FINAL

Addendum and Final
(with edits incorporated)

Initial Study
Negative Declaration

Historic Dumpsite Cover
Carpinteria State Beach

April 2012

State of California
DEPARTMENT OF PARKS AND RECREATION

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

NOTICE OF DETERMINATION

TO: State Clearinghouse
Office of Planning and Research
1400 Tenth Street, Room 222
P.O. Box 3044
Sacramento, California 95812-3044

FROM: Department of Parks and Recreation
Northern Service Center
One Capitol Mall, Suite 410
Sacramento, CA 95814

SUBJECT: Filing of the Notice of Determination in compliance with §21108 of the Public Resources Code.

PROJECT TITLE: Historic Dumpsite Cover
STATE CLEARINGHOUSE NUMBER: 2012021018

CONTACT PERSON: Stephanie Coleman, Environmental Coordinator
Department of Parks and Recreation
One Capitol Mall, Suite 410
Sacramento, CA 95814

PHONE NO.: (916) 445-8779

PROJECT LOCATION: Carpinteria State Beach, City of Carpinteria in Santa Barbara County

PROJECT DESCRIPTION: Apply an eight inch thick reinforced shotcrete cover to the bluff face covering all exposed soils and waste within the project area. The cover would be reinforced and begin at the lower bedrock layer or the asphaltum layer base and built up and over the top of the bluff edge to provide required cover for the exposed historic dumpsite. The shotcrete cover would be stained and finished to match the appearance of the existing bluff and weathered asphaltum features. Remove a 220 sq foot section asphalt.

The California Department of Parks and Recreation has approved this project on April 6, 2012, and has made the following determinations:

1. ☒ The project will not have a significant effect on the environment.
   ☐ The project will have a significant effect on the environment.
2. ☒ A Final Negative Declaration was prepared and adopted, pursuant to the provisions of the California Environmental Quality Act (CEQA).
   ☐ A Final Environmental Impact Report has been completed in compliance with CEQA, and has been presented to the decision-making body of this Department for its independent review and consideration of the information, prior to approval of the project.
3. Mitigation measures or Monitoring Plan ☒were ☐were not made conditions of project approval.
4. A Statement of Overriding Considerations ☐was ☒was not adopted for this project.
5. Findings ☒were ☐were not made on environmental effects of the project.

The Negative Declaration may be examined at the California Department of Parks and Recreation at the contact address listed above, on the website & by request.

RECEIVED
APR 12 2012
STATE CLEARING HOUSE

Date Received for Filing

Tony Perez, Deputy Director
Park Operations

April 11, 2012
Date

FINAL NEGATIVE DECLARATION

PROJECT: **Historic Dumpsite Cover – San Miguel Loop**

LEAD AGENCY: California Department of Parks and Recreation (DPR)

AVAILABILITY OF DOCUMENTS:
The initial Study for this Negative Declaration was made available throughout the 30-day public review period at the reference desk of the Santa Barbara County. It was also available at the public information desks of the DPR's Northern Service Center, the Channel Coast District Headquarters, and Carpinteria Beach Visitor Center. The Final Negative Declaration and all supporting materials will be available, by request, at DPR's Northern Service Center and the Channel Coast District Headquarters office.

PROJECT DESCRIPTION:

The project would apply an eight inch thick reinforced shotcrete cover to the bluff face covering all exposed soils and waste within the project area. The cover would begin at the lower bedrock layer or the asphaltum layer base and built up and over the top of the bluff edge meeting cover requirements for the exposed historic dumpsite. The shotcrete cover would be stained and finished to match the appearance of the existing bluff and weathered asphaltum features. To secure the shotcrete cover to the bluff face, soil nail tiebacks would be used.

Soil nails would be a hollow drill bar system that would drill and grout the nails simultaneously. No historic dump material would be extracted during drilling. Soil nails would be spaced at approximately five feet on centers and installed 20 feet into the bluff where the shotcrete cover is at 12 feet high and 10 feet into the bluff where the shotcrete cover is at six feet high and lower. The soil behind the cover would be drained by drilling six weep holes in the concrete approximately 15 feet apart. This will avoid buildup of water behind the wall that may cause damaging hydrostatic pressure. The toe of the cover would be epoxy anchored at locations above the beach to sections of the bedrock or asphaltum shelves with epoxy coated steel dowel bars.

No heavy equipment, <u>construction vehicles</u> or storage would be allowed on the beach. All construction equipment will be staged at least 10 feet back from the top edge of the bluff. This will also be the minimum clearance from the edge when using a crane or worker lifts and for all activities associated with preparing the surface, installing reinforcements & drainage blankets and applying shotcrete.

At project completion, a wood slatted snow fence will be installed at bluff top securing the area from visitor access. Additional fencing extending to and along the beach will also be installed. Signs, indicating the area is closed under a Superintendent Closure Order will be place at appropriate locations along the fencing to notice visitors that the area is closed and a sign directing visitors to a nearby stairway to the beach will be installed

FINDINGS:
An Initial Study has been prepared to assess the proposed project's potential impacts on the environment and the significance of those impacts and is incorporated in the Draft ND. Based on this initial Study, it has been determined that the proposed project would not have any significant impacts on the environment, once all proposed project requirement have been implemented. The conclusion is supported by the following findings:

- There is no potential for adverse impacts on Agricultural Resources, Land Use and Planning, Mineral Resources, Population and Housing Public Services, Recreation, Transportation and Utilities and Service systems associated with the proposed project.

- Potential adverse impacts resulting from the proposed project were found to be less than significant in the following areas, Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, and Noise.

PROJECT REQUIREMENTS:
The Project Requirements discussed on page 12-16 of the Initial Study have been incorporated into the scope of work for the Historic Dumpsite Cover Project and will be fully implemented by DPR to avoid or minimize adverse environmental impacts identified in the Negative Declaration.

CHANGES TO DOCUMENT:

Minor punctuation, spelling, and grammatical corrections that contribute to ease of understanding, but have no significant impact on the content, have not been noted. The following additions have been made to the initial study Additions are underlined and deletions are indicated by ~~strikeouts~~.

Changes were made to Pages: 1, 5, 6, 7, 8-11, 14, 19-20, 27, and 61.

Page 5 – Correction sentence now reads "California Department of Resources and Recycling and Recovery or"

Page 6 – Addition to sentence "No heavy equipment, construction vehicles, or storage would be allowed on the beach. All construction equipment will be staged at least 10 feet back from the top edge of the bluff."

Page 7 – Correction paragraph now reads "In addition, the project would remove a ~~50 by 50 foot~~ 220 square foot section of asphalt and a 50 by 20 foot area of non-native ice plant. The asphalt section is a pathway that used to take visitors to an overlook and is no longer needed. These areas will be planted with a variety of native plants including Ambrosia chamissionis (Silver Bluff but), Distichlis spicata (Salt grass), and Rosa californica (California wild rose). *See Appendix C ~~B~~ for Landscape Planting Plan*."

Page 8-11 – see Matrix - additional analysis for meeting LEA requirements and City of Carpinteria's Local Coastal Policies was added.

Page 14 –Project Specific Requirement AES 1 was added. Now saying "The cover would be inspected and necessary repairs will be completed as needed to keep the bluff and weathered asphaltum like appearance"

Page 19-20 – In response to the City of Carpinteria's comments the following analysis was added to section 2.10 Consistency with Local Plans and Policies.

a. Objective LU-1 - This project would cover an exposed section of a Historic Dumpsite. Its creation would not change the current access to the beach in this area.
b. Policy LU-1d: The cover would ensure that potentially hazardous materials stay within the historic dumpsite thus protecting recreation resources on the beach and visitors.
c. Objective CD-12: The cover has been designed to blend into the surrounding area and would not detract from the surrounding natural environmental.
d. Objective OSC-1: The project will protect the beach by preventing dumpsite materials from escaping, preserve the historic feature, and will plant natives to enhance the local vegetation.
e. Objective OSC-4: The project will remove non-native ice plant and plant additional native plants to increase the potential for biodiversity in the area.
f. Implementation Policy 14: No vehicles related to this project will be allowed on the beach during construction.
g. Implementation Policy 17: Currently, the bluff is eroding allowing materials from the historic dumpsite to go onto the beach causing a potential health hazard. The shotcrete cover would prevent this from happening while protecting the bluff from further erosion.
h. Implementation Policy 18: The cover will seal an exposed section of the historic dumpsite to comply with California Code Regulations Sections 20820 and 21140, thereby addressing public health and safety issues while providing a level of protection for the existing cultural resource.
i. Implementation 20: The parking at Carpinteria will be temporary impacted during construction. Once the project is complete the number of parking spaces will be the same as before construction.
j. Objective OSC-13: the cover has been designed to blend into the surrounding visual environment preserving the natural characteristics of the area.
k. Policy OSC-13g: the cover will be colored and shaped so it blends into the surrounding environment.
l. Policy OSC-13h: the project will remove vegetation and apply a shotcrete vertical cover. There will be no cut or fill.
m. Policy OSC-13i: cover was designed to fit into the surrounding landscape. See project plans for details. The minimum amount of vegetation and sand/soil will be removed to allow for the installation of the tie backs and shotcrete cover. The cover is designed to preserve and blend the new structure into the surrounding landforms; the weep holes will allow any ground

water to continue to seep from the bluff face so there will be no change to the drainage pattern; and additional native vegetation will be added on top of the bluff.

n. Objective OSC-14: the park and recreation facilities will remain the same after the project is complete.
o. Objective OSC-16: the project will provide a cover that will seal in the historic dumpsite materials preserving the historic feature.
p. Objective N-5: construction will be limited to Monday –Friday from 8-4 pm to minimize any effect of sensitive land uses.
q. Policy N-5b: activities will be limited as necessary to prevent noise impacts.
r. Policy N-5c: see page 19 of the Initial Study for techniques employed by CDPR to minimize noise.

Page 27 – Item c under the discussion of Aesthetics was amended to include the following:

c) Proposed project activities would construct a shotcrete cover on the exposed historic dumpsite; a short term (10-15 years) means to prevent additional debris exposure by wave erosion. Shotcrete method is proposed for this project because it would not drastically alter the current configuration of the bluff surface. In addition, the shotcrete surface would be stained and hand sculpted to match the natural appearance of the existing bluff and weathered asphaltum features. Examples of sculpted concrete have been included in appendix C for reference. **PROJECT SPECIFIC REQUIREMENT Aesthetics 1 -** The cover would be inspected and necessary repairs will be completed as needed to keep the bluff and weathered asphaltum like appearance. Shotcrete construction would result in the least disturbance and the smallest physical footprint to the project area based on review of the project alternatives outlined in chapter 2 Section 2.6.

Two signs would be installed on the bluff top fence. They will be 8.5 by 11" with brown lettering indicating the area is closed under a Superintendent Closure Order and would be place at appropriate locations along the fencing to notice visitors that the areas is closed and a sign directing visitors to a nearby stairway to the beach. Examples of these signs already exist and do not detract for the overall view of the area and neither would the new signs.

The proposed work would blend harmoniously with the existing bluff face. Therefore, implementation of the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings, but would actually enhance the visual character of the park area. Therefore, a less than significant ~~no~~ impact would result.

Page 61 – Item B under the discussion of Hazardous was amended to include the following:

Construction of the shotcrete cover has the potential for construction personnel to encounter the material layer and ground water that may seep through the bluff in the historic dump site that contains lead. Integration of **STANDARD PROJECT REQUIREMENT HAZARD 1, PROJECT SPECIFIC REQUIREMENT HAZARD 3 AND 4** would reduce the potential for adverse impacts due to

the reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials, substances, or waste into the environment to less than significant

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This document along with the Draft Initial Study (SCH#2012021018), corrections and the Notice of Determination constitute the Final Negative Declaration for the Historic Dumpsite Cover Project.

Pursuant to Section 21082.1 of the California Environmental Quality Act, the California Department of Parks and Recreation (DPR) has independently reviewed and analyzed the initial Study and Negative Declaration for the proposed project and finds that these documents reflect the independent judgment of DPR.

Stephanie Coleman
Environmental Coordinator
Northern Service Center

4/9/12
Date

Richard Rozzelle
District Superintendent
Channel Coast District

4/9/12
Date

NEGATIVE DECLARATION

PROJECT: HISTORIC DUMPSITE COVER – SAN MIGUEL LOOP

LEAD AGENCY: California Department of Parks and Recreation

AVAILABILITY OF DOCUMENTS: The Initial Study for this Negative Declaration was available for review at:

- Northern Service Center
  California Department of Parks & Recreation
  One Capitol Mall - Suite 410
  Sacramento`, CA 95814

- Channel Coast District Headquarters
  911 San Pedro Street
  Ventura, CA 93001-3744

- Santa Barbara County Library
  5141 Carpinteria Avenue
  Carpinteria, CA 93013

- California Department of Parks and Recreation Internet Website
  http://www.parks.ca.gov/?page_id=980

PROJECT DESCRIPTION:

A copy of the Initial Study is attached. Questions or comments regarding this Initial Study/Negative Declaration should be submitted in writing to:

Stephanie Coleman – Environmental Coordinator
California Department of Parks & Recreation
Northern Service Center
One Capitol Mall - Suite 410
Sacramento, CA 95814

E-Mail Address: CEQANSC@parks.ca.gov
Include "Historic Dump" on the subject line.

Fax: 916-445-8883

Submissions must be in writing and postmarked, or received by fax or e-mail, no later than March 8, 2012. The originals of any faxed document must be received by regular mail within ten (10) working days following the deadline for comments, along with proof of successful fax transmission.

Pursuant to Section 21082.1 of the California Environmental Quality Act, the California Department of Parks and Recreation (DPR) has independently reviewed and analyzed the Initial Study and Negative Declaration for the proposed project and finds that these documents reflect the independent judgment of DPR. DPR, as lead agency, also confirms that the project requirements in these documents are feasible and will be implemented as stated in the Negative Declaration.

Stephanie Coleman
Environmental Coordinator
Northern Service Center
Acquisition and Development

2/6/12
Date

Richard Rozzelle
District Superintendent
Central Coast District

2/6/12
Date

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CHAPTER 1
INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

The Initial Study/Negative Declaration (IS/ND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of the proposed Historic Dumpsite Cover Project at Carpinteria State Beach, Santa Barbara County, California. This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq*., and the State CEQA Guidelines, California Code of Regulations (CCR) §15000 *et seq*.

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment [CEQA Guidelines §15063(a)]. If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that revisions in the project plans or proposals made by or agreed to by the applicant to reduce the potentially significant effects to a less-than-significant level, a Negative Declaration may be prepared instead of an EIR [CEQA Guidelines §15070(b)]. The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/ND conforms to the content requirements under CEQA Guidelines §15071.

1.2 LEAD AGENCY

The lead agency is the public agency with primary approval authority over the proposed project. In accordance with CEQA Guidelines §15051(b) (1), "the lead agency will normally be an agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." The lead agency for the proposed project is DPR. The contact person for the lead agency is:

Richard Rozzelle, District Superintendent
California Department of Parks and Recreation
Channel Coast District
911 San Pedro Street
Ventura, CA 93001-3744

Questions or comments regarding this Initial Study/Negative Declaration should be submitted to:

Stephanie Coleman – Environmental Coordinator
California Department of Parks & Recreation
Northern Service Center
One Capitol Mall - Suite 410
Sacramento, CA 95814
E-Mail Address: CEQANSC@parks.ca.gov
Include “Historic Dump” on the subject line.

Fax: 916-445-8883

Submissions must be in writing and postmarked, or received by fax or e-mail, no later than March 8, 2012. The originals of any faxed document must be received by regular mail within ten (10) working days following the deadline for comments, along with proof of successful fax transmission.

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of the proposed Carpinteria Bluff Stabilization Project at Carpinteria State Beach. Project Requirements have also been incorporated into the project to eliminate any potentially significant impacts or reduce possible impacts to a less-than-significant level.

This document is organized as follows:

- Chapter 1 - Introduction.
  This chapter provides an introduction to the project and describes the purpose and organization of this document.

- Chapter 2 - Project Description.
  This chapter describes the reasons for the project, scope of the project, project objectives and identifies standard or specific project requirements applied to the project design to reduce potential impacts to the environment.

- Chapter 3 - Environmental Setting, Impacts, and Project Requirements.
  This chapter describes the environmental setting for each environmental issue, and evaluates the project description including project requirements for potential impacts based on the CEQA Environmental (Initial Study) Checklist and identifies the significant of environmental impacts.

- Chapter 4 - Mandatory Findings of Significance
  This chapter identifies and summarizes the overall significance of any potential impacts to natural and cultural resources, cumulative impacts, and impact to humans, as identified in the Initial Study.

- Chapter 5 – Summary of Required Project Requirements
  This chapter summarizes the requirements integrated into the project as a result of the Initial Study and an explanation to why mitigation measures are not required.

- Chapter 6 - References.
  This chapter identifies the references and sources used in the preparation of this IS/ND. It also provides a list of those involved in the preparation of this document.

- Chapter 7 - Report Preparation
  This chapter provides a list of those involved in the preparation of this document.

1.4 SUMMARY OF FINDINGS

Chapter 3 of this document contains the Environmental (Initial Study) Checklist that identifies the potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the proposed project. Based on the IS and supporting environmental analysis provided in this document, the proposed Historic Dump Site Cover Project would result in less-than-significant impacts for the following issues: air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, and noise.

In accordance with §15064(f) of the CEQA Guidelines, a ND shall be prepared if the proposed project will not have a significant effect on the environment after the inclusion of project requirements in the project. Based on the available project information and the environmental analysis presented in this document, there is no substantial evidence that, after the incorporation of the project specific requirements, the proposed project would have a significant effect on the environment. It is proposed that a Negative Declaration be adopted in accordance with the CEQA Guidelines.

CHAPTER 2
PROJECT DESCRIPTION

2.1 INTRODUCTION

This Initial Study/Negative Declaration (IS/ND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of the proposed project that would construct an eight inch thick concrete cover over an exposed section of a historic dumpsite located along the coastal bluff in the San Miguel Loop of Carpinteria State Beach.

