

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov



June 16, 2014

Reply In Reference To: NOAA_2013_0930_001

Paul Michel, Superintendent
Monterey Bay National Marine Sanctuary
National Oceanic and Atmospheric Administration
99 Pacific Street
Monterey, California 93940-2497

RE: Monterey Bay National Marine Sanctuary Coordination with Federal Agencies on Proposed CalAm Desalination Project in Marina, California; (your letter dated September 24, 2013)

Dear Mr. Michel:

Thank you for requesting my comments on the above cited undertaking, in accordance with Section 106 of the *National Historic Preservation Act of 1966* (16 U.S.C. 470f), as amended, and its implementing regulation at 36 CFR Part 800. Along with your consultation letter and in subsequent submissions, you also provided the following documents:

- *Cultural Resources Assessment: Monterey Peninsula Water Supply Slant Test Well Project, City of Marina and Unincorporated Monterey County, California*, prepared by David Brunzell and Kara Brunzell (BCR Consulting LLC) and dated June 25, 2013; and
- *Cultural Resources Survey Report for the California American Water Slant Test Well Project, Marina, Monterey County, California*, prepared by Steven Treffers and Shannon Carmack (SWCA Environmental Consultants) and dated May 2014.

In your letter, you stated that the Monterey Bay National Marine Sanctuary (MBNMS) received an application for a permit from California American Water (CalAm) for the construction and operation of the Slant Test Well Project (project) that would be located in the City of Marina in northwest Monterey County. Located along the coast, the project would be located onshore on private land owned by CEMEX and the slant test well would extend westward and offshore, for a distance of approximately 1,000 feet into the waters of MBNMS. The purpose of the project is to obtain data that would be used in the design and planning of a potential subsurface intake system and desalination plant that would be constructed and operated on the site. The desalination plant would serve as the primary future water supply source for the Monterey Peninsula.

The City of Marina has prepared a *Draft Initial Study and Mitigated Negative Declaration for the California American Water Slant Test Well Project (IS/MND)*, dated May 2014 and the project is described as containing the following components:

- A slant test well which would be located onshore and extend westward under the Pacific Ocean for a distance of approximately 1,000 feet;
- Up to four vertical monitoring well clusters will be drilled onshore to monitor changes in groundwater levels and quality during operation of the slant test well;

- Wellhead vault and submersible well pump;
- Water flow measurement and sampling equipment;
- Temporary sedimentation tanks;
- Water disposal facilities, including pipeline connection to an existing ocean outfall via an existing subsurface junction structure; and
- Electrical facilities, including a buried 4-inch conduit that would extend approximately 0.38 mile (approximately 2,000 feet) east of the slant test well and connect to an existing power source near the entrance of the CEMEX site.

Once constructed, the slant test well would operate for a maximum period of 24 months and is then proposed to be decommissioned in accordance with the regulations of the California Department of Water Resources. The area of potential effects (APE) was delineated in Figure-X of the above study and described as containing the above listed components and encompassing approximately 6 acres.

The onshore portion of the project site is located on private land owned by CEMEX, which operates a sand mining operation and plant. The Lapis Sand Mining Plant was established in 1906 and has been in continuous operation since then. The existing plant and operation encompasses approximately 400 acres in total and of that total, approximately 100 acres have experienced moderate to heavy disturbance associated with the sand mining activities. The remainder of the site consists of undeveloped areas and dune habitat with varying degrees of disturbance (i.e., ranging from moderate to low). The proposed project has been designed to be located within the areas of active mining activity to utilize areas already experiencing some level of disturbance associated with the mining operations and truck traffic; and to avoid other portions of the CEMEX mining operations and the undisturbed adjacent dune areas to the extent feasible.

Two record reviews were conducted at the Northwest Information Center in February of 2013 and on February 27, 2014, respectively. The record reviews identified: (1) no historic properties as being located in the APE; (2) nineteen cultural resources surveys had been conducted within a one mile radius, but they only identified one historic property (CA-MNT-2080H) within their survey areas; and (3) five of those previous surveys had surveyed portions of the APE, but with negative results. CA-MNT-2080H was described as a historic period railroad grade located approximately one mile southeast of the APE. Two pedestrian surveys of the APE were conducted on March 5, 2013 and March 4, 2014, respectively. Neither of the pedestrian surveys identified any historic properties in the APE.

The Native American Heritage Commission (NAHC) was contacted on March 11, 2013 and February 28, 2014, respectively, and requested to search their Sacred Land Inventory and to provide a list of Native American representatives with knowledge of the APE. The NAHC stated that their search failed to indicate the presence of Native American cultural resources in the APE. Request for comment letters were sent to the twelve tribes or tribal groups identified by NAHC.

Two responses were received:

1. Louise Miranda-Ramierz, Chairperson, Ohlone/Coastanoan-Esselen Nation, requested a no disturbance alternative, any ground disturbing activities should be monitored by Native American monitors, and reburial of cultural material and human remains; and
2. Irene Zwierlein, Chairperson, Amah Mutsun Tribal Band of Mission San Juan Bautista, who requested that any ground disturbing activities should be monitored by both archaeological and Native American monitors.

Steven Treffers (SWCA Environmental Consultants) evaluated the Lapis Sand Mining Plant, which is now operated by CEMEX, for eligibility for listing on the National Register of Historic Places and concluded that it was eligible for listing as a historic district containing nine contributing built environmental resources (e.g., structures, infrastructure) under criteria A and C. He thought that the Lapis Sand Mining Plant represented one of the earliest and largest sand mining operations in Southern Monterey Bay area. The property consists of a variety of industrial, commercial, and residential resources that characterized the establishment and growth of both the facility and the sand mining industry in California as a whole. Even though it has been continuously operating since 1906 and has been maintained and upgraded since then, the plant retained its integrity and is a rare intact example of a continuously operating coastal sand mining plant property in California. However, as described above, the project has been designed and would be located in an area that has been disturbed by past and current mining operations. Consequently, the activities associated with the project will not affect any of the contributing elements of the proposed historic district.

In the IS/MND cited above, four mitigation measures have been developed to minimize potential impacts from disturbance of archaeological and historic resources. Those measures are:

1. CR/mm-1 – The project should be designed (or redesigned) to avoid significant adverse effects to the historic resources, especially the proposed Lapis Sand Mining Plant Historic District. Specific examples would be: (a) location of all project components and construction activities in adjacent areas that do not contain structures or features associated with the district, and (b) establishment of buffer zones around contributing elements of the district by installing flagging or safety fencing to prevent inadvertent damage to those elements;
2. CC/mm-2 – A qualified archaeological monitor(s) should be present during ground disturbing activities associated with the project;
3. CC/mm-3 – If archaeological or historic cultural material is discovered during ground disturbing activities, all construction activities in the immediate vicinity shall be halted until the resources are evaluated for significance by a qualified archaeologist; and
4. CC/mm-4 – Establishes a protocol in the event of an inadvertent discovery of human remains.

Based on the above, MBNMS has determined that a Finding of No Historic Properties Affected is appropriate for the project.

After reviewing the information submitted with your letter of September 24, 2013, I offer the following comments:

- I have no objections to your identification and delineation of the APE, pursuant to 36 CFR Parts 800.4(a)(1) and 800.16(d);
- Cognizant of the responses from the Ohlone/Coastanoan-Esselen Nation and Amah Mutsun Tribal Band of Mission San Juan Bautista, I recommend that Native American monitors be present during ground disturbing activities associated with the project;
- I applaud the City of Marina for developing the four mitigation measures for cultural resources in its IS/MND, and I recommend that those four measures be incorporated into both MBNMS's Environmental Assessment and the subsequent Record of Decision for the issuance of the permit;
- I concur that the proposed Lapis Sand Mining Plant Historic District is eligible for listing on the NRHP under Criteria A and C with a period of significance from 1906 – 1960;
- Because I concur with your finding that the proposed Lapis Sand Mining Plant Historic District is eligible for listing on the NRHP, I believe that a Finding of No

Adverse Effect is more appropriate than a Finding of No Historic Properties Affected; and

- If MBNMS agrees to implement the four mitigation measures described above and ensures that they are binding upon MBNMS and all other responsible parties associated with the project, then I concur that pursuant to 36 CFR Part 800.5(b), a Finding of No Adverse Effect with the inclusion of the four mitigation measures is appropriate for the project as described.

If you agree with the conditions that I have proposed, please evidence your agreement by signing the signature block below. Please return the letter to me as soon as possible. Alternatively, you may provide me with a specific letter concurring to the proposed conditions.

Be advised that under certain circumstances, such as an unanticipated discovery or a change in project description, you may have additional future responsibilities for this undertaking under 36 CFR Part 800. Should you encounter cultural artifacts during ground disturbing activities, please halt all work until a qualified archaeologist can be consulted on the nature and significance of such artifacts.

Thank you for considering historic resources during project planning. If you have any questions or comments, please contact Kathleen Forrest of my staff at (916) 445-7022 or by email at kathleen.forrest@parks.ca.gov.

Sincerely,



Carol Roland-Nawi, Ph.D.
State Historic Preservation Officer

AGREED: _____
Paul Michel, Superintendent
MBNMS

Date: _____



SWCA[®]

ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.[®]

**Cultural Resources Survey Report
for the California American Water
Slant Test Well Project,
Marina, Monterey County, California**

Prepared for:

City of Marina, Planning Services Division

Prepared by:

SWCA Environmental Consultants

May 2014

**CULTURAL RESOURCES SURVEY REPORT FOR THE
CALIFORNIA AMERICAN WATER
SLANT TEST WELL PROJECT,
MARINA, MONTEREY COUNTY, CALIFORNIA**

Prepared for

City of Marina, Planning Services Division
209 Cypress Avenue
Marina, California 93933

Prepared by

Steven Treffers, M.H.P. and
Shannon Carmack, B.A.

SWCA Environmental Consultants
150 South Arroyo Parkway, 2nd Floor
Pasadena, California 91105
(626) 240-0587
www.swca.com

Contact:
Shannon Carmack – Project Manager
scarmack@swca.com

USGS 7.5-minute topographic quadrangle
Marina, California

SWCA Project No. 026292.00
SWCA Cultural Resources Report Database No. 14-177

Final
May 2014

Keywords: Intensive survey, CEQA, Section 106, Marina, Monterey County, 47.7 acres, positive, Lapis Sand Mining Plant historic district, CRHR eligible property

SUMMARY

Purpose and Scope: SWCA Environmental Consultants (SWCA) conducted this cultural resources study, which included a records search, a Native American and historic group contact program, a survey, and preparation of this survey report. The indirect area of potential effects (APE) consists of 47.7 acres, including a direct APE of 5.26 acres located in the city of Marina, Monterey County, California.

Dates of Investigation: The California Historical Resources Information System records search was conducted by staff at the Northwest Information Center (NWIC) at Sonoma State University in Sonoma, California on March 18, 2014. Cultural resources specialists conducted an intensive-level cultural resources survey on March 4, 2014.

Survey Findings: Eighteen prior cultural resources studies have been conducted within a 1.0-mile radius of the project area, five of which overlap at least a portion of the APE. Research also indicates that one previously recorded cultural resource is located within 1.0 mile of the project area. No archaeological resources were identified during the intensive-level survey of the project area. One historic district with nine contributing built environment resources were identified, recorded, and evaluated as part of the Lapis Sand Mining Plant as a result of the intensive-level survey. The Lapis Sand Mining Plant appears eligible for listing in the National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) under Criteria A/1 for its associations with the events that have made a significant contribution to the broad patterns of local and regional history of California. Further, the physical design of the property and the resources it encompasses are specific to its function as a sand mining facility, and the district appears eligible for listing in the NRHP and CRHR under Criteria C/3 for its embodiment of the distinctive characteristics of a type, period, and region of construction.

Investigation Constraints: Because the project APE is located within an active sand mining facility, the intensive-level survey was restricted to the direct APE. A reconnaissance-level survey was performed of the indirect APE, visually examining the area from a safe distance.

Effects and Mitigation Measures:

Archaeological Resources: No archaeological resources were identified during the intensive-level field survey. Surface visibility was excellent (80 to 100%), except for those areas obscured by existing buildings or pavement. The project is located on the coast, which contained numerous resources that were commonly exploited by Native Americans throughout prehistory. Geologic mapping by Dibblee (1998) indicates that the APE is immediately underlain by younger Quaternary alluvial deposits of Holocene age, which have the potential to contain archaeological resources. The historic use of the Lapis Sand Mining Plant may have generated archaeological deposits as well, including refuse pits and buried foundations. For these reasons, and the fact that no archaeological testing or monitoring has ever occurred in the project area, it should be treated as potentially sensitive for the presence of both prehistoric and historic archaeological resources. The area of greatest sensitivity is the eastern end of the direct APE that contains the buildings associated with the historic district. This area was subject to less ground disturbance related to sand mining than was the rest of the APE, and it is more likely to contain buried historic archaeological features due to the proximity of the extant historic buildings. Implementation of mitigation measures CR-1, CR-2 and CR-3, would reduce both direct and cumulative impacts to any previously unrecorded archaeological resources that may be encountered during construction. After mitigation, potential construction and cumulative impacts would be less than significant under both the National Environmental Policy Act and California Environmental Quality Act.

Historic Architectural Resources: The project APE contains one property, the Lapis Sand Mining Plant, which is eligible for listing in the NRHP and the CRHR under Criteria A/1 and C/3 as a historic district, as an excellent example of a continuously operating coastal sand mining operation in the southern Monterey Bay, an increasingly rare property type. The property retains a high level of integrity and captures the evolution of the plant through its period of significance (1906-1960). The eastern portion of the direct APE includes seven contributors to the historic district: Plant Superintendent's Residence, Bunkhouse, Office/Garage, Maintenance Shop, Lapis Siding, Canal Flume, and Scale House. The proposed project includes drilling and ground disturbance using mechanical equipment. Trenching and directional horizontal drilling is proposed in an area through which the Lapis Siding extends. As proposed, development of the project would result in direct damage or removal of the Siding, causing a significant impact on an historic district contributor. There is adequate room in adjacent areas to complete all proposed construction activities and avoid direct impacts to the Siding and all other structures.

Several other contributing resources are located in close proximity of proposed trenching and earthmoving activities. Their proximity to the earthmoving activities associated with the project leave them potentially vulnerable during project construction and decommissioning. Accidental contact with mechanized equipment could cause damage to the buildings, resulting in a loss of historic integrity and an adverse effect to historic properties. Given the industrial nature of the property, these activities would be consistent with the ongoing operations of the property, and are not anticipated to substantially increase existing noise or vibration levels. The project is also not anticipated to have any visual effects to the historic district, as the slant test well and related components would largely be below ground. In order to reduce impacts to historic properties during construction and/or decommissioning activities, CR- 4 should be incorporated to minimize impacts to historic properties.

Disposition of Data: This report and any subsequent related reports will be filed with the City of Marina; Monterey Bay National Marine Sanctuary; NWIC at Sonoma State University; and SWCA's Pasadena office. All field notes, photographs, and records related to the current study are on file at the SWCA Pasadena office.

CONTENTS

Summary.....	1
Introduction.....	1
Project Description.....	1
Area of Potential Effects.....	2
Regulatory Setting	6
Federal.....	6
National Historic Preservation Act.....	6
State Regulations.....	7
Local Regulations	8
City of Marina General Plan.....	8
Environmental Setting.....	8
Cultural Setting.....	9
Prehistoric Overview.....	9
Paleo-Indian Period (pre-8000 cal B.C.).....	9
Millingstone Period (8000 to 3500 cal B.C.).....	9
Early Period (3500 to 600 cal B.C.).....	9
Middle Period (600 cal B.C. to cal A.D. 1000).....	10
Middle-Late Transition (cal A.D. 1000 to 1250).....	10
Late Period (cal A.D. 1250 to 1769).....	10
Ethnographic Overview	11
Historic Overview.....	13
Monterey County.....	14
Marina.....	14
Background Research.....	15
Literature Search.....	15
Previously Conducted Cultural Resources Studies within 1 Mile of the APE	16
Previously Recorded Cultural Resources within 1 Mile of the APE	18
Native American Contact Program.....	18
Local Historic Group/Local Government Contact Program.....	20
Additional Research.....	21
Methods.....	23
Cultural Resources Survey.....	23
Archaeological Survey.....	23
Historic Architectural Survey.....	23
Results and Impact Considerations.....	24
Cultural Resources Survey.....	24
Archaeological Survey.....	24
Architectural Survey.....	24
Evaluation.....	34
Effects/Impacts Analysis.....	38
Archaeological Resources.....	38
Archaeological Mitigation Measures.....	39

Cultural Resource Mitigation Measure 1 (CR-1).....	39
Cultural Resource Mitigation Measure 2 (CR-2).....	39
Cultural Resource Mitigation Measure 3 (CR-3).....	39
Architectural Resources.....	40
Cultural Resource Mitigation Measure 4 (CR-4).....	40
References Cited.....	41
List of Preparers and Qualifications.....	44
Shannon Carmack.....	44
Steven Treffers.....	44
Leroy Laurie.....	44

APPENDICES

- Appendix A.** Records Search Bibliography
- Appendix B.** NAHC Sacred Lands File Results and Native American Contact Program
- Appendix C.** Local Historic Group/Local Government Contact Program
- Appendix D.** State of California Department of Parks and Recreation Series 523 Forms

FIGURES

Figure 1. Project vicinity map.....	3
Figure 2. Project location map.....	4
Figure 3. Area of Potential Effects.....	5
Figure 4. Overview of the project area, looking east.	24
Figure 5. A map showing all known resources within the APE.....	26
Figure 6. Overview of the Sorting Plant; view to the northwest.....	27
Figure 7. Overview of the Washing Plant; view to the northwest.....	28
Figure 8. Overview of the Canal Flume; view to the northeast.....	28
Figure 9. Overview of the Lapis Siding; view to the east.....	29
Figure 10. A USGS topographic map from 1947 (photo revised in 1983) depicting the historic extent of the Lapis Siding, with the segment recorded as part of the current survey identified.....	30
Figure 11. Overview of the Superintendent’s Residence; view to the northwest.....	31
Figure 12. Overview of the Bunkhouse; view to the west.....	32
Figure 13. Overview of the Garage/Office; view to the north.....	33
Figure 14. Overview of the Maintenance Shop; view to the northwest.....	33
Figure 15. View of Scale House in background with adjacent office in foreground; view to the northeast.....	34
Figure 16. 1925 photograph of the stationary hoist (source: California State Mining Bureau 1925:56).....	35
Figure 17. 1946 photograph of sand removal at the Lapis Sand Mining Plant (source: Division of Mines 1946:Plate 4).....	36
Figure 18. 1966 photograph of dredging operations at the Lapis Sand Mining Plant (source: Hart 1966:89).....	37

TABLES

Table 1. Previous Cultural Resources Studies within 1 Mile of the Project APE.....	16
Table 2. Previously Recorded Cultural Resources within 1 Mile of the Project APE	18
Table 3. Record of Native American Coordination Efforts	19
Table 4. Record of Historic Group/Local Government Coordination Efforts.....	20
Table 5. Individuals/Organizations Consulted	21
Table 6. Identified Built Environment Resources	25

This page intentionally left blank.

INTRODUCTION

SWCA Environmental Consultants (SWCA) was retained by the City of Marina to conduct cultural resources studies for the Cal Am Temporary Slant Test Well Project (project). The project is located within the city of Marina in Monterey County, California (Figures 1 and 2). The project area is situated on the site of the CEMEX sand mining operation, adjacent to the Pacific Ocean and to the west of Lapis Road and State Route 1 within the City Lands of Marina. SWCA conducted a survey of the property to identify, evaluate, and record any historic properties that may be eligible for the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or local designation.

The Monterey Bay National Marine Sanctuary is the federal lead agency for the proposed undertaking, and is therefore subject to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and its implementing regulation, 36 Code of Federal Regulations (CFR) Part (§) 800. The study also complies with California Public Resources Code (PRC) Section 5024.1, Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) (California PRC Section 21000 et. seq.), and Section 15064.5 of the CEQA Guidelines (California Code of Regulations Section 15000 et. seq.). PRC Section 5024.1 requires the identification and evaluation of historical resources that may be affected by a proposed project.

The project team was led by SWCA Architectural History Team Lead Shannon Carmack, B.A., and SWCA Archaeologist Leroy Laurie, B.A., conducted the archaeological field survey for the project. SWCA Architectural Historian Steven Treffers, M.H.P., conducted the intensive-level built environment field survey and, with Ms. Carmack, performed archival research, development of the historic context, and preparation of this report. All figures found in this report were prepared by SWCA Geographic Information System (GIS) Manager William Hayden, M.A. Finally, this report was reviewed for quality assurance/quality control (QA/QC) by SWCA Cultural Resources Principal Investigator John Dieter, Ph.D., and Ms. Carmack. All project personnel meet the Secretary of the Interior's Professional Qualifications Standards.

Project Description

As defined in 36 CFR 800.16(y), an *Undertaking* is:

“a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval.”

The Cal Am Slant Test Well Project is proposed to provide testing data to evaluate the potential effects of a future subsurface intake system and desalination plant on the site. The slant test well would operate as a temporary testing and research facility (estimated 2 to 3-year project lifespan) to provide field data concerning geologic, hydrogeologic, and water quality characteristics of the Dune Sand and 180-Foot Aquifer or its equivalent unit (180-FTE) at the project site. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. The project includes:

- The installation of a temporary slant test well that would extend diagonally under the floor of the Pacific Ocean through the Dune Sand Aquifer, Salinas Valley Aquitard (if present under the project area), and 180-FTE Aquifer.

- The installation of up to four vertical monitoring well clusters to measure changes in groundwater levels and water quality during operation of the slant test well.
- A facilities complex that would include: the slant test well, wellhead vault and submersible well pump; test water flow measurement and sampling equipment; test water disposal facilities, including pipeline connection to an existing ocean outfall via an existing subsurface junction structure; temporary sedimentation tanks; and electrical facilities, including a buried 4-inch conduit that would extend approximately 0.38 mile east of the slant test well insertion point and connect to an existing power source near the entrance of the CEMEX site.

Area of Potential Effects

An Area of Potential Effects (APE) is defined as the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties (36 CFR 800.16(d)). The proposed project is located in the city of Marina in a sand dune system and is roughly bordered by the Pacific Ocean to the west, sand dunes to the north and south, and agricultural and undeveloped land to the east (Figure 3). The project APE was established through consultation between the lead federal agency and the City of Marina. Section 106 defines an APE as:

“The geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.”

The project APE was delineated to ensure identification of significant cultural resources that may be directly or indirectly affected by the project, and are listed in or eligible for inclusion in the NRHP and/or CRHR.

The direct APE boundary represents portions of the project area that will be directly affected by the proposed undertaking and includes the proposed areas of direct ground disturbance. The direct APE also includes areas with permanent site improvements and areas for staging and temporary construction activities. In order to anticipate effects that may result from subterranean construction and implementation, the proposed vertical APE extends from the surface to a depth of 325 feet below ground. This accounts for the maximum drill depth anticipated for the slant test well and the monitoring wells. However, the overall expected depth of ground disturbance for the development of all other project components is anticipated to be 7 feet.

The indirect APE includes areas that may be subject to potential project-related effects, including visual or audible effects, and settlement effects that may result from construction or implementation of the proposed project. On March 11, 2014, the Monterey Bay National Marine Sanctuary reviewed the APE and concurred with its boundaries.



Figure 1. Project vicinity map.

