorsal scarring		273	Surface collection
9053	FLA	Assayed Cobble	CGPM	1	406.4	108	68	44	Whole		Mostly spall save for one cortical depression with dorsal scarring		274	Surface collection
9054	FLA	Domed Sidescraper	CGM	1	39.88	35	29	31	Whole		Based on a thick 205 flake with fragmented platform making one plane side; tabular bottom; four unifacial removals make one convex working side which exhibits unifacial prepping and microstep damage		278	Surface collection
9055	FLA	Core	FGPM	1	65.23	63	45	25	Whole		Multidirectional removal; at least 7 removals		282	Surface collection
9056	FLA	Convergent Sidescraper	CGPM	1	49.23	56	54	13	Whole		205-based		283	Surface collection
9057	FLA	Domed Sidescraper	FGPM	1	41.8	45	34	28	Whole		205-based; 95 mm of microstep damage		283	Surface collection
9058	FLA	Utilized flake	FGM	1	0.44	11	12	2	Broken		Snapped across the wide portion therefore lengeth is a fragment; unifacial or usewear on either side of the platform up to the fracture		289	Surface collection
9059	FLA	Convex Sidescraper	FGM	1	17.47	51	27	19	Whole		66 mm of usewear and microstepping along one edge		291	Surface collection
9060	FLA	Utilized flake	FGPM	1	5.3	32	18	12	Whole		59 mm of usewear along two converging margins		293	Surface collection
9061	FLA	Utilized flake	FGPM	1	6.29	41	20	6	Whole		59 mm of usewear along one margin		293	Surface collection
9062	FLA	Core	CGPM	1	175.05	63	60	38	Whole		At least 6 flakes removed		297	Surface collection

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9063	FLA	Utilized flake	FGPM	1	5.42	40	23	7	Whole		43 mm of usewear and microstepping along one margin		300	Surface collection
9064	FLA	Convex Sidescraper	FGPM	1	81.48	61	54	25	Whole		At least 7 flakes unifacially removed along 131 mm margin; 205-based with cortex and dorsal scarring		301	Surface collection
9065	FLA	Convex Sidescraper	FGPM	1	100.51	66	54	30	Whole		At least 7 flakes unifacially removed along a 116 mm margin; 204-based with cortex covering over 60 percent		302	Surface collection
9066	FLA	Modified flake	CGPM	1	48.11	77	29	20	Whole		205-based; 111 mm of unifacial retouch and microstepping due to usewear damage		304	Surface collection
9067	FLA	Utilized flake	CGPM	1	13.25	45	29	7	Whole		205-based; flake is split; 76 mm of bifacial retouch and usewear up to the fracture plane		317	Surface collection
9068	FLA	Convex-Concave Sidescraper	FGM	1	55.91	68	55	24	Whole		112 mm convex margin separated by cortex to the 44 mm concave side; unifacially prepped; some microstepping on cutting edges; some damage on the ventral side of the concave edge		319	Surface collection
9069	FLA	Endscraper	FGPM	1	31.11	42	28	36	Whole		205-based; 68 mm of microstep damage along the unifacially prepped proximal margin; thick flake platform makes for advantageous fingerhold		322	Surface collection
9070	FLA	Domed Sidescraper	CGPM	1	122.39	75	66	27	Whole		204-based; 209 mm of complete unifacial prepping; plane, ventral bottom; steep on one side, gradual on the other; phot candidate		326	Surface collection
9071	FLA	Utilized flake	FGPM	1	14.19	47	24	12	Whole		50 mm of usewear along non-fracture margin		328	Surface collection
9072	FLA	Core	FGM	1	72.77	52	50	30	Whole		At least 1 flake removed; thick cortical layer		331	Surface collection
9073	FLA	Core	FGPM	1	20.66	37	33	19	Whole		At least 2 flakes removed		335	Surface collection