2.2.1 CARPINTERIA STATE PARK AREAS

Carpinteria State Beach Park can be broken up into two areas – one includes 58 acres of recreational areas encompassing the main park (campgrounds and main day use area), Jellybowl Day Use Area, Tarpits Day Use Area, and Rincon Point. The other area is a 2 acre parcel which includes the maintenance yard and employee housing.

2.2.2 PROJECT LOCATION

In the City of Carpinteria, on the south-central coast of Santa Barbara County, 12 miles east of Santa Barbara. The Historic Dumpsite Cover project location is at the southeast end of the campground near the San Miguel Loop (see appendix A for maps).

2.3 BACKGROUND AND NEED FOR THE PROJECT

Santa Barbara County Environmental Health Agency acting in its capacity of Local Enforcement Agency (LEA) for the California Department of Resources and Recycling and Recovery or Cal Recycle Solid Waste Disposal and Co-disposal Site Cleanup Program issued a Notice of Violation on March 21, 2010 for conditions along the beach in the San Miguel Loop of Carpinteria State Beach. An eroding dumpsite dating back to the early days of the town of Carpinteria has over the last decade worked its way out of the coastal bluff and is now depositing broken glass, ceramic, metal and other remnant artifacts from this old burn dump onto the bluff and beach. Much of this material is melted together or bound to asphaltum. This dumpsite and surrounding area were deemed to be of historical, archaeological, and cultural significance.

The Notice of Violation requires State Park compliance with Title 27 of the California Code of Regulations, specifically the following:

> Sections 20820 and 21140 – Abate the exposed solid waste by providing a minimum of two feet of earthen cover over the disposal site. Temporary cover must be monitored and repaired as necessary to prevent exposed solid waste, (LEA has agreed that this is a unique situation and that vertical cover for the bluff may meet a different thickness standard when approved by the LEA and CalRecycle.)

In a June 20, 2011 letter from David Brummond, Supervising Environmental Health Specialist, California State Parks was advised that absent construction of an approved (and permitted) cover solution, State Parks would be subject to enforcement actions as provided by Title 27.

2.4 PROJECT OBJECTIVES

The mission of the California Department of Parks and Recreation is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality recreation. This is also stated in the California's Recreation Policy adopted by the California State Park and Recreation Commission on September 23, 2005.

This project would provide the required cover for a short section of bluff to seal an exposed section of the historic dump site to comply with California Code Regulations Sections 20820 and 21140, thereby addressing public health and safety issues while providing a level of protection for the existing cultural resource.

2.5 PROJECT DESCRIPTION

The proposed project would apply an eight inch thick reinforced shotcrete cover to the bluff face covering all exposed soils and waste within the project area. The cover would begin at the lower bedrock layer or the asphaltum layer base and built up and over the top of the bluff edge meeting cover requirements for the exposed historic dumpsite. The shotcrete cover would be stained and finished to match the appearance of the existing bluff and weathered asphaltum features. To secure the shotcrete cover to the bluff face, soil nail tiebacks would be used.

Soil nails would be a hollow drill bar system that would drill and grout the nails simultaneously. No historic dump material would be extracted during drilling. Soil nails would be spaced at approximately five feet on centers and installed 20 feet into the bluff where the shotcrete cover is at 12 feet high and 10 feet into the bluff where the shotcrete cover is at six feet high and lower. The soil behind the cover would be drained by drilling six weep holes in the concrete approximately 15 feet apart. This will avoid buildup of water behind the wall that may cause damaging hydrostatic pressure. The toe of the cover would be epoxy anchored at locations above the beach to sections of the bedrock or asphaltum shelves with epoxy coated steel dowel bars.

No heavy equipment, construction vehicles, or storage would be allowed on the beach. All construction equipment will be staged at least 10 feet back from the top edge of the bluff. This will also be the minimum clearance from the edge when using a crane or worker lifts and for all activities associated with preparing the surface, installing reinforcements & drainage blankets and applying shotcrete.

At project completion, a wood slatted snow fence will be installed at the bluff top securing the area from visitor access. Additional fencing extending to and along the beach will also be

installed. Signs, indicating the area is closed under a Superintendent Closure Order will be place at appropriate locations along the fencing to notice visitors that the area is closed and a sign directing visitors to a nearby stairway to the beach will be installed.

In addition, the project would remove a ~~50 by 50 foot~~ 220 square foot section of asphalt and a 50 by 20 foot area of non-native ice plant. The asphalt section is a pathway that used to take visitors to an overlook and is no longer needed. These areas will be planted with a variety of native plants including Ambrosia chamissionis (Silver Bluff but), Distichlis spicata (Salt grass), and Rosa californica (California wild rose). *See Appendix C ~~B~~ for Landscape Planting Plan*

2.6 PROJECT ALTERNATIVES

Project alternatives are presented and evaluated in the following matrix (fig. 1).

Alternatives	Description	Meet LEA Requirements	Sustainability	Beach - Bluff Face Stability	Impact to Cultural Resources	Impact to Natural Functions/Resources	Appearance and Compatibility	Maintenance	Recreational Impacts	Coastal Policies
Seawall	Hard Approach - Vertical concrete structure with buried and anchored footing. Bedrock conditions may limit footings and anchoring options.	No	High	Significant disturbance to existing bluff face. Work on beach will be required may present construction /scheduling difficulties. Naturally occurring tar seeps, bedrock formations and groundwater may create construction issues.	Disturbance of both Prehistoric and Historic trash deposits.	Potential impact to depth of beach and changes in sand transport. Modification of habitats. Native vegetation along the section of the bluff where construction will occur will be lost.	Abrupt change in bluff face appearance	Facing material might need frequent refinishing.	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530. Visitors will be directed to a down coast staircase.	Yes*
Embedded Geo-textile Fabric and Beach Nourishment	Soft Approach – Installation of a geo-textile membrane embedded on an exposed bluff face to isolate the dumpsite material, backfilled with removed soil and finishing the face off with suitable cover to match the surrounding area.	yes	Low – Performance relies on maintenance.	Likely to become unstable when subjected to continued wave action. Work on beach will be required may present construction /scheduling difficulties. Naturally occurring tar seeps, bedrock formations and groundwater may create construction issues.	Minimum level of disturbance	Potential impact to depth of beach and changes in sand transport. Modification of habitats.	Abrupt change in bluff face appearance at times when beach nourishment is lost	Will require regular and an unpredictable schedule for backfilling with native soils and land covering.	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530. Visitors will be directed to a down coast staircase.	Yes*
Embedded Seawall	Hybrid Approach – Construction of a seawall landward of the bluff face, replacement of the excavated material between the seawall and bluff and lands covering. Bedrock conditions may limit footings and anchoring options.	yes	High	Naturally occurring tar seeps, bedrock formations and groundwater may create construction issues. At some point backfill will erode and seawall will become exposed.	Disturbance of both Prehistoric and Historic trash deposits.	Potential impact to depth of beach and changes in sand transport. Modification of habitats.	If beach facing bluff face cover can be maintained with sand no substantive change in appearance for function.	Will require regular and an unpredictable schedule for backfilling with native soils and lands covering. Once face of seawall is exposed facing material might need frequent refinishing.	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530. Visitors will be directed to a down coast staircase.	Yes*
Beach Restoration and Nourishment	Soft Approach – Regular deposition of appropriate quality beach sand over the bluff and onto the bedrock and asphaltum shelf such as to adequately cover the dumpsite.	yes	Low -Performance relies on maintenance.	Likely to become unstable when subjected to continued wave action.	Site will continue to erode when not covered.	Will continuously add sand into the littoral sand budget. Will provided ephemeral habitat. Will help retain beach width in the area during the winter season.	If beach facing bluff face cover can be maintained with sand no substantive change in appearance for function.	Will require regular and an unpredictable schedule of sand replenishment	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530. Visitors will be directed to a down coast staircase.	Yes*

Alternatives	Description	Meet LEA Requirements	Sustainability	Beach - Bluff Face Stability	Impact to Cultural Resources	Impact to Natural Functions/Resources	Appearance and Compatibility	Maintenance	Recreational Impacts	Coastal Policies
Rock Rip Rap	Hard Approach – A designed and engineered rock revetment consistent with that found in the vicinity of lifeguard headquarters and south of that location would tie into the existing structure and then be extended down coast to an area in the vicinity of the Veneco Pier. It would modify the largest extent of coastline of any of the proposed alternative. Bedrock conditions may limit footings and anchoring options.	no	Medium – Performance relies on maintenance.	Significant disturbance to existing bluff face. Work on beach will be required may present construction /scheduling difficulties. Naturally occurring tar seeps, bedrock formations and groundwater may create construction issues.	Potential disturbance of both Prehistoric and Historic trash deposits,	Impact to depth of beach and changes in sand transport. Modification of habitats. Native vegetation along the section of the bluff where construction will occur will be lost.	Abrupt change in bluff face appearance. Integration of geologic Asphaltum structures within riprap.	Will require a scheduled maintenance program along the entire length of structure.	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530. Visitors will be directed to a down coast staircase.	Yes*
Steel Pilings	Bedrock conditions may limit footings and anchoring options.	yes	High	Significant disturbance to existing bluff face. Work on beach will be required may present construction /scheduling difficulties. Naturally occurring tar seeps, bedrock formations and groundwater may create construction issues.	Disturbance of both Prehistoric and Historic trash deposits.	Impact to depth of beach and changes in sand transport. Modification of habitats. Native vegetation along the section of the bluff where construction will occur will be lost.	Abrupt change in bluff face appearance	Minimal	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530. Visitors will be directed to a down coast staircase.	Yes*
Vegetation	Active bluff planting program of native vegetation	no	Low	Minimal to no effect against wave action.. Likely to become unstable when subjected to continued wave action.	No anticipated adverse impacts.	Potential to add new habitat. An established bluff planting effort would help in reducing erosion.	Would blend with and enhance adjacent areas	Will require a regular planting schedule and upkeep schedule	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530. Visitors will be directed to a down coast staircase.	Yes*
Geo-Textile Bags	Geo-textile bags or tubes would be filled with sand, layered and anchored up the bluff face. Placement would require horizontal width sufficient enough to support the stacking.	yes	Low	Likely to become unstable when subjected to continued wave action. Naturally occurring tar seeps, bedrock formations and groundwater may create construction issues.	Minimum level of disturbance	Native habitat along the section of the bluff where construction will occur will be lost.	Would extend several feet onto the beach	Bags can easily become damaged and lose sand. Replacement may require removal of portions of the structure to refill damaged layers. Complex.	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530. Visitors will be directed to a down coast staircase.	Yes*

Alternatives	Description	Meet LEA Requirements	Sustainability	Beach - Bluff Face Stability	Impact to Cultural Resources	Impact to Natural Functions/Resources	Appearance and Compatibility	Maintenance	Recreational Impacts	Coastal Policies
Erosion Matting Fabrics and Anchored Core Fiber Rolls	Several rows of anchor cable would be installed in the bluff face, A layer of Enkamat poly-fiber mat would be installed directly on the bluff face to trap and hold any debris that works itself loose from the bluff. A Second layer of reinforced coir fiber rolls would be attached to the anchoring system.	yes	Low	Likely to become unstable when subjected to continued wave action.	Minimum level of disturbance	Will likely provided ephemeral habitat.	Would be a blemish along the coastal bluff and incompatible with	Would require regular inspection and replacement of coir fiber rolls. Dependent of erosion Enkamat layer may need to be lifted to recover debris.	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530	Yes*
No Project	No cover installed - DPR will be in violation of Title 27 of the California Code of Regulations sections 20820 and 21140 and subject to enforcement actions.	No	Low – DPR would be fined for not meeting Title 27 of CFR Sections 20820 and 21140	No change in conditions	No change in conditions	No change in conditions and processes	No change in conditions and processes	Will require a scheduled trash removal program. May face legal action to install a cover inconsistent with Department Practices and policies.	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530	Yes*
"Clean-Close" area of concern adjacent to coastal bluff	Excavated an area approximately 80' wide along bluff and 50 feet back into San Miguel Loop and approximately 13 feet deep in an effort to "Clean Close" the area of exposure. Lay back the slope at a 2:1 ratio and plant with native vegetation.	yes	Low	Significant change to immediate area of work and adjacent bluff faces. May decrease overall stability of area.	Allows for collection and documentation of findings. Will need SHPO approval of planned excavation and methodology.	It will be a challenge to restore slope and sustain with native plants.	Inconsistent with natural appearance of coastal bluff.	Will require consistent and intensive maintenance to ensure no damage occurs to adjacent facilities and bluffs.	Loss of coast fronting campsites at a number yet to be determined.	Yes*

Alternatives	Description	Meet LEA Requirements	Sustainability	Beach - Bluff Face Stability	Impact to Cultural Resources	Impact to Natural Functions/Resources	Appearance and Compatibility	Maintenance	Recreational Impacts	Coastal Policies
Preferred Alternative										
Bluff Stabilization Shotcrete Reinforced Cover	Beginning with a pair of reinforced rebar grids set six inches apart, a shotcrete cover will be blown on to the naturally shaped bluff face making the effort to follow as much as reasonably possible the existing bluff profile. Soil nails and plates will be used to secure the cover to the grid and bluff. Extensions to protect flanking are integral to the design. Toe of structure higher than the wave scour zone. A final layer of sculpted shotcrete to match the existing adjacent bluff appearance will be added and stained. Capitalizes on existing natural asphaltum structures.	yes	Medium – Takes advantage of bedrock and asphaltum deposits to anchor structural rebar grid. Will not disturb toe of slope or require work on beach. Will likely not develop cracks due to settling.	Minimum Disturbance. Naturally occurring tar seeps, bedrock formations and groundwater are expected to be managed and used to the project's advantage during construction.	Proposes minimum disruption to existing bluff. Soils nails will hollow causing nominal disturbance to deposits.	Since all work will be conducted above Mean High Higher Water effects to the beach and sand transport are expected to be nominal. Vegetation along the section of the bluff where construction will occur would be removed and all disturbed areas will planted with natives.	Sculpted finish will match in color and appearance adjacent bluff face layers	As needed due to cracking or loss of detail	Area will remain closed for access to and from beach per Title 27 CA Code of Regulations Sec. 20530. Visitors will be directed to a down coast staircase.	Yes*

Yes* = The potential for findings of consistency exist given that the end products of the project ensure protection of coastal resources, coastal recreation, continued public use and access to San Miguel campground loop and beach segment.

2.7 PROJECT IMPLEMENTATION

Construction work is projected to start in March 2013, or soon thereafter, and continue for approximately 3 months. Work would occur only during daylight hours and would be scheduled to avoid impact to visitors; however, weekend work could be implemented to accelerate construction or address emergency or unforeseen circumstances.
Heavy equipment, such as a crane, compressor, and concrete pump could be used during construction. Most equipment would be transported to the site and be parked on paved an area within the Sa Miguel Loop until work is completed. Transport vehicles for material or equipment delivery trucks, and crew vehicles would also be present intermittently at the site. Staging areas for equipment would be confined to the same existing paved areas.

Best Management Practices (BMPs) would be incorporated into this project design to ensure that the natural and cultural resources in and around the project area are adequately protected during and after construction. The BMPs discussed in this document and used in the implementation of this project were obtained from the *California Stormwater Quality Association (CSQA), Stormwater Best Management Practices Construction Handbook.* Temporary BMPs would be used to keep sediment on-site throughout the duration of the project; during construction, BMPs would be checked daily, maintained, and modified as needed; and BMPs would be used after construction to stabilize the site and minimize erosion.

The Department of Parks and Recreation has consistently referenced CSQA BMPs and has identified them as an acceptable standard for use in all State Parks.

2.8 PROJECT REQUIREMENTS

Under CEQA, the Department of Parks and Recreation has the distinction of being considered a lead agency, a public agency that has a primary responsibility for carrying out or approving a project and for implementing CEQA; a responsible agency, a public agency other than the lead agency that has responsibility for carrying out or approving a project and for complying with CEQA; and a trustee agency, a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people for the State of California. With this distinction comes the responsibility to ensure that actions that protect both cultural and natural resources are implemented on all projects. Therefore, DPR has created a list of Project Requirements that are included in project design or description to reduce impacts to resources.

DPR has two types of Project Requirements, standard and specific. Standard Project Requirements (SPR) are assigned to all projects state-wide, while project specific requirements (PSR) are assigned based on the specific actions required to complete the project. For example, Fire Safety practices are included in all DPR projects; however, inadvertent discovery of archaeological artifacts would only be assigned to projects that include ground-disturbing work.

In determining the appropriate analytical methodology for this ND, DPR followed the following steps:

Step 1: Integration of Standard and Specific Project Requirements

DPR reviewed potentially applicable Standard Project Requirements (environmental protection measures) that it has used for other projects throughout the State selected those deemed

applicable and integrated them into the project description. Specific Project Requirements were integrated into the project description as needed based on project actions and the surrounding environment. Both Standard and Specific Project Requirements have been integrated into this Project.

Step 2: Impact Analysis

Following integration of both Standard and Specific project requirements; DPR evaluated the significance of potential impacts of the Project on the full range of CEQA resource topics. All potential impacts were determined to be less than significant.

The following Table lists Project Requirements that have been included in this project:

Project Action	Project Requirement
Aesthetics	
AES PSR 1 Cover	The cover would be inspected and necessary repairs will be completed as needed to keep the bluff and weathered asphaltum like appearance
Air Quality	
Air SPR 1 - Increased Emissions of Fugitive Dust	All construction areas (dirt/gravel roads and surrounding dirt/gravel area) will be watered at least twice daily during dry, dusty conditions.
	All trucks hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.
	All construction-related equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all State and federal requirements.
	Earth or other material that has been transported onto paved roadways by trucks, construction equipment, erosion, or other project-related activity will be promptly removed.
Biological Resources	
Bio SPR 1 - Nesting Migratory Birds and Raptors	If project activities occur during the bird breeding season (February 1 – September 15), a DPR`-approved biologist will survey the project area for nesting birds.
	Nest surveys will be conducted no more than 7 days prior to the beginning of project implementation. Nesting raptors will be given a 500-foot buffer and non-raptor nests will be given a 150-foot buffer. These buffers may increase if a special-status species is nesting.
Bio PSR 2 Native Plantings	DPR will plant native vegetation in all disturbed areas including the 50 by 50 foot section where asphalt will be removed.