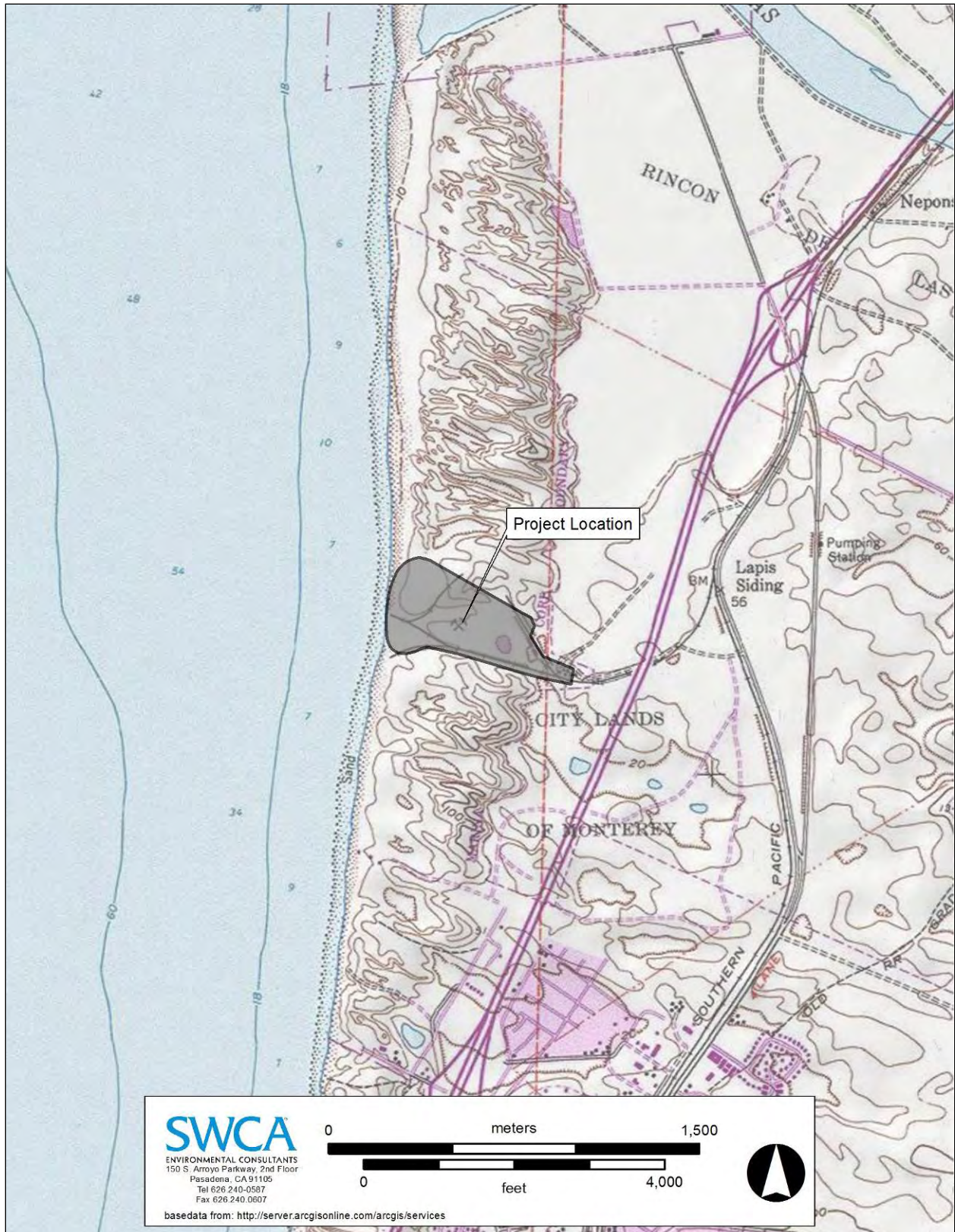


Figure 2. Project location map.

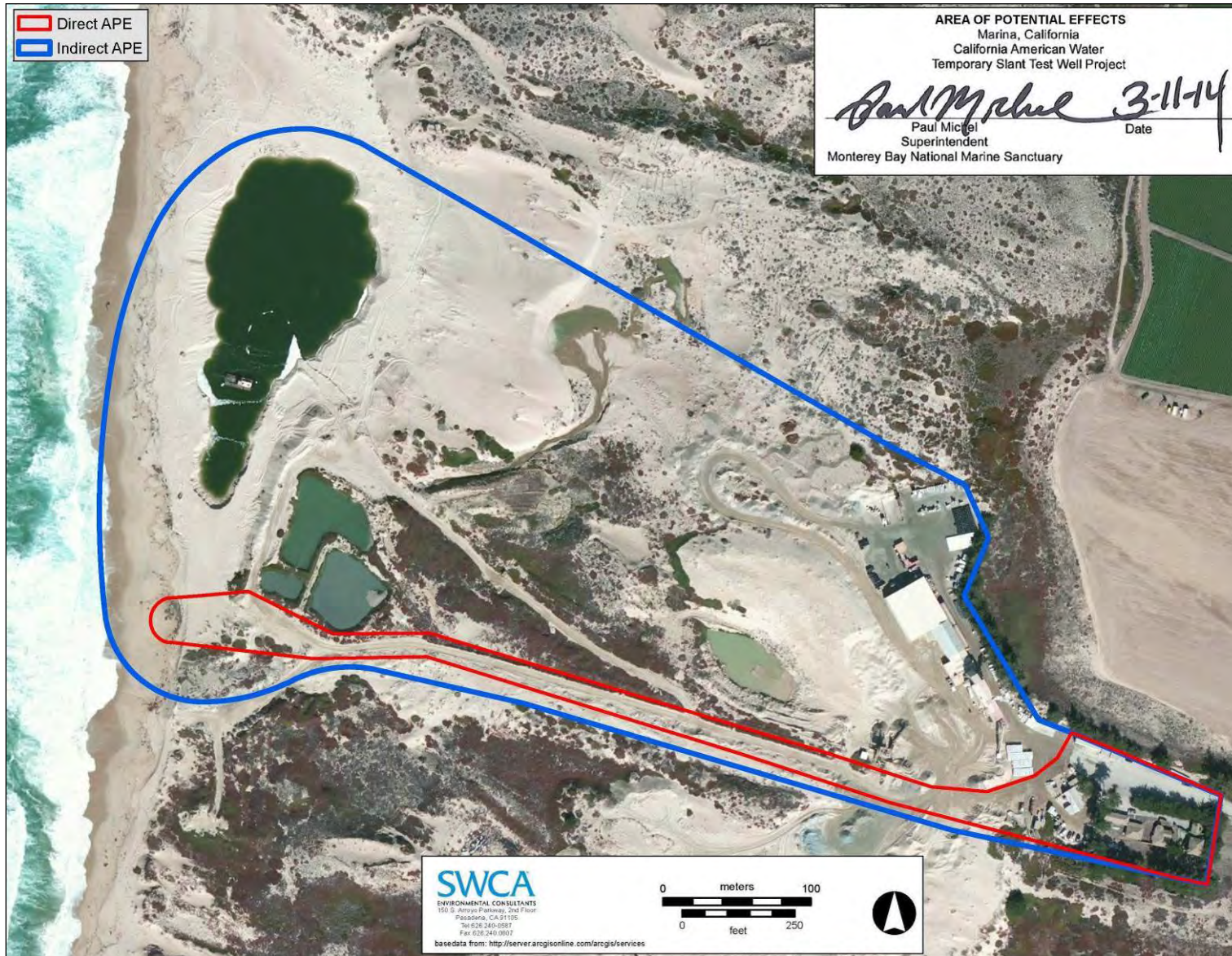


Figure 3. Area of Potential Effects

REGULATORY SETTING

This section identifies federal regulations, state legislation, and local statutes, ordinances, and guidelines that govern the identification and treatment of cultural resources and analysis of project-related effects to cultural resources. The lead agency must consider these requirements in making decisions on projects that may affect cultural resources.

Federal

National Historic Preservation Act

The current study was completed under the provisions of the NHPA of 1966, as amended (NHPA; 16 United States Code [USC] 470f). Cultural resources are considered during federal undertakings chiefly under Section 106 of NHPA through one of its implementing regulations, 36 CFR 800 (Protection of Historic Properties), as well as the National Environmental Policy Act (NEPA). Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of NHPA. Other relevant federal laws include the Archaeological Data Preservation Act of 1974, American Indian Religious Freedom Act (AIRFA) of 1978, Archaeological Resources Protection Act (ARPA) of 1979, and Native American Graves Protection and Repatriation Act (NAGPRA) of 1989.

Section 106 requires federal agencies to take into account the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Under Section 106, cultural resources must be identified and evaluated; effects to historic properties are reduced to acceptable levels through mitigation measures or agreements among consulting and interested parties. Historic properties are those resources that are listed in or are eligible for listing in the NRHP per the criteria listed below (36 CFR 60.4; ACHP 2000).

The quality of *significance* in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess *integrity* of location, design, setting, materials, workmanship, feeling, and association, and that:

- (A) Are associated with events that have made a significant contribution to the broad patterns of our history; or
- (B) Are associated with the lives of persons significant in our past; or
- (C) Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) Have yielded, or may be likely to yield, information important in prehistory or history.

Impacts of a project to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP are considered a significant effect on the environment. Under 36 CFR 800.5(a)(2), adverse effects on historic properties include, but are not limited to:

- (i) Physical destruction of or damage to all or part of the property;
- (ii) Alteration of a property;
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;

- (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- (vi) Neglect of a property which causes its deterioration;
- (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

State Regulations

In accordance with the CEQA Guidelines, properties defined as "historical resources" are those listed in or eligible for listing in the CRHR. Properties eligible for the CRHR are those found to meet the criteria for listing in the CRHR and NRHP or by designation under a local ordinance in a Certified Local Government community. CEQA requires the lead agency to determine whether a project may have a significant effect on historical resources.

Section 15064.5 of the CEQA Guidelines and PRC Section 5024.1, 21083.2 and 21084.1 were used as the framework for this cultural resources study. PRC Section 5024.1 requires evaluation of historical resources to determine eligibility for listing in the CRHR. The CRHR was established to serve as an authoritative guide to the state's significant historical and archaeological resources (PRC Section 5024.1). For a property to be eligible for listing in the CRHR, it must be found by the State Historical Resources Commission to be significant under at least one of the following four criteria:

1. The resource is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. The resource is associated with the lives of persons important in our past.
3. The resource 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. The resource has yielded, or may be likely to yield, information important in prehistory or history.

In addition to possessing one of the above-listed significance characteristics, to be eligible for listing in the CRHR, a resource must retain integrity to its period of significance. CRHR guidance on the subject asserts "[s]imply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance" (Office of Historic Preservation 2004). Integrity, although somewhat subjective, is one of the components of professional judgment that makes up the evaluation of a property's historic significance. The evaluation must determine whether a property retains its integrity, the physical and visual characteristics necessary to convey its significance. The concept of integrity is defined in state guidelines as "the authenticity of an historical resource's physical identity evidenced by the physical survival of characteristics that existed during the resource's period of significance." To retain its historic integrity, a property must possess several, and usually most, of these aspects.

Local Regulations

City of Marina General Plan

Adopted in 2000 and amended through 2006, the City of Marina General Plan provides general guidance and goals for the protection of cultural resources within the city (City of Marina 2006). As part of the Community Design and Development Element (Chapter 4), the Scenic and Cultural Resources section discusses policies concerning the treatment of archaeological resources and the historical significance of Fort Ord (Section 4.126).

Scenic and Cultural Resources

4.126. The following scenic and cultural resources are deemed to be particularly valuable, and the following policies should be pursued.

1. All archaeological resources which may be present in the Marina Planning Area shall be protected and preserved. To this end, development proposed in areas of high archaeological sensitivity, i.e., the terraces and benches along the Salinas River, the peripheries of vernal ponds, and coastal beaches, shall be required to undertake a reconnaissance by a qualified archaeologist, and, where artifacts are identified, to protect and preserve such resources.
2. The historical significance of former Fort Ord should be reflected in new development and/or reuse of at least a small portion of the University Village area near the 8th Street overcrossing and at the Fort Ord State Park entrance.

While no specific historic preservation ordinances are currently in place in the City of Marina, the Program and Implementation Element (Chapter 5) provides for the development of such policies.

Historical Resources Program

5.19. The City should undertake a survey of potential historical resources, determine if there are adequate potential historical resources to warrant possible state recognition as a Certified Local Government, and if so, pursue possible recognition, and consider adoption of an historical preservation ordinance as well as policy and permitting requirements for activities which might affect historical resources.

ENVIRONMENTAL SETTING

The project APE is located immediately adjacent to the Monterey Bay and the Pacific Ocean, and approximately 2 miles (3.2 kilometers) north of downtown Marina. It is located in the southern Coast Range geomorphic province, which follows the western border of California along the Pacific Ocean between San Francisco Bay and the southern Transverse Ranges. Elevation within the area of direct impact ranges between 0 to 60 feet (0 to 18 meters) above mean sea level.

The climate is characterized by mild, dry summers and cool, moist winters. Because the area falls within a coastal region, winters are typically warmer, and summers tend to be milder. Current winter temperatures have highs around 60 degrees Fahrenheit (° F) (15.5 degrees Celsius [° C]), and current summer temperatures have highs around 70° F (21° C). Annual precipitation ranges between 10-30 inches (25 and 76 centimeters).

Current land uses in the vicinity include industry, agriculture, and protected natural areas. Habitat in the vicinity of the project APE include coastal dunes, exposed sandy beach, open water in dredge and settlement ponds, and ruderal/landscaped/disturbed areas associated with the mining activities. A variety of special status species occur within the project APE, including Monterey spineflower, Smith's blue butterfly, Globose dune beetle, burrowing owl, black and silvery legless lizards, and the coast horned lizard. With this mosaic of ecological communities, the area would have provided a very productive environment for its prehistoric occupants, one well suited to a hunting-gathering economy with a variety of birds, small and large mammals, fish, reptiles, amphibians, and edible plant species.

CULTURAL SETTING

Prehistoric Overview

Understanding the prehistoric setting of the region helps predict the frequency and types of archaeological resources that may be identified. Knowing each period's characteristic artifact types allows one to assign an age to and interpret newly discovered resources. Based on geologic setting, biological setting, and geographic locations of previously recorded cultural resources, many areas are sensitive for the discovery of prehistoric archaeological resources. The six prehistoric periods of Central Coast occupation and cultural development are Paleo-Indian, Millingstone, Early, Middle, Middle-Late Transition, and Late (Jones et al. 2007:134).

Paleo-Indian Period (pre-8000 cal B.C.)

To date, sites or isolated artifacts that confirm habitation of the Central Coast region before 8000 cal (calibrated radiocarbon date) before Christ (B.C.) (during the end of the Pleistocene) have not been identified. However, human presence in the Central Coast region before 8000 cal B.C. (perhaps as long as 13,000 years ago) is suggested by discoveries of fluted projectile points from the southern portion of the Central Coast at Nipomo and at CA-SLO-1429 near Santa Margarita (Jones et al. 2007:135). While undated, the style of these points suggests a Paleo-Indian age.

Millingstone Period (8000 to 3500 cal B.C.)

Millingstone period deposits of the Early Holocene are characterized by the initial appearance of handstones and milling slabs ("milling stones"), which are associated with seed processing. Flaked tools are also apparent in these assemblages, including large side-notched points and cobble-core tools. Faunal remains suggest that Millingstone subsistence featured a wide range of animals such as shellfish, fish, birds, and land mammals including deer and rabbits, but in terms of volume, Millingstone diets consisted of 70 to 84 percent marine-derived food, particularly shellfish. At least 42 Central Coast sites feature a Millingstone period occupation. Although these are found over a wide range of geographical settings (open rocky coasts, sloughs, bays, and the interior valleys of the Coast Ranges), most known Millingstone occupations in the region occur on the coast (Jones et al. 2007:136).

Early Period (3500 to 600 cal B.C.)

The Early period of the Middle Holocene reflects new settlements that began circa 3500 to 3000 cal B.C. Breschini and Haversat (2004) have suggested that the Early period begins in 4000 cal B.C. and should be divided into two subphases. Phase I features the retention of Millingstone characteristics, while Phase II (2000 cal B.C. to 600 cal B.C.) features a pronounced increase in stemmed points and the introduction of mortars and pestles and Class L beads (rectangular Olivella beads). This split is supported by the

assemblages of at least four Monterey County sites and may be supported as more post-2000 cal B.C. deposits are discovered.

The Early period is characterized by a great frequency of large projectile points and other bifaces, including relatively narrow contracting-stemmed points, wider Rossi square-stemmed points, and side-notched points of the type found in Millingstone deposits. The use of cobble-core tools continues through this period but in lower frequencies. Portable mortar and pestles appear in Early period assemblages, but are infrequent. Burials from site CA-MNT-391 show a preference for flexed (bent) position and contained Rossi square-stemmed projectile points, fish gorges, and Class L beads. Bipointed bone gorges associated with line fishing appear during the Early period, and fish remains are more apparent in Early period assemblages than in Millingstone assemblages (Jones et al. 2007:138). Most Early period faunal assemblages feature deer, although a site at Morro Bay (CA-SLO-165) contains a large number of rabbit bones and site CA-MNT-391 has a preponderance of sea otters.

Middle Period (600 cal B.C. to cal A.D. 1000)

The Middle period of the Early Holocene manifestation of the Hunting Culture features the continuation of the contracting-stemmed points and the disappearance of the square-stemmed and large-notched types. The Olivella bead type G2 (a saucer type) outnumbers the L type during this period. Ground stone features both handstones and milling slabs and mortar and pestles. Bone gorges are still apparent, and circular shell fishhooks appear for the first time. Fish remains are markedly more apparent in Middle period assemblages than in Early period ones. Mammal remains from Middle period sites vary from site to site and include northern fur seals and sea otters. In some Middle period sites rabbit remains predominate, while in others, deer remains prevail. Grooved stone net weights are seen in Middle period assemblages. Burials continue to show the flexed position and are sometimes accompanied by bone flutes. Bone tubes and large quantities of G2 type beads are present in burials of this period. G1 type Olivella saucer beads also appear. Shell bead types can be chronological indicators when types are compared within a region. At the end of this period, small leaf-shaped projectile points appear, indicating the advent of bow and arrow use (Bennyhoff and Hughes 1987).

Middle-Late Transition (cal A.D. 1000 to 1250)

Marked changes in Central Coast assemblage and settlement patterns occur after circa Anno Domini (A.D.) 1000, at the beginning of the Late Holocene. Assemblages feature a large number of the arrow points that appear at the end of the Middle period, as well as a new bead type, the Class K cupped Olivella bead. These developments help identify assemblages from this period. Fewer stemmed points appear in assemblages, but Class G1 and G2 beads are still found in assemblages of this period. Overall, the Hunting Culture that includes the Early, Middle, and Middle-Late Transition periods sees an increase in the exploitation of fish. The exploitation of shellfish is apparent at all coastal sites but seems to decrease, while the hunting of vertebrates increases. Radiocarbon dates indicate that the exploitation of acorns may have occurred during the Hunting Culture (Jones et al. 2007:138).

Late Period (cal A.D. 1250 to 1769)

Late period assemblages are distinct from those of previous periods because of a preponderance of Desert side-notched and Cottonwood projectile points, small bifacial bead drills, bedrock mortars, hopper mortars, Class E lipped Olivella beads and Class K beads, and steatite disk beads. However, Breschini and Haversat put forth that Desert side-notched points appeared after contact in the Monterey Peninsula area. Sites in the Santa Cruz area and the Monterey Peninsula feature thin, rectangular Class M beads and small, serrated arrow points. Circular shell fishhooks persist through the Late period (Breschini and Haversat 2004; Jones et al. 2007:140)

Inland Late period sites are more prevalent in the archaeological record than coastal Late period sites. Many Late period sites that have been recorded feature bedrock mortars and associated middens, which may indicate a greater reliance on plant-based foods. Prehistoric inhabitants of California processed plant-based foods such as seeds (including acorns) in bedrock mortars. However, the Monterey Peninsula features dense deposits of whole abalone shells from this period that have been interpreted as abalone collecting and processing sites used by inland inhabitants (Jones et al. 2007:140). Residential features (circular house floors approximately 3 to 4 meters in diameter) have been recorded on the coast and inland.

Ethnographic Overview

The numerous Costanoan social groups in this region were organized by tribelets, each of which could have several villages or a main village with a number of camps (Levy 1978:487). Tribelets were also political units that were structured by similarities in language and ethnicity, each holding claim to a designated portion of territory. Topographic features, such as rivers, watersheds, and ridgelines, defined tribelet territories and the boundaries were strictly respected.

The APE was historically occupied by the tribelets of the Costanoan linguistic group (Levy 1978). Descendants of Costanoan speakers prefer to be called by the name of the tribelet from which they are descended, such as Mutsun or Rumsen. When their heritage is mixed or the specifics have been lost over generations, they prefer the use of a native term, *Ohlone*, rather than the European-imposed term Costanoan (“coastal dwellers”) (Margolin 1978).

Costanoan territory extended between the Carquinez Strait and San Pablo Bay on the north, southward along the coast beyond Monterey Bay to Carmel Valley, and inland to the coast range (Levy 1978:485). Neighboring groups included the Coast Miwok north across the Carquinez Strait, the Miwok and Northern Valley Yokuts to the east, and the Salinan and Esselen to the south.

Spanish mission records, diaries, and journals provide most of the information about the Costanoans, because little ethnographical research has been conducted in the twentieth century (Levy 1978:495). The most thorough study, by Milliken (1995), used mission records, and Margolin (1978) reconstructed Native American life in the Bay Area.

Linguistically, these tribelets belong to the Utian, or Miwok-Costanoan language family, part of a hypothesized larger Penutian linguistic stock (Mithun 2001:309). The Costanoan family is broken down into four branches: the Karkin, in the Carquinez Strait area; the Northern Costanoan, consisting of the Chochenyo (with four dialects), Ramaytush, Tamyen, and Awaswas languages; the Soledad, seen only in Cholon; and the Southern Costanoan branch, consisting of Rumsen (with Carmel and Monterey dialects) and Mutsun (Mithun 2001:L535). Speakers of these languages and dialects, in various configurations, have been treated as tribes in the past (Levy 1978:Figure 1) in accordance with anecdotal reports. Through detailed examination of mission records, marriage patterns, and dialect variation seen in personal names, Milliken (1995:229) delineated 43 separate political entities (tribelet) in the San Francisco Bay, Santa Cruz, and inland area, with another six or so tribelets in the south Monterey Bay and Carmel Valley region.

According to historic accounts, the *kalenta ruk* tribelet of the Mutsun branch occupied the Monterey Peninsula near the APE (Levy 1978:485). The Spanish designation for this tribelet was San Carlos. Mutsun speakers occupied the lands inland from the coast around the Pajaro and upper Salinas rivers, and numbered approximately 2,700 in 1770.

Each tribelet’s territory contained a main village and smaller satellite villages. The villages were typically situated along a river or stream for easy access to water (Levy 1978:487). Coastal people did not build

right on the shoreline, but usually on an overlooking bluff. Dwellings were domed structures consisting of a tule- or grass-covered framework of poles, with a rectangular doorway and central hearth (Levy 1978:492). The forest-dwelling Rumsen group also constructed conical houses of split redwood and redwood bark. Villages often contained specific enclosures for dancing. Assembly halls in the center of the settlement were common; some halls were large enough to contain the entire village population of 200 people. Each community had a sweat lodge, placed near a stream. The Costanoans either buried or cremated the deceased, sometimes depending on firewood availability. There is no mention of cemeteries associated with villages (Levy 1978:490–491).