9074	FLA	Convex Sidescraper	FGM	1	11.89	35	22	8	Whole		Possibly split platform, broken; 53mm unifacially worked edge; microstepping		336	Surface collection
9075	FLA	Domed Sidescraper	FGPM	1	99.21	64	56	32	Whole		205-based; steep edge angles unifacial work up to platform; small unifacial work prominent at distel end; microstep damage; photo candidate		337	Surface collection
9076	FLA	Double Straight Sidescraper	FGPM	1	106.77	76	45	28	Whole		204-based; one fractured side exhibits 59mm of prep surface; flaked margin exhibits 55mm of prepped margin; microstepping		338	Surface collection
9077	FLA	Utilized flake	FGPM	1	18.85	43	31	15	Whole		205-based; split platform; 59mm of unifacial prep work; microstepping		362	Surface collection
9078	FLA	Straight Sidescraper	FGM	1	71.96	64	52	20	Whole		One straight edge; 72mm of unifacial prep; microstepping		374	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
9079	FLA	Convex Sidescraper	FGM	1	45.62	50	22	45	Whole		One unifacially worked margin which is part of the ventral portion of a split platform; dorsal scarring exhibited along platform margin; working edge is seperated by one unifacial flake removal; worked edges consist of one 22mm section and one 23mm section; microstepping		374	Surface collection
9080	FLA	Domed Sidescraper	FGM	1	43.15	51	38	23	Whole		Steep lateral sides and shallow distal end; microstepping		379	Surface collection
9081	FLA	Core	FGPM	1	99.2	65	63	39	Whole		At least one flake removed		383	Surface collection
9082	FLA	Convex Sidescraper	CGPM	1	47.42	47	45	18	Whole		204-based; use-wear on one margin; 41mm of unifacial prep work		383	Surface collection
9083	FLA	Modified flake	FGPM	1	34.91	46	44	11	Whole		205-based; at least 5 flakes removed; no use-wear or damage evident		384	Surface collection
9084	FLA	Domed Sidescraper	FGPM	1	34.89	49	27	22	Whole		Could possibly be a fragment, tool may have split in two; steep edge angles; 75 mm of unifacial prep work along plane margin; cortex at top; microsteppiing		388	Surface collection
9085	FLA	Straight-Concave Sidescraper	FGM	1	16.08	44	26	15	Whole		205-based; 40 mm of unifacial prep with microstep damage; slight concave distal end is adjacent to straight used edge; 23 mm of work and microstepping		389	Surface collection
9086	FLA	Unclassified scraper	FGPM	1	7.81	36	12	14	Whole		209-based; has a dome hump with steep edge angles; 57 mm of unifacial retouch; type assigned as unclassified due to the unifacially prepped edge having both a convex portion at distal end adjacent to a concave portion, followed by the thin convex prepped edge; fragmented edge exhibits no work or use-wear		392	Surface collection
9087	FLA	Domed Sidescraper	FGPM	1	62.97	48	45	22	Whole		Could have been a multidirectional core; one area of dorsal scarring; two adjacent unifacially prepped margins that are slightly concave		394	Surface collection
9088	FLA	Utilized flake	CGPM	1	3.22	28	20	6	Whole		4 small flakes unifacially removed from one side; the other side exhibits microstepping along the margin		394	Surface collection
9089	FLA	Utilized flake	FGPM	1	7.12	36	26	9	Whole		205-based; 28 mm of unifacial prepped area; microstepping		395	Surface collection
9090	FLA	Notched Sidescraper	CGPM	1	7.21	31	29	7	Whole		205-based; one notch unifacially prepped into one side; some use-wear exhibited on outside of notch along margin; notch measures 12 mm wide and 5 mm deep; photo candidate		396	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