Cultural Resources	
Cultural PSR 1 - Monitoring	The Project or District Archaeologist and Native American Monitor will monitor all ground disturbing phases of this proposed project at their discretion. Monitoring will include all ground preparation work required for construction on the Historic Dumpsite Cover measure.
	A request for a Native American Monitor shall be made prior to project work.
Cultural SPR 2 – Previously Undocumented Resources	In the event that previously undocumented cultural resources (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic trash) are encountered during proposed project construction by anyone, the state archaeologist or state representative will temporarily halt at that specific location and direct contractors to other proposed project-related tasks. The Project or District Archaeologist will record and evaluate the find and work with state representative to implement avoidance, preservation, or recovery measures as appropriate prior to any work resuming at that specific location.
	If archaeological resources are discovered, all ground disturbing work at the location of the find will cease until the archaeologist designs and implements appropriate treatments in accordance with the Secretary of the Interiors Standards and Guidelines for archaeological resource protection.
Cultural SPR 3 – Human Remains Discovery	In the unlikely event that human remains are discovered, work will cease immediately in the area of the find and the project manager/site supervisor will notify the appropriate DPR personnel. The DPR Sector Superintendent (or authorized representative) will notify the County Coroner in accordance with §7050.5 of the California Health and Safety Code. If the coroner determines the remains represent Native American internment, the Native American Heritage Commission in Sacramento will be consulted to identify the most likely descendants and appropriate disposition of the remains. Work will not resume in the area of the find until proper disposition is complete. (PRC §5097.98)

Geology and Soils	
GEO SPR - 1 Erosion Control BMPs	Prior to the start of construction, Contractor will prepare a Storm Water Soil Loss Water Prevention Plan (SWSLPP) for DPR approval that identifies the Best Management Practices to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all excavation, grading, or trenching.
	BMP's must be in place at all times including covering (tarping) any stockpiled materials or soils and by constructing silt fences, straw bale barriers, fiber rolls, or other structures around stockpiles and disturbed areas.
GEO PSR 2 – Monitoring Plan	Contractor will develop and submit for approval a monitoring plan for soil-nail installation and a contingency plan in the event of bluff collapse or landslide.
Hazardous and Hazardous Materials	
Hazard SPR 1- Hazardous Material Spills	Prior to the start of construction, the contractor will clean all equipment before entering the project site. Equipment will be cleaned and repaired (other than emergency repairs) outside the project site boundaries. All contaminated water, sludge, spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site, at a lawfully permitted or authorized destination.
	Prior to the start of construction, the contractor will inspect all equipment for leaks and regularly inspect thereafter until equipment is removed from the project site. Prior to the start of construction, DPR or its contractor will prepare a Spill Prevention and Response Plan (SPRP) as part of Storm Water Soil Loss Water Prevention Plan (SWSLPP) to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan will include (but not be limited to): • A map with at least both a primary and secondary containment areas with a listing of BMP's to be used to prevent an accidental release of concrete onto the beach.

	• A map that delineates construction staging areas, where refueling, lubrication, and maintenance of equipment will occur. • A list of items required in a spill kit on-site that will be maintained throughout the life of the project. • Identification of lawfully permitted or authorized disposal outside of the project site.
Hazard SPR 2 - Fire Safety	Prior to the start of construction, the Project Contractor will develop a DPR-approved Fire Safety Plan. The plan will include the emergency calling procedures for both the Local Fire Department.
	Spark arrestors or turbo chargers (which eliminate sparks in exhaust) and fire extinguishers will be required for all heavy equipment. Construction crews will be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment will be parked over mineral soil, asphalt, or concrete to reduce the chance of fire.
Hazard PSR 3 - Worker Safety	Require construction personal to have appropriate training in compliance with 29 CFR, §§1910, et seq. (Occupational Safety and Health Standards), 1926 et seq (Safety and Health Regulations for Construction) and 8 CCR § 5192 (Hazardous Waste Operations and Emergency Response) to protect workers.
Hazard PSR 4	Contractor will be required to develop a plan to prevent the release of the lead contaminated material layer during construction of the vertical cover or if released how the material will be contained and disposed of as required by state and federal laws.
Hydro SPR 1	DPR-approved Best Management Practices (BMP's) would be implemented for the Historic Dumpsite Cover project for the prevention of soil erosion and runoff, for stockpile management, and for spill prevention from vehicle and equipment fluids and any construction materials.

	For contracted project work a Storm Water Soil Loss Water Prevention Plan (SWSLPP) be prepared and implemented prior to the start of construction. This plan would include DPR-approved Best Management Practices for the prevention of soil erosion and runoff, for stockpile management, and for spill prevention from vehicle and equipment fluids and any construction materials.
Noise	
Noise SPR 1 - Noise Level Reduction	Construction activities will generally be limited to the daylight hours, Monday – Friday; however, weekend work may be implemented to accelerate construction or address emergency or unforeseen circumstances. If weekend work is necessary, no work will occur on those days before 8:00 a.m. or after 6 p.m. Visitors will be notified of construction work and alternate camping areas will be able at the time of reservation Internal combustion engines used for any purpose at the job site will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction will utilize the best available noise control techniques (e.g. engine enclosures, acoustically-attenuating shields, or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary. Stationary noise sources and staging areas will be located as far away from sensitive receptors as possible. If they must be located near sensitive receptors, stationary noise sources will be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds.

2.9 VISITATION TO CARPINTERIA STATE BEACH

Carpinteria State Beach receives an average of 842,423 visitors per year. The proposed project will install a cover treatment on an exposed historic dumpsite and will not increase attendance at the Park.

Year	PAID DAY USE	FREE DAY USE	CAMPING	TOTAL
1996	73,511	305,659	373,103	**752,273**
1997	75,335	387,689	385,578	**848,602**
1998	80,266	322,497	369,174	**771,937**
1999	61,061	389,561	176,390	**627,012**
2000	150,098	353,760	293,647	**797,505**
2001	142,944	318,200	385,649	**846,793**
2002	156,544	380,803	426,248	**963,595**
2003	157,762	437,615	457,762	**1,053,139**
2004	109,518	492,114	394,650	**996,282**
2005	65,593	329,491	388,319	**783,403**
2006	75,533	335,688	433,416	**844,637**
2007	79,589	389,914	394,491	**863,994**
2008	83,379	330,588	429,470	**843,437**
2009	86,000	376,914	408,741	**871,655**
2010	69,105	352,542	350,438	**772,085**
Total Attendance:	**1,466,238**	**5,503,035**	**5,667,076**	**12,636,349**
Average Attendance	**97,749**	**366,869**	**377,805**	**842,423**

2.10 CONSISTENCY WITH LOCAL PLANS AND POLICIES

The proposed project to cover the Historic Dumpsite to prevent historic trash from eroding onto the beach is consistent with local plans and policies including the County of Santa Barbara and the City of Carpinteria General Plans. The General Plan for Carpinteria State Beach was approved in July 1979.

At the request of the City of Carpinteria DPR reviewed the following Objectives and Policies:

a. Objective LU-1 - This project would cover an exposed section of a Historic Dumpsite. Its creation would not change the current access to the beach in this area.
b. Policy LU-1d: The cover would ensure that potentially hazardous materials stay within the historic dumpsite thus protecting recreation resources on the beach and visitors.
c. Objective CD-12: The cover has been designed to blend into the surrounding area and would not detract from the surrounding natural environmental.
d. Objective OSC-1: The project will protect the beach by preventing dumpsite materials from escaping, preserve the historic feature, and will plant natives to enhance the local vegetation.

e. Objective OSC-4: The project will remove non-native ice plant and plant additional native plants to increase the potential for biodiversity in the area.
f. Implementation Policy 14: No vehicles related to this project will be allowed on the beach during construction.
g. Implementation Policy 17: Currently, the bluff is eroding allowing materials from the historic dumpsite to go onto the beach causing a potential health hazard. The shotcrete cover would prevent this from happening while protecting the bluff from further erosion.
h. Implementation Policy 18: The cover will seal an exposed section of the historic dumpsite to comply with California Code Regulations Sections 20820 and 21140, thereby addressing public health and safety issues while providing a level of protection for the existing cultural resource.
i. Implementation 20: The parking at Carpinteria will be temporary impacted during construction. Once the project is complete the number of parking spaces will be the same as before construction.
j. Objective OSC-13: the cover has been designed to blend into the surrounding visual environment preserving the natural characteristics of the area.
k. Policy OSC-13g: the cover will be colored and shaped so it blends into the surrounding environment.
l. Policy OSC-13h: the project will remove vegetation and apply a shotcrete vertical cover. There will be no cut or fill.
m. Policy OSC-13i: cover was designed to fit into the surrounding landscape. See project plans for details. The minimum amount of vegetation and sand/soil will be removed to allow for the installation of the tie backs and shotcrete cover. The cover is designed to preserve and blend the new structure into the surrounding landforms; the weep holes will allow any ground water to continue to seep from the bluff face so there will be no change to the drainage pattern; and additional native vegetation will be added on top of the bluff.
n. Objective OSC-14: the park and recreation facilities will remain the same after the project is complete.
o. Objective OSC-16: the project will provide a cover that will seal in the historic dumpsite materials preserving the historic feature.
p. Objective N-5: construction will be limited to Monday –Friday from 8-4 pm to minimize any effect of sensitive land uses.
q. Policy N-5b: activities will be limited as necessary to prevent noise impacts.
r. Policy N-5c: see page 19 of the Initial Study for techniques employed by CDPR to minimize noise.

2.11 DISCRETIONARY APPROVALS

The California Department of Parks and Recreation retains approval authority for the proposed Dumpsite Cover project at Carpinteria State Beach. However, this project requires consultation with:

- Santa Barbara County Environmental Health Agency
- City of Carpinteria
- Chumash Tribe and individuals
- State Lands Commission

- Central Coast Regional Water Quality Control Board

Additional internal document reviews include Public Resources Code § 5024. The Department of Parks and Recreation would acquire all necessary reviews and permits prior to implementing any project components requiring regulatory review.

2.11 RELATED PROJECTS

The Department of Parks and Recreation often has smaller maintenance programs and rehabilitation projects planned for a park unit. In addition, DPR has as number of projects that are either in construction or expected to move forward over the next two to three years:

Projects in the Planning Stage

- ADA Improvement Project - Work needed to make addition facilities within Carpinteria State Beach accessible to persons with disabilities.

Currently in Construction

- ADA Improvement Project - Modification to existing campsites, picnic areas and replace one shower/restroom building for persons with disabilities (Americans with Disabilities Act Compliance).
- Inactive Play Area/Bio swell/Palm-Linden Trail Project

Project in Environmental Review

- Nature Education Facilities Improvement Project (describe below) that is expected to begin construction within the next year.
    - Expansion of educational facilities including construction of a new modular building and repurposing the existing building as a Visitor Center
    - Construction of a dune boardwalk
    - Restoration of degraded dune habitat
    - Creation of a small gathering area/amphitheater
    - Installation of a bluff viewing area
    - Interpretive exhibits throughout the park
    - Two compliant beach access routes would be established at the Day Use Area and east of Carpinteria Creek (adjoining Santa Rosa Campground)
    - Upgrades to trails and parking
    - Habitat restoration along the east side of Carpinteria Creek including removal of lawn and revegetation with native species

The environmental document for the above project is schedule to be circulated for public review in spring 2012 and construction would begin on some of the elements once the document is finalized in late spring/early fall 2012.

The project described in this IS/ND is schedule to start construction in March 2013. Construction activities within the park could overlap. Cumulative effects of these projects are discussed in Chapter 4 item c.

CHAPTER 3
ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1. Project Title: Historic Dumpsite Cover

2. Lead Agency Name & Address: California Department of Parks and Recreation

3. Contact Person & Phone Number: Richard Rozzelle, District Superintendent
California Department of Parks and Recreation
Central Coast District
911 San Pedro Street
Ventura, CA 93001-3744

4. Project Location: Carpinteria State Beach
5. Project Sponsor Name & Address: California Department of Parks and Recreation
Central Coast District

6. General Plan Designation: Public Land

7. Zoning: Open Space/Recreation

8. Description of Project: Apply an eight inch thick reinforced shotcrete cover to the bluff face covering all exposed soils and waste within the project area. The cover would be reinforced and begin at the lower bedrock layer or the asphaltum layer base and built up and over the top of the bluff edge to provide required cover for the exposed historic dumpsite. The shotcrete cover would be stained and finished to match the appearance of the existing bluff and weathered asphaltum features. Remove a 220 sq foot section asphalt.

9. Surrounding Land Uses & Setting: Refer to Chapter 3 of this document (Section IX, Land Use Planning)

10. Approval Required from Other Public Agencies: Refer to Chapter 2 of this document (Section 2. 10 Discretionary Approvals)

1. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	☒ None

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment and a **NEGATIVE DECLARATION** will be prepared. ☒

I find that, although the original scope of the proposed project **COULD** have had a significant effect on the environment, there **WILL NOT** be a significant effect because revisions/mitigations to the project have been made by or agreed to by the applicant. A **MITIGATED NEGATIVE DECLARATION WILL** be prepared. ☐

I find that the proposed project **MAY** have a significant effect on the environment and an **ENVIRONMENTAL IMPACT REPORT** or its functional equivalent will be prepared. ☐

I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment. However, at least one impact has been adequately analyzed in an earlier document, pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis, as described in the report's attachments. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the impacts not sufficiently addressed in previous documents. ☐

I find that, although the proposed project could have had a significant effect on the environment, because all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration, pursuant to applicable standards, and have been avoided or mitigated, pursuant to an earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, all impacts have been avoided or mitigated to a less-than-significant level and no further action is required. ☐

Stephanie Coleman
Environmental Coordinator

Date 2/6/12

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers, except "No Impact", that are adequately supported by the information sources cited. A "No Impact" answer is adequately supported if the referenced information sources show that the impact does not apply to the project being evaluated (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on general or project-specific factors (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must consider the whole of the project-related effects, both direct and indirect, including off-site, cumulative, construction, and operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether that impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate when there is sufficient evidence that a substantial or potentially substantial adverse change may occur in any of the physical conditions within the area affected by the project that cannot be mitigated below a level of significance. If there are one or more "Potentially Significant Impact" entries, an Environmental Impact Report (EIR) is required.

4. A "Mitigated Negative Declaration" (Negative Declaration: Less Than Significant with Mitigation Incorporated) applies where the incorporation of mitigation measures, prior to declaration of project approval, has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact with Mitigation." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR (including a General Plan) or Negative Declaration [CCR, Guidelines for the Implementation of CEQA, § 15063(c)(3)(D)]. References to an earlier analysis should:

   a) Identify the earlier analysis and state where it is available for review.

   b) Indicate which effects from the environmental checklist were adequately analyzed in the earlier document, pursuant to applicable legal standards, and whether these effects were adequately addressed by mitigation measures included in that analysis.

   c) Describe the mitigation measures in this document that were incorporated or refined from the earlier document and indicate to what extent they address site-specific conditions for this project.

6. Lead agencies are encouraged to incorporate references to information sources for potential impacts into the checklist or appendix (e.g., general plans, zoning ordinances, biological assessments). Reference to a previously prepared or outside document should include an indication of the page or pages where the statement is substantiated.

7. A source list should be appended to this document. Sources used or individuals contacted should be listed in the source list and cited in the discussion.

8. Explanation(s) of each issue should identify:
   a) the criteria or threshold, if any, used to evaluate the significance of the impact addressed by each question **and**
   b) the mitigation measures, if any, prescribed to reduce the impact below the level of significance.

ENVIRONMENTAL ISSUES

I. AESTHETICS

ENVIRONMENTAL SETTING

Carpinteria State Beach encompasses approximately 58-acres of recreational land and spans approximately one mile of shoreline. This park unit is situated between the ocean to the south and railroad tracks that forms the main park units northern boundary. With the exception of the open coastal and ocean expanse to the south, this part of the park is surrounded by residential and other urbanized development.

The terrain of the northern portion of the park is a flat, low-lying alluvial plain with a low dune ridge 3 to 13 feet high paralleling the coastline above mean high tide level. The terrain along the beach rises gently to form a low coastal terrace. As the terrace becomes more prominent, the sand beach narrows and the dune ridge transitions to a terrace bluff. At the southern end of the park the coastal terrace is about 20 feet high. The terrace bluffs offer vistas of the beach, surf zones, and the Channel Islands. The intertidal zone in this area is mostly sand, although some rocky outcroppings are present. Carpinteria Creek flows to the ocean through the central section of the park. A small lagoon at the mouth of the creek is the remainder of what was once a large lagoon.

Figure 1: Asphaltum Deposits

South and east of Carpinteria Creek are large tarry asphalt deposits (asphaltum) beneath the beach and bluff (See Figure 1, left). The petroleum hydrocarbons seep out of fractures and flow naturally onto the beach. The Chumash Indians used the tar to seal their canoes and cooking utensils. Over time, other area residents utilized the oozing black tar for a variety of purposes, including the first paved roads in Santa Barbara County. The site was once operated as an asphalt mine, leaving behind an open pit in the area of the San Miguel Campground.

Following closure of the asphalt mining operation City residents burned and buried trash at the mine pit from the late 1920's to the early1960's. Once the pit was filled it was capped and paved over later becoming a part of Carpinteria State Beach. (Leftwich, et al. 2009)

Figure 2: Exposed Historic dumpsite debris

The focus of this project is an approximately 100 foot section of the bluff area adjacent to the eastern end of the San Miguel Campground. The exposed portion of the trash feature measures approximately 60 feet in length from east to west and it averages 13 inches thick. The County of Santa Barbara Environmental Health Agency has noticed this condition as a violation presenting a public health and safety concern.

Scenic Vistas
A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. The view from the campground towards the ocean could be considered a scenic vista as are views from the beach looking both up and down the coast.