The rich resources of the ocean, bays, valleys, and mountains provided Ohlone-speaking peoples with food and all their material needs (Levy 1978:491–492). The primary food staple was the acorn, supplemented by a great variety of animal and plant resources. Depending on species availability and desirability, Costanoans used four oak species, including coast live, valley, tanbark, and black. Collected nuts included buckeye, laurel, pine nuts, and hazelnuts. Seeds from dock, chia and other salvias, tarweed, and holly-leaf cherry were collected and ground into meal. Vegetal resources also included several berry-producing plants, wild onions, carrots, tule roots, and greens of clover and other annuals. Large and small game, including deer, elk, antelope, bear, mountain lion, raccoon, ground squirrels, woodrat, mouse, mole, dog, rabbit, and jackrabbit, plus seals and stranded whales were part of their diet. Migrating waterfowl were an important resource, and included geese, ducks, and coots. Pigeons, quails, and hawks were also consumed, but not eagles, owls, ravens, or turkey vultures. Rivers and streams provided freshwater fish, including steelhead, salmon, and sturgeon, while the ocean provided shark, sardine, and lampreys. Costanoan diet also included a variety of insects and reptiles, but not amphibians.

For hunting and gathering natural resources, Costanoans used a wide array of tools, implements, and enclosures. Among those used for hunting land mammals and birds were bows and arrows, traps and snares, deer-head disguises, bolas, nets and net sinkers, and enclosures/blinds. Communal hunting drives were used to catch rabbits, whereas nets and poisons were used to harvest fish. Tule watercraft were used for transportation and for hunting fish and waterfowl on enclosed bays and marshes. Many plants were collected using wooden tools: long poles for dislodging acorns and pinecones, fire-hardened digging sticks for obtaining roots, and beaters for dislodging seeds. Once collected, seeds, roots, and nuts were placed in burden baskets and transported for processing or storage (Levy 1978:491).

Costanoans used a variety of tools to process food resources. These tools included portable stone mortars and pestles, bedrock mortars, hopper mortars, anvils, woven strainers and winnowers, leaching and boiling baskets, woven drying trays, and knives. Various foods were baked in earthen ovens. Wooden paddles were carved for stirring food in the boiling baskets. There were shell spoons, basket dippers, and mush bowls for serving food, and woven water jugs and storage containers for keeping food afterwards.

The presence of exotic items such as obsidian, steatite, and shell indicates Costanoan tribelets traded with coastal groups and mountain tribes (Levy 1978:493). Dietary items were also traded with the Plains Miwok, Sierra Miwok, and Yokuts. Costanoans provided mussels, abalone shells, dried abalone, and salt to the Yokuts and Olivella shells to the Miwok. They received pine nuts from the Yokuts, but other food resources received by the Costanoan tribelets are unrecorded.

The Native American population in this region came into contact with European culture at the beginning of Spain's land exploration and settlement in A.D. 1769. Traditional lifeways were altered drastically during the late 1700s to early 1800s when the Spanish placed their capital at Monterey, built forts at Monterey and San Francisco, and established seven Franciscan missions to convert native peoples to Christianity and the European way of life. Large-scale epidemics soon swept through the mission population and remaining villages (Milliken 1995). Subsequent Spanish colonial towns at Santa Cruz and Yerba Buena (San Francisco), followed by large Mexican land grants, separated Costanoans from their harvesting grounds and hunting parks. Many surviving Native Americans were pulled away from their

own villages to the new Euro-American settlements. It is estimated that the combined Costonoan population fell from a pre-contact total of 10,000 down to 2,000 by the end of the mission period in 1834 (Levy 1978:486). During the mission period, the dwindling Costonoan population also intermarried with other interior tribes at the missions, mixing their cultural identities.

During the late 1800s, several Native American communities of mixed heritage remained in rural areas, with Pleasanton, Monterey, and San Juan Bautista the best known (Levy 1978:487). Even these groups continued to shrink as young people married into other groups and moved away. Estimates of the total remaining population of people with recognizable Costonoan descent were fewer than 300 in 1973 (Levy 1978:487). According to Levy:

“In 1971 descendants of the Costonoan united in a corporate entity, the Ohlone Indian Tribe, and received title to the Ohlone Indian Cemetery where their ancestors who died at Mission San José are buried” [Levy 1978:487].

Since that time, other descendants of Costonoan tribelets, notably the Rumsen and Mutsun groups, have organized political and cultural heritage organizations that are active locally and statewide. All are concerned with revitalizing aspects of their culture, learning the language through notes collected by anthropologist John Harrington, and preserving the natural resources that played a vital role in traditional culture. Some Costonoan groups also are seeking federal recognition of their tribe, petitioning the Bureau of Indian Affairs with reconstructed tribal histories and genealogies, records that will be a great resource for future generations of Costanoans. These groups include the Amah-Mutsun Band of Mission Indians, Costonoan Band of Carmel Mission Indians, Costonoan Rumsen Carmel Tribe, the Indian Canyon Mutsun Band of Costonoan, and the Muwekma Ohlone Tribe.

Historic Overview

Post-contact history for the state of California generally is divided into three periods: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers between 1529 and 1769, the beginning of Spanish settlement in California occurred in 1769 with the establishment of Mission San Diego de Alcalá. This was the first of 21 missions established between 1769 and 1823. After the end of the Mexican Revolution against the Spanish crown (1810–1821), all Spanish holdings in North America (including both Alta and Baja California) became part of the newly formed Mexican Empire, and shortly thereafter, a constitutionally based United Mexican States. Under Mexican rule, the authority of the California missions gradually declined, culminating with their secularization. The Mexican period is marked by an extensive era of land grants, most of which were in the interior of the state, and by exploration by American fur trappers west of the Sierra Nevada Mountains.

With the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican–American War, California became a territory of the United States. The discovery of gold in 1848 at Sutter’s Mill near Sacramento and the resulting Gold Rush era influenced the history of the state and the nation. The rush of tens of thousands of people to the gold fields also had a devastating impact on the lives of indigenous Californians, with the introduction and concentration of diseases, the loss of land and territory (including traditional hunting and gathering locales), violence, malnutrition, and starvation. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869.

With continued growth, California continues to be a national leader in agriculture and poultry production, ranching (cattle and sheep), aerospace and communications industries, as well as the film and

entertainment business. The wealth of California's natural resources (e.g., lumber, petroleum deposits, minerals, fish) also continues to contribute to its growth and development.

Monterey County

Juan Rodríguez Cabrillo was the first European to sail along today's Monterey County coast in 1542 (Hoover et al. 2002:225; Gudde 1998:246). Sixty years passed after Cabrillo's 1542 voyage, before Sebastián Vizcaíno harbored in the bay in 1602 near the present city of Monterey. In 1769, Gaspar de Portolá was sent from Mexico City to locate the port described by Vizcaíno, and the Spanish presidio and mission (San Carlos de Monterey) were established in 1770. The mission was the second established in California, after San Diego de Alcalá in 1769, but the following year it was moved south to its present site in Carmel. Renamed San Carlos Borromeo de Carmelo, it served as headquarters for the mission chain from 1770 until 1803. It is also the resting place for Father Junípero Serra, founder of the California missions (Johnson 1979:83).

Monterey County was one of California's original 27 counties, established in 1850. The governmental seat was initially located in the town Monterey, but was relocated to Salinas in 1873, where it has remained. The town of Monterey was named the capital of "Las Californias" (upper and lower California) in 1774, and 3 years later became the official capital of Alta (upper) California. The city remained the capital during Spanish and Mexican rule. Many of the Spanish colonial structures built around Monterey's Old Town Historic District are listed on the NRHP. The Larkin House, built in 1834, is a National Historic Landmark; the Cooper-Molera adobe, built in 1826, is one of the largest extant adobe buildings remaining in northern California. Several other historic buildings give the town an old Spanish/Mexican appearance.

There are two Franciscan missions in the Salinas Valley area: Mission San Antonio de Padua in Jolon and Mission Nuestra Señora de la Soledad. Mission San Antonio is now within the Fort Hunter Liggett Military Installation, southwest of King City in southern Monterey County. It was established in 1771, the third mission to be founded after those at San Diego and Monterey. Mission San Antonio was moved to its present location in 1773. The mission in the town of Soledad was founded in 1791, the thirteenth of the 21 missions established by the Spanish.

Monterey Bay has a long history as a military focus, fishery, and seaside resort. Although the Spanish Presidio is long gone, the Naval Postgraduate School, a Coast Guard station, and the Defense Language Institute now grace its shores. Slightly east of the bay, the U.S. Army established Ford Ord in 1917 as a maneuver and field artillery target range. The base was closed in 1994, and is now the home of the California State University at Monterey Bay.

Cannery Row was a fish-packing center, producing the world's third largest port for fish tonnage in the 1920s and 1930s. By 1948, the local sardine population had been decimated and the last of the canneries closed (Hoover et al. 2002:234). The Row is now an international tourist destination, made famous by local author John Steinbeck. Nearby Carmel-By-The-Sea began as a seaside retreat for artists, musicians, actors, and writers in the early 1900s, many escaping the devastation of the 1906 San Francisco earthquake (City of Carmel-By-The-Sea 2014). The city was incorporated in 1916 and today tourism draws thousands to the Monterey Bay area's famous golf courses, seaside resorts, and diverse shopping. Some of the many attractions include monarch butterfly migrations in Pacific Grove, the Monterey Bay Aquarium, Cannery Row, and Carmel.

Marina

By the 1880s, the area now known as Marina was part of land holding owned by David Jacks and James Bardin. Following the death of Bardin in 1888, his heirs began to sell off portions of the property to a

growing number of settlers who began to arrive in the area. The first significant subdivision was sold to John Armstrong, who purchased 1,372.5 acres for agricultural purposes and developed the Armstrong Ranch (Armstrong 2014). An additional 1,450 acres were soon sold off in an area that would eventually become known as Sand Hill Ranch (City of Marina 2005).

Development and interest in the area was largely prompted by the arrival of the Southern Pacific (SP) Railroad's Monterey Branch in 1879. Branching off from the SP's main line at Castroville, the Monterey Branch linked San Francisco to the Hotel Del Monte and Pebble Beach (Dill 2003). William Lock-Paddon was one passenger from San Francisco who recognized opportunity in the open landscape as he traveled south to Monterey. In 1915 he purchased 1,500 acres of land south of Sand Hill Ranch and designated the tract as "Pueblo Tract No. 1, City Land of Monterey" (City of Marina 2005). In an effort to make his land more available to potential buyers, Lock-Paddon was able to convince the SP to make a flag stop on the Monterey Branch. First named "Mile Post 117," the stop was renamed "Paddonville" and eventually "Marina" in 1918, a name Lock-Paddon himself selected (Hathaway 2014).

A post office was established the following year in 1919 and the community soon began to expand. By 1926, there were approximately 70 families, as well as a school, church, and other organizations. Additional growth resulted from the U.S. Army's development of nearby Fort Ord. Originally named Camp Gigling, what would eventually become known as Fort Ord became highly active as a training facility during World War II and Marina became a popular destination for troops on leave (City of Marina 2005). Marina continued to grow in the decades after World War II and the city incorporated in 1975.

BACKGROUND RESEARCH

Literature Search

On February 27, 2014, a search was requested of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC), located at Sonoma State University, Sonoma, California. The search included any previously recorded cultural resources and investigations within a 1-mile radius of the APE. The CHRIS search also included a review of the NRHP, the CRHR, the California Points of Historical Interest (CPHI) list, the California Historical Landmarks (CHL) list, the Archaeological Determinations of Eligibility (ADOE) list, and the California State Historic Resources Inventory (HRI) list. The records search also included a review of all available historic U.S. Geological Survey (USGS) 7.5- and 15-minute quadrangle maps. A letter dated March 18, 2014, from the NWIC summarizing the results of the records search, and a bibliography of prior cultural resources studies is provided in Appendix A of this report.

In addition to official maps and records, the following sources of information were consulted as part of the record search:

- National Register of Historic Places
- California State Historic Property Data Files
- California State Historic Resources Inventory
- California Register of Historical Resources
- California State Historical Landmarks
- California Points of Historical Interest
- Office of Historic Preservation Archaeological Determinations of Eligibility

Previously Conducted Cultural Resources Studies within 1 Mile of the APE

Eighteen cultural resources studies have been previously conducted within 1 mile of the APE (Table 1). Of this total, five studies (S-003345, S-003704, S-005439, S-009552, and S-012218) overlap at least a portion of the APE. A brief summary of each of these five studies is provided in the paragraphs that follow. Appendix A provides a complete bibliography from the NWIC for all studies listed in Table 1

Table 1. Previous Cultural Resources Studies within 1 Mile of the Project APE

NCIC Report Number	Title of Study	Author	Year	Proximity to Project APE
S-003345	Monterey Peninsula Regional Wastewater Treatment System Expansion Project	Weber, T.F. and A.S. Peak	1976	Within
S-003427	Archaeological Reconnaissance of two parcels in Marina, California: (A) Drive-In Theatre, Cardoza Avenue, Abdy Way near Beach Road; (B) Sand Hill Nursery, Beach Road near Cardoza	Flynn, K.	1978	Outside
S-003704	Backhoe Testing of Point A, Monterey Regional Wastewater Treatment System Outfall, Monterey County, California	Peak, A.S. & Associates	1981	Within
S-005439	Cultural Resource Assessment of the Selected Alternative of the Monterey Regional Wastewater Treatment System, Monterey County, California.	Peak, A.S. & Associates	1978	Within
S-009552	Cultural Resource Assessment of the Marina County Water District's Wastewater Facilities, Monterey County, California	Peak & Associates	1987	Within
S-012218	Archaeological Assessment for the RMC Lonestar Lapis Sand Plant Reclamation Project, Marina, Monterey County, California	Hylkema, M. and R.I. Orlins	1990	Within
S-014001	Preliminary Cultural Resources Reconnaissance for the MPWMD Desalination Pipeline, Monterey County, California	Runnings, A. and G. Breschini	1992	Outside
S-016462	Addendum 2 to the Archaeological Reconnaissance of the Salinas Valley Seawater Intrusion Project	Jones & Stokes	1994	Outside
S-017494	Archaeological Reconnaissance, Gullwing Properties (letter report)	Dietz, S.A.	1983	Outside
S-022657	Archaeological Survey Along Onshore Portions of the Global West Fiber Optic Cable Project	Sawyer, I., et al.	2000	Outside
S-023937	Proposed Construction of Bike Lane and Sidewalks on Reservation Road from State Route 1 to Marina State Beach, 05-MNT-CU05-168	Wilson, K.	2001	Outside
S-030832	Preliminary Archaeological Archival Research for the Marina Station Project, in Marina, Monterey County, California	Doane, M. and G.S. Breschini	2005	Outside
S-031328	AC 3791 Marina Station Project (letter report)	Doane, M.	2006	Outside
S-031346	Preliminary Archaeological Reconnaissance for the Marina Station Project, in Marina, Monterey County, California.	Doane, M. and G.S. Breschini	2006	Outside
S-032385	Phase I Archaeological Reconnaissance for the Marina Coast Water District Regional Urban Water Augmentation Project, Recycled Water Component, Northern Segment, in Marina and Seaside, Monterey County, California	Doane, M. and T. Haversat	2006	Outside

Table 1. Previous Cultural Resources Studies within 1 Mile of the Project APE

NCIC Report Number	Title of Study	Author	Year	Proximity to Project APE
S-032920	AC 3791, Marina Station, Cultural Resource P-27-2417 (CA-MNT-2080H) (letter report)	Breschini, G.S.	2006	Outside
S-036240	Archaeological Survey for the Cal-Am Coastal Water Project, Monterey County, California	Jones, K. and J. Holson	2009	Outside
S-037725	Archaeological Survey Report for the Monterey Light Rail Transit Project	Ruby, A.	2010	Outside

S-003345

In 1976, Tony F. Weber and Ann S. Peak prepared *Monterey Peninsula Regional Wastewater Treatment System Expansion Project*. The cultural resources assessment included a reconnaissance-level survey and cultural history of the region. As a result of the field survey, a probable prehistoric site was identified (identified in the report as JS-MP-1). Recommendations included further field reconnaissance in areas not surveyed and archaeological monitoring for all excavations near the recorded locations of JS-MP-1.

S-003704

Ann S. Peak & Associates prepared *Backhoe Testing of Point A, Monterey Regional Wastewater Treatment System Outfall, Monterey County, California* in 1981. The report documented the results of a field reconnaissance survey that identified several possible prehistoric artifacts and several pieces of historic glass that not were recorded. In order to test for the presence of more extensive subsurface cultural materials it was determined that backhoe testing should be done. The findings of the test digging revealed no further cultural resources.

S-005439

In 1978, Ann S. Peaks & Associates prepared *Cultural Resource Assessment of the Selected Alternative of the Monterey Regional Wastewater Treatment System, Monterey County, California*. The report documented the results of an archaeological investigation prior to the construction of the Monterey Regional Wastewater Treatment System. Investigation methods included a reconnaissance level survey and historical research. No archaeological sites were identified as a result of the study. Recommendations included the use of an archaeological monitor during all construction activities in areas that showed potential for uncovering concealed archaeological sites.

S-009552

Peak & Associates authored *Cultural Resource Assessment of the Marina County Water Districts Wastewater Facilities, Monterey County, California* in 1987 for Jones & Stokes Associates. The report was prepared to identify any cultural resources within the current wastewater facilities. In addition to archival research, a records information search was conducted at the NWIC at Sonoma State University. No evidence of historic or prehistoric cultural resources was found during field surveys along the pipeline alignments and previously unsurveyed portions of the wastewater facilities. Recommendations included the use of a qualified archaeologist to monitor construction activities.

S-012218

In 1990, Mark Hylkema and Robert I. Orlins authored *Archaeological Assessment for the RMC Lapis Sand Plant Reclamation Project, Marina, Monterey County, California*. The report was prepared for Thomas Reid Associates in support of an EIR for the Sand Plant Reclamation Plan. In addition to pre-field research, a records information search was conducted, which failed to identify any cultural resources. During the field survey, no cultural resources were identified and it was determined that the potential for finding cultural resources during any future reclamation activities was low. Recommendations included monitoring reclamation activities and employing a qualified archaeologist to identify any finds before resuming work.

Previously Recorded Cultural Resources within 1 Mile of the APE

The NWIC records search conducted for this project identified one previously recorded historic resource within a 1-mile radius of the project APE (Table 2). The single identified resource is a railroad grade segment that runs approximately parallel to State Route 1. No cultural resources were identified in the APE.

Table 2. Previously Recorded Cultural Resources within 1 Mile of the Project APE

Primary Number	Trinomial	Resource Description	California Historical Resource Status Codes	Recorded by and Year	Proximity to Project APE (Township, Range, and Section)
P-27-002417	CA-MNT-2080H	Historic site: Old Railroad Grade	N/A	Jones and Arrellano 2009; Morgan, Dalldorf and Wear 1998	Outside

Native American Contact Program

Native American coordination was initiated for this project on February 28, 2014. As part of the process of identifying cultural resources in or near the APE, the Native American Heritage Commission (NAHC) was contacted to request a review of the Sacred Lands File (SLF). The NAHC faxed a response on March 11, 2014 (Appendix B), and stated that Native American cultural resources were not identified within 1 mile of the APE, but noted that it is always possible for cultural resources to be unearthed during construction activities. The NAHC also provided a contact list of nine Native American individuals or tribal organizations that may have knowledge of cultural resources in or near the APE. Letters were prepared and mailed to each of the NAHC-listed contacts on March 12, 2014, requesting information regarding any Native American cultural resources in or immediately adjacent to the APE.

One of the contacts recommended a no disturbance alternative, survey, subsurface testing, presence/absence testing, mitigation and recovery programs, reburial of any ancestral remains, replacement of all cultural remains, and Native American monitoring. Another contact recommended cultural training, archaeological monitoring, and Native American monitoring. Two contacts stated that they had no comment regarding the project. Two follow-up efforts were made to the remaining eight Native American contacts on March 26, 2014, and April 8, 2014. No additional responses have been received to date. A complete record of Native American coordination to date is provided in Table 3 and Appendix B.

Table 3. Record of Native American Coordination Efforts

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
<p>Ohlone/Coastanoan 720 North 2nd Street Patterson, California 95363</p> <p>Contact: Jakki Kehl</p>	<p>03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed. Voicemail mailbox full; unable to leave message. 04/08/14: Follow-up call placed. Voicemail mailbox full; unable to leave message.</p>	No response to date.
<p>Coastanoan Rumsen Carmel Tribe 240 E. 1st Street Pomona, California 91766</p> <p>Contact: Tony Cerda, Chairperson</p>	<p>03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed. Voicemail mailbox full; unable to leave message. 04/08/14: Follow-up call placed. Voicemail mailbox full; unable to leave message.</p>	No response to date.
<p>Ohlone/Coastanoan-Esselen Nation P.O. Box 1301 Monterey, California 93942</p> <p>Contact: Louise Miranda-Ramirez, Chairperson</p>	<p>03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed. Ms. Miranda-Ramirez indicated that she had not received the letter, and requested a PDF copy of letter and attachments sent via e-mail; Ms. Miranda-Ramirez responded to aforementioned e-mail with a letter response recommending a no-disturbance alternative.</p>	Recommendation of a no-disturbance alternative, survey, subsurface testing, presence/ absence testing, mitigation and recovery programs, reburial of any ancestral remains, replacement of all cultural remains, and Native American monitoring.
<p>Trina Marine Ruano Family 30940 Watkins Street Union City, California 94587</p> <p>Contact: Ramona Garibay, Representative</p>	<p>03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed, voicemail left. 04/08/14: Follow-up call placed, voicemail left.</p>	No response to date.
<p>Amah Mutsun Tribal Band P.O. Box 5272 Galt, California 95632</p> <p>Contact: Valentin Lopez, Chairperson</p>	<p>03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed. Mr. Lopez indicated that the project area was out of his range and thus had no information to provide.</p>	No further action required
<p>Amah Mutsun Tribal Band of Mission San Juan Bautista 789 Canada Road Woodside, California 94062</p> <p>Contact: Irene Zwierlein, Chairperson</p>	<p>03/12/14: Letter sent via U.S. Mail. 03/26/14: Ms. Zwierlein advised a one-hour cultural training for all project staff in order to prepare them for potential encounters with cultural resources. She also stressed the importance of having qualified archaeologists on hand and securing a qualified Native American monitor.</p>	Recommendation of cultural training, archaeological monitoring, and Native American monitoring.
<p>Ohlone/Coastanoan-Esselen Nation P.O. Box 552 Soledad, California 93960</p> <p>Contact: Christianne Arias, Vice Chairperson</p>	<p>03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed, voicemail left. 04/08/14: Follow-up call placed, voicemail left.</p>	No response to date.
<p>Amah Mutsun Tribal Band 35867 Yosemite Avenue Davis, California 95616</p> <p>Contact: Edward Ketchum</p>	<p>03/12/14: Letter sent via U.S. Mail. 03/26/14: No phone number provided by NAHC; Follow-up email sent. 04/08/14: Follow-up e-mail sent.</p>	No response to date.
<p>Ohlone/Coastanoan-Esselen Nation 1116 Merlot Way Gonzales, California 93926</p> <p>Contact: Pauline Martinez-Arias, Tribal Councilwoman</p>	<p>03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed. Ms. Martinez-Arias indicated that she had not received the letter, and requested a PDF copy of letter and attachments sent via e-mail. Follow-up email sent. 04/08/14: Follow-up call placed, voicemail left.</p>	No response to date.

Table 3. Record of Native American Coordination Efforts

NAHC-provided Contact	Coordination Efforts	Results of Coordination Efforts
Indian Canyon Mutsun Band of Coastanoan P.O. Box 28 Hollister, California 95024 Contact: Anne Marie Sayers, Chairperson	03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed, voicemail left; Ms. Sayers returned the call soliciting an opinion on the likelihood of the presence of unidentified cultural resources; it was indicated to her that the likelihood was low based on our survey.	No further action required.
Ohlone/Coastanoan 1585 Mira Mar Avenue Seaside, California 93955 Contact: Linda Yamane	03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed, voicemail left. 04/08/14: Follow-up call placed, voicemail left.	No response to date.
Amah Mutsun Tribal Band of Mission San Juan Bautista 789 Canada Road Woodside, California 94062 Contact: Michelle Zimmer	03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed, message left with household member. 04/08/14: Follow-up call placed, no voicemail option available.	No response to date.