9091	FLA	Core	CGPM	1	275.39	102	52	43	Whole		At least 3 large flakes removed; matched 1 208 flake - see 1761		401	Surface collection
9092	FLA	Utilized flake	CGPM	1	12.08	34	33	15	Whole		Unifacial prep of margin with microstep damage		403	Surface collection
9093	FLA	Straight Sidescraper	FGPM	1	52.38	61	50	20	Whole		205-based; areas of dorsal scarring around platform; unifacial retouch along the entire ovular tool; no use-wear observed		404	Surface collection
9094	FLA	Unclassified scraper	CGPM	1	165.62	69	62	35	Whole		Could possibly be based on a multidirectional removal core; dorsal scarring; cortex remaining; 1 straight side with microstep damage; 1 slightly concave margin microstep damage; this margin is continuous across the distal edge		405	Surface collection
9095	FLA	Utilized flake	CGPM	1	47.7	70	57	21	Whole		Areas of microstep damage along 3 prominent margins		405	Surface collection
9096	FLA	Core	CGPM	1	448.94	79	67	59	Whole		Multidirectional removal		406	Surface collection
9097	FLA	Convex Sidescraper	FGM	1	36.41	59	42	16	Whole		Possibly broken, no use-wear on straight fragment margin; may have been made on flake that had split; 105 mm of unifacial retouch with microstepping and rounding; photo candidate		408	Surface collection
9098	FLA	Core	CGPM	1	53.95	48	29	23	Whole		Multidirectional removal of at least 6 flakes		408	Surface collection
9099	FLA	Utilized flake	Quartzite	1	7.82	30	22	12	Whole		205-based; one margin has 4 flakes removed unifacially; damage includes rounding		410	Surface collection
9100	FLA	Core	CGPM	1	390.78	90	74	52	Whole		Multidirectional removal; at least 3 flakes removed; dorsal scarring exhibited on several areas		412	Surface collection
9101	FLA	Core	CGM	1	14.83	38	28	17	Whole		Multidirectional; at least 3 flakes removed		413	Surface collection
9102	FLA	Core	CGPM	1	96.41	65	37	34	Whole		Multidirectional removal of at least 3 flakes		414	Surface collection
9103	FLA	Core	Quartzite	1	93.73	56	44	33	Whole		Multidirectional removal; cortex remains; could have possibly been in process as a scraper but edge angles became either too steep or inverted		415	Surface collection
9104	FLA	Core	CGPM	1	359.97	80	71	60	Whole		Multidirectional; at least six flakes removed		424	Surface collection
9105	FLA	Core	FGPM	1	139.24	71	55	38	Whole		Multidirectional; at least six flakes removed		425	Surface collection
9106	FLA	Convex Sidescraper	FGM	1	39.32	53	34	23	Whole		204-based; one working edge; 72mm of work; microstepping		427	Surface collection
9107	FLA	Core	FGPM	1	1960.11	201	153	66	Whole		Large core; dorsal scarring on cortex; three large removals		500	Surface collection
9108	FLA	Utilized flake	FGPM	1	27.45	45	38	21	Whole		203-based; high amount of use-wear on 37mm margin		501	Surface collection
9109	FLA	Utilized flake	FGPM	1	24.62	54	22	19	Whole		205-based; use-wear along 49mm margin; microstepping		502	Surface collection

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
9110	FLA	Core	CGPM	1	202.06	76	54	41	Whole		Multidirectional; at least four flakes removed; cortex remaining;		506	Surface collection
9111	FLA	Core	Quartzite	1	277.85	84	62	48	Whole		At least four flakes removed		509	Surface collection
9112	FLA	Core	Quartzite	1	152.63	66	55	34	Whole		Multidirectional; At least three flakes removed; One fracture		509	Surface collection
9113	FLA	Core	CGPM	1	171.92	87	49	40	Whole		At least one flake removed		509	Surface collection