Scenic Resources
Scenic resources are defined as those landscape patterns and features that are visually or aesthetically pleasing and that, therefore, contribute affirmatively to the definition of a distinct community or region including, but not limited to, trees, rock outcroppings, and historic buildings. Scenic areas, open spaces, rural landscapes, vistas, country roads, and other factors interact to produce a net visual benefit upon individuals or communities. Those visual resources that uniquely contribute to that public benefit are scenic resources under CEQA.

California Scenic Highway Program, established in 1963, is intended to preserve and enhance the natural beauty of California. Regardless of landscape region, a scenic highway traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. Visual intrusions may be natural or constructed elements, viewed from the highway, that adversely affect the scenic quality of a corridor (California Department of Transportation, 2007).

As an open space area in a relatively urbanized area, Carpinteria State Beach could be considered a scenic resource. In addition to the ocean, it contains the bluffs, rock outcroppings as well as the unique geological features of the natural asphalt. The main route into Carpinteria State Beach is State Route 224 (Palm Ave) however; it is not a designated or eligible State Scenic Highway nor is the project site visible from the State Route.

Visual Character
Visual character is descriptive and nonevaluative, which means, it is based on defined attributes that are neither good nor bad in and of themselves. Carpinteria State Beach is characterized by its ocean-front setting with a backdrop of an urbanized area.

Light and Glare
The majority of the western portion of the planning area is urbanized, with significant existing sources of light and glare, such as street lights along roadways, parking lots and walkways, lighted recreation facilities, and light emitted from nearby residential and nonresidential buildings. Buildings and structures made with reflective materials exist throughout the area; combined with existing natural and manmade light sources, these can constitute a source of localized glare.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including,	☐	☐	☐	☒

but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

DISCUSSION

a) The project site contains little unique natural or urban features that contribute to scenic views. In general, public views of the site are limited to vantage points along beaches west and east of the site, from offshore and from considerable distances. It is not visible from any highway or public street. The project would not have a substantial adverse effect on a scenic vista and therefore, no impact would result.

b) There are no state scenic highways within the project area as designated by the California Department of Transportation Scenic Highway System (California Department of Transportation, 2011) and therefore, there would be no impact.

c) Proposed project activities would construct a shotcrete cover on the exposed historic dumpsite; a short term (10-15 years) means to prevent additional debris exposure by wave erosion. Shotcrete method is proposed for this project because it would not drastically alter the current configuration of the bluff surface. In addition, the shotcrete surface would be stained and hand sculpted to match the natural appearance of the existing bluff and weathered asphaltum features. Examples of sculpted concrete have been included in appendix C for reference. **PROJECT SPECIFIC REQUIREMENT Aesthetics 1 -** The cover would be inspected and necessary repairs will be completed as needed to keep the bluff and weathered asphaltum like appearance. Shotcrete construction would result in the least disturbance and the smallest physical footprint to the project area based on review of the project alternatives outlined in chapter 2 Section 2.6.

Two signs would be installed on the bluff top fence. They will be 8.5 by 11" with brown lettering indicating the area is closed under a Superintendent Closure Order and would be place at appropriate locations along the fencing to notice visitors that the areas is closed and a sign directing visitors to a nearby stairway to the beach. Examples of these signs already exist and do not detract for the overall view of the area and neither would the new signs.

The proposed work would blend harmoniously with the existing bluff face. Therefore, implementation of the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings, but would actually enhance the visual character of the park area. Therefore, a less than significant ~~no~~ impact would result.

d) The proposed shotcrete cover would not produce new sources of light or glare that are not already present at the park unit. Therefore, no impact would result.

II. AGRICULTURAL AND FOREST RESOURCES

ENVIRONMENTAL SETTING

Carpinteria State Beach is surrounded by the City of Carpinteria in Santa Barbara County along the coast in southern California approximately twelve miles southeast of the City of Santa Barbara. Carpinteria State Beach is bordered by commercial, residential, and industrial properties to the north, west, and east, and has its southern boundary the Pacific Ocean. Carpinteria State Beach consists of sandy beach and dune areas as well as terrace bluffs.

Agricultural

The County of Santa Barbara has approximately 1,756,000 acres of land of which there is an estimated 105,060 acres of irrigated farmland (prime Farmland [70,180 ac], Farmland of Statewide Importance [5,750 ac], and Unique Farmlands [29,130 ac]) and 1,337,280 acres of grazing and dry-farmed land (non-irrigated) (SB General Plan 2009). In 2010, the County of Santa Barbara County produced $1,219,995,405 dollars' worth of agricultural products including vegetable, fruit, and nut crops (Agricultural Report 2010).

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are lower than normal because they are based upon farming and open space uses as opposed to full market value of the property (CDC 2011). The General Plans of both the Santa Barbara County and the City of Carpinteria's General Plans strongly encourage and support the Williamson Act (City of Carpinteria 2003, County of Santa Barbara 2009). Santa Barbara County has 547,369 acres enrolled in the Land Conservation Act.

Forest Resources

Los Padres National Forest encompasses almost two million acres and is the third largest National Forest in California. The forest covers a large portion of Santa Barbara County. The National Forest borders part of the City of Carpinteria's Planning Area to the north of the city and provides hiking trails and camping facilities. There is no commercial timber production listed in Santa Barbara County (County of Santa Barbara 2011).

WOULD THE PROJECT*:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code	☐	☐	☐	☒

§4526), or timberland zoned Timberland Production (as defined by government Code § 51104(g))?				
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

* In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model for use in assessing impacts on agricultural and farmland.

DISCUSSION

a-b) As stated in the Environmental Setting above, Carpinteria State Beach consists of sandy beach and dune areas as well as terrace bluffs. The park does not support any agricultural operations. The proposed project would be constructed entirely within Carpinteria State Beach, would have no impact on any category of California Farmland, and would not conflict with any existing zoning for agricultural use or Williamson Act contract. No impact.

c) Carpinteria State Beach does not support nor is it zoned for timber production. The project would take place entirely within Carpinteria State Beach and would have no impact on any timber zoning or cause rezoning of any land. No Impact.

d) Carpinteria State Beach is located along the Pacific Ocean in southern California and consists of a sandy beach, dune areas, and terrace bluffs. All project locations would retain their current use; there would be no loss of forestland or conversion of land to non-forest use. No impact.

e) The proposed project would stabilize an existing facility; no expansion of these facilities or changes in the existing environment would occur as a result of project implementation that would result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No impact.

III. AIR QUALITY

ENVIRONMENTAL SETTING

The project site is located within the South Central Coast Air Basin and is under the jurisdiction of the Santa Barbara County Air Pollution Control District (APCD). The APCD has a network of 18 air monitoring stations that monitor air quality in the County (SBCAPCD 2009). The closest monitoring station to the project site is located on Gobernador Canyon Road in Carpinteria. This station monitors ozone and nitrogen dioxide. The nearest station measuring PM_{10} and carbon monoxide is the Las Flores Canyon station (DPR 2008).

Climate

Santa Barbara County is situated among a series of transverse mountain ranges, the only ranges within the continental United States to trend in an east-west direction. Santa Barbara County's climate is typically warm and dry in summer and cool and wet in winter, close to that of a Mediterranean-type climate. Average annual temperatures are about 52 – 66° Fahrenheit, with extremes of 109 and 20°Fahnerheit having been recorded at the Santa Barbara Airport within the last 60 years. The proximity of the Pacific Ocean tends to moderate Santa Barbara's climate and temperature near the coast, while adjacent steep mountain ranges paralleling the coast produce a significant "orographic effect". This effect occurs when storms approaching the county from the Pacific Ocean are forced upward against the mountains resulting in an increased precipitation release with the increased topographic elevation. This orographic effect, in conjunction with the steep, short watersheds, occasionally results in flash flooding along the county's south coast (County of Santa Barbara 2009).

Precipitation within the county varies greatly from season to season and with each location. Average annual precipitation ranges from a minimum of 8 inches in the Cuyama Valley to over 36inches at the apex of the Santa Ynez Mountains. Snow is common at the county's highest elevations that are in excess of 6,600 feet above sea level. Climate studies have determined that drought periods occur regularly and may last as long as a decade or more. The most recent drought lasted from 1986 to 1991, during which water storage in the county's major reservoirs was nearly depleted (County of Santa Barbara 2009).

Air Quality Designations

The California Air Resources Board (CARB) makes state area designations for ten criteria pollutants (an air pollutant for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set): ozone, suspended particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates, lead, hydrogen sulfide and visibility reducing particles (VRPs) (CalEPA 2011 (b)). At the state level (in the project area), ozone and PM_{10} are designated as non-attainment; $PM_{2.5}$ and VRPs are designated unclassified; and nitrogen dioxide, sulfur dioxide, hydrogen sulfide, sulfates, carbon monoxide and lead are designated as attainment (CalEPA 2011 (c)).

A pollutant is designated "attainment" if the state standard for that pollutant was not violated at any site in the area for a three year period. If there was at least one violation of a state standard for a pollutant in the area, it is designated as "non-attainment" for that pollutant. If there are not enough data available to determine whether the standard is exceeded in an area, the area is

designated as “unclassified”. Non-attainment/transitional is a subcategory of the non-attainment designation; an area is designated non-attainment/transitional to signify the area is close to attaining the standard for that pollutant (CalEPA 2003).

The Clean Air Act, which was last amended in 1990, requires the United States Environmental Protection Agency (USEPA) to set National Ambient Air Quality Standards (NAAQS) for widespread pollutants from numerous and diverse sources considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of “sensitive” populations such as asthmatics, children and the elderly. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation and buildings (USEPA 2011 (c)).

In contrast to the state area designations the USEPA makes national area designations for five criteria pollutants: ozone (8 hour standard; the national 1 hour standard was revoked in June 2005), PM_{10}, carbon monoxide, nitrogen dioxide and sulfur dioxide (CalEPA 2011(c)). The USEPA has set NAAQS for six principal pollutants, which are called criteria pollutants, these are: lead, ozone, particulate matter (PM), carbon monoxide, nitrogen dioxide and sulfur dioxide, pollutants considered harmful to public health and the environment (USEPA 2011(c)). At the national level (in the project area), ozone, carbon monoxide, $PM_{2.5}$, and nitrogen dioxide are designated unclassified/attainment; PM_{10} and sulfur dioxide are designated unclassified (CalEPA 2011 (c)).

CARB staff submitted recommended area designations for the new federal sulfur dioxide standard to the USEPA in June 2011. The full submittal package can be found at: http://www.arb.ca.gov/desig/feddesig.htm. USEPA adopted a new 1-hour sulfur dioxide standard on June 2, 2010 (CalEPA 2011(a)).

If an area does not meet (or contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant, it is designated as non-attainment. If an area meets the national primary or secondary ambient air quality standard for that pollutant, it is designated as in-attainment. An area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant is designated as unclassifiable. (USEPA 2011(a))

Criteria Pollutant Designations for Santa Barbara County

Criteria Pollutant	State	Federal
Ozone	Non-Attainment	Unclassified/Attainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
PM_{10}	Non-Attainment	Unclassified
$PM_{2.5}$	Unclassified	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Lead	Attainment	No Federal Standard
Hydrogen Sulfide	Attainment	No Federal Standard
Sulfates	Attainment	No Federal Standard
Visibility Reducing Particles	Unclassified	No Federal Standard

Sources

During personal and business activities, Californians release thousands of tons of pollutants into the air every day. Although each person may only produce a small amount of air pollution, the combined pollution from the 33 million Californians adds up to problems. Some air pollutants are formed and released during the combustion of petroleum-based products and other fuels such as wood. Examples include gasoline and diesel-powered vehicles/equipment and fireplaces, respectively. Many tons of pollutants also enter the air through evaporation, such as fuel from gasoline storage and dispensing facilities, car and truck gasoline tanks and gasoline storage containers.

On hot, sunny days, pollutants emitted by vehicles, industry and many products (nitrogen oxides and volatile organic compounds) react with each other to form ozone, the main ingredient of smog. During the winter, temperature inversions can trap tiny particles of smoke and exhaust from cars, trucks, fireplaces, and anything else that burns fuel. This keeps the pollution close to the ground at the level where people are breathing.

In the South Central Coast Air Basin, where the proposed project is located, power plants, oil extraction and refining, transportation, and agricultural operations are the major air pollution sources. Four percent of Californians live here, generating four percent of all vehicle miles driven (CalEPA 2011(d)).

Air Monitoring Stations

CARB's air quality monitoring program collects accurate real-time measurements of ambient level pollutants at over 40 sites located throughout California. The data generated are used to define the nature and severity of pollution in California; determine which areas of California are in attainment or non-attainment; identify pollution trends in the state; support agricultural burn forecasting; and develop air models and emission inventories. The State and Local Air Monitoring Plan provides the results of the annual review of the air monitoring stations in California operated by CARB, the local APCDs or Air Quality Management Districts (AQMD), private contractors, and by the National Park Sevice (NPS). Together, these entities operate more than 250 air monitoring stations in California. Most of the local districts operate air monitoring within their jurisdictions, while in some portions of the state, private contractors

operate monitoring stations under contract with businesses that are required by permit conditions to conduct monitoring. NPS also operates air monitoring stations in the national parks and national monuments throughout California (CARB 2011(e)).

Stations in Santa Barbara County fall into two primary categories: SLAMS and PSD stations. Six SLAMS (State and Local Air Monitoring Stations) measure urban and regional air quality. Two SLAMS are operated by CARB (Santa Barbara and Santa Maria) and four by the APCD (Lompoc, Santa Ynez, El Capitan and Goleta). Five of these stations measure ambient concentrations of carbon monoxide, ozone, nitrogen oxides, $PM_{10,}$ and sulfur dioxide.

Twelve PSD (Prevention of Significant Deterioration) stations are used to determine baseline air quality and the impacts of specific operations, for example large oil and gas facilities. These stations are generally located in the vicinity of the facility, and measure specific pollutants emitted by the facility. Most PSD stations are operated by the facility; four are operated by APCD. Some PSD stations have been located in distant areas to measure background concentrations of pollutants, or to measure regional pollutants, such as ozone, in areas downwind from the facility.

Data collected are summarized in regular required reports to CARB and USEPA and in APCD's Annual Air Quality Report. Data are also used for planning and permitting to help predict future pollution concentrations using computer models (SBCAPCD 2009).

The closest monitoring station to the proposed project area is a PSD in Carpinteria located on Gobernador Canyon Road (SBCAPCD 2010).

Health Hazards

Ozone and particulate matter are the most common air pollutants in California. Ozone, also known as smog, can irritate the respiratory system, causing coughing, irritation in the throat, or a burning sensation in the airways. It can reduce lung function, causing chest tightness, wheezing and/or shortness of breath. Particulate pollution, also known as particulate matter, is composed of microscopic solids or liquid droplets that are so small they can get deep into the lungs and cause serious health problems. When exposed to these small particles, people with heart or lung diseases and older adults may require hospital and emergency room visits in some cases exposure may lead to death from heart or lung disease. Carbon monoxide can cause harmful health effects by reducing oxygen delivery to the body's organs (i.e. the heart and brain) and tissues. Sulfur dioxide causes a wide variety of health and environmental impacts because of the way it reacts with other substances in the air. Impacts include respiratory effects, visibility impairments, acid rain, plant and water damage and aesthetic damage (building decay). People, animals and fish are mainly exposed to lead by breathing and ingesting it in food, water, soil or dust. Lead accumulates in the blood, bones, muscles and fat. Nitrogen dioxide contributes to ozone; causes respiratory problems; contributes to the formation of acid rain; contributes to nutrient overload, which deteriorates water quality; contributes to atmospheric particles, which causes visibility impairment; reacts to toxic chemicals; and contributes to global warming (USEPA 2010)

Sensitive Receptors

Sensitive receptors include individuals as well as groups relating to specific land uses. Some individuals are considered to be more "sensitive" than others to air pollutants. The reasons for greater sensitivity than average include health problems, proximity to the emission source, or duration of exposure to air pollutants. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive receptors to poor air quality because the very young, the elderly and infirm are more susceptible to respiratory infections and other air quality related health problems than the general public. Residential uses are considered sensitive receptors because people in residential areas are often at home for extended periods of time, so they can be exposed to pollutants for extended periods. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function.

Sensitive receptors in the proposed project area include recreational users (trail-users, campers, etc.) and residential occupants (nearby homes).

WOULD THE PROJECT*:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Conflict with or obstruct implementation of the applicable air quality plan or regulation?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations (e.g., children, the elderly, individuals with compromised respiratory or immune systems)?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

* Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make these determinations.

DISCUSSION

a) The proposed project would not conflict or obstruct the implementation of any applicable air quality management plan for the APCD. All work would be in accordance with applicable air quality plans and regulations. No impact.

b) & c) The proposed project would not emit air contaminants at a level that by themselves would violate any air quality standard or contribute to a permanent or long-term emission of dust. The proposed project would involve the use of equipment and materials that would emit

ozone precursors. Increased emission of dust (particulate matter) and ozone precursors could contribute to existing non-attainment conditions, which could interfere with achieving the projected attainment standards. Integration of **STANDARD PROJECT REQUIREMENT AIR 1** in project design would reduce impacts to less than significant.

d) As mentioned above, the proposed project would generate equipment exhaust emissions for the duration of the project. Various sensitive receptors (nearby residential neighborhood, day use/campground users) may be present in the general area and could be affected. Integration of **STANDARD PROJECT REQUIREMENT AIR 1** in project design would reduce impacts to less than significant.

e) Construction activities do not usually emit offensive odors and any odors released are generally confined to the vicinity of the source. Although construction activities occurring in association with the proposed project could generate airborne odors with the operation of construction vehicles (i.e. diesel exhaust), these emissions would only occur during the daytime hours and would generally be restricted to the immediate vicinity of the project site. Integration of **STANDARD PROJECT REQUIREMENT AIR 1** in project design would reduce impacts to less than significant.