Local Historic Group/Local Government Contact Program

As part of the process of identifying historic resources in or near the APE, letters were prepared and mailed to four local historic groups/local governments on March 12, 2014, requesting information on potential or known historic resources in and around the project APE (Appendix C). Two of the contacts were reached via telephone and stated that they did not have any comments on the proposed project. Follow-up phone calls were made to the remaining two historic group contacts on March 26, 2014 and April 8, 2014. No additional responses have been received to date. A complete record of historic group/government coordination to date is provided in Table 4.

Table 4. Record of Historic Group/Local Government Coordination Efforts

Historic Group/Local Government Contact	SWCA Coordination Efforts	Results of Coordination Efforts
Monterey County Historical Society (MCHS) Boronda Adobe History Center 333 Boronda Road Salinas, California 93907 Contact: James Perry	03/12/14: Letter sent via U.S. Mail. 03/26/14: Mr. Perry informed SWCA that the MCHS were unable to locate any information regarding the Lapis Sand Plant or sand mining in the Monterey area.	No further reaction required.
Marina Branch Library 190 Seaside Circle Marina, California 93933 Contact: Sam Shields, Branch Librarian	03/12/14: Letter sent via U.S. Mail. 03/26/14: Mr. Shields informed SWCA that he had no knowledge of any cultural resources in or near the project area.	No further reaction required.
The Monterey Salinas Valley Railroad (MSVRR) Historical Society 26 Station Place Salinas, California 93901	03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed, voicemail left. 04/08/14: Follow-up call placed, voicemail left.	No response to date.

Table 4. Record of Historic Group/Local Government Coordination Efforts

Historic Group/Local Government Contact	SWCA Coordination Efforts	Results of Coordination Efforts
Monterey County Resource Management Agency, Department of Building Services, Department of Planning 168 West Alisal Street, Second Floor Salinas, California 93901	03/12/14: Letter sent via U.S. Mail. 03/26/14: Follow-up call placed, no voicemail option available. 04/08/14: Follow-up call placed, no voicemail option available.	No response to date.

Additional Research

SWCA consulted with a number of archives, local governmental agencies, and individuals to identify relevant information regarding the historical development of the Lapis Sand Plant and sand mining in the Monterey Bay area. A complete record of these research efforts is outlined below in Table 5.

Table 5. Individuals/Organizations Consulted

Organization/Agency/Archive	Individual	Date	Results	Notes
Armstrong Family	Jack Armstrong	04/07/14	Mr. Armstrong is the great-grandson of John G. Armstrong, the namesake of the Armstrong Ranch. He provided information regarding the initial purchase of the land on which the project area is located and its early development.	
Brian Finegan, Attorney	Receptionist	03/11/14; 04/01/14	Provided information for client, Jack Armstrong.	
Burns Family	Kenneth L. Burns	03/11/14	Mr. Burns is the son of plant superintendent, Louis Burns, and lived at the property until he was 19. He was able to provide extensive background information on the developmental history of the plant and its operations.	
California Geological Survey Library	David Lushbaugh	03/06/14	Emailed relevant copies of California State Mining Bureau reports, dating from 1920s through 1960s.	
California Views Historical Photo Collection	Pat Hatheway	03/18/14; 04/02/14	Negative.	Mr. Hatheway was unable to locate any relevant materials.
City of Marina, Community Development Department, Building Services	N/A	03/05/14	Inconclusive.	Office was closed at time of visit.
City of Monterey, Planning Office	Christine Hopper, Senior Associate Planner	04/01/14	Negative.	No relevant information was provided.

Table 5. Individuals/Organizations Consulted

Organization/Agency/Archive	Individual	Date	Results	Notes
Environmental Data Resources, Inc. (EDR)	N/A	03/11/14; 03/12/14	Inconclusive aerial photographs dating to 1956; and topographic maps dating to 1913.	No Sanborn maps or building permits were identified as part of the search.
Marina Historical Society	Steve Emerson	03/11/14; 04/02/14	Inconclusive.	No response.
Monterey County, Resource Management Agency, Building Services	Receptionist	03/05/14	Negative.	No building permits prior to 1955 on file for unincorporated areas of Monterey County.
Monterey County Historical Society	James Perry, Archivist	03/04/14; 03/05/14	Negative.	Perry and a group of volunteers were unable to locate any relevant information.
Monterey County Library, Marina Branch	Sam Shields, Branch Manager	03/04/14	<i>Monterey County Place Names</i> book describing background of Lapis name and confirming plant manager Louis Burns.	Spoke with Mr. Shields prior to visit. The book on place names was the only reference material he was able to locate relating to the subject property.
Monterey County Library, Seaside Branch	Reference Librarian	03/03/14	Negative.	Examined vertical files, local city directories, and Marina newspapers on microfiche, which only dated to circa 1990s.
Monterey County Parks	Meg Clovis, Cultural Affairs Manager	03/20/14	Emailed a copy of Hart 1966.	
Monterey Public Library, California History Room	Dennis Copeland; Jeanne McCombs	03/04/14; 03/05/14	Various newspaper articles relating to Lapis plant and sand mining in the Monterey area; and pages from 1961 <i>Mines and Mineral Resources of Monterey County</i> .	
University of California, Santa Cruz, Library	Laura McClanathan	03/05/14	Inconclusive.	Maps were in the process of being moved and required more notice than was possible given time constraints.

In addition SWCA consulted a number of online archives, including:

- Proquest (San Francisco Chronicle)
- Calishpere
- Online Archive of California
- David Rumsey Historical Map Collection
- California Digital Newspaper Collection
- NETR Online – Historical Aerials
- USGS US Topo and Historical Map Collection

- Office of Coast Survey Historical Map Chart Image Catalog
- University of Southern California, Santa Cruz library Aerial Photographs
- JSTOR
- Google Books
- San Francisco Historical Photograph Collection, San Francisco Public Library
- The Internet Archive

METHODS

Cultural Resources Survey

An intensive-level pedestrian survey of the project APE was conducted by archaeologist Leroy Laurie and architectural historian Steven Treffers, on March 4, 2013 to identify and record any archaeological or historic architectural resources (i.e., buildings, structures, objects, landscapes) that may be impacted by the proposed undertaking. Because the project APE is located within an active sand mining facility, the intensive-level survey was restricted to the direct APE. A reconnaissance-level survey was performed of the indirect APE, visually examining the area from a safe distance. Some areas to the far north of the indirect APE could not be safely seen from the direct APE and were therefore not surveyed. Notes and photographs of each resource were taken to detail alterations, improvements, conditions, and setting. All fieldwork was documented using field notes, digital photography, close-scale field maps, and aerial photographs.

Archaeological Survey

The methods used for the intensive-level archaeological survey consisted of a pedestrian survey in linear transects spaced no more than 5 meters apart. Within each transect, the ground surface was examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock [FAR]), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the current or former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics). At the time of the field survey, ground surface visibility of the direct APE was excellent (80-100%), except for those areas obscured by existing buildings or pavement.

Historic Architectural Survey

The intensive-level survey of the built environment APE included an examination of all buildings, structures, and objects located in the APE. The intensive-level survey consisted of a visual inspection of each building and any associated features. The survey included a review of all exterior elevations that were observable from within the direct APE, and did not include any review of building interiors. Each building or structure was photographed from all accessible elevations, and detailed notes were taken to document their current condition, architectural details, observed alterations, and character-defining features.

RESULTS AND IMPACT CONSIDERATIONS

Cultural Resources Survey

Archaeological Survey

No archaeological materials or evidence of subsurface archaeological deposits were identified during the pedestrian survey. The direct APE has been subject to extensive development and ground disturbance from historical and modern activities associated with the sand mining operation and on-site residences. The portion of the direct APE west of the existing buildings and facilities (see Figure 4) is currently subject to heavy equipment and light vehicle traffic and is comprised of numerous push-piles and sand mining spoils. As such, this portion of the APE is considered to be highly disturbed. Cut banks associated with the unpaved access road that bisects the western portion of the APE revealed disturbance to at least 3 feet below ground surface throughout.



Figure 4. Overview of the project area, looking east.

Architectural Survey

As a result of the intensive-level field survey, one historic district with nine contributing built environment resources was identified, recorded, and evaluated (Figure 5). The Lapis Sand Mining Plant historic district includes the following contributors: Sorting Plant, Washing Plant, Canal Flume, Lapis Siding, Superintendent's Residence, Bunkhouse, Garage/Office, Maintenance Shop, and Scale House and Office (Table 6). There are a number of small ancillary buildings spread throughout the property that are associated with the above-mentioned resources. In addition there are a number of settling ponds and a dredging pond that were initially developed as part of the modernization of the facility in 1959-60. The geographic boundaries and location of these features have frequently shifted since their initial development. According to historic photographs, the current dredging boat and crane that floats atop the dredging pond was put into operation sometime after 1966.

The eastern boundary of the historic district runs north from its southeastern terminus along the eastern side of the Superintendent's Residence before turning to the northwest to include the Scale House and

Office, and the Sorting Plant. The boundary then heads along a northwestern course to a point just east of the Pacific Ocean. From this point, the boundary runs south and then southeast back to the southeastern terminus to include the Canal Flume, associated ancillary buildings, and Lapis Siding. The boundary of the Lapis Sand Mining Plant historic district is defined by the property’s historic built environment elements, setting and property lines. The eastern boundary corresponds with the property’s historic property line and is clearly defined by the location of the Plant Superintendent’s Residence. The northern, western, and southern boundaries are delineated to include the property’s historic operations and resources that contribute to the property’s historical significance. The complete set of State of California Department of Parks and Recreation (DPR) forms prepared can be found in Appendix D of this report.

Table 6. Identified Built Environment Resources

Name	Date Constructed	Status	Integrity	Significance
Sorting Plant	1959-60	Contributor	High – alterations appear limited to window replacements.	A distinct mining structure that is representative of the modernization of the Lapis Plant in the post-World War II era.
Washing Plant	1959	Contributor	High – no known alterations.	A distinct mining structure that is representative of the modernization of the Lapis Plant in the post-World War II era.
Canal Flume	1959	Contributor	Medium – the western portion has been realigned since its initial construction.	A structure that is representative of the modernization of the Lapis Plant in the post-World War II era.
Lapis Siding Segment	Ca. 1906	Contributor	Medium – the segment retains its original alignment but the ballast and ties are not visible. Further, the linear feature extended much further west than was observed during the course of the current survey.	An essential element in the success and growth of the Lapis Plant from its establishment through the 1960s.
Superintendent’s Residence	Ca. 1920	Contributor	Medium – although alterations to the building occurred within the period of significance, the property has been vacant for nearly 15 years and some of the materials have degraded since this time.	Representative of the development of necessary residential infrastructure that contributed to the early growth of the Lapis Plant.
Bunkhouse	Ca. 1910s	Contributor	High – no known alterations.	Representative of the development of necessary residential infrastructure that contributed to the early growth of the Lapis Plant.
Garage/Office	Ca. 1906	Contributor	High – additions occurred within the period of significance and other alterations are limited to the partial replacement of doors.	Representative of the development of necessary infrastructure that contributed to the early growth of the Lapis Plant.
Maintenance Shop	Ca. 1906	Contributor	Medium – although some additions occurred within the period of significance, some occurred after. Nonetheless, it retains integrity of location, setting, feeling, and association and continues to convey its historical function	Representative of the development of necessary infrastructure that contributed to the early and continued growth of the Lapis Plant.
Scale House	Ca. 1959	Contributor	Medium – an addition occurred outside of the period of significance, but it still retains integrity of location, setting, feeling, and association and continues to convey its historical function	Representative of the modernization of the Lapis Plant in the post-World War II era and the move towards an increased reliance on shipping via cargo trucks.

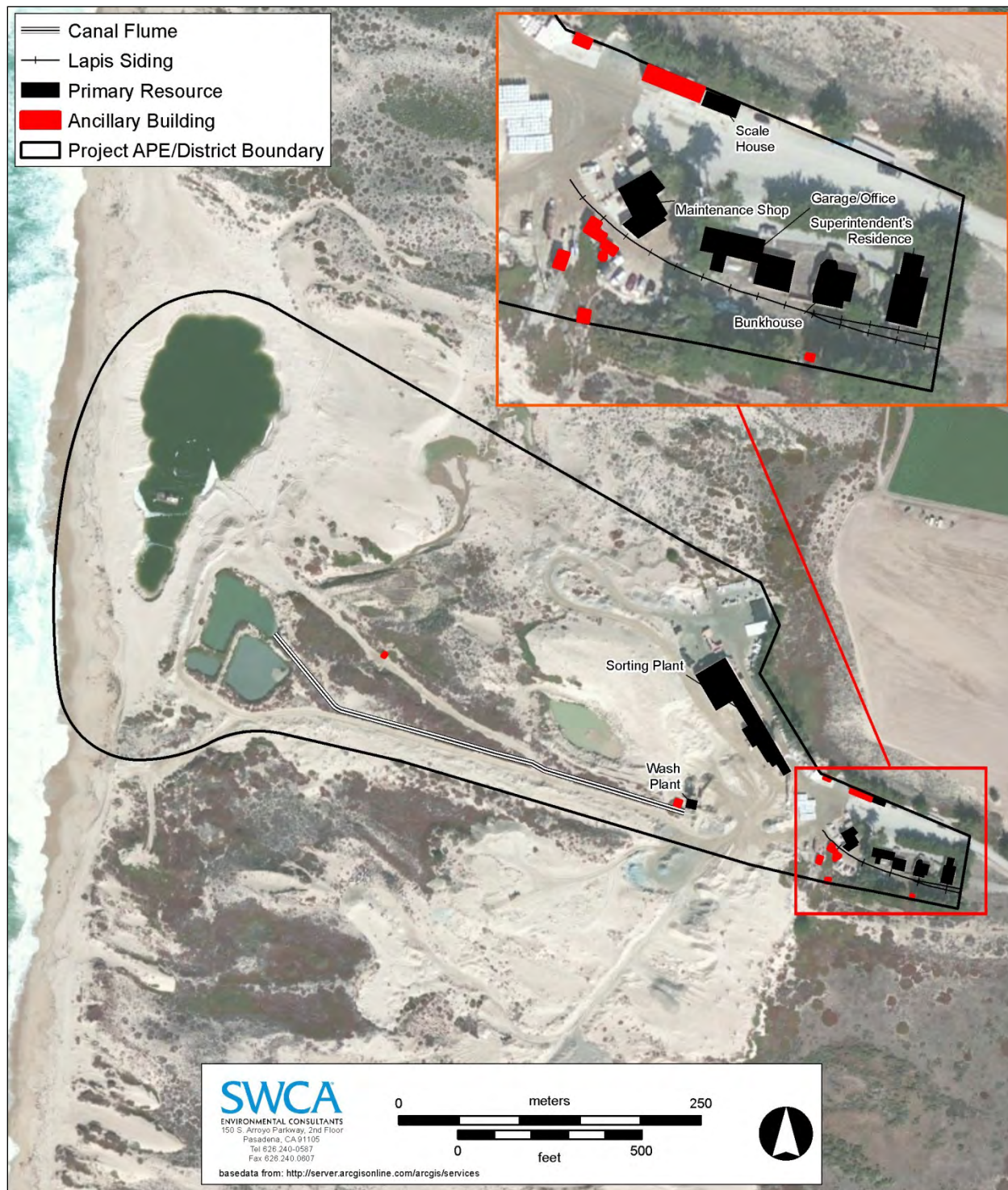


Figure 5. A map showing all known resources within the APE.

SORTING PLANT

Constructed in 1959-60, the Sorting Plant is a large industrial facility composed of a series of connected buildings that are arranged in a long linear plan and house various functions related to the sorting and storage of sand (Figure 6). Characteristic of its industrial design, all of the buildings are sheathed almost entirely in corrugated metal. The central feature is the sorting building, which is approximately six stories in height and rectangular in plan. Capped by a gable roof, the building rests on an approximately two-story tall concrete foundation and features replacement vinyl windows sporadically located across the upper floors. The building features a large projection with a half-gable roof that extends outward and down from the northeast elevation. In addition, various infrastructural elements such as large silos and exhaust pipes, are located across the exterior of the building. An approximately two-story building to the southeast is also rectangular in plan with a gable roof. This structure houses equipment that feeds sand to the sorting building, including machinery, large pipes, and conveyor belts. Extending northwest from the sorting building are two large storage buildings. Both of these feature gable roofs and have fenestration that is limited to large open doors on various elevations. There are presently two non-operational rail cars located along the northeast side of the subject property. With the exception of the replaced windows, the Sorting Plant retains its integrity and is in overall good condition.



Figure 6. Overview of the Sorting Plant; view to the northwest.

WASHING PLANT

The Washing Plant was developed in support of dredging operations in 1959 (Figure 7). Also known as a Dorr Oliver “Jet Sizer,” the industrial structure is approximately two stories in height and is constructed of exposed structural metal posts and beams with a metal staircase that wraps around the exterior. Sand and water are pumped through tubing from a dredging pond that is located near the coastline approximately 0.25 mile to the west, and then fed to the top of the structure and into washing and classifying machinery below. Once the clean sand reaches the bottom of the machinery, it is fed into piles via three conveyor belts that extend outwards from the structure. The waste water is then pumped into a canal flume that leads to settling ponds approximately 0.25 mile to the west. Two small ancillary buildings are associated with the washing plant. Both house pumping equipment and are square in plan, sheathed in vertical wood siding, and capped by a flat roof. One is located immediately west of the subject structure and pumps water into the canal flume, and the other is located approximately 900 feet to the northwest and pumps sand and water to the washing plant from the dredging pond. The Washing Plant is in good overall condition and retains its integrity.



Figure 7. Overview of the Washing Plant; view to the northwest.

CANAL FLUME

The Canal Flume was constructed in 1959 to support the commencement of dredging operations at the Lapis Sand Mining Plant (Figure 8). Approximately 1,250 feet in length, the flume directs wastewater west from the sand washing plant to settling ponds near the coastline. The narrow flume is lined with wood siding and braced by horizontal wood boards that intermittently span the open-air trench. A dirt road crosses over the flume approximately 410 feet from the eastern terminus at the sand washing plant. Historic aerial photographs suggest that since the flume was initially constructed, the western portion has been realigned multiple times to connect to the frequently shifting settling ponds. The majority of the flume appears to have remained in its original alignment, however. Although this has affected some aspects of the flume's design, materials, and workmanship, it strongly retains integrity of location, setting, feeling, and association.



Figure 8. Overview of the Canal Flume; view to the northeast.

LAPIS SIDING

The intensive-level survey identified and recorded an approximately 420-foot-long segment of the Lapis Siding (Figure 9), a rail siding that was constructed circa 1906 to connect the concurrently developed Lapis Sand Mining Plant with the former SP Monterey Branch to the east. From its eastern terminus at the eastern boundary of the Lapis Sand Mining Plant, the segment consists of two parallel metal rail lines that merge into one line at a rail switch approximately 135 feet to the west. The segment continues along a general northwesterly course for approximately 285 feet before it becomes covered by sand and dirt. Since its decommissioning in the late 1980s, the recorded segment has been partially infilled and as a result, no ballast or ties are currently visible. The recorded segment of the Lapis Siding retains integrity of location, design, setting, feeling, and association. Since the siding was decommissioned, much of the line has been infilled with dirt and sand, and the ballast and ties were not clearly evident within the recorded segment. Further, historic topographic maps indicate that the Lapis Siding extended much further west and north than was observed during the course of the current survey (Figure 10). Archival research was unable to determine if the rails, ties, and/or any associated infrastructure of the larger rail siding were removed. Because of the constantly shifting sand dunes, there is potential that other intact segments may be buried underneath the changing landscape.



Figure 9. Overview of the Lapis Siding; view to the east.



Figure 10. A USGS topographic map from 1947 (photo revised in 1983) depicting the historic extent of the Lapis Siding, with the segment recorded as part of the current survey identified.

SUPERINTENDENT'S RESIDENCE

The former residence of the plant superintendent is a two- and one-story building located towards the eastern boundary of the Lapis Sand Plant (Figure 11). Constructed circa 1920, the two-story main unit of the building was expanded to the north in 1955-56 with a single-story addition that resulted in the current rectangular plan. The roof features exposed rafters and asphalt composition shingles, and is hipped on the main two-story unit and gabled on the single-story addition. Primarily vernacular in its design, the building is sheathed in wood simple-drop and clapboard siding, and incorporates an original concrete chimney on the west elevation of the main unit and a later brick-masonry chimney on the east elevation of the northern addition. Most notable among its design accents is an Asian-influenced railing that encloses a balcony on the southeast corner of the second floor, which is accessed via an exterior wood stairway on the eastern elevation. The balcony originally extended the entire length of the second floor but was partially filled in 1955-56 to create an additional interior room. Many of the main unit's original wood casement windows were replaced in 1955-56 with the same aluminum slider type windows that are present on the northern addition. Additional fenestration includes entryways on the eastern and western elevations that feature various door types. The building is currently vacant and in moderate condition. Although the above-mentioned alterations affected aspects of the original 1920s design, they are representative of the continuing development of the Lapis Sand Mining Plant and therefore the building retains integrity.



Figure 11. Overview of the Superintendent's Residence; view to the northwest.

BUNKHOUSE

The Bunkhouse is a small, single-story residential building on a concrete foundation located immediately west of the Superintendent's residence at the Lapis Sand Mining Plant and constructed circa the 1910s (Figure 12). Centered on a small central courtyard, it is a front-facing U-shape in plan with a rounded bay extending slightly out from the northern elevation and a small shed extension from the western elevation. Designed in a Minimal Traditional style with Craftsman influences, the building is capped by a composition asphalt shingle roof that is gabled at the front (east) and hipped at the rear (west) with exposed rafters, and partially extends outward over the courtyard via diagonal wood posts. The wood frame structural system is clad in simple-drop wood siding and is punctuated by a concrete chimney with a missing flue on the western elevation. Primary access is granted from the courtyard via various wood

paneled and French doors, with a secondary wood and glass paneled-door located on the western elevation. Additional fenestration includes double hung, fixed, and casement windows, all of which are set in wood frames. Located in the center of the courtyard is a concrete rafter pergola that has spalled, resulting in the exposure and rusting of the interior structural metal beams. Although the spalling concrete and missing flue have affected the aspects of the building's materials and workmanship, it is in good overall condition and retains much of its integrity.



Figure 12. Overview of the Bunkhouse; view to the west.

GARAGE/OFFICE

The Garage/Office consists of three adjoining but distinct units, resulting in an irregular U-shaped plan (Figure 13). The eastern most unit was constructed circa 1906 and was initially the residence of the plant superintendent. Currently housing office space, this section is square in plan and capped by a moderately-pitched hipped roof with exposed rafters and sheathed in composition asphalt shingles. Its wood frame structural system is clad in stucco. There is a recessed entryway on the southern elevation and a covered porch area on the northern elevation supported by wood columns. Fenestration includes original wood-framed casement windows and wood- and glass-paneled doors. Limited but distinctive design features include concrete planters on the south and east elevations that are currently spalling. The large central unit is a garage addition that was constructed circa 1910s and extends west from the southeastern corner of the former residence unit. Rectangular in plan, the garage is sheathed in stucco and metal siding and features a hipped roof that is sheathed in composition asphalt shingles. The central garage unit features large original and replacement wood doors across the northern elevation, with additional access granted via wood- and glass-paneled doors off the covered porch of the eastern unit. Windows are limited to wood-framed windows on the northern and southern elevations. Attached to the southern elevation of the garage is a shed extension that was constructed at an unknown date. The shed features a flat roof and is sheathed entirely in corrugated metal with the exception of large plywood doors that comprise the southern elevation. Currently used as an office and storage space, the subject property remains in overall good condition and continues to convey its historical function.