9114	FLA	Core	CGPM	1	98.89	51	44	32	Whole		Multidirectional; At least five flakes removed		509	Surface collection
9115	FLA	Straight Sidescraper	FGPM	1	56.46	59	44	22	Whole		Steep edge angle on use-wear side; 98mm of prep along straight margin that wraps around to proximal end; cortex remains on top; nibbling and microstepping		515	Surface collection
9116	FLA	Domed Sidescraper	FGPM	1	217.98	67	49	57	Whole		Steep edge angles; plane bottom; microstepping around entire bottom	0-10	Unit 1	1m x 1m unit
9117	FLA	Core	FGPM	1	59.32	52	49	33	Whole		Multidirectional removal; expended	0-10	Unit 1	1m x 1m unit
9118	FLA	Core	CGPM	1	105.64	71	40	39	Whole		Multidirectional removal; At least four flakes removed	0-10	Unit 1	1m x 1m unit
9119	FLA	Straight Sidescraper	FGPM	1	62.32	61	41	31	Whole		204-based; use-wear along 49mm margin; microstepping	0-10	Unit 1	1m x 1m unit
9120	FLA	Convex Sidescraper	CGPM	1	30.68	51	33	22	Whole		Use-wear along 56mm margin	0-10	Unit 1	1m x 1m unit
9121	FLA	Endscraper	FGPM	1	76.41	57	35	32	Whole		204-based; Cortex on proximal end; retouch on distal end; unifacial retouch; nibbling	10-20	Unit 1	1m x 1m unit
9122	FLA	Modified flake	FGPM	1	4.01	29	22	7	Whole		Unifacial work along 34mm margin;	10-20	Unit 1	1m x 1m unit
9123	FLA	Convex Sidescraper	FGPM	1	56.71	51	45	28	Whole		Medium edge angle; cortex on top; usewear along 56 mm margin;	0-10	Unit 2	1m x 1m unit
9124	FLA	Modified flake	CGPM	1	22.17	52	35	13	Whole		205-based; prepwork along 64 mm margin; nibbling	10-20	Unit 2	1m x 1m unit
9125	FLA	Double-Convergent Sidescraper	FGPM	1	165.63	61	60	33	Whole		3 prepped sides; cortex on top and remaining side; with hinge-fracture connecting to plane bottom; 3 converging edges totaling 170 mm; microstepping, nibbling; photo candidate	10-20	Unit 2	1m x 1m unit
9126	FLA	Convex Sidescraper	CGPM	1	96.48	72	28	32	Whole		Fracture plane bottom; at least 6 flakes unifacially removed along 98 mm margin; mircrostepping	10-20	Unit 2	1m x 1m unit
9127	FLA	Endscraper	CGPM	1	81.09	69	51	27	Whole		204-based; usewear at distal end totaling 62 mm; nibbling	10-20	Unit 2	1m x 1m unit
9128	FLA	Core	FGPM	1	110.71	82	50	37	Whole		Multi-directional; at least 5 flakes removed	10-20	Unit 2	1m x 1m unit
9129	FLA	Core	CGPM	1	248.47	116	62	49	Whole		1 flaked removed; 4 spall sides	10-20	Unit 2	1m x 1m unit
9130	FLA	Core	Quartzite	1	99.78	48	46	35	Whole		5 flakes removed multi-directional	10-20	Unit 2	1m x 1m unit
9131	FLA	Undifferentiated FLA	CGPM	1	96.83	64	54	45	Broken		Appears fractured; fair amount of battering/crushing along 3 margins	0-10	Unit 4	1m x 1m unit
9132	FLA	Drill	FGM	1	2.79	31	11	7	Broken		possible drill; fragmented; bifacially worked; photo candidate	0-10	Unit 4	1m x 1m unit
9133	FLA	Modified flake	CGPM	1	73.11	56	69	18	Whole		204-based; 2 flaked removed; no usewear	10-20	Unit 4	1m x 1m unit
9134	FLA	Modified flake	CGPM	1	47.81	59	49	21	Whole		204-based; 2 flaked removed; no usewear	10-20	Unit 4	1m x 1m unit

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9135	FLA	Double Straight Sidescraper	FGPM	1	23.01	43	36	12	Whole		209-based; 2 non-convergent opposite sides with asymmetrical working edges; 1 edge is 18 mm; other edge is 24 mm	10-20	Unit 4	1m x 1m unit
9136	FLA	Straight Sidescraper	FGPM	1	38.78	56	47	18	Whole		working edge has light microstepping;	10-20	Unit 4	1m x 1m unit