IV. BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING

Carpinteria State Beach has approximately 58 acres of recreational areas in the City of Carpinteria in southwestern Santa Barbara County near the Ventura County line. The unit includes approximately one mile of ocean front property, Carpinteria Creek, and a small lagoon. Carpinteria Creek flows to the Pacific Ocean through the central portion of the unit. The lagoon, located at the mouth of the creek, is a remnant of a larger lagoon that existed before creek channelization. The project area is located at the eastern end of the unit down coast of the creek where the terrain rises gently to form a 20 feet high coastal terrace (DPR 1979).

Vegetation is composed primarily of species which have been introduced during the long use of the site as a popular recreation area, which dates to the early 1930s. Vegetation on the dune area, which extends along the northern 1,500 feet of ocean frontage, is almost entirely invasive ice plant (*Carpobrotus edulis*). Some native revegetation efforts have been implemented by Channel Coast District, mostly in the area between the two ramadas (Waldekker, pers com). Eucalyptus (*Eucalyptus* sp.), Monterey pine (*Pinus radiata*) and Monterey cypress (*Cupressus macrocarpa*) are established along the inland side of the sand dunes. Turf grasses grow on the low, flat land around the day-use area, creating an urban, park-like atmosphere. Kelp beds lie 300 to 1,000 feet off the mouth of Carpinteria Creek and offshore of Sand Point, 4,000 feet west of the state beach extending down coast to a point about 1,500 feet offshore of Linden Avenue (DPR 1979).

Special-Status Species

Sensitive biological resources include plants and animals that have been given special recognition by federal, state, or local resource agencies and organizations. Specifically, these are species listed as state or federally threatened or endangered, those considered as candidates for listing as threatened or endangered, species identified by the U.S. Fish and Wildlife Service (USFWS) and/or California Department of Fish and Game (DFG) as species of special concern, animals identified by DFG as fully protected or protected, and plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered. Also included are habitats that are listed as critical for the survival of a listed species or have special value for wildlife species, and plant communities that are unique or of limited distribution and are considered sensitive.

Plants

Thirteen special-status plant species have been identified by the California Department of Fish and Game's California Natural Diversity Database (CNDDB) and the California Native Plant Society's (CNPS) On-line Inventory as having occurred, are occurring or having the potential to occur within the U.S. Geologic Service (USGS) 7.5 minute Carpinteria quadrangle map. Ten of these species are restricted to habitat types that do not exist within or adjacent to the project site. Although suitable to marginally suitable habitat is available within the project area for two plant species, no special status plant species were located during surveys conducted by DPR staff during the appropriate blooming periods in 2009; therefore none are listed and described in this document (Waldecker 2010).

Wildlife Species

Thirteen special-status wildlife species are included in the CNDDB as occurring within the Carpinteria quadrangle. Seven of these species are restricted to habitats that do not exist in the project area. These species are arroyo toad (*Anaxyrus californicus*), tidewater goby (*Eucyclogobius newberryi*), southern steelhead (*Oncorhynchus mykiss irideus*), foothill yellow-legged frog (*Rana boylii*), California red-legged frog (*Rana draytonii*), two-striped garter snake (*Thamnophis hammondii*), and least Bell's vireo (*Vireo bellii pusillus*). Special-status wildlife species with a potential to occur in or near the project area are described in detail below.

Invertebrates

Sandy beach tiger beetle (*Cicindela hirticollis gravida*) – This species has no state or federal listing status, but is ranked by the CNDDB as State Rank S1 (i.e. critically imperiled in the state because of extreme rarity or experiencing steep declines). Sandy beach tiger beetle in general inhabits areas adjacent to non-brackish water along the coast of California to northern Mexico. Specifically, it is found in clean, dry, light-colored sand in the upper zone with subterranean larvae preferring moist sand unaffected by wave action. The CNDDB lists one occurrence at Carpinteria State Beach, but no exact location is specified.

Globose dune beetle (*Coelus globosus*) – This species has no state or federal listing status, but is ranked by the CNDDB as State Rank S1. Globose dune beetle is an inhabitant of coastal sand dunes from Bodega Head in Sonoma County south to Ensenada, Mexico. This beetle inhabits foredunes and sand hummocks, where it burrows beneath the sand surface and is most common beneath dune vegetation. The CNDDB includes one occurrence from Carpinteria State Beach, but no exact location is specified.

Monarch butterfly (*Danaus plexippus*) – This species has no state or federal listing status but is ranked by the CNDDB as State Rank S3 (i.e. vulnerable in the state due to a restricted range, relatively few populations or recent steep declines). This species chooses winter roost sites along the coast from northern Mendocino County to Baja California, Mexico. Roosts are located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. The CNDDB includes one occurrence from Carpinteria State Beach in the Salzgerber Grove, and another roost site was identified in a county-wide survey conducted from 1998 – 1999 (DPR 2008) which is located along Dump Road. Both of these sites are roughly a ¼ mile southeast of the park and not located within the project area (DPR 2008).

Birds

Western snowy plover (*Charadrius alexandrinus nivosus*) – This federal threatened species is found on sandy beaches where it relies on gravelly or friable soils for nesting. There is an historic occurrence listed on the CNDDB at Sandyland in Carpinteria, but a 1978 survey (Page and Stenzel 1981) found that suitable habitat is no longer present at this site due to human activity and development. A check of eBird data for Santa Barbara County revealed an observation during the breeding season, on 9 April 2010, at Carpinteria State Beach, however, DPR biologists indicate the level of existing disturbance and human activity is too substantial to allow plover breeding (Cornell 2011; Waldecker pers. comm. 2011).

Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) – This state Endangered species inhabits coastal salt marshes from Santa Barbara through San Diego County. Data from eBird indicates this species is regularly found at Carpinteria Salt Marsh and has been reported twice from Carpinteria Bluffs Nature Preserve (Cornell 2011). There is no suitable nesting habitat within the project area.

Light-footed clapper rail (*Rallus longirostris levipes*) – This state and federal Endangered species inhabits salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. One CNDDB and three eBird occurrences are listed for Carpinteria Salt Marsh (Cornell 2011). There is no suitable habitat within the project area.

Nesting Raptors and Migratory Birds are protected by the federal Migratory Bird Treaty Act and by the DFG Code (Sections § 3503, §3503.5 and §3513). Under these laws, all raptors and migratory birds and their nests are protected.

Sensitive Plant Communities

Sensitive plant communities are regionally uncommon or unique, unusually diverse, or of special concern to local, state, and federal agencies. Removal or substantial degradation of these plant communities constitutes a significant adverse impact under CEQA guidelines. The CNDDB maintains a list of the state's plant communities (also known as alliances) and identifies those of high inventory priority due to their rarity and threat, and are considered sensitive natural communities by regulatory agencies.

One sensitive natural community, Southern Coastal Salt Marsh, occurs in the area, at Carpinteria Marsh, but is located roughly 1.1 miles to the northwest of the project site, and therefore will not be affected by project activities.

Wetlands and Waters of the United States

The federal Clean Water Act (CWA) defines wetlands as lands that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The U.S. Army Corps of Engineers (USACE) has jurisdictional authority of wetlands under provisions found in section 404 of the CWA. USACOE jurisdictional wetlands meet three criteria: hydrophytic vegetation, hydric soils, and wetland hydrology.

Waters of the U.S. (Other Waters) are regulated by the USACE under Sections 401 and 404 of the CWA. They are defined as all waters used in interstate or foreign commerce, waters subject to the ebb and flow of the tide, all interstate waters including interstate wetlands and all other waters such as intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, and natural ponds.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a sensitive, candidate, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands, as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

DISCUSSION

a) Project activities will not affect any sensitive, candidate or special-status species either directly or through habitat modification. As part of the project, vegetation including non-native and a limited amount of natives along the bluff face would be removed. In addition, the project would remove a 50 by 50 foot section of an old asphalt parking and a 50 by 20 foot section of non-native ice plant. Habitat is not available on-site for breeding Belding's savannah sparrow and no habitat is available on-site for light-footed clapper rails. There is no suitable habitat for Western snowy plovers since the sandy portion of beach at the project location is narrow and routinely inundated during high tides. The following proposed measure would be implemented in order to reduce impacts to sensitive, candidate or special-status species to a less than significant level.

i) **Nesting raptors and migratory birds.** Sensitive songbirds (Belding's savannah sparrow) and raptors could be present within the site of the proposed project and could be nesting (raptors) in the vicinity of the proposed project. Loud construction

activities (generated from heavy equipment such as a crane, worker lifts, and shotcreting process) that would occur during the breeding season, March 1 through September 15, could negatively affect sensitive songbirds and raptors. Integration of **STANDARD PROJECT REQUIREMENT BIO-1: NESTING MIGRATORY BIRDS AND RAPTOR SPECIES** in the project design would prevent the disturbance or loss of an active nest and reduce the potential impact to nesting birds to a less than significant level.

ii) **Native Plants**. Integration of **PROJECT SPECIFIC REQUIREMENT BIO-2 Native Plantings** in the project design would reduce any impacts to native vegetation to less than significant (see appendix B -Landscape Planting Plan).

b) No sensitive natural community is identified within the project area. No impact.

c) No wetlands would be directly impacted as a result of proposed project activities, but the Pacific Ocean is adjacent to the project site. Integration of **Standard Project Requirements Hazmat – 1, SPILL PREVENTION AND RESPONSE** and **HYDRO – 1, EROSION AND SEDIMENT CONTROL AND POLLUTION PREVENTION** would reduce any impacts to a less than significant level.

d) The proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or established wildlife corridors and would not impede the use of wildlife nursery sites. No water body will be impeded and no obstructions to wildlife movement will be installed. No impact.

e) The proposed project would not conflict with any local policies or ordinances protecting biological resources. There are no known local snowy plover or clapper rail policies. No impact.

f) The proposed project would not conflict with any Habitat Conservation Plans, Natural Communities Conservation Plans, or other approved habitat conservation plans. No impact.

V. CULTURAL RESOURCES

ENVIRONMENTAL SETTING

Precontact and Ethnographic Information

The Chumash believe that their ancestors were created at the beginning of time on the Santa Barbara Channel Islands and came to the mainland ages ago by crossing a Rainbow Bridge. Scientific evidence has documented human presence on the Channel Islands as early as 13,000 years ago (Johnson et al. 2002) while the earliest evidence of human presence on the mainland has been dated to 10,000 to 11,000 years ago.

Pre-Millingstone Period (13,000-8,500 Years Before Present [BP])

During what archaeologists have referred to as the Paleo-Indian, Paleo-Coastal, or Pre-Millingstone Period (Gamble 2008:Table 1; Glassow et al. 2007), which lasted from approximately 13,000 to 9,000 years ago, inhabitants of the Santa Barbara region lived in small groups. Although sea level was approximately 150 feet lower than at present, these people still needed watercraft to travel to the single large offshore island (called Santarosae) for hunting, fishing, and gathering resources. Cultural evidence from this period is sparse but includes basketry, sea grass cordage, beads, stone tools, and a fish-like effigy (King 1990).

As glacial ice melted and sea level rose, many coastal settlements were submerged and Santarosae became the separate islands that exist today: Anacapa, Santa Cruz, Santa Rosa, and San Miguel. Archaeological evidence in the region dating to this period includes sites at Arlington Springs on Santa Rosa Island (ca. 13,000 years ago), at Daisy Cave on San Miguel Island (ca. 11,000 years ago), at Vandenberg Air Force Base (ca. 9,000 years ago), and near Nipomo (ca. 10,000 years ago).

Millingstone Period (8,500-6,500 BP)

The first fully definable period of human settlement in the Santa Barbara Channel area is known as the “Millingstone Horizon” because of the many “milling” or grinding tools (basin metates and manos) that appeared during this time. The period is also known as “Oak Grove,” so named in the 1920s by archaeologist David Banks Rogers.

Recent evidence indicates that this period may be much older than first proposed. Terry Jones and others (Jones et al. 2002), reported that the Cross Creek Site (CA-SLO-1797), near the town of Arroyo Grande, contained artifacts typically associated with the Millingstone Horizon and dated to about 10,000 years ago (Jones 2008).

In addition to manos and metates, this period is also marked by hammer stones, which would have been used in the manufacture of tools used for scraping, cutting, and planing, and for shaping the metates and manos for optimum grinding efficiency. The numerous fire-affected rocks, recovered in beds found in Millingstone sites, indicate food products may have been baked, probably in earthen ovens. Shellfish supplied most protein and shellfish remains are abundant on Millingstone sites situated along open coastlines (Glassow et al. 2007; Rogers 1929; Wallace 1955).

The distinctive tools and subsistence remains identified from “Millingstone” sites mark this cultural expression as unique among hunter-gatherer societies. Although similar “Millingstone Horizon” sites are found in a broad geographic distribution along the California coastline and its interior valleys (Jones 2008), these assemblages show no apparent connection to Late Pleistocene/Early Holocene Paleo-Indian societies found in other parts of the western U.S. (Colten and Erlandson 1991:135; Glassow et al. 2007:191-192; Moratto 1984:104-113).

Early Period (6,500-3,200 BP)

Following the “Millingstone Horizon,” the Early Period lasted from approximately 6,500 to 3,200 years ago. During the period dating between 6,500 and 5,000 years ago, the climate in the Santa Barbara region, which had been generally cool and wet, became warmer and drier. Human population during this period appears to have declined significantly. Few archaeological sites are known from this period (Jones 2008).

Archaeological data from the coastal areas of Santa Barbara County indicate that people at this time were hunting a broader range of marine and terrestrial animals and gathering a more diverse range of plants for food or other uses (Santa Barbara Museum of Natural History 2002). Climatic data show that human populations fluctuated as temperatures and precipitation changed. As sea water temperature rose and fell, so did populations along the Santa Barbara Channel coast (Glassow 1997:86-88; Glassow et al. 2007:196-203).

The appearance of stone mortars and pestles around 6,000 years ago (Glassow 1997:83-86) indicates use of a broadening range of plant and animal foods at that time. The mortar and pestle were commonly associated with the processing of acorns gathered from oaks. However, along the coast in and near Carpinteria, these grinding and pulverizing implements were likely also employed to process tubers and roots, such as from plants growing along coastal estuaries, as well as being used to pulverize dried meat (Glassow et al. 2007:197).

Large animals such as elk, deer, and sea mammals were hunted by people using large projectile points mounted on darts thrown with the atlatl (throwing stick), while shellfish, particularly California mussels, remained an important dietary supplement (Glassow 1997:86-87; Glassow et al. 2007:197).

By the end of the Early Period, people speaking a “Proto-Chumash” language had become established in the region, but their relationship with earlier peoples is not yet clear (Santa Barbara Museum of Natural History 2002). Anthropologists refer to the people who inhabited this area at the end of the Early Period as Chumash.

Middle Period (3,200-800 BP)

During the Middle Period, 3,200 to 800 years ago, fishing and sea mammal hunting became more important. New inventions, including circular shell fishhooks and plank canoes (Tomols), enabled the inhabitants of the coastal regions to catch a wider variety and larger numbers of fish. Tomol construction required considerable skill and effort. Asphaltum, a key component of plank canoe construction, was used to seal and caulk the planks, making the watercraft more seaworthy (Gamble 2008:156-159).

Only chiefs or other wealthy (high status) members of the Chumash communities had the ability to commission the construction of plank canoes. The owners of the canoes held highly influential positions in the community, given the key role of plank canoes in trade along the coastline and out to the Channel Islands (Gamble 2008:30-31, 158, 204). Intensified fishing made possible by

the new canoes led to a population increase and large, permanent coastal and island settlements (Gamble 2008:235-239). In addition, more inland camps and larger inland villages are evident. The tomols also allowed the evolution of exchange systems between the islands and the mainland (Santa Barbara Museum of Natural History 2002).

Some researchers hypothesize that the complexity of Chumash society increased between 4,500 and 2,000 years ago in response to technological advances and other changes occurring during this period. This complexity is reflected in the archaeological record by objects of “wealth” and status, such as beads and ornaments, decorated hairpins, and ritual items, which appear in considerably greater numbers during this period (Santa Barbara Museum of Natural History 2002). Bead styles and ornaments in burial lots changed during this period as well (Glassow et al. 2007:199).

The use of asphaltum on basketry and for other uses greatly increased in the region around 2000 BC. Archaeological evidence for its use includes pieces of asphaltum with basketry impressions, tarring pebbles, and cobbles with stains of asphaltum (Gamble 2008:51-54). Asphaltum had other uses besides basketry, e.g., to adhere stone projectile points onto arrow foreshafts and to glue ornaments onto objects as an inlay (Glassow 1997:81; Glassow et al. 2007:200).

Late Period (800 BP-1769 AD)

During the Late Period from 800 years ago until the mission period, two-thirds of the people in the Santa Barbara region lived near the coast, although settlements were also found in oak woodland communities. The size of the settlements increased, and larger houses became more common (Gamble 2008:30-31). Complex social and political organization (evidenced by increasingly hierarchical positions within each village and the development of specialized occupations), flexed burials, and elaborate shell and steatite bead industries were the hallmarks of this period (Olson 1930; Orr 1943; Moratto 1984; Rogers 1929).

Marine fishing remained a major part of Chumash subsistence. Sardines taken with nets were particularly important. Hunting of land animals and gathering of wild plants including acorns and various seeds continued to supplement the marine diet. Growth of seed-bearing plants was promoted through selective burning (Gamble 2008:118-119, 174-175; King 1990:55).

Use of shell-bead money, produced mostly on the Northern Channel Islands, indicates the increased importance of trade among Chumash communities to buffer local shortfalls of wild food resources. Warfare resulting from trespass in hunting-gathering-fishing territories was also prevalent at the time of European contact (Santa Barbara Museum of Natural History 2002). Spanish accounts from the 18th century contain many references to warfare among the Chumash. The archaeological evidence of violence dates back at least to the Middle Period (Santa Barbara Museum of Natural History 2002).

The Chumash sociopolitical system became even more complex and hierarchical during this period. All the major villages had several head men and one Chief. The chiefs were in control of most of the wealth and resources, but they were required to distribute the resources amongst the tribe. Specialized positions and occupations such as canoe builders had additional status because of their control of trade with the Islands. Positions in this social system were often determined by heredity (Gamble 2008:250-264).