Figure 13. Overview of the Garage/Office; view to the north.

MAINTENANCE SHOP

The Maintenance Shop is a single-story Utilitarian-style maintenance building (Figure 14). Initially constructed circa 1906, the wood-framed building is sheathed in corrugated metal and wood paneling, and is irregular in plan following the addition of multiple shed extensions. The building consists of two primary units that step down to the southeast and feature moderately pitched front-gabled roofs. Visual inspection and archival research indicate that three shed extensions were added to the building in the late 1950s or early 1960s: first to the northeastern elevation, and subsequently to the southwest and northwest elevations. The building features sliding corrugated metal doors at each end of the primary sections (northwest and southeast), as well as additional corrugated metal and metal doors on the shed extensions. Windows on the southwest elevation are currently boarded with plywood, and there is a replacement aluminum-sliding window located on the northeast elevation. There are numerous ancillary buildings associated with the subject property, all of which house various materials and equipment used in the maintenance of the overall sand mining facility. The small, one-story buildings share common design features and are located primarily to the south of the maintenance shop. They are rectangular in plan, with flat or gabled roofs, and sheathed in wood siding or corrugated metal. In addition there is a small, wood water tank that is circular in plan and sheathed in vertical wood siding. The Maintenance Shop remains in overall good condition and continues to convey its historical function.



Figure 14. Overview of the Maintenance Shop; view to the northwest.

SCALE HOUSE

Located at the Lapis Sand Mining Plant, this small one-story Scale House was initially constructed circa 1959 (Figure 15). The concrete-masonry unit Scale House is rectangular in plan and capped by a flat roof with a fascia board. Comprised of two bays, the eastern bay was constructed in 1997 and is slightly taller than the western bay; it features a large window on the south elevation that allows employees to interact with truck drivers as they pull up to the building. Additional fenestration includes steel casement windows and a single metal and glass door on the east elevation. There is a prefabricated office building situated immediately east of the Scale House and sits above the ground on a raised trailer. In addition to a flagpole at the eastern boundary of the subject property, bollards direct outgoing trucks onto underground scales located immediately south of the Scale House. The subject property remains in good overall condition and although the 1997 addition affected some aspects of the building's original design, it retains integrity of location, setting, feeling, and association, and continues to convey its historical function as a Scale House.



Figure 15. View of Scale House in background with adjacent office in foreground; view to the northeast.

Evaluation

The Lapis Sand Mining Plant was established in 1906 by the E.B. and A.L. Stone Company. The Oakland, California based construction firm believed the sand from the surrounding dunes to be ideal for concrete production and needed a steady supply of the building material in the aftermath of the 1906 San Francisco earthquake and subsequent fires (Armstrong 2014). The Stone Company purchased the land from John A. Armstrong, an early settler and rancher who sold the company 400 acres at \$2 per acre with the stipulation that a fence be built to keep his cattle out of the sand dunes (Armstrong 2014). Initial development of the plant included the construction of a small superintendent's residence and the Lapis Siding, a rail line which connected to the SP Monterey Branch (Burns 2014). Using a locomotive crane, sand was scooped by dragline or crane directly into railroad cars and shipped to the San Francisco Bay Area with little or no processing (Hart 1966:88).

Sand mining has a long history in the United States. While the practice along the northern California coast dates to at least 1865, it didn't begin in earnest in the southern Monterey Bay until 1889 with the completion of the SP Monterey Branch. The earliest operation appears to be related to the later-named

Del Monte Sand Plant, which was located in Asilomar and exported sand largely for use in bottle glass production (Seavey and the Heritage Society of Pacific Grove 2005:101). The Lapis Sand Mining Plant, however, appears to be the first large-scale endeavor to produce sand for use as a building material. Historic maps from 1910 and 1913 indicate the Lapis Siding was the only rail siding connected to SP's Monterey Line by this time (Coast and Geodetic Survey 1910; USGS 1913). According to the California State Mineralogist's annual report, the Lapis Plant remained the only building material-specific sand mine in Monterey County until 1916, by which time the Stone Company was outputting nearly 1,000 to 1,200 tons of sand per day (California State Mining Bureau 1916:615). Contributing to this increased productivity was a larger, permanent on-site staff, which was housed in a new bunkhouse that was constructed during the 1910s (Burns 2014).

This staff had reached a total of eight men when the Bay Development Company took over operations in 1918. Based out of San Francisco, the company expanded the facility over the following decade through the construction of a larger plant superintendent's residence and possibly a garage addition to the old residence (Burns 2014). Other improvements to the property included the development of wells and the installation of a stationary hoist (Figure 16). Although the sand continued to be transported directly into railroad cars, the Bay Development Company began to obtain sand from the beach in addition to the dunes and therefore diversified their output. The coarser dune sand continued to be used primarily in building and construction work for concrete and mortar, while the finer sand from the beach working resulted in a new product that was well suited for sand blasting and marble cutting, and as locomotive sand (California State Mining Bureau 1925:55).

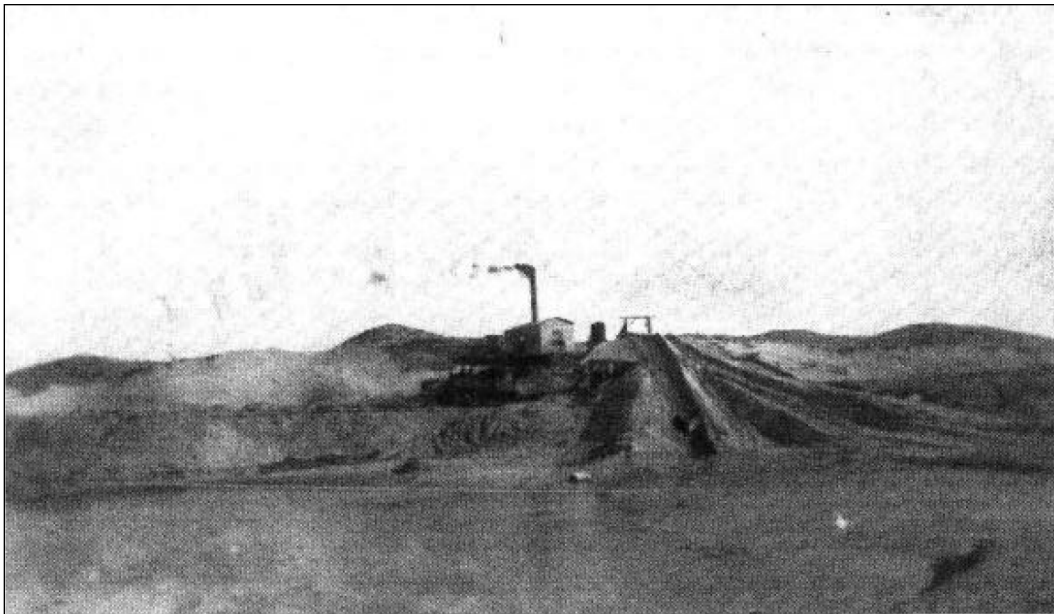


Figure 16. 1925 photograph of the stationary hoist (source: California State Mining Bureau 1925:56).

In 1929, the recently formed Pacific Coast Aggregates assumed operation of the Lapis Sand Mining Plant. The recently formed company made no significant changes to the property over the following decade, and production at the plant appears to have held steady through the Great Depression. Production soon increased with the onset of World War II, with much of the sand exported to northern California foundries for use as a core material for heavy gray iron castings (Division of Mines 1948:45). As a result of the war effort and the prosperous years that followed, a number of new sand mining operations opened along the

Monterey Bay Coast and were soon in direct competition with Pacific Coast Aggregates, including the Granite Construction Company in Sand City, Monterey Sand Company in Marina, Seaside Sand and Gravel Company in Marina, and Owens-Illinois Company in Moss Beach (Hart 1966). While the Lapis Sand Mining Plant continued to produce sand much as it had since 1906, many of these new operations developed modern facilities that allowed for the efficient washing, sorting, and packaging of sand (Figure 17).



Figure 17. 1946 photograph of sand removal at the Lapis Sand Mining Plant (source: Division of Mines 1946:Plate 4).

Pacific Coast Aggregates reorganized as Pacific Cement and Aggregates in 1958 and quickly set to modernizing its facilities to provide for increased production. Settling ponds and a dredging pond were easily developed because of the abundant ground water and allowed the company to access coarser sand from older deposits beneath the dunes (Figure 18). To wash and classify the sand, a Dorr Oliver “Jet Sizer” was installed in 1959. Commonly known as the washing plant, dredged sand was pumped to the structure from a dredging boat and crane and hydraulically sorted into 8 size ranges (Hart 1966:89). A canal flume was constructed in support of the washing plant to direct wastewater to settling ponds in the west. In 1960, a large sorting plant was constructed to the north of the washing plant. This large structure was similar to those constructed at surrounding sand mining plants and allowed the company to not only further sort sand, but also dry it and blend it to a customer’s specifications (Hart 1966:90).



Figure 18. 1966 photograph of dredging operations at the Lapis Sand Mining Plant (source: Hart 1966:89).

Over the following decade, new technology drove sand to become one of the most important mineral commodity groups in Monterey County. From 1901 through 1964, recorded production totals were close to \$50,000,000, with the value of sand and gravel in the two decades after 1945 exceeding \$1,000,000 annually (Hart 1966:84). At the peak of the industry, there appear to have been six major sand mining plants (including the Lapis Sand Mining Plant) operating along the coast in Monterey County. Sand mining operated unregulated until 1968 when the State Lands Commission issued and began to manage leases of the coastal land. Because of ongoing erosion, additional regulations were put into effect in 1974 by the U.S. Army Corps of Engineers further restricting mining activities along the coast (Berner 2008). As sand mining leases expired over the following decade, nearly all of the sand mining plants were forced to shut down operations by the late 1980s. The buildings and structures of these facilities were subsequently demolished in response to community concerns regarding safety and viewsheds. The Lapis Sand Mining Plant changed ownership to RMC Lonestar in the 1970s and eventually to CEMEX in 2005, and remains as the last extant facility of a once prevalent industry in Monterey Bay.

The Lapis Sand Mining Plant represents one of the earliest and largest sand mining operations in the southern Monterey Bay. The property consists of a variety of industrial, commercial, and residential resources that characterize the establishment and growth of both the facility and the sand mining industry in California as a whole.

All of these functionally-related resources collectively contribute to the significance of the property; and result in a historic district that appears eligible for listing in the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR) under Criteria A/1 for its associations with the events that have made a significant contribution to the broad patterns of local and regional history of California. Further, the physical design of the property and the resources it encompasses are specific to its function as a sand mining facility. This distinct and identifiable entity has continually developed

throughout the district's period of significance, which begins in 1906 with the establishment of the facility and ends with the completion of modernization efforts in 1960. The alterations and additions to the larger property and the resources it encompasses experienced during this period are representative of the ongoing growth of the sand mining industry through the post-World War II era. The Lapis Sand Mining Plant therefore retains integrity, and as a rare intact example of a continuously operating coastal sand mining plant property in California, it also appears eligible for listing in the CRHR under Criteria C/3 for its embodiment of the distinctive characteristics of a type, period, and region of construction. The property as a whole retains a high degree of integrity of design, materials, association, location, feeling, workmanship, and setting to accurately convey the period of significance. Because the built environment resources located within the district are not associated with the productive lives of members of the Armstrong facility or any other notable individuals, the subject property does not appear eligible for listing in the NRHP or CRHR under Criteria B/2. Further, no evidence was identified that suggests the built environment resources have the potential to yield information and the property does not appear eligible for listing in the NRHP or CRHR under Criteria D/4.

Effects/Impacts Analysis

In accordance with 36 CFR Part 800.5[a](1), adverse effects occur when an undertaking may directly or indirectly alter characteristics of a historic property that qualify it for inclusion in the NRHP. CEQA also requires a lead agency to determine whether a project may have a significant effect on historical resources (PRC Section 21084.1).

Examples of adverse effects include physical destruction or damage; alteration not consistent with the Secretary of the Interior's Standards; relocation of a property; change of use or physical features of a property's setting; visual, atmospheric, or audible intrusions; neglect resulting in deterioration; or transfer, lease, or sale of a property out of Federal ownership or control without adequate protections. Reasonably foreseeable effects caused by the project that may occur later in time, be farther removed in distance, or be cumulative also need to be considered.

Archaeological Resources

No archaeological resources were identified during the intensive-level field survey. Surface visibility was excellent (80 to 100%). The project is located on the coast, which contained numerous resources that were commonly exploited by Native Americans throughout prehistory. Geologic mapping by Dibblee (1998) indicates that the APE is immediately underlain by younger Quaternary alluvial deposits of Holocene age, which have the potential to contain archaeological resources. The historic use of the Lapis Sand Mining Plant may have generated archaeological deposits as well, including refuse pits and buried foundations. For these reasons, and the fact that no archaeological testing or monitoring has ever occurred in the project area, it should be treated as potentially sensitive for the presence of both prehistoric and historic archaeological resources. The area of greatest sensitivity is the eastern end of the direct APE that contains the buildings associated with the historic district. This area was subject to less ground disturbance related to sand mining than was the rest of the APE, and it is more likely to contain buried historic archaeological features due to the proximity of the extant historic buildings.

Prehistoric materials in the project area might include flaked or ground stone tools, tool-making debris, pottery, culturally modified animal bone, fire-affected rock, or soil darkened by cultural activities (midden). Historic materials might include building or railroad remains, metal, glass, ceramic artifacts, or other debris greater than 45 years old.

Archaeological Mitigation Measures

Implementation of the following mitigation measures should occur in the event that unanticipated belowground cultural resources are identified during construction activities. These measures would reduce the level of impacts to less than significant.

Cultural Resource Mitigation Measure 1 (CR-1)

A qualified archaeologist that meets the Secretary of the Interior's professional qualifications standards in archaeology (National Park Service 1983) shall be retained to provide archaeological services for the project.

Prior to initiation of ground-disturbing activities, an archaeological monitor working under the direction of the qualified archaeologist shall conduct a brief awareness training session for all construction workers and supervisory personnel. The training shall explain the importance of and legal basis for the protection of significant archaeological resources. Each worker should learn the proper procedures to follow in the event that cultural resources or human remains/burials are uncovered during ground-disturbing activities, including those that occur when an archaeological monitor is not present. These procedures include work curtailment or redirection and the immediate contact of the site supervisor and the archaeological monitor. It is recommended that this worker education session include visual images or samples of artifacts that might be found in the project vicinity, and that the session take place on-site immediately prior to the start of ground-disturbing activities.

An archaeological monitor working under the direction of the qualified archaeologist shall monitor all ground disturbance in areas within 100 feet of the historic buildings within the direct APE. These include the Superintendent's Residence, Bunkhouse, Garage/Office, Maintenance Shop, and Scale House and Office. The timing and duration of the monitoring may be adjusted during project implementation by the qualified archaeologist, in consultation with the lead agency (City of Marina and Monterey Bay National Marine Sanctuary), whose decision shall be informed by the apparent sensitivity of the sediments in the project area once they are exposed.

Cultural Resource Mitigation Measure 2 (CR-2)

In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities in the immediate vicinity (25 feet) of the discovery shall be halted while the resources are evaluated for significance by the qualified archaeologist. Construction activities could continue in other areas. If the discovery proves to be significant, additional work, such as archaeological data recovery or project redesign, may be warranted and would be discussed in consultation with the lead agency.

Cultural Resource Mitigation Measure 3 (CR-3)

The discovery of human remains is always a possibility during construction activities and California Health and Safety Code Section 7050.5 addresses this issue. This code section states that, in the event of inadvertent discovery of human remains, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner shall be notified of the find immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification, and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. The California Health and Safety Code Section 7050.5 process shall be noted on

project grading and construction plans and reviewed during the construction worker awareness training session.

Architectural Resources

The project APE contains one property, the Lapis Sand Mining Plant, which is eligible for listing in the NRHP and the CRHR as a historic district, as one of the earliest and remaining sand mining operations in the southern Monterey Bay. The eastern portion of the direct APE includes seven contributors to the historic district: Plant Superintendent's Residence, Bunkhouse, Office/Garage, Maintenance Shop, Lapis Siding, Canal Flume, and Scale House. The proposed project includes ground disturbance using mechanical equipment. Trenching and directional horizontal drilling for electrical conduit installation is proposed in an area through which the Lapis Siding extends. As currently proposed, development of the project would result in direct damage and/or removal of the Siding, causing a significant impact on an historic district contributor. There is adequate room in adjacent areas to complete all proposed construction activities and avoid direct impacts to the Siding and all other structures.

The proximity of additional contributing structures (the Lapis Siding and Canal Flume in particular) to proposed construction activities would leave them potentially vulnerable during project construction. Accidental contact with mechanized equipment could cause damage to the resources, resulting in a loss of historic integrity and an adverse effect to historic properties. Given the industrial nature of the property, construction activities would be generally consistent with the ongoing operations of the property, and would not be expected to substantially increase existing noise or vibration levels. The project is also not anticipated to have any visual effects to the historic district, as the proposed project components would largely be below ground.

In order to avoid and reduce impacts to historic properties during construction activities, Cultural Resource Mitigation Measure 4 should be incorporated to minimize impacts to historic resources.

Cultural Resource Mitigation Measure 4 (CR-4)

The project area shall be redesigned to avoid significant adverse effects to historic resources; in particular, direct impacts to the Lapis Siding that is identified as a contributor to the Lapis Sand Mining Plant Historic District shall be avoided. Because the Siding extends through the eastern portion of the construction footprint, the construction plans should be redesigned to locate all project components and construction activities in adjacent areas that do not contain structures associated with the Lapis Sand Mining Plant. Avoidance of impacts to historic district contributors in close proximity to construction activities shall be accomplished by installing flagging or safety fencing around, or covering with plywood, any adjacent buildings or structures that would be within 5 feet of mechanized equipment.

REFERENCES CITED

Armstrong, Jack

- 2014 Personal communication with Steven Treffers. April 7.

Bennyhoff, James A., and Richard E. Hughes

- 1987 *Shell Bead and Ornament Exchange Networks Between California and the Western Great Basin*. Anthropological Papers of the American Museum of Natural History Vol. 64, Pt. 2. American Museum of Natural History, New York.

Berner, Andrew D.

- 2008 Sand Mining on the Monterey Bay. Memorandum to Steve Zmak. Sierra Club, Ventana Chapter. July 18.

Burns, Kenneth L.

- 2014 Personal communication with Steven Treffers. April 2.

Breschini, Gary S., and Trudy Haversat

- 2004 *The Esselen Indians of the Big Sur Country*. Coyote Press, Salinas, California.

California State Mining Bureau

- 1916 *Report XV of the State Mineralogist*. California State Printing Office. Sacramento, California.
- 1925 *Report XXI of the State Mineralogist*. California State Printing Office. Sacramento, California.

City of Carmel-By-The-Sea

- 2014 History Sections. Carmel Chamber of Commerce. Electronic document, <http://www.carmelcalifornia.com/>. Accessed March 12, 2014.

City of Marina

- 2005 Marina's History. City of Marina. Available at <http://www.ci.marina.ca.us/documents/8/Marina%20History.PDF>. Accessed March 12, 2014.
- 2006 Marina General Plan. Marina.

Coast and Geodetic Survey

- 1910 Pacific Coast from Point Pinos to Bodega Head [map; 1:200,000]. Coast and Geodetic Survey, Washington D.C.

Dill, Tom

- 2003 *Southern Pacific's Scenic Coast Line: A Color Pictorial*. Four Way West Publications, La Mirada, California.

Division of Mines

- 1946 *California Mineral Production for 1946*. Bulletin 139. Division of Mines. San Francisco, California.
- 1948 *California Journal of Mines and Geology*. Volume 48. Division of Mines. San Francisco, California. 1948.

Gudde, Erwin G.

- 1998 *California Place Names: The Origin and Etymology of Current Geographical Names*. University of California Press, Berkeley.

Hathaway, Pat

- 2014 City of Marina, Monterey Co. California Views: The Pat Hathaway Photo Collection. Available at <http://caviews.com/Marina.html>. Accessed March 12, 2014.

Hart, Earl W.

- 1966 *Mines and Mineral Resource of Monterey, California*. County Report 5, California Division of Mines and Geology. Sacramento, California.

Hoover, Mildred B., Hero E. Rensch, Ethel G. Rensch, and William N. Abeloe

- 2002 *Historic Spots in California*. 5th ed. Revised by Douglas E. Kyle. Stanford University Press, Palo Alto, California.

Johnson, Paul C. (editor)

- 1979 *The California Missions, a Pictorial History*. Sunset Publishing Corporation, Menlo Park, California.

Jones, Terry L., Nathan E. Stevens, Deborah A. Jones, Richard T. Fitzgerald, and Mark G. Hylkema

- 2007 The Central Coast: A Midaltitude Milieu. In *California History: Colonization, Culture, and Complexity*, pp. 125-146.

Levy, Richard

- 1978 Costanoan. In *California*, edited by Robert F. Heizer, pp.485–495. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Margolin, Malcolm

- 1978 *The Ohlone Way: Indian Life in the San Francisco-Monterey Bay Area*. Heyday Books, San Francisco.

Milliken, Randall

- 1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769–1810*. Ballena Press Anthropological Papers, No. 43. Ballena Press, Menlo Park, California.

Mithun, Marianne

- 2001 *The Languages of Native North America*. Reprinted. Cambridge University Press, Cambridge, Massachusetts. Originally published 1999, Cambridge University Press, Cambridge, Massachusetts.

Seavey, Kent and the Heritage Society of Pacific Grove

2005 *Pacific Grove*. Arcadia Publishing, Charleston, South Carolina.

U.S. Geological Survey

1913 Monterey Quadrangle [map; 1:62,500]. United States Geological Survey, Washington D.C.

LIST OF PREPARERS AND QUALIFICATIONS

Shannon Carmack

Architectural Historian Shannon Carmack served as project manager and lead author on this report. Ms. Carmack meets the qualifications as an architectural historian and historian under the Secretary of the Interior's Professional Qualification Standards. Ms. Carmack has a B.A. in History from California State University, Long Beach and more than 14 years of professional experience as an architectural historian and historian, conducting historic resource surveys and evaluations in California, in compliance with NEPA and CEQA. This work includes various built environment assessments for numerous agencies to fulfill NEPA, NHPA Section 106, and CEQA requirements.

Steven Treffers

Architectural Historian Steven Treffers conducted the field survey, Section 106 consultation, and authored this report. Mr. Treffers meets the Secretary of the Interior's Professional Qualification Standards in Architectural History. Mr. Treffers has a Master of Historic Preservation from the University of Southern California and has completed over 4 years of work experience in historic preservation throughout the West. He has conducted field surveys and historic research, and prepared technical reports in compliance with NHPA Section 106, CEQA, and numerous local ordinances.

Leroy Laurie

Cultural Resources Specialist Leroy Laurie conducted the field survey. Mr. Laurie meets the qualifications as an archaeologist under the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61). Mr. Laurie has a B.S. in Social Sciences from California Polytechnic State University, San Luis Obispo and more than 12 years of professional experience in archaeology, conducting cultural resource surveys and evaluations in California, in compliance with NEPA, NHPA Section 106, and CEQA.