9137	FLA	Convex Sidescraper	FGPM	1	119.28	78	63	31	Whole		204-based; 1 prepped edge measuring 90 mm with 4 unifacially removed flakes	10-20	Unit 4	1m x 1m unit
9138	FLA	Domed Sidescraper	FGPM	1	119.66	66	45	35	Whole		204-based; plane bottom; 1 steep edge; 1 gradual edge; prominent distal edge with small areas of microstepping	10-20	Unit 4	1m x 1m unit
9139	FLA	Core	CGPM	1	42.72	63	32	19	Whole		208-based; large fracture; 1 flake removed; dorsal scarring	0-10	Unit 5	1m x 1m unit
9140	FLA	Core	FGM	1	11.69	35	21	15	Whole		Small nodule; dorsal scarring on all margins, 2 flakes removed; heavily patinated	0-10	Unit 5	1m x 1m unit
9141	FLA	Straight Sidescraper	FGPM	1	45.77	45	40	26	Whole		208-based; worked 43 mm margin	10-20	Unit 5	1m x 1m unit
9142	FLA	Double-Convex Sidescraper	FGPM	1	59.45	68	63	11	Whole		Flake-based, missing platform; two non-adjacent convex margins that exhibit unifacial prep work and/or use-wear; one is 99 mm, the other is 66 mm	30-40	Unit 5	1m x 1m unit
9143	FLA	Domed Sidescraper	FGPM	1	190.41	70	62	40	Whole		Cortex remaining on top only; flaked non-plane bottom; heavy use, rounding; 191 mm of continuous use-wear along margin; microstepping; patinated; photo candidate	30-40	Unit 5	1m x 1m unit
9144	FLA	Domed Sidescraper	FGPM	1	245.65	77	65	50	Whole		Cortex on top; plane bottom; distal margin not included in use-wear area; 134 mm of prep and use-wear; area of broad unifacial flaking; microstepping	0-10	Unit 6	1m x 1m unit
9145	FLA	Convex Sidescraper	CGPM	1	181.38	108	62	22	Whole		205-based; large; 163 mm of unifacial flaking; at least 12 flakes removed	0-10	Unit 6	1m x 1m unit
9146	FLA	Core	FGPM	1	375.15	82	78	64	Whole		Multidirectional removal of at least 4 flakes; dorsal scarring	0-10	Unit 6	1m x 1m unit
9147	FLA	Convex Sidescraper	FGPM	1	148.72	71	60	38	Whole		Recycled core; 88 mm of use-wear along broad unifacially flaked margin	0-10	Unit 6	1m x 1m unit
9148	FLA	Core	CGPM	1	88.11	62	60	24	Whole		Multidirectional; at least 6 flakes removed	0-10	Unit 6	1m x 1m unit
9149	FLA	Core	CGPM	1	87.77	50	44	36	Whole		Multidirectional; at least 2 flakes removed	0-10	Unit 6	1m x 1m unit
9150	FLA	Straight Sidescraper	CGPM	1	170.27	88	70	32	Whole		205-based; 78 mm of use-wear along margin with 3 flakes removed; microstepping	10-20	Unit 6	1m x 1m unit
9151	FLA	Convex Sidescraper	FGPM	1	69.87	77	42	25	Whole		205-based; 99 mm of use-wear along margin with 5 flakes removed; microstepping	10-20	Unit 6	1m x 1m unit

CAT .	CLASS	TYPE	MATERIAL	COUNT	WT. (g)	LENGTH	WIDTH	THICKNESS	CONDITION	STATUS	COMMENTS	LEVEL	TASK #	TASK CODE
9152	FLA	Modified flake	CGPM	1	93.52	72	60	24	Whole		208-based; 115 mm of unifacial removal; 4 flakes removed; no use-wear	10-20	Unit 6	1m x 1m unit
9153	FLA	Modified flake	FGM	1	45.22	49	48	21	Whole		205-based; 2 flakes removed unifacially on ventral side	10-20	Unit 6	1m x 1m unit
9154	FLA	Core	CGPM	1	35.52	40	38	21	Whole		Expended; multidirectional removal	0-10	Unit 7	1m x 1m unit
9155	FLA	Core	FGPM	1	59.24	63	49	20	Whole		Multidirectional removal; at least 8 flakes removed	10-20	Unit 7	1m x 1m unit
9156	FLA	Hammerstone	CGPM	1	564.23	97	82	64	Whole		Battering along margins; two areas where hammering led to shattering	10-20	Unit 7	1m x 1m unit
9157	FLA	Double-Convergent Sidescraper	FGPM	1	170.12	97	83	19	Whole		204-based; semi-ovate in shape; one straightish side with one convex side; 210 mm of use-wear along entire margin excepting the platform; step fractures and microstepping; photo candidate	20-30	Unit 7	1m x 1m unit