Mishopshnow (CA-SBA-7)

The Chumash village site of Mishopshnow (CA-SBA-7) covers most of the eastern portion of Carpinteria State Beach (Higgins 2002; McKusic 1960; Smith 2003; Spanne 1968; Woodward 1983). Beginning in the late 1800s, numerous archaeological excavations occurred at this site and hundreds of burials were identified and removed (Kirkish & Smith 1997) along with thousands of artifacts and other cultural materials. Radiocarbon dates from this site indicate it was inhabited as early as 5,000 years ago. Although significant portions of the site were removed or heavily disturbed by historic mining and development activities, intact portions of the site do still exist. Because of the information that has been recovered from this site, and the data potential of the remaining portions, the site is considered to be potentially eligible for listing on the National Register of Historic Places. It is also listed as California State Landmark No. 535 and City of Carpinteria Historical Landmark No. 6 (Whitehead 1955).

Proto-Historic and Historic Period

Proto-Historic Period (1542-1769)

At the time of first contact with Spanish colonial explorers, the Chumash population is estimated to have been at 18,000 to 20,000 people (Grant 1978:507). The effects of European diseases on the Chumash people, especially in the Proto-historic Period, cannot be fully discerned, so this population figure may be inaccurate, even too low for these periods.

During this time the Chumash occupied an area from present-day San Luis Obispo to Malibu and from the coast to the Carrizo Plain. This area has been further divided into linguistic/geographic dialect areas. The Barbareño Chumash occupied the coastal strip from Point Conception to Punta Gorda in Ventura County.

The first Europeans to sail into the Santa Barbara Channel and view the Carpinteria coast were the men of the Spanish exploratory voyage led by Juan Rodriguez Cabrillo. In 1542, Cabrillo visited many points along the coast and the Channel Islands while noting the names of the Chumash villages. At one point during the expedition, Cabrillo's ships anchored offshore of the Chumash village of Mishopshnow at present-day Carpinteria State Beach. Men from the village paddled out to the ships in plank canoes to trade with the Spaniards. Cabrillo noted that the canoes held approximately 12 men and that asphaltum had been used to seal the canoes' seams (Grant 1978). He and his men were generally impressed with the cultural advancement of the Chumash compared with that of other Indian groups they had encountered. In 1602, Sebastián Vizcaíno, ordered by the Spanish Viceroy to undertake a detailed mapping of the California coast, explored and named the Santa Barbara Channel. He also reported encountering friendly Indians in plank canoes.

Historic Period (1769-Present)

In 1769, Gaspar de Portolá explored the Santa Barbara coast on his land expedition to locate Monterey Bay. Portolá, his Lieutenant Pedro Fages, Engineer Miguel Constansó, and Father Juan Crespi, the expedition's priest, were impressed with the Chumash they met as other explorers before them had been. Fages noted that the Chumash were "of good disposition, affable, liberal, and friendly toward the Spaniard" (Fages 1937:47). These men wrote narratives of the customs and appearance of the Chumash.

In 1774, Portolá's coastal route was followed by the first of two expeditions led by Juan Bautista de Anza, who had been ordered to establish an overland route to Alta California from Mexico. Anza traveled from Tubac in present-day Arizona to Monterey Bay and then returned in May of the same year.

Although the Chumash were much admired by early European explorers and settlers in comparison with other California Indian groups, contact with Europeans led to dramatic and unalterable changes in the lifeways of the Chumash (Grant 1978:506-507).

Spain's effort to colonize Alta California began in earnest with the establishment of a system of missions, including five in Chumash territory: San Luis Obispo in 1772, San Buenaventura in 1782, Santa Barbara in 1786, La Purísima in 1787, and finally Santa Ynez in 1804. Also in 1782, Spain established a military settlement or presidio in Santa Barbara. The Carpinteria area was placed under the control of Mission Santa Barbara following that mission's establishment (Grant 1978: 505-506).

By the early 1800s, most of the Chumash people had been integrated into the mission system except those who had moved to the mountains and inland valleys. The Spanish missionaries' aim was to teach the Chumash new agricultural techniques, including stock raising, and other trades suitable for initially developing and maintaining the mission system and eventually equipping the Chumash to leave the missions and create self-sustaining communities within the new Spanish colonial society in Alta California (Gilbert 2004).

Insurrections and other acts of defiance by the Chumash during the early mission period were uncommon. The revolts at the local missions of La Purísima, Santa Barbara, and Santa Ines, which occurred in 1824, followed a decade of deteriorating conditions in the territory, triggered in part by the decade long Mexican War for Independence from Spain that isolated frontier Alta California until its conclusion in 1821. Mexican troops, assisted by the missionaries and local Californios, regained control of the Channel Coast missions shortly after the rebellion of 1824, but the change to the new Mexican Republican government in California introduced new factors to further weaken the struggling mission system. Whereas during the Spanish Colonial Period all lands were technically owned by the Crown or the Church, new Mexican laws supporting private property ownership and increasing secular control of the territory sped the dismantling of the missions and their support systems for the Chumash.

These new "revolutionary ideals" of Mexican Republicanism enabled and encouraged Mexican Californios to seek private land grants (ranchos), many carved from the best of the former mission grazing lands on which to raise cattle for the newly legalized commercial trade with foreign nations. Trade with foreign ships had been illegal during the Spanish Period. Cattle ranching to produce hides and tallow soon became the economic mainstay for much of California during this period. The fine leather hides from California cattle were in demand and traded for new consumer goods from England and the United States. For the most part, this trade was carried on locally in the various coves along the Channel Coast, including Refugio, Gaviota, and Cojo. In addition to hides, foreign goods were exchanged for tallow and sea otter pelts.

A growing upper class of Californios (*gente de razon*) sought to obtain more of the mission lands for their private use and profit. The need for large tracts of land to feed the growing herds increased the demand to make the valuable mission lands available and hastened the original colonial plans to eventually disband the mission system. Finally in 1834, after several years of political struggle, Governor José Figueroa issued a proclamation to secularize the missions and

allow for the redistribution of their lands and property. After this, the Mexican government quickly moved to redistribute the former mission lands to private individuals, a practice that continued until the American occupation of California began in 1846.

During this period, the Carpinteria Valley was divided into two rancho land grants. The land west of Carpinteria Creek, formerly under the control of the Santa Barbara Mission, was divided into large tracts and given to several families from the Santa Barbara Pueblo. East of Carpinteria Creek, the land became part of Rancho El Rincon granted by Governor José Castro to Teodoro Arellanes on October 1, 1835. Arellanes and his neighbors continued to live on these fertile coastal lands through the closing years of the Mexican Republic.

American Period

The transition of California from Mexican Republic territory to American state was brief and dramatic. United States military forces occupied California during the Mexican-American War that began in1846. In 1848, as part of the Treaty of Guadalupe-Hidalgo, which ended the war, the U.S. purchased Alta California and much of the Southwest from Mexico. Discovery of gold in northern California in 1848 triggered the rush in 1849 that soon brought more than 100,000 fortune seekers into the northern part of what became in 1850 the 31st state in the Union.

The social and economic effects of this rapid Americanization of California significantly altered the lives and livelihoods of the Mexican Californios and the dwindling number of Native American residents. Although these impacts were felt less rapidly in Southern California, legal, social and economic changes made it increasingly challenging for many Californios to hold onto their lands and property.

One of the challenges the Americans established was the California Land Act of 1851, which required all Mexican grant landholders to prove clear title to their lands. Thus in 1852, Arellanes was required to file a petition to confirm his title to the 4,469-acres of land granted to him by the Mexican government. His petition was procedurally rejected the following year. Arellanes and his family appealed this decision to the U.S. Supreme Court, and finally nineteen years later in1872, their claim was cleared. Arellanes and his heirs split the land into smaller parcels, which were eventually sold—in some cases to help pay the debts of the long legal fight (Gilbert 2004).

Although many Southern California rancho owners had profited from selling cattle during the Gold Rush of the 1850s, this profitable period quickly ended. One of the key causes was the prolonged drought of the late 1850s and early 1860s. Many rancheros were ruined when their entire herds starved for lack of feed and also as beef prices plummeted during the Civil War. These large land holders were soon unable to pay their property taxes and many sold off their lands for as little as 25 cents an acre. New American settlers took advantage of the depressed land prices. Stephen Olmstead, a farmer by trade and regarded as the first American to settle in Carpinteria, purchased the land west of Carpinteria Creek from various owners and began growing beans, grains, and potatoes on his newly acquired land (Gilbert 2004).

Asphalt Mining

In contrast to agricultural uses that had tended to preserve the area’s rural environment, commercial exploitation of the petroleum resources in the vicinity of present-day Carpinteria State Beach triggered the area’s first significant development. In 1857 Charles Morrell, a druggist from San Francisco, built “extensive works, well equipped with cast iron retorts, in which the crude

material was refined by distillation, and oil produced; but for some reason not known, the enterprise was a failure" (Gilbert 2004). In 1861, under the direction of the state legislature, the California State Geological Survey Party, led by J.D. Whitney, mapped the asphalt deposits at Carpinteria (Gilbert 2004).

Several attempts to mine the asphalt deposits soon followed. In 1875, the Crushed Rock and Asphaltum Company of San Francisco began mining operations on land leased from Stephen Olmstead and Dr. H.M. Biggs, west of Carpinteria Creek (Gilbert 2004). In 1891, the California Petroleum and Asphalt Company of San Francisco established the Alcatraz Refinery and Las Conchas Asphalt Mine, east of Carpinteria Creek (Gilbert 2004). Products coming from the refinery were marketed as "Alcatraz Asphalt." The mine was called Las Conchas ("The Shells") because of the large quantity of clam, mussel, and other marine shell overburden, six to eight feet deep, which needed to be removed prior to mining. This shell overburden, in all likelihood midden material from the site of the former Chumash village of Mishopshnow, was removed by hydraulic washing (Gilbert 2004).

At the turn of the century, the Las Conchas Mine and Alcatraz Refinery started to decline, and by 1903 the works were abandoned. The California Petroleum and Asphalt Company forfeited their claim in December 1905 for failure to pay license taxes. In 1909, Andrew Sattler reopened the Las Conchas Mine and refinery to supply asphalt to the Santa Barbara County Roads Department. The Guarantee Oil Company then acquired a lease on the Las Conchas Mine and refinery. Initially, the company planned to bring asphalt from the Midway fields in Kern County to the refinery but an easier method of transportation for the Midway asphalt was found and the Carpinteria refinery was abandoned. In 1912, the mine and refinery closed permanently. The asphalt pit filled with water from rain, the ocean, and run-off creating a small, brackish pond.

Archaeologist D.B. Rogers' 1929 map of the area depicts a false lagoon at the site of the asphalt pits. The pond became a popular, local duck hunting area. Local residents and park visitors also used some of the abandoned pits as opportunistic trash dumps starting around 1929. Dumping continued at this location through the early 1960s. By the early 1970s, the California Department of Parks and Recreation had filled in and covered the asphalt pits and mined area and constructed campground facilities above. The dump site was eventually identified and recorded as archaeological site CA-SBA-3736H (Gilbert 2004).

Historically, the Las Conchas Mine and refinery covered nearly six acres. At the present time, the only structures known to remain of this site are part of the (wooden) asphalt retaining wall used to keep seawater out of the mining operations and two brick ovens that miners used in heating their shovels, located between Santa Rosa and San Miguel Campgrounds. These features were identified and recorded as archaeological site CA-SBA-3735H in 2004 (Gilbert 2004).

Both the Las Conchas Mine site (CA-SBA-3735H) and the historic dump site (CA-SBA-3736H) are recorded and protected archaeological sites that reflect local and statewide significance for California. Archaeological investigations at the trash dump in 2009 determined that the dump site retains integrity of location with very little evidence of modern intrusion or disturbance and that CA-SBA-3736H has the potential for revealing additional information and details about the history of Carpinteria, especially between the 1920s through the 1960s (Leftwich et al. 2009). The Los Conchas Mine site and the historic trash dump are considered to be potentially eligible to the National and California Registers of Historic Places, and CA-SBA-3736H is also considered a significant resource under CEQA Section 15064.5 (Gilbert 2004; Leftwich et al. 2009).

Carpinteria Beach Auto Camp

In the early 20th Century the resource extractive activities along Carpinteria's beach began to give way to new recreational uses. National trends for growing urban populations yearning to get "Back to Nature," the advent of the 40 hour work week and the subsequent growth of leisure and vacation time, and the personal freedom brought about by affordable automobiles helped fuel the desire for automobile-accessible recreational destinations and facilities.

The construction of the Pacific Coast Highway made Southern California's beaches attractive and easy to get to for local and regional visitors alike. The demand became such that from 1912 to 1921, motorists regularly camped along the Santa Barbara County coast in undeveloped campsites without any services.

In 1912, the Southern Pacific Railroad said it would cooperate with Carpinteria citizens in the creation of a park south of the railroad. Additionally in 1912, local businessman A. Stretch circulated a petition asking the County Board of Supervisors to stock the beach with Pismo clams as it would help attract visitors to the area. The Board of Supervisors approved the petition.

In 1922, Thomas Fish and his sisters opened the Carpinteria Beach Auto Camp. An advertisement and postcard for the camp stated that it was a "Fine Safe Bathing Beach" as it had modern plumbing, porcelain laundry trays, mussels for eating, a grocery store, gas for cooking, artesian water, bathing suit rental, and beautiful views" (Gilbert 2004). The Auto Camp became the key attraction that civic boosters used to promote Carpinteria as the "World's Safest Beach."

Cerca del Mar Clubhouse & Pier

In 1927, several Carpinteria residents led by Edward Coyle organized The Carpinteria Beach Improvement Company, with W.J. Richards as the manager and Carpinteria residents as stockholders. The organizers envisioned a clubhouse and a pier that would serve as an ocean retreat for affluent guests coming from the cities of Ventura, Hollywood, and Los Angeles.

The Cerca del Mar clubhouse was built east of Carpinteria Creek and west of the asphalt mining area by a Santa Barbara contractor with the last name of Whitaker. The cost of the building was approximately $200,000. The club officially opened on August 28, 1928. Club membership was by invitation only at $100 per family and dinners were $1.25 per person. The club was closed after the Improvement Company filed for bankruptcy following Edward Coyle's death in 1929. The building remained unoccupied although it was occasionally used for local meetings and for school dances (Gilbert 2004).

In 1932, Santa Barbara County and the State of California acquired the building and adjacent pier as part of the new Carpinteria State Beach. A year later, repairs to the club house were included in improvements made by work crews funded by New Deal recovery programs. During World War II, soldiers of the U.S. Army Coast Artillery recovering from battle fatigue were billeted in the clubhouse. In 1946, the building was leased for boys and girls camps. In 1948, State Parks directed the State Division of Architecture to raze the ballroom and remodel the rest of the building to house the park's headquarters, restrooms, a beach concession and residences for park employees. The building was completely demolished in 1972 (Gilbert 2004).

The potential exists for trash or other remains from the Cerca del Mar Clubhouse to be found within the historic dump (CA-SBA-3736H).

Carpinteria State Beach

In 1927, legislation created the California Division of Beaches and Parks to manage state-owned park properties. The following year, California voters passed a State Park Bond to fund acquisition of new parks. On February 18, 1932, as the Great Depression entered its third year, the State and Santa Barbara County acquired parcels totaling 21.20 acres east of Carpinteria Creek that included the Cerca del Mar building and pier to create Carpinteria State Beach. The initial purchase price was $106,010; the State and County split the cost as required by the State Park Bond Act.

The State Park Commission formally opened the new facilities on June 2, 1939. Public enthusiasm for the opening was dampened by the State Legislature's decision to begin charging fees for use of the facilities for the first time.

In 1959, as the park's campgrounds continued to fill to capacity during the summer seasons, approximately eight acres of beach frontage and the 42 acres between Linden Avenue and Carpinteria Creek were added to the park (Gilbert 2004).

During the 1950s and 1960s little additional development took place. However, the State acquired another 17.6 acres bringing the total size of the park to 51.26 acres. A general plan was developed in the late 1960s to guide future development (CDPR 1979). The current configurations of the San Miguel and Santa Rosa Campgrounds were constructed in the early 1970s.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Cause a substantial adverse change in the significance of a historical resource, as defined in §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

DISCUSSION

a) & b) Historic archeological and Native American resources are known to occur within and adjacent to the project area. The project area is a historic dump that dates to between the late 1920s to the early 1960s. The project proposes to encapsulate the historic dump in order to achieve compliance with Title 27. An additional benefit will be to provide some protection for the cultural resources found in the area. Additionally, the use of soil nails is not expected to cause significant impacts to the site or the materials therein. Even if some breakage of materials does occur due to use of soil nails, it would not reduce the ability of the artifacts to provide data, considering many of the artifacts in the deposit have already been broken and/or burned. Furthermore, the integration of **PROJECT SPECIFIC REQUIREMENT CULT 1 and STAND PROJECT REQUIREMENT**

CULT 2 (see Chapter 2, Project Description) would reduce impacts to previously unidentified archaeological sites and features to a less than significant level if encountered during ground disturbing activities.

d) No human remains have been recorded or reported within the specific project area; however, significant groups of burials have been identified and removed from other, nearby portions of CA-SBA-7. Previous testing within the dump (Gilbert 2004; Greenaway 2007; Leftwich et al. 2009) did not find any evidence of human remains and very little evidence of any Native American materials within the dump area. Based on these results the potential for human remains in the project area is considered to be extremely low to none. In addition, the integration of **STANDARD PROJECT REQUIREMENT CULT 2** (see Chapter 2 Project Description) would reduce potential impacts to a less than significant level.

VI. GEOLOGY AND SOILS

ENVIRONMENTAL SETTING

Topography

Carpinteria is bounded to the east, north and northwest by the foothills of the Santa Ynez Mountains and to the south and west by the Pacific Ocean. The peaks and ridges of the adjacent foothills bounding the Carpinteria Valley range from 600 to 2,000 feet above mean sea level (City of Carpinteria 2006). The proposed Historic Dumpsite Cover Project at the San Miguel Campground is located on a coastal bluff with relatively flat areas above and below.