Appendix A

Records Search Results

CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM



ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE

HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO

SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
<http://www.sonoma.edu/nwic>

DATE: March 18, 2014

NWIC File No.: 13-1317

TO: Shannon Carmack

FROM: Charles Mikulik

Re: 26292 Marina Slant

Marina 7.5' Quad

Resources In	None.
Resources within .1-mile radius	P-27-002417
Reports In	S-003345, S-003704, S-005439, S-009552, S-012218
Reports within .1-mile radius	S-003427, S-014001, S-016462, s-017494, S-022657, S-023937, S-030832, S-031328, S-031346, S-032385, S-032920, S-036240, S-037725
Other Reports	Two (2) reports are classified as "Other Reports" (reports with little or no field work, missing maps, or inadequate locational information) that cover your search area: S-000848, S-015529. The report map does not depict a study area for this report because the shape is either not representable or would be shown at a very large scale (i.e., all of Monterey County). In addition, you have not been charged the digitized shape fee for the study area. The reference for this report is provided in a separate PDF, and should you decide you want a copy let us know.
OHP HPD	Marina and vicinity provided.
OHP ADOE	None.
California Inventory	Marina.
Local Inventories	None.
Historic Maps	None.
GLO or Rancho Maps	City Lands of Monterey Rancho Plats provided.

Northwest Information Center Report Listing

S-number	Year	Author(s)	Title	Affiliation
S-003345	1976	Tony F. Weber and Ann S. Peak	Monterey Peninsula Regional Wastewater Treatment System Expansion Project	Ann S. Peak & Associates
S-003427	1978	Katherine Flynn	Archaeological Reconnaissance of two parcels in Marina, California: (A) Drive-In Theatre, Cardoza Avenue, Abdy Way, near Beach Road; (B) Sand Hill Nursery, Beach Road near Cardoza (ARS 78-25 & 26) (letter report)	Archaeological Resource Service
S-003704	1981	Ann S. Peak & Associates	Backhoe Testing of Point A, Monterey Regional Wastewater Treatment System Outfall, Monterey County, California	Ann S. peak & Associates
S-005439	1978	Ann S. Peak and Associates	Cultural Resource Assessment of the Selected Alternative of the Monterey Regional Wastewater Treatment System, Monterey County, California.	Ann S. Peak and Associates
S-009552	1987	Peak and Associates	Cultural Resource Assessment of the Marina County Water District's Wastewater Facilities, Monterey County, California	Peak and Associates
S-012218	1990	Mark Hylkema and Robert I. Orlins	Archaeological Assessment for the RMC Lonestar Lapis Sand Plant Reclamation Project, Marina, Monterey County, California	
S-014001	1992	Anna Runnings and Gary S. Breschini	Preliminary Cultural Resources Reconnaissance for the MPWMD Desalinization Pipeline, Monterey County, California	Archaeological Consulting
S-016462	1994	Jones & Stokes Associates, Inc.	Addendum 2 to the Archaeological Reconnaissance of the Salinas Valley Seawater Intrusion Project	Jones & Stokes Associates, Inc.
S-017494	1983	Stephen A. Dietz	Archaeological Reconnaissance, Gullwing Properties (letter report)	Archaeological Consulting and Research Services, Inc.
S-022657	2000	Izaak Sawyer, Laurie Pfeiffer, Karen Rasmussen, and Judy Berryman	Archaeological Survey Along Onshore Portions of the Global West Fiber Optic Cable Project	Science Applications International Corporation
S-023937	2001	Kelda Wilson	Proposed Construction of Bike Lane and Sidewalks on Reservation Road from State Route 1 to Marina State Beach, 05-MNT-CU05-168	Caltrans
S-030832	2005	Mary Doane and Gary S. Breschini	Preliminary Archaeological Archival Research for the Marina Station Project, in Marina, Monterey County, California.	Archaeological Consulting
S-031328	2006	Mary Doane	AC 3791 Marina Station Project (letter report)	Archaeological Consulting
S-031346	2006	Mary Doane and Gary S. Breschini	Preliminary Archaeological Reconnaissance for the Marina Station Project, in Marina, Monterey County, California.	Archaeological Consulting
S-032385	2006	Mary Doane and Trudy Haversat	Phase I Archaeological Reconnaissance for the Marina Coast Water District Regional Urban Water Augmentation Project, Recycled Water Component, Northern Segment, in Marina and Seaside, Monterey County, California	Archaeological Consulting
S-032920	2006	Gary S. Breschini	AC 3791, Marina Station, Cultural Resource P-27-2417 (CA-MNT-2080H) (letter report)	Archaeological Consulting
S-036240	2009	Kari Jones and John Holson	Archaeological Survey for the Cal-Am Coastal Water Project, Monterey County, California	Pacific Legacy, Inc.
S-037725	2010	Allika Ruby	Archaeological Survey Report for the Monterey Light Rail Transit Project	Far Western Anthropological Research Services, Inc.

Northwest Information Center Report Listing

S-number	Year	Author(s)	Title	Affiliation
S-000848	1977	David A. Fredrickson	A Summary of Knowledge of the Central and Northern California Coastal Zone and Offshore Areas, Vol. III, Socioeconomic Conditions, Chapter 7: Historical & Archaeological Resources	The Anthropology Laboratory, Sonoma State College
S-015529	1993	Robert L. Gearhart II, Clell L. Bond, Steven D. Hoyt, James H. Cleland, James Anderson, Pandora Snethcamp, Gary Wesson, Jack Neville, Kim Marcus, Andrew York, and Jerry Wilson	California, Oregon, and Washington: Archaeological Resource Study	Espey, Huston & Associates, Inc.; Dames & Moore

Northwest Information Center Resource Listing

Primary No.	HRI No.	Trinomial	Name	Other IDs	Reports (S-)
P-27-002417		CA-MNT-2080H	AR-3	"Old Railroad Grade" (USGS Marina quad., 1947, 1983)	30832, 31328, 31346, 32920, 34216, 36240

Appendix B

NAHC Sacred Lands File Results and Native American Contact Program

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471



March 13, 2014

Steven Treffers
SWCA Environmental Consultants
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030

Sent by Fax: 626 240-0607

Number of Pages: 3

Re: California American Water Temporary Siant Test Well Project, Marina, (SWCA Project No. 26292) Monterey County.

Dear Mr. Treffers,

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3712.

Sincerely,

A handwritten signature in cursive script that reads "Katy Sanchez".

Katy Sanchez
Associate Government Program Analyst

**Native American Contacts
Monterey County
March 13, 2014**

Jakki Kehl
720 North 2nd Street
Patterson, CA 95363
(209) 892-1060
Ohlone/Costanoan

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irene Zwielerlein, Chairperson
789 Canada Road
Woodside, CA 94062
amahmutsuntribal@gmail.com
650-400-4806 cell
650-332-1526 - Fax
Ohlone/Costanoan

Coastanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
240 E, 1st Street
Pomona, CA 91766
rumsen@aol.com
(909) 524-8041 Cell
909-629-6081
Ohlone/Costanoan

Ohlone/Coastanoan-Esselen Nation
Christianne Arias, Vice Chairperson
PO Box 552
Soledad, CA 93960
831-235-4590
Esselen
Ohlone/Costanoan

Ohlone/Coastanoan-Esselen Nation
Louise Miranda-Ramirez, Chairperson
PO Box 1301
Monterey, CA 93942
ramirez.louise@yahoo.com
408-629-5189
408-205-7579 - cell
Esselen
Ohlone/Costanoan

Amah Mutsun Tribal Band
Edward Ketchum
35867 Yosemite Ave
Davis, CA 95616
aerieways@aol.com
Ohlone/Costanoan
Northern Valley Yokuts

Trina Marine Ruano Family
Ramona Garibay, Representative
30940 Watkins Street
Union City, CA 94587
510-972-0645-home
soaprootmc@comcast.net
Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

Ohlone/Coastanoan-Esselen Nation
Pauline Martinez-Arias, Tribal Council woman
1116 Merlot Way
Gonzales, CA 93926
maklici0-us@gmail
831-596-9897
Esselen
Ohlone/Costanoan

Amah Mutsun Tribal Band
Valentin Lopez, Chairperson
PO Box 5272
Galt, CA 95632
vlopez@amahmutsun.org
916-743-5833
Ohlone/Costanoan

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA 95024
ams@indiancanyon.org
831-637-4238
Ohlone/Costanoan

This list is current only as of the date of this document.

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

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed California American Water Temporary Slant Test Well Project, (SWCA Project No. 26292), Monterey County.

**Native American Contacts
Monterey County
March 13, 2014**

Linda G. Yamane
1585 Mira Mar Ave. Ohlone/Costanoan
Seaside, CA 93955
rumsien123@yahoo.com
831-394-5915

Amah Mutsun Tribal Band of Mission San Juan Bautista
Michelle Zimmer
789 Canada Road Ohlone/Costanoan
Woodside, CA 94062
amahmutsuntribal@gmail.com
(650) 851-7747 - Home
650-332-1526 - Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed California American Water Temporary Slant Test Well Project, (SWCA Project No. 26292), Monterey County.

March 12, 2014

Christianne Arias, Vice Chairperson
Ohlone/Coastanoan-Esselen Nation
P.O. Box 552
Soledad, CA 93960

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Ms. Arias:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,



Steven Treffers, Architectural Historian

Enclosures: project location map



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.

Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 12, 2014

Tony Cerda, Chairperson
Coastanoan Rumsen Carmel Tribe
240 E. 1st Street
Pomona, CA 91766

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Mr. Cerda:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Treffers".

Steven Treffers, Architectural Historian

Enclosures: project location map



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.

Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 12, 2014

Ramona Garibay, Representative
Trina Marine Ruano Family
30940 Watkins Street
Union City, CA 94587

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Ms. Garibay:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Treffers".

Steven Treffers, Architectural Historian

Enclosures: project location map



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.

Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 12, 2014

Jakki Kehl
720 North 2nd Street
Patterson, CA 95363

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Ms. Kehl:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Treffers".

Steven Treffers, Architectural Historian

Enclosures: project location map

March 12, 2014

Edward Ketchum
Amah Mutsun Tribal Band
35867 Yosemite Avenue
Davis, CA 95616

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Mr. Ketchum:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,



Steven Treffers, Architectural Historian

Enclosures: project location map



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.

Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 12, 2014

Valentin Lopez, Chairperson
Amah Mutsun Tribal Band
P.O. Box 5272
Galt, CA 95632

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Mr. Lopez:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Treffers".

Steven Treffers, Architectural Historian

Enclosures: project location map



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.

Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 12, 2014

Pauline Martinez-Arias, Tribal Councilwoman
Ohlone/Coastanoan-Esselen Nation
1116 Merlot Way
Gonzales, CA 93926

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Ms. Martinez-Arias:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Treffers".

Steven Treffers, Architectural Historian

Enclosures: project location map



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.

Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 12, 2014

Louise Miranda-Ramirez, Chairperson
Ohlone/Coastanoan-Esselen Nation
P.O. Box 1301
Monterey, CA 93942

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Ms. Miranda-Ramirez:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Treffers".

Steven Treffers, Architectural Historian

Enclosures: project location map

March 12, 2014

Anne Marie Sayers, Chairperson
Indian Canyon Mutsun Band of Coastanoan
P.O. Box 28
Hollister, CA 95024

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Ms. Sayers:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,



Steven Treffers, Architectural Historian

Enclosures: project location map

March 12, 2014

Linda G. Yamane
1585 Mira Mar Ave
Seaside, CA 93955

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Ms. Yamane:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,



Steven Treffers, Architectural Historian

Enclosures: project location map



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.

Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 12, 2014

Michelle Zimmer
Amah Mutsun Tribal Band of Mission San Juan Bautista
789 Canada Road
Woodside, CA 94062

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Ms. Zimmer:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Treffers".

Steven Treffers, Architectural Historian

Enclosures: project location map



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.

Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 12, 2014

Irene Zwierlein, Chairperson
Amah Mutsun Tribal Band of Mission San Juan Bautista
789 Canada Road
Woodside, CA 94062

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Ms. Zwierlein:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The project proposed involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for an estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

As part of the process of identifying cultural resources issues associated with development of this project, SWCA contacted the California Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The NAHC SLF search failed to identify Native American cultural resources within the immediate vicinity of the proposed project area, and recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of any cultural resources that may exist within or near the proposed project area, please contact me via telephone at (626) 240-0587 Ext. 6610; or via email at streffers@swca.com; or in writing at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Treffers".

Steven Treffers, Architectural Historian

Enclosures: project location map

Ohlone/Costanoan-Esselen Nation



*Previously acknowledged as
The San Carlos Band of
Mission Indians
The Monterey Band
And also known as
O.C.E.N. or Esselen Nation
P.O. Box 1301
Monterey, CA 93942*

www.ohlonecostanoanesselelnation.org

March 26, 2014

Steven Treffers,
Architectural Historian
SWCA
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105

Re: Proposed Slant Test Wall Project in the Marina Coastal Dunes, Monterey County, California

Saleki Atsa,

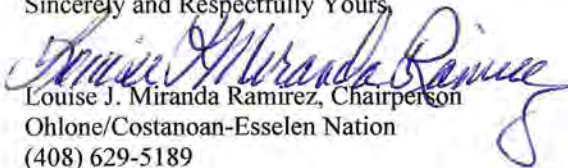
Ohlone/Costanoan-Esselen Nation is the legal tribal government representative for over 600 enrolled members of Esselen, Carmeleno, Monterey Band, Rumsen, Chalon, San Carlos Mission and/or Costanoan Mission Indian descent. Though other indigenous people may have lived in the area, the area is the indigenous homeland of our people. Included with this letter please find a territorial map by Taylor 1856; Levy 1973; and Milliken 1990, indentifying Tribal areas. At this time are unable to provide you with cultural resource information but ask that OCEN be contacted upon any findings on this project.

Ohlone/Costanoan-Esselen Nation objects to all excavation in known cultural lands, even when they are described as previously disturbed, and of no significant archaeological value. Please be advised that it is our first priority that our ancestor's remains be protected and undisturbed. We desire that all cultural and sacred items be left with our ancestors on site or where they are discovered. We ask for the respect that is afforded all of our current day deceased, by no other word these burial sites are cemeteries, respect for our ancestors as you would expect respect for your deceased family members in today's cemeteries. **Our definition of respect is no disturbance.**

Aware that despite our objection, disturbance continues, therefore: We request that Ohlone/Costanoan-Esselen Nation be consulted as to any planned projects that might adversely impact known or predicted cultural resources and sacred sites within our aboriginal territory. Furthermore, the Tribal leadership desires to be contacted with: 1) surveys, 2) subsurface testing, 3) presence/absence testing, 4) mitigation and recovery programs, 5) reburial of any of our ancestral remains, 6) placement of all cultural items, and 7) that a Native American Monitor of Ohlone/Costanoan-Esselen Nation, approved by the OCEN Tribal Council be used within our aboriginal territory.

We look forward to hearing more information about this project; please feel free to contact me at (408) 629-5189. Nimasianexelpasaleki. Thank you for your attention to this matter.

Sincerely and Respectfully Yours,


Louise J. Miranda Ramirez, Chairperson
Ohlone/Costanoan-Esselen Nation
(408) 629-5189

Cc: OCEN Tribal Council

Distribution of Ohlone/Costanoan-Esselen Nation Tribal Rancherías, Districts, Landgrants and Historic Landmarks

OCEN DIRECT LINEAL DESCENT

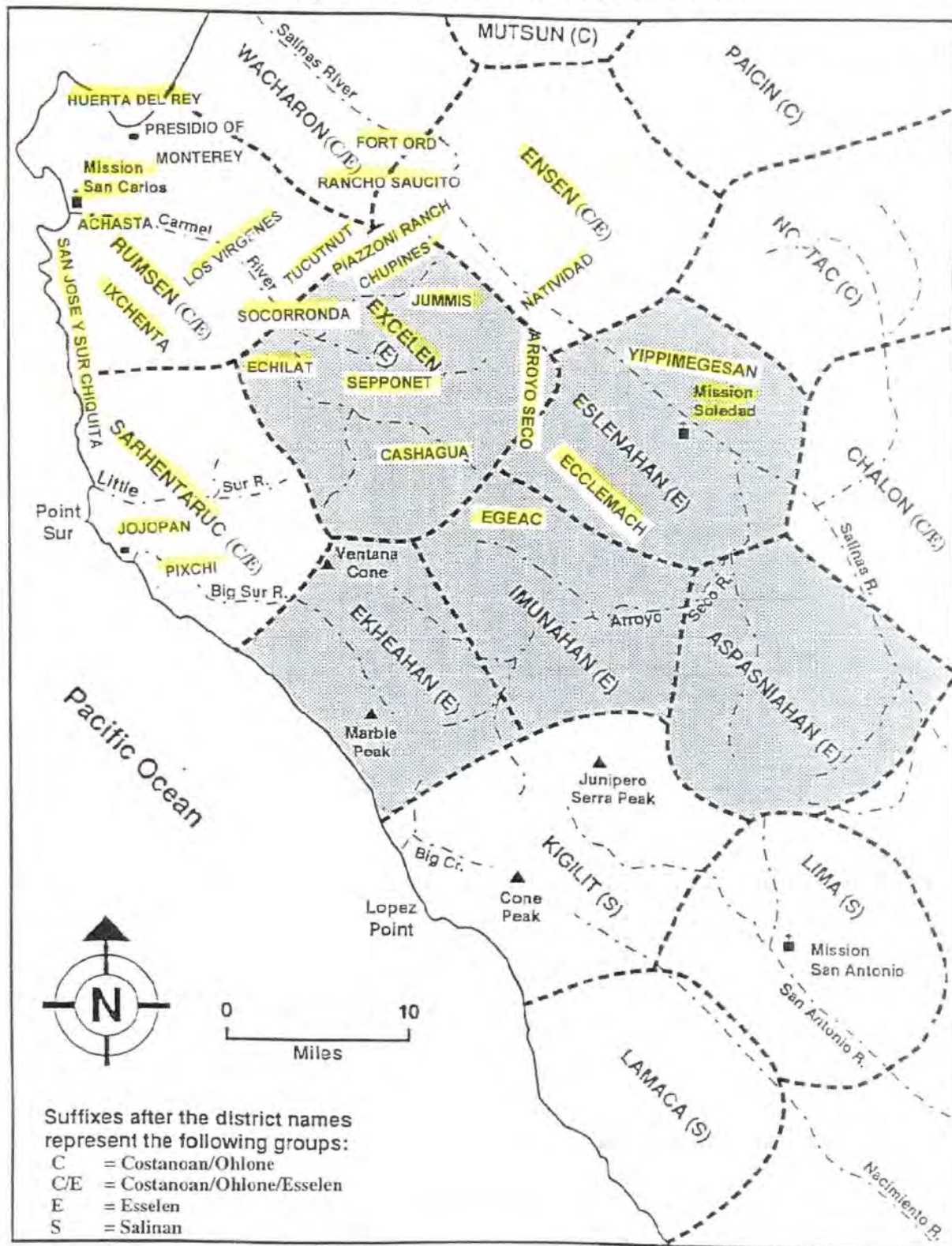


Figure 2:

Map after Taylor 1856; Levy 1973; Hester 1978; Milliken 1990

Appendix C

Local Historic Group/Local Government Contact Program



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.

Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 12, 2014

Sam Shields, Branch Librarian
Marina Branch Library
190 Seaside Circle
Marina, CA 93933

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

Dear Mr. Shields:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The proposed project involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

The purpose of this letter is to request your input on potential and/or known designated significant cultural resources in or near the project area. We take the work of protecting cultural resources very seriously, and are making every effort to identify the existence of potential historic properties or historical resources prior to completion of environmental documentation. We are also reviewing all previously identified cultural resources, including the Historic Property Data File for Monterey County and the records maintained at the Northwest Information Center (CCIC).

If you have any knowledge of cultural resources that may exist in or near the project area, please contact me in writing at the above address or (626) 240-0587, streffers@swca.com. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Treffers". The signature is fluid and cursive.

Steven Treffers, Architectural Historian

Enclosures: project location map



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.

Pasadena Office
150 S. Arroyo Parkway, 2nd Floor
Pasadena, CA 91105
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

March 12, 2014

Boronda Adobe History Center
Monterey County Historical Society
333 Boronda Road
Salinas, CA 93907

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

To Whom It May Concern:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The proposed project involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

The purpose of this letter is to request your input on potential and/or known designated significant cultural resources in or near the project area. We take the work of protecting cultural resources very seriously, and are making every effort to identify the existence of potential historic properties or historical resources prior to completion of environmental documentation. We are also reviewing all previously identified cultural resources, including the Historic Property Data File for Monterey County and the records maintained at the Northwest Information Center (CCIC).

If you have any knowledge of cultural resources that may exist in or near the project area, please contact me in writing at the above address or (626) 240-0587, streffers@swca.com. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Treffers".

Steven Treffers, Architectural Historian

Enclosures: project location map

March 12, 2014

Monterey Salinas Valley Railroad Historical Society
26 Station Place
Salinas, CA 93901

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

To Whom It May Concern:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The proposed project involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

The purpose of this letter is to request your input on potential and/or known designated significant cultural resources in or near the project area. We take the work of protecting cultural resources very seriously, and are making every effort to identify the existence of potential historic properties or historical resources prior to completion of environmental documentation. We are also reviewing all previously identified cultural resources, including the Historic Property Data File for Monterey County and the records maintained at the Northwest Information Center (CCIC).

If you have any knowledge of cultural resources that may exist in or near the project area, please contact me in writing at the above address or (626) 240-0587, streffers@swca.com. Thank you for your assistance.

Sincerely,



Steven Treffers, Architectural Historian

Enclosures: project location map

March 12, 2014

Monterey County RMA
Department of Building Services, Department of Planning
168 W. Alisal St., 2nd Floor
Salinas, CA 93901

Sent Via U.S. Mail

**RE: Cultural Resources Assessment for a Proposed Slant Test Well Project in the Marina Coastal Dunes,
Monterey County, California**

To Whom It May Concern:

SWCA Environmental Consultants (SWCA) has been retained by the City of Marina to conduct a cultural resources study for the proposed California American Water (Cal Am) Temporary Slant Test Well Project in Marina, Monterey County, California (see attached map). SWCA will conduct cultural resources studies in accordance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

The proposed project involves the development of a temporary slant test well, which would extend from the coastal dune area diagonally under the floor of the Pacific Ocean through the Dunes Sand Aquifer and 180-Foot Aquifer. The slant test well would operate for estimated two year lifespan to provide field data concerning the geologic, hydrogeologic, and water quality characteristics of the Dunes Sand formation and 180-Foot Aquifer. The data obtained would be used in the design and planning of a potential subsurface intake system and desalination plant to serve as the primary future water supply source for the Monterey Peninsula. Additional project components include development of two adjacent monitoring wells and electrical and discharge connections.

The purpose of this letter is to request your input on potential and/or known designated significant cultural resources in or near the project area. We take the work of protecting cultural resources very seriously, and are making every effort to identify the existence of potential historic properties or historical resources prior to completion of environmental documentation. We are also reviewing all previously identified cultural resources, including the Historic Property Data File for Monterey County and the records maintained at the Northwest Information Center (CCIC).

If you have any knowledge of cultural resources that may exist in or near the project area, please contact me in writing at the above address or (626) 240-0587, streffers@swca.com. Thank you for your assistance.