9158	FLA	Convex Sidescraper	FGPM	1	143.89	85	60	28	Whole		Plane ventral side; cortex on dorsal side; one side has large hinge fracture with a steep edge angle-approaching 90 degrees; one large unifacial removal towards tip makes up the side; unifacially prepped convex side, minimal step fractures	20-30	Unit 7	1m x 1m unit
9159	FLA	Straight Sidescraper	FGPM	1	193.45	107	72	23	Whole		204-based; cortex on dorsal side; distal end is not prepped; 100 mm of unifacial prep with minimal use-wear along margin	20-30	Unit 7	1m x 1m unit
9160	FLA	Convex Sidescraper	FGPM	1	202.08	108	68	26	Whole		205-based; cortex on platform only; slightly convex over straight use edge; opposite side is the platform; 4 flakes unifacially removed with small areas of microstepping	20-30	Unit 7	1m x 1m unit
9161	FLA	Convergent Sidescraper	FGPM	1	79.25	67	52	30	Whole		205-based; 5 flakes removed; nibbling and microstepping within flake removals	20-30	Unit 7	1m x 1m unit
9162	FLA	Combination	FGPM	1	388.41	95	79	44	Whole		Straight sidescraper/hammerstone; hefty base tool with one straight edge with unifacial edge work and step fractures; cortex on perceived bottom and top (dorsal and ventral dependent on which tool was being used); 90 mm of dorsal scarring or crushing along margin	20-30	Unit 7	1m x 1m unit
9163	FLA	Convergent Sidescraper	FGPM	1	226.91	76	57	42	Whole		Plane bottom; cortex on dorsal side only; steep edge angles; however, unifacial removal on slightly convex sides; battering at converging point; microstepping	20-30	Unit 7	1m x 1m unit
9164	FLA	Domed Sidescraper	CGPM	1	166.54	79	65	37	Whole		204-based; plane bottom; cortex on top; at least 5 large flakes removed along margin	20-30	Unit 7	1m x 1m unit

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9165	FLA	Core	Quartzite	1	113.75	66	60	27	Whole		A possible start to a scraper due to 204-based flake has 3 flakes removed unifacially; only 2 flakes overlap	20-30	Unit 7	1m x 1m unit
9166	FLA	Assayed cobble	Quartzite	1	1158.18	124	112	64	Whole		1 large flake removed; large removal area appears to be a spall	20-30	Unit 7	1m x 1m unit
9167	FLA	Domed Sidescraper	FGPM	1	59.49	53	41	25	Whole		Steep edge angles; 91 mm of unifacial prepping; microstepping	30-40	Unit 7	1m x 1m unit
9168	FLA	Convex Sidescraper	FGPM	1	62.31	60	47	18	Whole		203-based; unifacial prep work around entire flake up to the platform; no use-wear evident	30-40	Unit 7	1m x 1m unit
9169	FLA	Utilized flake	FGPM	1	47.3	68	32	20	Whole		209-based; 38 mm of use-wear on distal end of margin; hinge fracture shows no use-wear	30-40	Unit 7	1m x 1m unit
9170	FLA	Utilized flake	FGPM	1	43.64	62	51	20	Whole		203-based; 59 mm of use-wear along one margin	40-50	Unit 7	1m x 1m unit
9171	FLA	Core	FGPM	1	194.16	74	65	37	Whole		Multidirectional removal; at least 12 flakes removed	10-20	Unit 8	1m x 1m unit
9172	FLA	Core	FGPM	1	338.79	85	75	52	Whole		Multidirectional removal; at least 7 flakes removed	10-20	Unit 8	1m x 1m unit
		CGPM = Coarse-grained porphyritic metavolcanic												
		FGM = Fine-grained metavolcanic												
		FGPM = Fine-grained porphyritic metavolcanic												
		FLA = Flaked lithic artifact												
		STP = Shovel test pit												

CONFIDENTIAL ATTACHMENTS

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