Geology

The Carpinteria Valley is within an area termed the Santa Barbara Fold Belt. The Santa Barbara Fold Belt is located along the coastal piedmont from east of Carpinteria to west of Goleta. This is a region of active folding that is generally comprised of west to northwest trending folds and blind reverse faults deforming late Pleistocene to Holocene marine terraces, terrace deposits, and alluvial fans. Rock types in the foothill areas are mainly comprised of Quaternary and Tertiary aged marine and non-marine sandstones, shales, siltstones, claystones, and conglomerates. The rocks surrounding the Carpinteria Valley are comprised of the Quaternary-aged Casitas and Santa Barbara formations and the Tertiary-aged Monterey, Rincon, Sespe, and Coldwater Sandstone formations (City of Carpinteria 2006). Large portions of tarry asphaltum have been extruded from the underlying folded Miocene Monterey shales in the downcoast portion of Carpinteria State Beach. Although much of these deposits were removed by wells and early pit excavation, some tar seeps are still active (DPR 1979).

Seismicity

The area is located within the Transverse Ranges Geomorphologic Province of California which is characterized by east-west trending faults, folds, and mountain ranges. The Transverse Ranges Province extends from southwestern San Bernardino County westward through northern Los Angeles County and Ventura County, terminating at the Pacific Ocean near Point Arguello in western Santa Barbara County. The Transverse Ranges Province contains many active faults including the larger San Andreas, San Cayetano, Oak Ridge, Ventura-Pitas Point, Arroyo-Parida, Red Mountain and Santa Ynez faults. There are also many smaller localized faults throughout the province including the Rincon Creek, Carpinteria, Holloway, and Shepard Mesa faults (City of Carpinteria 2006). The Carpinteria fault crosses under an alluvial deposit in the northernmost corner of Carpinteria State Beach (DPR 1979). The Carpinteria Fault is capable of producing a maximum earthquake of Richter magnitude 4.5+ according to Santa Barbara County (City of Carpinteria 2006).

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 was implemented to regulate development near active faults and to prevent construction of buildings for human occupancy on or near active faults (i.e., faults that have ruptured within the past 11,000 years). The designated zone extends from 200 to 500 feet on both sides of known active fault traces. Under the Act, no buildings intended for human occupancy may be constructed on or within fifty feet of an active fault trace (DPR 2010). The project site is not located within an Alquist-Priolo Earthquake Fault Zone as designated by the California Geological Survey (CGS 2010).

Soils
Several soil types are present at Carpinteria State Beach, which is located on the low-lying alluvial plain developed along the southern flank of the Santa Ynez Mountains. Most of the low areas of the unit are composed of unconsolidated silt, sand, and gravel washed down from the upper slopes during the Quaternary Period. Most of the land inland of the dune ridge and upcoast of Carpinteria Creek is covered with Camarillo fine sandy loam. This soil type occurs on nearly level, low alluvial plains and drains poorly. The area has a high water table and subsoil salinity is slight to moderate (DPR 1979).

Paleontological Resources
Fossils recovered from the Carpinteria asphalt deposits during the late 1920's are considered to be second in importance only to the remains from the well-known La Brea deposits of Los Angeles in deciphering the environmental conditions and the flora and fauna of southern California during the Pleistocene. The abundant fossil remains found in the Carpinteria deposits include terrestrial plants, mammals, birds, insects, and marine invertebrates. All specimens are regarded as of Pleistocene age. The Carpinteria site is considered of special significance because fossil plants are more common than at other Pleistocene vertebrate localities. In addition, the Carpinteria deposits are unique since they were formed near the coast and thus provide information on maritime effects on the ecology of Pleistocene terrestrial communities.

The fossils taken from the Carpinteria asphalt deposits have been described by researchers as follows:

> The fossil flora comprises 25 species representing 18 families. One fern, 8 species of conifers and 16 different dicotyledon species are included in the flora; the coniferous element makes up the most conspicuous part of the flora. Typical species include *Sequoia sempervirens* (coastal redwood), *Pinus muricata* (Bishop pine), *Pinus radiata* (Monterey pine), *Quercus agrifolia* (coastal live oak) and *Arctostaphylos* sp. (manzanita). Based on this fossil evidence the region was characterized by a cooler and more humid climate than is now found in the Carpinteria area.
>
> Bird remains are quite abundant in the deposits, as over 57 different species have been recovered. Important species include *Gymnogyps californianus* (California condor), *Aquila chrysaetos* (golden eagle), and *Aphelocoma californica* (Western scrub-jay).
>
> Typical mammal remains include *Equus occidentalis* (western horse), *Bison* sp. (bison), *Lepus* sp. (jackrabbit), and *Canis* sp. (coyote). Most of the bird and mammal species are represented by incomplete skeletons and often only a few bones have been collected (Inventory of Significant Geological, Fossil, and Marine Sites and Features in South Pacific Border Region, University of California, Davis)

Thus, the Carpinteria deposits contain remnants of a coastal forest community, and comprise the only place in coastal southern California that contains abundant terrestrial plant and animal remains (DPR 1979). No information, however, has been found that indicates that fossils have been recovered within the current boundaries of Carpinteria State Beach (DPR 2009).

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area, or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable, as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems, where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	☐	☐	☐	☒

DISCUSSION

a) As noted in the Environmental Setting, the Carpinteria Fault runs below the project site and there are several nearby faults. There are no existing or planned structures and the project seeks to improve personal safety by abating the free-fall of historic trash onto the beach below.

i) The proposed project is not located within an Alquist-Priolo Earthquake Fault Zone but the Carpinteria Fault, capable of producing a maximum moment Richter magnitude earthquake of 4.5+, lies below the project site. No structures are proposed as part of this project; therefore, there would be no impact.

ii) There are numerous active and potentially active faults in the region that have the potential to cause ground shaking at the project site. The State of California considers a fault as active if it has shown activity within Holocene time (the last 11,000 years), and a fault as potentially active if it has shown activity within Quaternary time (the last 1.6 million years). The underlying Carpinteria Fault is considered to be potentially active (City of Carpinteria 2006). The proposed project involves no structures; therefore there would be no impact.

iii) Liquefaction is a temporary, but substantial, loss of shear strength in granular solids, such as sand, silt and gravel, usually occurring during or after a major earthquake. The potential for liquefaction to occur is greatest in areas with loose, granular, low density soil, and where the water table is within the upper 40 to 50 feet of the ground surface (City of Carpinteria 2006). The soils in the Park are comprised of silt, sand, and gravel and have the potential for liquefaction, yet there are no structures involved so there will be no impact.

iv) The stretch of coast from Ventura to Carpinteria has a history of hillside instability (O'Tousa 1995). The proposed project involves no structures; therefore, there would be no impact.

b) No heavy equipment or equipment storage will be allowed on the beach; all construction equipment will be staged at least ten feet back from the top edge of the bluff. As this project aims to shore up a current erosion problem, it will not cause soil erosion. No impact.

c) There are several active faults in the surrounding area and one in the project site, as well as potentially unstable soil at the project site. The proposed project however would strengthen the deteriorating condition of the bluff face, thereby improving site conditions and lessening the chance of landslide, lateral spreading, subsidence, or collapse. Soil-nail installation is a highly refined process that is closely monitored by contractors to insure personal safety as well as project success. With the integration of **PROJECT SPECIFIC REQUIREMENT GEO 1** that requires the contractor to monitor and provide a contingency plan there would be a less than significant impact in the unlikely event of collapse or landslide.

d) Expansive soils are those soils that have high clay content that swell when wet and shrink when dry. The soils on the project site are loams and sandy loams; these soils do not have high clay content, are therefore not expansive, and would not result in substantial risk to life or property. No impact.

e) The project does not involve the installation of a septic system or leach field. No impact.

f) The Carpinteria asphalt deposits are a rich source of paleontological artifacts. Beyond minor contouring of the bluff face and insertion of the soil nails, the shotcrete process will not involve substantial ground disturbing activities and will therefore not cause any destruction of these resources. No impact.

VII. GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL SETTING

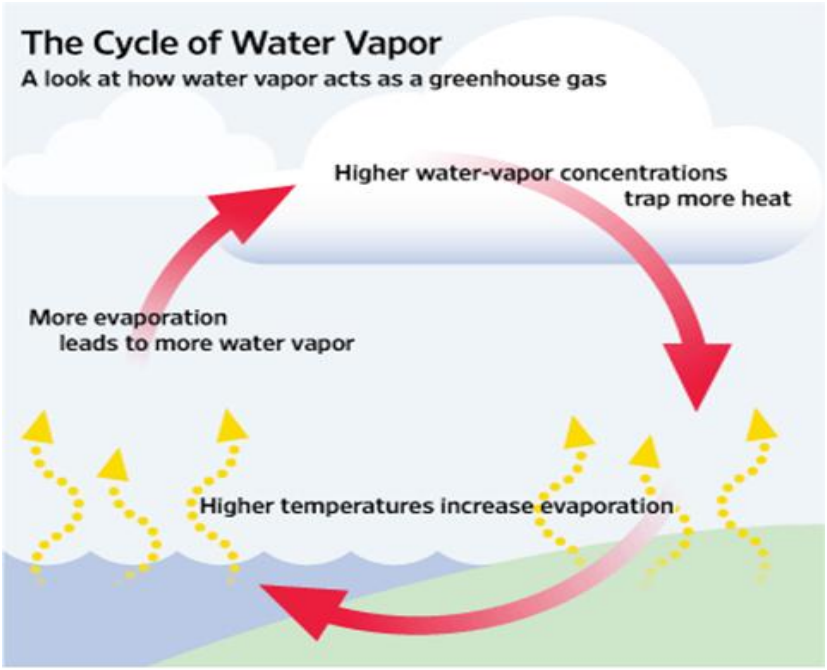
Greenhouse Gases (GHG) such as carbon dioxide and methane trap heat in the earth's atmosphere. Over time, increased concentrations of these gases produce an increase in the average surface temperature of the earth. The rising temperatures can produce changes in precipitation patterns, storm severity, and sea level, resulting in what is commonly referred to as "climate change."

The California State Legislature proposed and then Governor Schwarzenegger approved laws and policies to reduce the amount of GHG generated each year. As stated in Assembly Bill 32, Global Warming Solutions Act (AB 32), passed in 2006; "The State of California found that Global Warming would have detrimental effects on some of the California's largest industries including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry." AB 32 requires statewide GHG emissions in California be reduced to 1990 levels by the year 2020 and requires the California Air Resources Board (CARB) to adopt rules and regulations to achieve this goal.

The California Department of Parks and Recreation (DPR) developed a "Cool Parks" initiative to address climate change within the State Park system. Cool Parks proposes that DPR itself adapt to the environmental changes resulting from climate change. In order to fulfill the Cool Parks initiative, State Parks is dedicated to using alternative energy sources, low emission vehicles, recycling and reusing supplies and materials, and educating staff and visitors on climate change (CDPR 2008).

Greenhouse Gas Emissions and Climate Change

Some GHG such as carbon dioxide occur naturally and are emitted into the atmosphere through natural processes and through human activities. Naturally occurring greenhouse gasses include water vapor, carbon dioxide, methane, nitrous oxide, and ozone. The following sections describe these gases and their relationship to climate change.



- ***Water Vapor*** - Water Vapor is the most abundant greenhouse gas in the atmosphere. Changes in water vapor concentration are considered a result of climate *feedback loops* related to the warming of the atmosphere rather than a direct result of human activities. The feedback loop that involves water is critically important to projecting

future climate change.

- ***Carbon Dioxide*** -The natural production and absorption of carbon dioxide (CO_2) is achieved through the terrestrial biosphere and the ocean. Carbon dioxide also enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees, and wood products, and as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.

- ***Methane*** – Methane (CH_4) has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands (at the roots of the plants). Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills. Methane is an extremely effective absorber of radiation, though its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to some other greenhouse gases (such as CO_2, N_2O, CFCs).

- ***Nitrous Oxide*** –Nitrous oxide (N_2O) is produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. Concentrations of nitrous oxide began to rise at the beginning of the industrial revolution and are understood to be produced by reactions that occur in fertilizer containing nitrogen. Use of these fertilizers has increased over the last century (NOAA).

- ***Ozone*** – Ozone (O_3) is a gas present in both the upper stratosphere, where it shields the Earth from harmful levels of ultraviolet radiation, and at lower concentrations in the troposphere, the air closest to the Earth's surface, where it forms through chemical reactions between pollutants from vehicles, factories, fossil fuels combustion, evaporation of paints and many other sources. Key pollutants involved in ozone formation are hydrocarbon and nitrous oxide gases (CARB). Sunlight and hot weather cause the ground-level ozone to form in harmful concentrations and is the main component of anthropogenic photochemical "smog" (USEPA).

Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. These include:

- ***Fluorinated Gases*** - Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases ("High GWP gases") (USEPA).

Sea Level Rise

Higher temperatures from climate change are expected to raise sea levels by melting mountain glaciers, and ice caps; and melting the ice sheets in Greenland and Antarctic (EPA 2011). Analysis and considerations regarding sea level rise as it relates to the proposed project site are

based on anticipated sea level rise projections for the years 2050 and 2100, using California Executive Order S-13-08 “to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise.” The executive order provides that until completion of a report on the specifics of sea level rise elevations, the sea level elevation projections to be considered when designing projects in coastal areas are those contained in the National Academies of Science report on sea level rise (EO S-13-08). The models project that the sea-levels will rise between 5-8 inches above mean sea level (msl) by 2030. By 2050, the models project a 10 to 17 inch rise in sea-levels (CO-CAT 2010).

The shotcrete cover is estimated to have a 10-15 year life span; by 2027 there would be less than an 8-inch rise in the msl. The current mean higher high water[1] (MHHW) mark at Carpinteria Beach is +2.6 feet msl and the shotocrete cover would start at +6.0 feet MHHW level. Wave splash can reach up to + 10.00 feet msl (SKELLY Engineering 1999).

Carpinteria Testing

The dump is considered a historic dumpsite regulated by the California Department of Resources Recycling and Recovery (CalRecycle). In 2009, due to the bluff conditions the area around the project location was tested by the California Integrated Waste Management Board for petroleum hydrocarbons (TPH, C 6-C 44) and semi-volatile organic compounds (SVOC) along with several other hazardous compounds. The chemical analyses performed on the samples indicate that the historic dumpsite does not emit any known greenhouse gases (CIWMB 2009).

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environmental?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

DISCUSSION

a) Based on the testing completed in 2009 the historic dump site/historic dumpsite does not emit greenhouse gases that would directly or indirectly have a significant impact on the environment. However, equipment used in construction including delivery trucks, crew trucks, concrete mixers, and cranes could contribute to a temporary increase in CO_2 and N_2O levels, both components of GHG. Work would result in a less than significant impact on the generation of GHG emissions with the integration of **STANDARD PROJECT REQUIREMENT AIR 1 C**

[1]Mean Higher High Water - The average of the higher high water height of each tidal day observed over the National Tidal Datum Epoch.

(see Chapter 2 Project Description) that reduces the emission of GHG and the temporary nature of the construction.

b) The proposed placement of a shotcrete cover would cover the historic dump per Title 27 of the California Code of Regulations would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No Impact.

Sea-Level Rise Discussion

The proposed cover project is not expected to be vulnerable to the estimated eight inch rise in sea levels over the next 25 years. There will be over 3 feet between the current MHHW level and the shotcrete cover solution. The cover has been designed to be in a marine environment so wave splash would not reduce its estimated life span.

VIII. HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL SETTING

The California Department of Environmental Protection (CALEPA) has the responsibility for compiling (pursuant to Government Code §65962.5) information on hazardous material sites in California that together are known as the "Cortese" list. A review of this Cortese list(s) found that there are two sites within a few hundred feet of Carpinteria State Beach's north-east property line currently in remediation due to a release of diesel from an underground storage tank and a release of pesticides/herbicides. These lands are owned by the Venoco, Inc. In addition, there was a site located with the boundaries of Carpinteria State Beach that completed a cleanup of a gasoline spill in 2007.

In 2009, soil samples from Historic Dumpsite (within Carpinteria State Beach) were tested by the California Integrated Waste Management Board for polychlorinated biphenyls (PCB's), Organic chlorine pesticides (OCP's), total petroleum hydrocarbons (THP, C 6-C 44), semi-volatile organic compounds (SVOCs), dioxin/furans, California Assessment method (CAM) 17 metals, toxicity characterization leaching procedure (TCLP) for eight metals, corrosively (pH), ignitibility, and reactive cyanide and reactive sulfide. Results from these tests found that none of the samples collected had detectable concentrations of PCB's, OCP's, or SVOCs. The TCLP analyses showed none of the samples contained metal concentrations that exceed the federal (RCRA) hazardous waste levels. However, three samples had concentrations for lead above the Soluble Threshold Limit Concentrations and per Title 22 of the California Code of Regulations it is considered a State of California hazardous waste, if excavated and disposed (CIWMC 2009). As of the publishing of this document the Historic Dumpsite is not on the Cortese list.

Along the coastal bluff at the east end of the park there is a sporadic seep. This seep drains underground water collecting in the general area of the bluff. There has been no investigation as to the source of the water or the water quality. The proposed weep holes are required as an engineering design feature for any wall. At this time, there is no evidence that this groundwater seep presents an adverse condition along the beach however there is the potential for this water to have been in contact with materials that have high concentrations of lead.

The types of materials used and stored at Carpinteria State Beach maintenance yard that could be hazardous include fluids such as motor vehicle and mechanical equipment fuels, oils, and other lubricants. DPR maintains storage facilities for these fuels and lubricants within the park unit several city blocks from the campground.

Airports

Each of the ten airports in Santa Barbara County is more than twenty air miles away from Carpinteria State Beach. The proposed project is not within an airport land use zone/plan or within two miles of a public airport or private airstrip (Google Maps 2011).