Sincerely,



Steven Treffers, Architectural Historian

Enclosures: project location map

Appendix D

State of California Department of Parks and Recreation Series 523 Forms

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
 HRI #
 Trinomial
 NRHP Status Code 3D

Other Listings
 Review Code

Reviewer

Date

Page 1 of 17

*Resource Name or #: Lapis Sand Mining Plant

P1. Other Identifier: CEMEX Lapis Sand Plant; RMC Lonestar; Pacific Cement and Aggregates; Pacific Coast Aggregates; Bay Development Company; and E.B. and A.L Stone

*P2. Location: Not for Publication Unrestricted

*a. County: Monterey

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

- *b. USGS 7.5' Quad: Marina, CA Date: 1947 (PR 1983) T 14 South; R 2 East; ¼ of ¼ of Sec ; M.D. B.M.
 - c. Address: Lapis Road City: Marina Zip: 93933
 - d. UTM: Zone: 10 S; 607098 mE/ 4063698 mN (G.P.S.)
 - e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:
- APN #203011019000

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Located in the City of Marina along the Monterey Bay, the subject property is the Lapis Sand Mining Plant. It is currently operated by CEMEX, a building materials supplier. The subject property was initially developed in 1906 by E.B. and A.L. Stone has functioned as a sand plant under the operation of various companies since this time. The approximately 50-acre property is located in an area characterized by extensive sand dunes and is roughly bordered by the Pacific Ocean to the west, California State Route 1 to the east, and undeveloped land to the north and south. The built environment resources within the subject property are generally utilitarian and representative of the various developmental periods of the larger facility. These include residential, commercial, and industrial buildings and structures dating from the establishment of the sand plant in 1906 and extend to subsequent expansion efforts through 1960. Reflective of the industrial landscape are various settling ponds and a dredging pond, which includes a dredging boat and crane that floats atop the surface. Various sand and paved roads traverse portions of the subject property, which is accessed via Lapis Road from the east. The subject property remains in overall good condition and continues to convey its historical and current function as a sand mining plant.

***P3b. Resource Attributes:** (List attributes and codes) HP43. Mine structure/ building; HP2. Single family property; HP8. Industrial building; HP20. Canal/ aqueduct

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) Overview (Source: GoogleEarth 2014)

***P6. Date Constructed/Age and Sources:** Historic Prehistoric Both
 Ca. 1906; 1910s; 1920s; 1950s; 1960s (Hart 1966; personal communication with Kenneth L. Burns)

***P7. Owner and Address:**
 CEMEX
 920 Memorial City Way, Ste 100
 Houston, TX 77024

***P8. Recorded by:** (Name, affiliation, and address)
 Steven Treffers
 SWCA Environmental Consultants
 150 S Arroyo Pkwy, 2nd Flr
 Pasadena, CA 91105

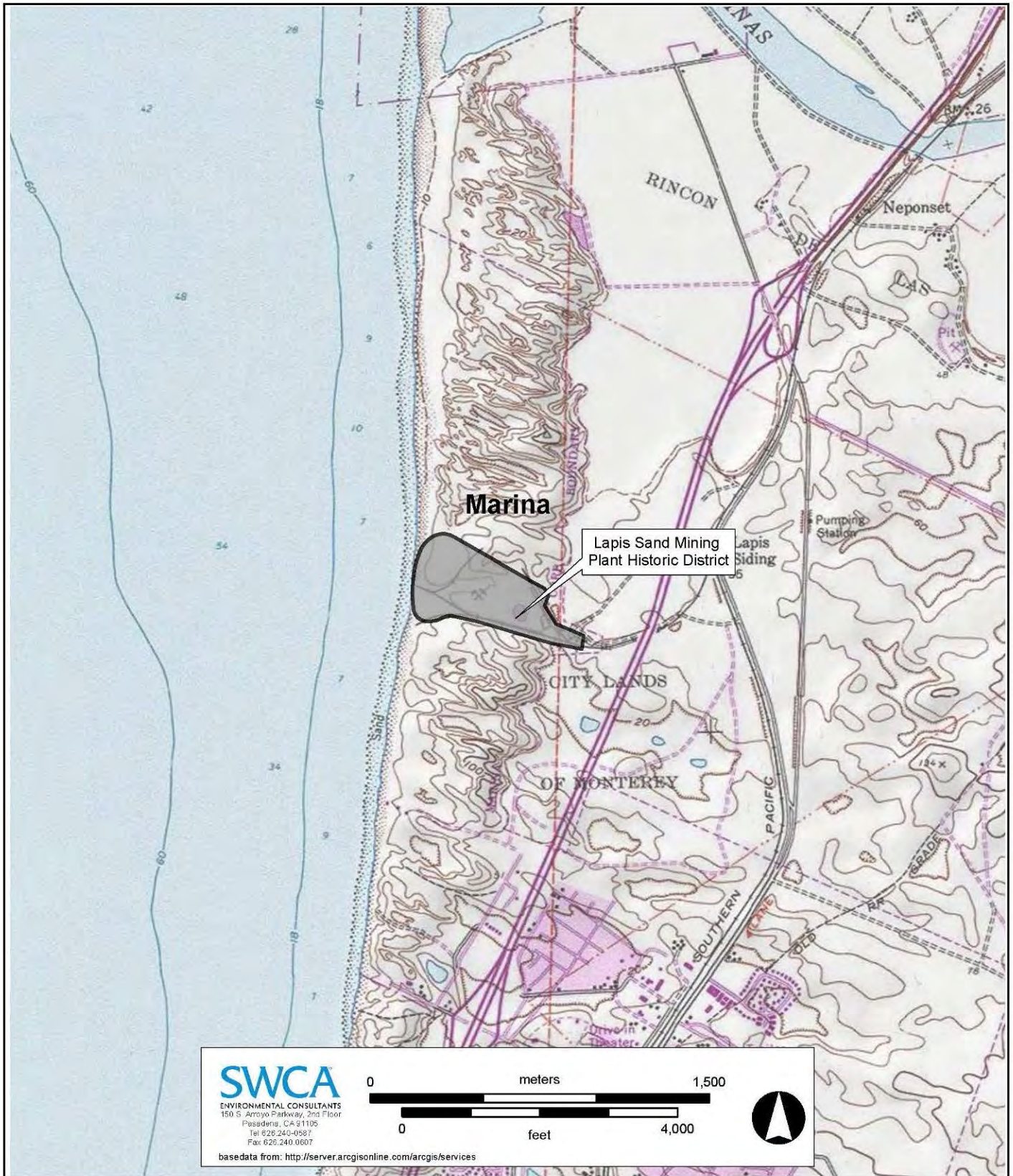
***P9. Date Recorded:** 03/ 04/ 2014

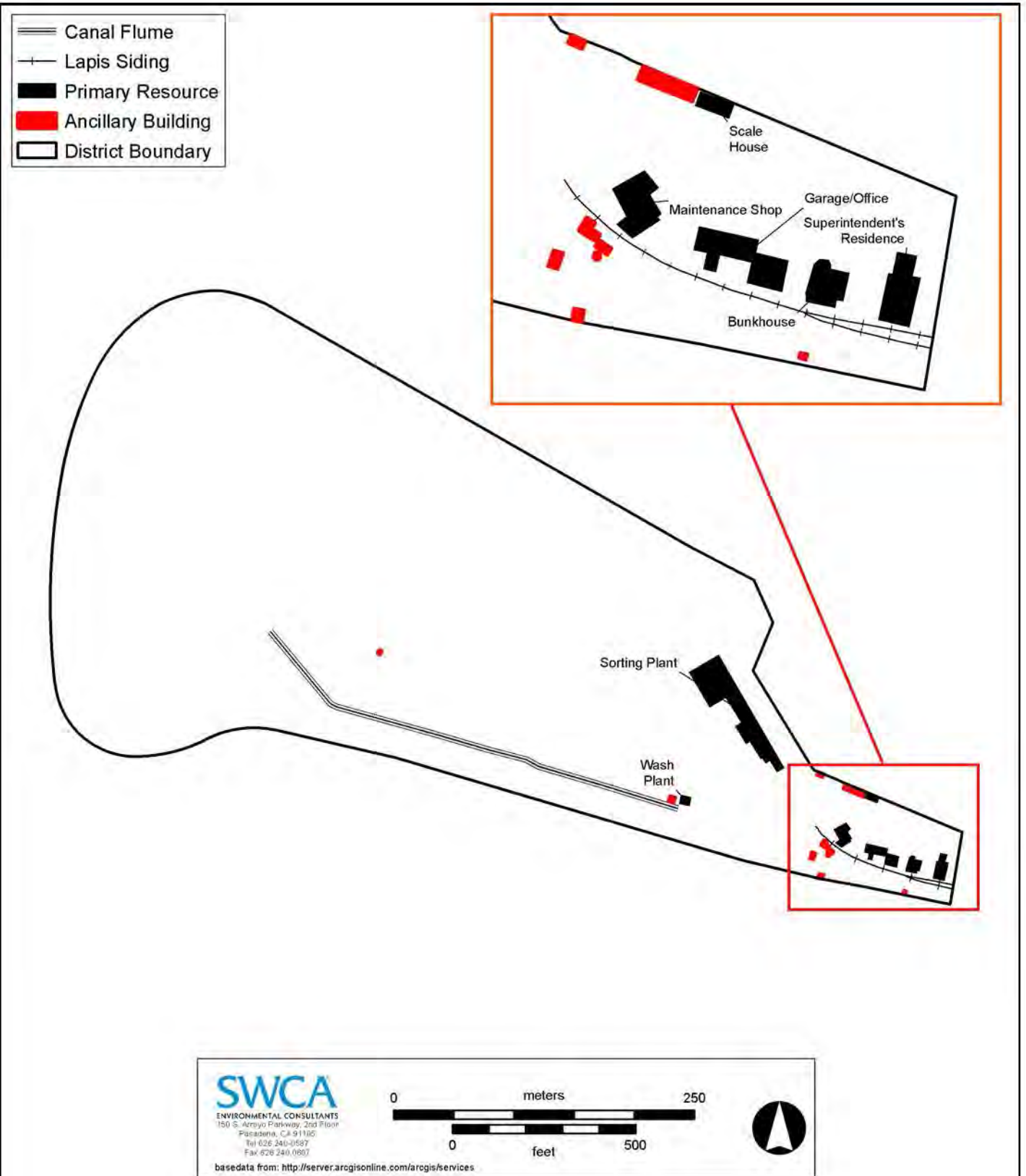
***P10. Survey Type:** (Describe)
 Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")

Cultural Resources Survey Report for the California American Water Temporary Slant Project, City of Marina, Monterey County, California (SWCA Environmental Consultants, Pasadena, 2014).

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):





NOTE: Include bar scale and north arrow.

*Resource Name or # (Assigned by recorder): Lapis Sand Mining Plant

D1. Historic Name: Lapis Sand Mining Plant

D2. Common Name: Lapis Sand Mining Plant

***D3. Detailed Description** (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.): The Lapis Sand Mining Plant is located along the Monterey Bay in the City of Marina and encompasses a sand mining facility that has operated continually since being developed in 1906. The rectangular-shaped district is situated in a sand dune system and is bordered by the Pacific Ocean to the west, sand dunes to the north and south, and agricultural and undeveloped land to the east. The property consists of a number of industrial, commercial, and residential resources that contribute to its historical significance as a remote sand mining plant, including: the Sorting Plant, Washing Plant, Canal Flume, Lapis Siding, Superintendent's Residence, Bunkhouse, Garage/ Office, Maintenance Shop, and the Scale House and Office. There are a number of small ancillary buildings spread throughout the property that are associated with the above-mentioned resources. In addition there are a number of settling ponds and a dredging pond that were initially developed as part of the modernization of the facility in 1959-60. The geographic boundaries and location of these features have frequently shifted since their initial development. According to historic photographs, the current dredging boat and crane that floats atop the dredging pond was put into operation sometime after 1966. The isolated district is accessed via a private road off of Lapis Road to the east.

***D4. Boundary Description** (Describe limits of district and attach map showing boundary and district elements.):

The eastern boundary of the historic district runs north from its southeastern terminus along the eastern side of the Superintendent's Residence before turning to the northwest to include the Scale House and Office, and the Sorting Plant. The boundary then heads along a northwestern course to a point just east of the Pacific Ocean. From this point, the boundary runs south and then southeast back to the southeastern terminus to include the Canal Flume, associated ancillary buildings, and Lapis Siding (see Location Map).

***D5. Boundary Justification:**

The boundary of the Lapis Sand Mining Plant historic district is defined by the property's historic built environment elements, setting and property lines. The eastern boundary corresponds with the property's historic property line and is clearly defined by the location of the Plant Superintendent's Residence. The northern, western, and southern boundaries are delineated to include the property's historic operations and resources that contribute to the property's historical significance.

***D6. Significance: Theme:** Sand Mining

Area: Monterey Bay

Period of Significance: 1906-1960

Applicable Criteria: 1/ 3

(Discuss district's importance in terms of its

historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.)

The Lapis Sand Mining Plant was established in 1906 by the E.B. and A.L. Stone Company. The Oakland, California based construction firm believed the sand from the surrounding dunes to be ideal for concrete production and needed a steady supply of the building material in the aftermath of the 1906 San Francisco earthquake and subsequent fires (Armstrong 2014). The Stone Company purchased the land from John A. Armstrong, an early settler and rancher who sold the company 400 acres at \$2/ acre with the stipulation that a fence was built to keep his cattle out of the sand dunes (Armstrong 2014). Initial development of the plant included the construction of a small superintendent's residence and the Lapis Siding, a rail line which connected to the Southern Pacific (SP) Monterey Branch (Burns 2014). Using a locomotive crane, sand was scooped by dragline or crane directly into railroad cars and shipped to the San Francisco Bay Area with little or no processing (Hart 1966:88).

(See Continuation Sheets, pages 5 and 6)

***D7. References** (Give full citations including the names and addresses of any informants, where possible.):

(See Continuation Sheet, page 6)

***D8. Evaluator:** Steven Treffers

Date: April 10, 2014

Affiliation and Address: SWCA Environmental Consultants, 150 S Arroyo Pkwy, 2nd Flr, Pasadena, CA 91105

*Recorded by: Steven Treffers

*Date: 03/ 04/ 2014 Continuation Update

***D6. Significance:**

Sand mining has a long history in areas throughout the United States. While the practice along northern California coast dates to at least 1865, it didn't begin in earnest in the southern Monterey Bay until 1889 with the completion of the SP Monterey Branch. The earliest operation appears to be related to the later-named Del Monte Sand Plant, which was located in Asilomar and exported sand largely for use in bottle glass production (Seavey and the Heritage Society of Pacific Grove 2005:101). The Lapis Sand Mining Plant however appears to be the first large-scale endeavor to produce sand for use as a building material. Historic maps from 1910 and 1913 indicate the Lapis Siding was the only rail siding connected to Southern Pacific's Monterey Line by this time (Coast and Geodetic Survey 1910; USGS 1913). According to the California State Mineralogist's annual report, the Lapis Plant remained the only building material-specific sand mine in Monterey County until 1916, by which time the Stone Company was outputting nearly 1000 to 1200 tons of sand per day (California State Mining Bureau 1916:615). Contributing to this increased productivity was a larger, permanent on-site staff, which was housed in a new bunkhouse that was constructed during the 1910s (Burns 2014).

This staff had reached a total of 8 men when the Bay Development Company took over operations in 1918. Based out of San Francisco, the company expanded the facility over the following decade through the construction of a larger plant superintendent's residence and possibly a garage addition to the old residence (Burns 2014). Other improvements to the property included the development of wells and the installation of a stationary hoist. Although the sand continued to be transported directly into railroad cars, the Bay Development Company began to obtain sand from the beach in addition to the dunes and therefore diversify their output. The coarser dune sand continued to be used primarily in building and construction work for concrete and mortar, while the finer sand from the beach working resulted in a new product that was well suited for sand blasting, marble cutting, and as locomotive sand (California State Mining Bureau 1925:55).

In 1929, the recently-formed Pacific Coast Aggregates assumed operation of the Lapis Sand Mining Plant. The recently formed company made no significant changes to the property over the following decade, and production at the plant appears to have held steady through the Great Depression. Production soon increased with the onset of World War II, with much of the sand exported to northern California foundries for use as a core material for heavy gray iron castings (Division of Mines 1948:45). As a result of the war effort and the prosperous years that followed, a number of new sand mining operations opened along the Monterey Bay Coast and were soon in direct competition with Pacific Coast Aggregates; including, the Granite Construction Company in Sand City, the Monterey Sand Company in Marina, the Seaside Sand and Gravel Company in Marina, and the Owens-Illinois Company in Moss Beach (Hart 1966). While the Lapis Sand Mining Plant continued to produce sand much as it had since 1906, many of these new operations developed modern facilities that allowed for the efficient washing, sorting, and packaging of sand.

Pacific Coast Aggregates reorganized as Pacific Cement and Aggregates in 1958 and quickly set to modernizing its facilities to provide for increased production. Settling ponds and a dredging pond were easily developed because of the abundant ground water and allowed the company to access coarser sand for older deposits beneath the dunes. To wash and classify the sand, a Dorr Oliver "Jet Sizer" was installed in 1959. Commonly known as the washing plant, dredged sand was pumped to the structure from a dredging boat and crane and hydraulically sorted into 8 size ranges (Hart 1966:89). A canal flume was constructed in support of the washing plant to direct wastewater to settling ponds in the west. In 1960, a large sorting plant was constructed to the north of the washing plant. This large structure was similar to those constructed at surrounding sand mining plants and allowed the company to not only further sort sand, but also dry it and blend it to a customer's specifications (Hart 1966:90).

Over the following decade, new technology drove sand to become one of the most important mineral commodity groups in Monterey County. From 1901 through 1964, recorded production totals were close to \$50,000,000, with the value of sand of gravel in the two decades after 1945 exceeding one million dollars annually (Hart 1966:84). At the peak of the industry, there appear to have been six major sand mining plants (including the Lapis Sand Mining Plant) operating along the coast in Monterey County. Sand mining operated unregulated until 1968 when the State Lands Commission issued and began to manage leases of the coastal land. Because of ongoing erosion, additional regulations were put into effect in 1974 by the U.S. Army Corps of Engineers further restricting mining activities along the coast (Berner 2008). As sand mining leases expired over the following decade, nearly all of the sand mining plants were forced to shut down operations by the late 1980s. The buildings and structures of these facilities were subsequently demolished in response to community concerns regarding safety and viewsheds. The Lapis Sand Mining Plant changed ownership to RMC Lonestar in the 1970s and eventually to CEMEX in 2005, and remains as the last extant facility of a once prevalent industry the Monterey Bay.

(See Continuation Sheet, page 6)

*Recorded by: Steven Treffers

*Date: 03/ 04/ 2014 Continuation Update

***D6. Significance:**

The Lapis Sand Mining Plant represents one of the earliest and largest sand mining operations in the southern Monterey Bay. The property consists of a variety of industrial, commercial, and residential resources that characterize the establishment and growth of both the facility and the sand mining industry in California as a whole.

All of these functionally-related resources collectively contribute to the significance of the property; and result in a historic district that appears eligible for listing in the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR) under Criteria A/ 1 for its associations with the events that have made a significant contribution to the broad patters of local and regional history of California. Further, the physical design of the property and the resources it encompasses are specific to its function as a sand mining facility. This distinct and identifiable entity has continually developed throughout the district's period of significance, which begins in 1906 with the establishment of the facility and ends with the completion of modernization efforts in 1960. The alterations and additions to the larger property and the resources it encompasses experienced during this period are representative of the ongoing growth of the sand mining industry through the post-World War II era. The Lapis Sand Mining Plant therefore retains integrity, and as a rare intact example of a continuously operating coastal sand mining plant property in California, it also appears eligible for listing in the CRHR under Criteria C/ 3 for its embodiment of the distinctive characteristics of a type, period, and region of construction. The property as a whole retains a high degree of integrity of design, materials, association, location, feeling, workmanship, and setting to accurately convey the period of significance. Because the built environment resources located within the district are not associated with the productive lives of members of the Armstrong facility or any other notable individuals, the subject property does not appear eligible for listing in the NRHP or CRHR under Criteria B/ 2. Further, no evidence was identified that suggests the built environment resources have the potential to yield information and the property does not appear eligible for listing in the NRHP or CRHR under Criteria D/ 4.

***D7. References:**

- Armstrong, Jack. Personal communication with Steven Treffers. April 7, 2014.
- Berner, Andrew D. Sand Mining on the Monterey Bay. Memorandum to Steve Zmak. Sierra Club, Ventana Chapter. July 18, 2008.
- Burns, Kenneth L. Personal communication with Steven Treffers. April 2, 2014.
- California State Mining Bureau. *Report XV of the State Mineralogist*. California State Printing Office. Sacramento, California. 1916.
- California State Mining Bureau. *Report XXI of the State Mineralogist*. California State Printing Office. Sacramento, California. 1925.
- Coast and Geodetic Survey. Pacific Coast from Point Pinos to Bodega Head [map: 1:200,000]. Coast and Geodetic Survey, Washington D.C. 1910
- Division of Mines. *California Journal of Mines and Geology*. Volume 48. Division of Mines. San Francisco, California. 1948.
- Hart, Earl W. *Mines and Mineral Resource of Monterey, California*. County Report 5, California Division of Mines and Geology. Sacramento, California. 1966.
- Seavey, Kent and the Heritage Society of Pacific Grove. *Pacific Grove* Arcadia Publishing, Charleston, South Carolina. 2005.
- USGS. Monterey Quadrangle [map; 1:62,500]. United States Geological Survey, Washington D.C. 1913.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D

Other Listings
Review Code

Reviewer

Date

Page 7 of 17

*Resource Name or #: Sorting Plant

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted

*a. County: Monterey

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Marina, CA Date: 1947 (PR 1983) T 14 South; R 2 East; ¼ of ¼ of Sec ; M.D.

B.M.

c. Address: Lapis Road

City: Marina

Zip: 93933

d. UTM: Zone: 10 S; 607098 mE/ 4063698 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

APN #203011019000

*P3a. **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Constructed in 1959-60, the sorting plant is a large industrial complex comprised of a series of connected buildings that are arranged in a long linear plan and house various functions related to the sorting and storage of sand. Characteristic of its industrial design, all of the buildings are sheathed in almost entirely in corrugated metal. The central feature is the sorting building, which is approximately six stories in height and rectangular in plan. Capped by a gable-roof, the building rests on an approximately two-story tall concrete foundation and features replacement vinyl windows sporadically located across the upper floors. The building features a large projection with a half-gable roof that extends outward and down from the northeast elevation. In addition, various infrastructural elements such as large silos and exhaust pipes are located across the exterior of the building. An approximately two-story building to the southeast is also rectangular in plan with a gabled-roof and feeds the sorting building through additional infrastructure such as machinery, large pipes, and conveyor belts. Extending northwest from the sorting building are two large storage buildings. Both of these feature gabled roofs and have fenestration that is limited to large open doors on various elevations. There is presently a non-operational rail car located along the northeast side of the subject property there are presently two-rail cars sitting atop the tracks. With the exception of the replaced windows, the building retains its integrity and is overall good condition.

*P3b. **Resource Attributes:** (List attributes and codes) HP43. Mine structure/ building

*P4. **Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View north; 03/ 04/ 2014; IMG_8644.jpg

*P6. **Date Constructed/Age and Sources:** Historic

Prehistoric Both

1959-60 (Hart 1966; personal communication with Kenneth L. Burns

*P7. **Owner and Address:**

CEMEX
920 Memorial City Way, Ste 100
Houston, TX 77024

*P8. **Recorded by:** (Name, affiliation, and address)

Steven Treffers
SWCA Environmental Consultants
150 S Arroyo Pkwy, 2nd Flr
Pasadena, CA 91105

*P9. **Date Recorded:** 03/ 04/ 2014

*P10. **Survey Type:** (Describe) Intensive

*P11. **Report Citation:** (Cite survey report and other sources, or enter "none.")

Cultural Resources Survey Report for the California American Water Temporary Slant Project, City of Marina, Monterey County, California (SWCA Environmental Consultants, Pasadena, 2014).

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

DPR 523A (1/95)

*Required information

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
 HRI #
 Trinomial
 NRHP Status Code 3D

Other Listings
 Review Code Reviewer Date

Page 8 of 17 *Resource Name or #: Scale House

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted *a. County: Monterey

and (P2b and P2c or P2d. Attach a Location Map as necessary.)
 *b. USGS 7.5' Quad: Marina, CA Date: 1947 (PR 1983) T 14 South; R 2 East; ¼ of ¼ of Sec ; M.D. B.M.
 c. Address: Lapis Road City: Marina Zip: 93933
 d. UTM: Zone: 10 S; 607173 mE/ 4063610 mN (G.P.S.)
 e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:
 APN #203011019000

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
 Located at the Lapis Sand Mining Plant, this small, one-story Scale House was initially constructed circa 1959. The concrete-masonry unit Scale House is rectangular in plan and capped by a flat roof with a fascia board. Comprised of two bays, the eastern bay was constructed in 1997 and is slightly taller than the western bay; it features a large window on the south elevation that allows employees to interact with truck drivers as they pull up to the building. Additional fenestration includes steel casement windows and a single, metal and glass door on the east elevation. There is a prefabricated office building situated immediately east of the Scale House and sits above the ground on a raised trailer. In addition to a flagpole at the eastern boundary of the subject property, bollards direct outgoing trucks onto underground scales located immediately south of the Scale House. The subject property remains in good overall condition and although the 1997 addition affected some aspects of the building's original design, it retains integrity of location, setting, feeling, and association and continues to convey its historical function as a Scale House.

*P3b. Resource Attributes: (List attributes and codes) HP8. Industrial building; HP4. Ancillary building

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View northwest of scale house in foreground with office in background; 03/ 04/ 2014; IMG_8606.jpg

*P6. Date Constructed/Age and Sources: Historic
 Prehistoric Both
 Ca. 1959 (personal communication with Kenneth L. Burns)

*P7. Owner and Address:
 CEMEX
 920 Memorial City Way, Ste 100
 Houston, TX 77024

*P8. Recorded by: (Name, affiliation, and address)
 Steven Treffers
 SWCA Environmental Consultants
 150 S Arroyo Pkwy, 2nd Flr
 Pasadena, CA 91105

*P9. Date Recorded: 03/ 04/ 2014

*P10. Survey Type: (Describe)
 Intensive

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Cultural Resources Survey Report for the California American Water Temporary Slant Project, City of Marina, Monterey County, California (SWCA Environmental Consultants, Pasadena, 2014).

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D

Other Listings
Review Code

Reviewer

Date

Page 9 of 17

*Resource Name or #: Maintenance Shop

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted

*a. County: Monterey

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Marina, CA Date: 1947 (PR 1983) T 14 South; R 2 East; ¼ of ¼ of Sec ; M.D.

B.M.

c. Address: Lapis Road

City: Marina

Zip: 93933

d. UTM: Zone: 10 S; 607173 mE/ 4063610 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

APN #203011019000

*P3a. **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This is a single-story Utilitarian-style maintenance shop located at the Lapis Sand Mining Plant. Initially constructed circa 1906, the wood-framed building is sheathed in corrugated metal and wood paneling, and is irregular in plan following the addition of multiple shed extensions. The building consists of two primary units that feature moderately pitched front-gabled roofs. Visual inspection and archival research indicate that three shed extensions were added to building in the years immediately before and after 1962: first to the northeastern elevation, and subsequently to the southwest and northwest elevations. The building features sliding corrugated metal doors at each end of the primary sections (northwest and southeast), as well as additional corrugated metal and metal doors on the shed extensions. Windows on the southwest elevation are currently boarded with plywood, and there is a replacement aluminum-sliding window located on the northeast elevation. There are numerous ancillary buildings associated with the subject property, all of which house various materials and equipment used in the maintenance of the overall sand mining facility. The small, one-story buildings share common design features and are located primarily to the south of the maintenance shop. They are rectangular in plan, with flat or gabled roofs, and sheathed in wood siding or corrugated metal. In addition there is a small, wood water tank that is circular in plan and sheathed in vertical wood siding. The subject property remains in overall good condition and continues to convey its historical function.

*P3b. **Resource Attributes:** (List attributes and codes) HP8. Industrial building; HP4. Ancillary building

*P4. **Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View northwest; 03/ 04/ 2014; IMG_8590.jpg

*P6. **Date Constructed/Age and Sources:** Historic
 Prehistoric Both
Ca. 1906 (personal communication with Kenneth L. Burns)

*P7. **Owner and Address:**
CEMEX
920 Memorial City Way, Ste 100
Houston, TX 77024

*P8. **Recorded by:** (Name, affiliation, and address)
Steven Treffers
SWCA Environmental Consultants
150 S Arroyo Pkwy, 2nd Flr
Pasadena, CA 91105

*P9. **Date Recorded:** 03/ 04/ 2014

*P10. **Survey Type:** (Describe)
Intensive

*P11. **Report Citation:** (Cite survey report and other sources, or enter "none.")

Cultural Resources Survey Report for the California American Water Temporary Slant Project, City of Marina, Monterey County, California (SWCA Environmental Consultants, Pasadena, 2014).

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):

DPR 523A (1/95)

*Required information

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
 HRI #
 Trinomial
 NRHP Status Code 3D

Other Listings
 Review Code

Reviewer

Date

Page 10 of 17

*Resource Name or #: Wash Plant

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted

*a. County: Monterey

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Marina, CA Date: 1947 (PR 1983) T 14 South; R 2 East; ¼ of ¼ of Sec ; M.D. B.M.

c. Address: Lapis Road

City: Marina

Zip: 93933

d. UTM: Zone: 10 S; 607041 mE/ 4063640 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

APN #203011019000

*P3a. **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) Located at the Lapis Sand Mining Plant, this is a sand washing plant that was developed in support of dredging operations in 1959. Also known as a Dorr Oliver "Jet Sizer," the industrial structure is approximately two stories in height and is constructed of exposed structural metal posts and beams with a metal staircase that wraps around the exterior. Sand and water are pumped through tubing from a dredging pond that is located near the coastline approximately 0.25 mile to the west, and then fed to the top of the structure and into washing and classifying machinery below. Once the clean sand reaches the bottom of the machinery, it is fed into piles via three conveyor belts that extend outwards from the structure. The waste water is then pumped into a canal flume that leads to settling ponds approximately 0.25 mile to the west. Two small ancillary buildings are associated with the subject property, both of which house pumping equipment and are square in plan, sheathed in vertical wood siding, and capped by a flat roof. One is located immediately west of the subject structure and pumps water into the canal flume, and the other is located approximately 900 feet to the northwest and pumps sand and water to the washing plant from the dredging pond. The subject property is in good overall condition and retains its integrity.

*P3b. **Resource Attributes:** (List attributes and codes) HP43. Mine structure/ building; HP4. Ancillary building

*P4. **Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View northwest; 03/ 04/ 2014; IMG_8619.jpg

*P6. **Date Constructed/Age and Sources:** Historic

Prehistoric Both
 1959 (Hart 1966; personal communication with Kenneth L. Burns)

*P7. **Owner and Address:**

CEMEX
 920 Memorial City Way, Ste 100
 Houston, TX 77024

*P8. **Recorded by:** (Name, affiliation, and address)

Steven Treffers
 SWCA Environmental Consultants
 150 S Arroyo Pkwy, 2nd Flr
 Pasadena, CA 91105

*P9. **Date Recorded:** 03/ 04/ 2014

*P10. **Survey Type:** (Describe)

Intensive

*P11. **Report Citation:** (Cite survey report and other sources, or enter "none.")

Cultural Resources Survey Report for the California American Water Temporary Slant Project, City of Marina, Monterey County, California (SWCA Environmental Consultants, Pasadena, 2014).

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):

DPR 523A (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D

Other Listings
Review Code

Reviewer

Date

Page 11 of 17

*Resource Name or #: Plant Superintendent's Residence

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted

*a. County: Monterey

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Marina, CA Date: 1947 (PR 1983) T 14 South; R 2 East; ¼ of ¼ of Sec ; M.D.

B.M.

c. Address: Lapis Road

City: Marina

Zip: 93933

d. UTM: Zone: 10 S; 607256 mE/ 4063579 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

APN #203011019000

*P3a. **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The former residence of the plant superintendent, this is a two- and one-story building located towards the eastern boundary of the Lapis Sand Plant. Constructed circa 1920, the two-story main unit of the building was expanded to the north in 1955-56 with a single-story addition that resulted in the current rectangular plan. The roof features exposed rafters and asphalt composition shingles, and is hipped on the main two-story unit and gabled on the single-story addition. Primarily vernacular in its design, the building is sheathed in wood simple-drop and clapboard siding, and incorporates an original concrete chimney on the west elevation of the main unit and a later brick-masonry chimney on the east elevation of the northern addition. Most notable among its design accents is an Asian-influenced railing that encloses a balcony on the southeast corner of the second floor, which is accessed via an exterior wood stairway on the eastern elevation. The balcony originally extended the entire length of the second floor but was partially filled in 1955-56 to create an additional interior room. Many of the main unit's original wood casement windows were replaced in 1955-56 with the same aluminum slider type windows that are present on the northern addition. Additional fenestration includes entryways on the eastern and western elevations that feature various door types. The building is currently vacant and in moderate condition. Although the above-mentioned alterations affected aspects of the original 1920s design, they are representative of the continuing development of the Lapis Sand Mining Plant and therefore the building retains integrity.

*P3b. **Resource Attributes:** (List attributes and codes) HP2. Single family property

*P4. **Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View northwest; 03/ 04/ 2014; IMG_8533.jpg

*P6. **Date Constructed/Age and Sources:** Historic Prehistoric Both
Ca. 1920 (personal communication with Kenneth L. Burns)

*P7. **Owner and Address:**
CEMEX
920 Memorial City Way, Ste 100
Houston, TX 77024

*P8. **Recorded by:** (Name, affiliation, and address)
Steven Treffers
SWCA Environmental Consultants
150 S Arroyo Pkwy, 2nd Flr
Pasadena, CA 91105

*P9. **Date Recorded:** 03/ 04/ 2014

*P10. **Survey Type:** (Describe)
Intensive

*P11. **Report Citation:** (Cite survey report and other sources, or enter "none.")

Cultural Resources Survey Report for the California American Water Temporary Slant Project, City of Marina, Monterey County, California (SWCA Environmental Consultants, Pasadena, 2014).

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

DPR 523A (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D

Other Listings
Review Code

Reviewer

Date

Page 12 of 17

*Resource Name or #: Garage/ Office Building

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted

*a. County: Monterey

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Marina, CA Date: 1947 (PR 1983) T 14 South; R 2 East; ¼ of ¼ of Sec ; M.D.

B.M.

c. Address: Lapis Road

City: Marina

Zip: 93933

d. UTM: Zone: 10 S; 607217 mE/ 4063588 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

APN #203011019000

*P3a. **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Located at the Lapis Sand Plant, this is a Vernacular-style single-story office building and garage that consists of three adjoining but distinct units, resulting in an irregular U-shaped plan. The eastern most unit was constructed circa 1906 and was initially the residence of the plant superintendent. Currently housing office space, this section is square in plan and capped by a moderately-pitched hipped roof with exposed rafters and sheathed in composition asphalt shingles. Its wood frame structural system is clad in stucco. There is a recessed entryway on the southern elevation and a covered porch area on the northern elevation supported by wood columns. Fenestration includes original wood-framed casement windows and wood- and glass-paneled doors. Limited but distinctive design features include concrete planters on the south and east elevations that are currently spalling. The large central unit is a garage addition that was constructed circa 1910s and extends west from the southeastern corner of the former residence unit. Rectangular in plan, the garage is sheathed in stucco and metal siding and features a hipped roof that is sheathed in composition asphalt shingles. The central garage unit features large original and replacement wood doors across the northern elevation, with additional access granted via wood- and glass-paneled doors off the covered porch of the eastern unit. Windows are limited to wood-framed windows on the northern and southern elevations. Attached to the southern elevation of the garage is a shed extension that was constructed at an unknown date. The shed features a flat roof and is sheathed entirely in corrugated metal with the exception of large plywood doors that comprise the southern elevation. Currently used as an office and storage space, the subject property remains in overall good condition and continues to convey its historical function.

*P3b. **Resource Attributes:** (List attributes and codes) HP2. Single family property; HP4. Ancillary building

*P4. **Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo:
(View, date, accession #) View north; 03/ 04/ 2014; IMG_8574-78.jpg

*P6. **Date Constructed/Age and**

Sources: Historic

Prehistoric Both

Ca. 1906 (personal communication with Kenneth L. Burns)

*P7. **Owner and Address:**

CEMEX

920 Memorial City Way, Ste 100
Houston, TX 77024

*P8. **Recorded by:** (Name, affiliation, and address)

Steven Treffers
SWCA Environmental
Consultants

150 S Arroyo Pkwy, 2nd Flr
Pasadena, CA 91105

*P9. **Date Recorded:**

03/ 04/ 2014

*P10. **Survey Type:** (Describe)

Intensive

*P11. **Report Citation:** (Cite survey report and other sources, or enter "none.")

Cultural Resources Survey Report for the California American Water Temporary Slant Project, City of Marina, Monterey County, California (SWCA Environmental Consultants, Pasadena, 2014).

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record

Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record

Artifact Record Photograph Record Other (List):

DPR 523A (1/95)

*Required information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D

Other Listings
Review Code

Reviewer

Date

Page 13 of 17

*Resource Name or #: Bunkhouse

P1. Other Identifier:

*P2. Location: Not for Publication Unrestricted

*a. County: Monterey

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Marina, CA Date: 1947 (PR 1983) T 14 South; R 2 East; ¼ of ¼ of Sec ; M.D.

B.M.

c. Address: Lapis Road

City: Marina

Zip: 93933

d. UTM: Zone: 10 S; 607232 mE/ 4063584 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

APN #203011019000

*P3a. **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This is a small, single-story residential building on a concrete foundation located immediately west of the Plant Manager's residence at the Lapis Sand Mining Plant and constructed circa the 1910s. Centered on a small central courtyard, it is a front-facing U-shape in plan with a rounded bay extending slightly out from the northern elevation and a small shed extension from the western elevation. Designed in a Vernacular style with Craftsman influences, the building is capped by a composition asphalt shingle roof that is gabled at the front (east) and hipped at the rear (west) with exposed rafters, and partially extends outward over the courtyard via diagonal wood posts. The wood frame structural system is clad in simple-drop wood siding and is punctuated by a concrete chimney with a missing flue on the western elevation. Primary access is granted from the courtyard via various wood paneled and French doors, with a secondary wood and glass paneled-door located on the western elevation. Additional fenestration includes double hung, fixed, and casement windows, all of which are set in wood frames. Located in the center of the courtyard is a concrete rafter pergola that has spalled, resulting in the exposure and rusting of the interior structural metal beams. Although the spalling concrete and missing flue have affected the aspects of the building's materials and workmanship, it is in good overall condition and retains much of its integrity.

*P3b. **Resource Attributes:** (List attributes and codes) HP2. Single family property

*P4. **Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) View west; 03/ 04/ 2014; IMG_8548.jpg

*P6. **Date Constructed/Age and Sources:** Historic

Prehistoric Both

Ca. 1910s (personal communication with Kenneth L. Burns)

*P7. **Owner and Address:**

CEMEX

920 Memorial City Way, Ste 100
Houston, TX 77024

*P8. **Recorded by:** (Name, affiliation, and address)

Steven Treffers

SWCA Environmental Consultants
150 S Arroyo Pkwy, 2nd Flr
Pasadena, CA 91105

*P9. **Date Recorded:** 03/ 04/ 2014

*P10. **Survey Type:** (Describe)
Intensive

*P11. **Report Citation:** (Cite survey report and other sources, or enter "none.")

Cultural Resources Survey Report for the California American Water Temporary Slant Project, City of Marina, Monterey County, California (SWCA Environmental Consultants, Pasadena, 2014).

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record
 Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
 Artifact Record Photograph Record Other (List):

DPR 523A (1/95)

*Required information

L1. Historic and/or Common Name: Lapis Siding

L2a. Portion Described: Entire Resource Segment Point Observation **Designation:**

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) Eastern terminus: 607267 mE 4063568; western terminus: 607152 mE 4063617 mN

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
The subject property is an approximately 420-foot segment of the Lapis Siding, a single- and double-track rail siding that was constructed circa 1906 to connect the Lapis Sand Mining Plant with the former Southern Pacific Monterey Branch to the east. From its eastern terminus at the eastern boundary of the Lapis Sand Mining Plant, the segment consists of two parallel metal rail lines that merge into one line at a rail switch approximately 135 feet to the west. The segment continues along a general northwesterly course for approximately 285 feet before it becomes covered by sand and dirt. Since its decommission in the late 1980s, the recorded segment has been overgrown by vegetation and partially buried, and as a result no ballast or ties are currently visible.

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

a. Top Width: ± 5 feet

b. Bottom Width: N/ A

c. Height or Depth: ± 6 inches

d. Length of Segment: ± 420 feet

L4e. Sketch of Cross-Section (include scale) **Facing:**

L5. Associated Resources:

Switch stand.

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The recorded segment is located in a sand mining facility that is characterized by a mix of residential, commercial, and industrial buildings and structures. It traverses a relatively flat landscape and is bordered by residential and industrial buildings immediately to the north.

L7. Integrity Considerations:

Although ballast and ties are not visible, the recorded segment of the Lapis Siding retains sufficient integrity to contribute to the significance of the historic district. Since the siding was decommissioned, much of the line has been infilled with dirt and sand, and the ballast and ties were not clearly evident within the recorded segment. Further, historic topographic maps indicate that the Lapis Siding extended much further west and north than was observed during the course of the current survey. Archival research was unable to determine if the rails, ties, and/ or any associated infrastructure of the larger rail siding were removed. Because of the constantly shifting sand dunes, there is potential that other intact segments may be buried underneath the changing landscape.

L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing (View, scale, etc.)

View east; 03/ 04/ 2014;

IMG_8549.jpg

L9. Remarks:

L10. Form Prepared by: (Name, affiliation, and address)

Steven Treffers

SWCA Environmental Consultants

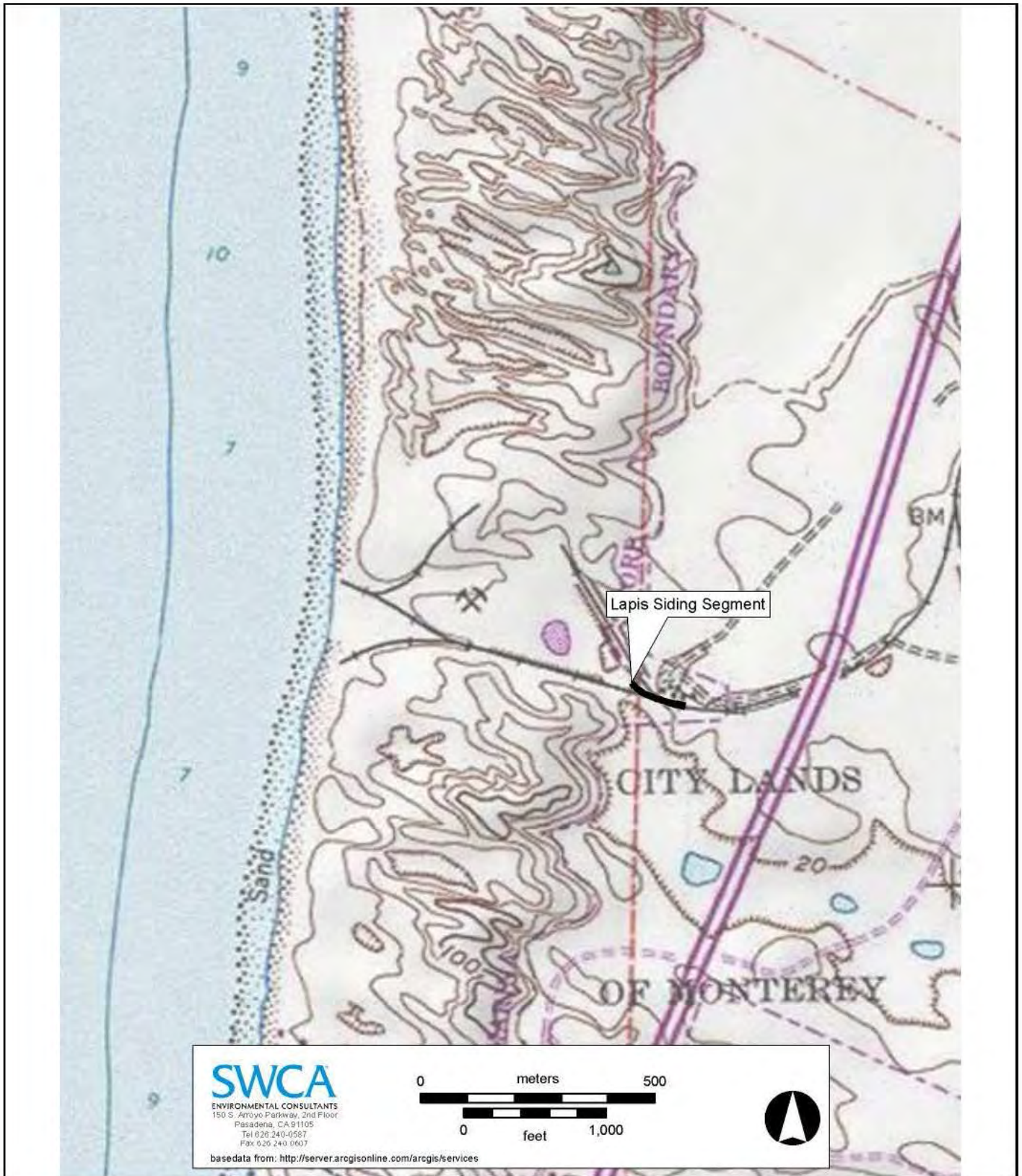
150 S Arroyo Pkwy, 2nd Flr

Pasadena, CA 91105

L11. Date: 03/ 04/ 2014

DPR 523E (1/95)

LOCATION MAP



L1. Historic and/or Common Name:

L2a. Portion Described: Entire Resource Segment Point Observation **Designation:**

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) Eastern terminus: 607038 mE 4063631 mN; western terminus: 606699 mE 4063778 mN

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
The subject property is a canal flume that was constructed in 1959 to support the commencement of dredging operations at the Lapis Sand Mining Plant. Approximately 1,250 feet in length, the flume directs wastewater west from the sand washing plant to settling ponds near the coastline. The narrow flume is lined with wood siding and braced by horizontal wood boards that intermittently span the open air trench. A dirt road crosses over the flume approximately 410 feet from the eastern terminus at the sand washing plant.

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

- a. Top Width: ± 2 feet
- b. Bottom Width: ± 2 feet
- c. Height or Depth: ± 3 feet
- d. Length of Segment: ± 1,250 feet

L5. Associated Resources:

Sand washing plant; settling ponds.

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The subject property is located in a sand mining facility that is characterized by a mix of residential, commercial, and industrial buildings and structures. It traverses a slightly downward slope west towards the ocean and is surrounded largely by sand dunes and vegetation such as ice plant.

L7. Integrity Considerations: Historic aerial photographs suggest that since the subject property was initially constructed, it has remained approximately 1,250 feet in length and the western portion of the flume has been realigned multiple times to connect to the frequently shifting settling ponds. The majority of the flume appears to have remained in its original alignment however. Although this has affected some aspects of the flume's design, materials, and workmanship, it strongly retains integrity of location, setting, feeling, and association.

L4e. Sketch of Cross-Section (include scale) **Facing:**



L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing (View, scale, etc.)
View northeast; 03/ 04/ 2014;
IMG_8625.jpg

L9. Remarks:

L10. Form Prepared by: (Name, affiliation, and address)
Steven Treffers
SWCA Environmental
Consultants
150 S Arroyo Pkwy, 2nd Flr
Pasadena, CA 91105

L11. Date: 03/ 04/ 2014

LOCATION MAP