Fire Hazards

The California Department of Forestry and fire Protection (CalFire) lists the fire hazard severity for Carpinteria State Beach as being in a "non-very high fire hazard severity zone" (CalFire 2007)

and is designated as a Local Responsibility Area in the event of a fire. According to the Fire Department Directory the project site is located within the Carpinteria-Summerland Fire Protection District (CSFD). The closest fire station to the project site approximately one mile north of the park (CSFD 2011).

Schools

The project site lies within the boundaries of the Carpinteria School District (K-12). The two closet schools are the Carpinteria Middle and Elementary Schools each approximately 0.50 mile west of the of the project site on Carpinteria Avenue (Carpinteria 2011).

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials, substances, or waste into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites, compiled pursuant to Government Code §65962.5, and, as a result, create a significant hazard to the public or environment?	☐	☐	☐	☒
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) Be located in the vicinity of a private airstrip? If so, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury, or death from wildland fires, including areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

DISCUSSION

a) Construction activities would require the use of equipment that use potentially hazardous materials such as fuels, hydraulic fluid, oils, and solvents. These materials are generally contained within vessels engineered for safe storage. Large quantities of these materials would not be stored at or transported to the project area. Depending on the relative hazard level of the material, if a spill were to occur of significant quantity, the accidental release could pose a hazard to DPR staff, construction workers, and the public, as well as the environment. Spill prevention protocols described in **STANDARD PROJECT REQUIREMENT HAZARD 1 AND 2** (see chapter 2, Project Description) integrated into the project would reduce the potential for adverse impacts from these incidents to a less than significant level.

b) Construction of the shotcrete cover has the potential for construction personnel to encounter the material layer and ground water that may seep through the bluff in the historic dump site that contains lead. Integration of **STANDARD PROJECT REQUIREMENT HAZARD 1, PROJECT SPECIFIC REQUIREMENT HAZARD 3 AND 4** would reduce the potential for adverse impacts due to the reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials, substances, or waste into the environment to less than significant.

c) As noted in the Environmental Setting, the closest schools are Carpinteria Middle and Elementary each approximately one-half mile from the proposed project site. No Impact.

d) There are no remediation sites included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 within the boundaries of Carpinteria State Beach. The neighboring property is in remediation and would not be encountered by the construction of this project.

e) & f) Carpinteria State Beach is not located within an airport land use plan, within two miles of a public airport or in the vicinity of a private airstrip. Therefore, no impact would occur as a result of this project.

g) All construction activities associated with the proposed project would occur within the boundaries of Carpinteria State Beach and work would not restrict access to, cause delays on, or block any public road outside the immediate construction area. The project would not conflict with the emergency response plans for the City of Carpinteria. No impact.

h) Heavy equipment can get very hot with extended use and sometimes may be in close proximity to vegetation. Improperly outfitted exhaust systems or friction between metal parts and/or rocks could generate sparks, resulting in a fire. Integration of **STANDARD PROJECT REQUIREMENT HAZARD 2** (see Chapter 2, Project Description) into the project description would reduce the potential for adverse construction impacts from this project to a less than significant level.

VIII. HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL SETTING

Climate and Precipitation

The climate of the region is a Mediterranean type characterized by partly cloudy, cool summers with little precipitation and mostly fair, mild winters with precipitation occurring as rain showers associated with passing storms. Annual precipitation in the area is about 14 inches, 90% of which falls between November and April (DPR 1979).

Watershed – Surface Water

Carpinteria Creek drains a watershed of approximately 15 square miles. The main channel of Carpinteria Creek has two major tributaries: upper Carpinteria Creek and Gobernador Creek. The upper Carpinteria Creek watershed includes upper Carpinteria Creek and Sutton Canyon Creek; the Gobernador Creek watershed includes El Dorado Creek and Steer Creek. The Carpinteria Creek watershed reaches a peak elevation of approximately 4,690 feet. Headwater tributaries drain steep hillsides and canyons of the Santa Ynez Mountains. In the foothills and coastal plain, Carpinteria Creek passes through agricultural and urban areas. The creek passes under bridge crossings at U.S. 101 and Carpinteria Avenue and continues south between the Concha Loma residential tract to the east and the downtown area to the west. Farther downstream, the creek passes under the Union Pacific Railroad bridge and empties into the Pacific Ocean at Carpinteria State Beach (Padre 2005).

Flooding

In 2009 ~~1985~~, FEMA updated the 100 year flood boundaries for local creeks in a flood insurance study conducted for the City of Carpinteria. Alterations to the creekbed and banks of lower Carpinteria Creek have been carried out with the primary intention of protecting developed areas, roads, bridges, etc., that encroach upon the creek from flooding, bank erosion, and related hazards (FEMA 2009). There is a large detention basin along Gobernador Creek, approximately 1.5 miles upstream from the Gobernador Creek/upper Carpinteria Creek confluence. The basin fills with sediments over the course of several years, and is regularly re-excavated and maintained by the Santa Barbara County Flood Control District. Other creek modifications include bank protection structures (pipe and wire revetment, rip-rap) at-grade concrete road crossings (summer crossings), and roadway bridges. In addition, the Flood Control District regularly conducts minor grading and shaping of the bed and banks of lower Carpinteria Creek to protect development from flooding and bank erosion (Padre 2005).

Water Quality Regulation

Santa Barbara County is within the jurisdiction of the Central Coast Regional Water Quality Control Board (CCRWQCB), which oversees the area extending from the Santa Barbara County/Ventura County line to the northern boundary of the Santa Cruz County, and from the coastline to approximately 40 miles inland. Per the requirements of the Clean Water Act (CWA), and the California Porter-Cologne Act, CCRWQCB has prepared a Water Quality Control Plan for the watersheds under its jurisdiction. The Central Coast Region Water Quality Control Plan characterizes watersheds within the Central Coast region, identifies beneficial uses that exist or have the potential to exist in each water body, establishes water quality objectives for each water body to protect beneficial uses or allow their restoration and provides an implementation program

that achieves water quality objectives. Per the requirements of CWA Section 303(c), the Water Quality Control Plan is reviewed every three years and revised as necessary to address problems with the plan, and meet new legislative requirements. Beneficial uses that have been established by CCRWQCB in the Water Quality Control Plan for Carpinteria, Franklin and Santa Monica Creeks and the Carpinteria Salt Marsh include municipal and domestic water supply, agricultural water supply, groundwater recharge, contact and non-contact water recreation, terrestrial wildlife habitat support, cold and warm freshwater habitat, fish migration and spawning, rare, threatened or endangered species support, estuarine habitat, and commercial and recreational fishing or shellfish harvesting (Padre 2005). Carpinteria Creek is listed as an impaired water body under Section 303(d) of the CWA due to the presence of pathogens, whose potential sources include agriculture, land and septic disposal (CCRWQCB 2006).

Water Quality

According to the California Department of Water Resources, groundwater in the Carpinteria Basin is predominantly calcium bicarbonate in character, with varying amounts of sodium. Water quality data from four public supply wells, as reported in the California's Groundwater Bulletin 118, indicated that none of the sampled wells had concentrations of inorganics, radiation, nitrates, pesticides, volatile organic compounds, or synthetic organic chemicals above primary Maximum Contaminant Levels. Three of the four wells sampled; however, had concentrations of inorganics above the secondary Maximum Contaminant Level (Padre 2008).

In general, local creeks have excellent water quality in their upper reaches within the relatively undeveloped Santa Ynez Mountains. Downstream through the foothills and coastal plain, the intensity of human development increases. As pollution inputs increase, creek water quality worsens, and beneficial uses of creeks are impaired to varying degrees. Also, because local creeks recharge groundwater and flow into the ocean, the quality of local groundwater and coastal ocean waters is degraded (Padre 2005).

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	☐	☐	☒	☐

d)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	☐	☐	☐	☒
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f)	Substantially degrade water quality?	☐	☐	☐	☒
g)	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map?	☐	☐	☐	☒
h)	Place structures that would impede or redirect flood flows within a 100-year flood hazard area?	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury, or death from flooding, including flooding resulting from the failure of a levee or dam?	☐	☐	☐	☒
j)	Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

DISCUSSION

a) The proposed application of shotcrete involves the possibility of materials used in the process being introduced into the nearby ocean due to runoff and or spills. Other impacts to water quality could result from releases of fuels or other fluids from vehicles and equipment during the application process. These activities could result in a violation of waste discharge requirements. Integration of **STANDARD PROJECT REQUIREMENT HAZ** 1 and **STANDARD PROJECT REQUIREMENT HYDRO 1** into construction plans will control releases of pollutants into storm (or other) water runoff and ensure impacts remain at a less than significant level.

b) This project will not use groundwater or interfere with groundwater recharge. No impact.

c) Existing drainage patterns at the project site would not be affected in a manner that would significantly increase on or off-site erosion or siltation. BMPs for erosion will be integrated into the project design (**STANDARD PROJECT REQUIREMENT HYDRO 1**); no existing creeks or streams would be altered by this project and impacts will remain at a less than significant level.

d) The existing drainage patterns from the project area would not be altered in a manner that would significantly increase the rate or amount of surface water that would result in on or off-site flooding. The addition of concrete to a vertical surface will have no adverse effects on existing drainage patterns, which are mostly influenced and altered through horizontal surface modifications. No impact.

e) This project would not create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. The shotcrete process utilizes water for either the dry mix or wet mix method, but most, if not all, of the water is absorbed into the mix and does not create runoff water which would exceed any drainage systems. No impact.

f) This project will not degrade water quality. Although the proposed project is adjacent to the Pacific Ocean, implementation of BMPs (see a) above) will control potential releases of pollutants to a less than significant level.

g) This project involves no structures; therefore, it will not place housing in a 100-year flood hazard area. No impact.

h) The proposed project involves no structures; therefore, it will not impede or redirect flood flows within a 100-year flood hazard area. No impact.

i) The proposed project involves no structures; therefore, it will not expose people or structures to a risk of loss, injury or death from flooding. No impact.

j) The proposed project will cover a portion of a coastal bluff, adding some layer of additional protection similar to that offered by natural geologic formations found along the park's coastline. The project site is adjacent to the Pacific Ocean and could be affected by a tsunami but less likely by a seiche which tends to occur in enclosed or partially enclosed water bodies. Any inundation by tsunami would be the result of natural processes that occur in beach environments and would not be caused by project activities. Less than significant impact.

IX. LAND USE AND PLANNING

ENVIRONMENTAL SETTING

Carpinteria State Beach is an approximately 58-acre recreational park unit located on the southern California coast approximately twelve miles southeast of Santa Barbara. This popular park unit includes approximately one mile of beach and provides both passive and active recreational opportunities for visitors. In addition to the main park unit, visitors can go to Rincon Point, Tarpits and Jellybowl Day Use areas.

The City of Carpinteria zoned Carpinteria State Beach as Open Space/Recreation Carpinteria State Beach is bordered by commercial, residential, and industrial properties to the north, west, and east, and the Pacific Ocean to the south. (City of Carpinteria. 2011)

DPR completed the General Plan for Carpinteria State Beach in 1979 and has policies to preserve the archaeological and scenic resources including the coastal bluffs and historic dumpsite location. In addition, work to repair, replace, or rehabilitate existing facilities or to protect public health and safety is permitted under PRC § 5002.2 (c).

There are not habitat conservation plans or natural community conservation plans in or adjacent to Carpinteria State Beach. All proposed work would occur within the boundaries of Carpinteria State Beach.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with the applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

DISCUSSION

a) The proposed project is completely within the boundaries of Carpinteria State Beach. No established community would be affected by this project. No impact.

b) As noted above (IX. a) the proposed project site is located within Carpinteria State Beach. No project elements are in conflict with zoning regulatory policies, land use plans, conservation plans, or ordinances for this area. All appropriate consultation and permits would be acquired, in compliance with all applicable local, state, and federal requirements. An analysis of the City of Carpinteria's Coastal Land Use policy was completed (see page 20). No Impact

c) This project is located within the boundaries of Carpinteria State Beach; there is no applicable habitat conservation or natural community conservation plans that this project would effect. No Impact.

X. MINERAL RESOURCES

ENVIRONMENTAL SETTING

The County of Santa Barbara lists several mineral resources available for extraction within its jurisdiction including petroleum and natural gas, mercury, diatomite, limestone, phosphate, rock, sand, and gravel (Santa Barbara General Plan 2010). The City of Carpinteria General Plan states that off-shore oil is the only mineral resource known within the City's jurisdiction (Carpinteria General Plan 2003). Asphaltum deposits were mined until the early 20th century on lands that would become Carpinteria State Beach however, the remaining deposits are not a significant source of asphaltum and no other mineral resource has been identified within the boundaries of Carpinteria State Beach (Carpinteria General Plan 1979). In addition, DPR policy does not permit the commercial extraction of mineral resources due to impacts to resources in accordance with the Public Resources Code § 5001.65

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Result in the loss of availability of a known mineral resource that is or would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

DISCUSSION

a) & b) The project site is totally within the boundary of Carpinteria State Beach. The project would not change land use activities within Carpinteria State Beach and would therefore not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site. As stated in the Environmental Setting above, under PRC § 5001.65, mining within any unit of the State Park System is prohibited. No impact.

XI. NOISE

ENVIRONMENTAL SETTING

Sound is any detectable fluctuation in air pressure and generally is measured on a logarithmic scale in decibels (dB). Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. When unwanted sound (i.e., noise) is measured, an electronic filter is used to de-emphasize extreme high and low frequencies to which human hearing has decreased sensitivity. Resulting noise measurements are expressed in weighting frequencies called A-weighted decibels (dBA). While zero dBA is the low threshold of human hearing, a sustained noise equal or greater than 90 dBA is painful and can cause hearing loss (Table XI-1, USEPA 1971).

Table XI-1: Sound Levels Generated by Various Sources of Noise

Noise Source at a Given Distance	A-Weighted Sound Level (dBA)	Noise Environments	Subjective Impression
Shotgun	140	Carrier Flight Deck	
Civil Defense Siren (100 ft)	130		
Jet Takeoff (200 ft)	120		Threshold of Pain
Loud Rock Music	110	Rock Music Concert	
Pile Driver (50 ft)	100		Very Loud
Ambulance Siren (100 ft)			
	90	Boiler Room	
Freight Cars (50 ft)		Printing Press Plant	
Pneumatic Drill (50 ft) Freeway (100 ft)	80	Noisy Restaurant	
Busy Traffic; Hair Dryer	70		Moderately Loud
Normal Conversation (5 ft)	60		
Air Conditioning Unit (100 ft)			
Light Traffic (100 ft); Rainfall	50	Private Business Office	
Soft Whisper (5 ft); Rustling Leaves	30	Quiet Bedroom	
	20	Recording Studio	
Normal Breathing	10		
	0		Threshold of Hearing

USEPA 1971

Noise is further described according to how it varies over time and whether the source of noise is moving or stationary. Background noise in a particular location gradually varies over the course of a 24-hour period with the addition and elimination of individual sounds. Several terms are used to describe noise and its effects. The equivalent sound level (L_{eq}) describes the average noise exposure level for a specific location during a specific time period, typically over the course of one hour. The Community Noise Equivalent Level (CNEL) is a twenty-four hour average of L_{eq} with

an additional 5 dBA penalty for noise generated between the hours of 7:00 p.m. and 10:00 p.m. and a 10 dBA penalty during the hours of 10:00 p.m. and 7:00 a.m. The penalties account for how much more pronounced a noise is at night when other sounds have diminished. Federal, state, and local governments have defined noise and established standards to protect people from adverse health effects such as hearing loss and disruption of certain activities. Noise is defined in the California Noise Control Act, Health and Safety Code, California Code of Regulations (CCR) § 46,022 as excessive or undesirable sound made by people, motorized vehicles, boats, aircraft, industrial equipment, construction, and other objects.

Carpinteria State Beach lies within the city limits of the coastal community of Carpinteria, twelve miles southeast of the city of Santa Barbara. Carpinteria city policy says that construction activities adjacent to sensitive noise receptors should be limited as necessary to prevent adverse noise impacts and requires that these activities employ techniques that minimize the noise impacts on adjacent uses (City of Carpinteria, General Plan 2003). Residences, hospitals, schools, guest lodging, and libraries are most sensitive to noise intrusion and defined as sensitive noise receptors.

The primary noises occurring in the vicinity of the project area include vehicular traffic, train alerts and rail traffic, the Venoco petroleum processing facility, ocean wave action, and sounds associated with park operations including camping and day use activities/operations (e.g., trash collection).

Private residences are separated by the railroad corridor and a park road, are approximately 300 feet from the project site. Freight and passenger trains pass along the park's northern boundary approximately 20 times a day (HDR 2009). Sound levels at 100 feet range from locomotive idling at 70 dBA to horns at 115 dBA. Employee housing is located on another parcel approximately 500 feet north of the railroad tracks and 150 feet west of Carpinteria Creek outside the main Carpinteria State Beach campground.

The nearest public facilities including Carpinteria Middle and Elementary Schools and Carpinteria City Hall are located less than a mile from the Carpinteria State Beach each approximately one half mile from the project site (Google Maps 2011).

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Generate or expose people to noise levels in excess of standards established in a local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☒	☐
b) Generate or expose people to excessive groundborne vibrations or groundborne noise levels?	☐	☐	☒	☐
c) Create a substantial permanent increase in ambient noise levels in the vicinity of the project (above levels without the project)?	☐	☐	☐	☒
d) Create a substantial temporary or periodic increase	☐	☐	☒	☐

in ambient noise levels in the vicinity of the project, in excess of noise levels existing without the project?				
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) Be in the vicinity of a private airstrip? If so, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

DISCUSSION

a) Construction noise levels in the project area will fluctuate, depending on the type and number of construction equipment/tools operating at any given time, and will exceed ambient noise levels in the immediate vicinity of work locations for brief periods of time. Construction equipment may include a cement truck, crane, concrete pump, wheelbarrow, mechanized hammer, soil nail launcher, drills, and various types of hand tools (shovels, etc).

Depending on the specific project-related activities being performed, short-term increases in ambient noise levels could result in speech interference near the project site and could annoy park visitors and local residents. Under these circumstances, park visitors and local residents could recreate in other portions of Carpinteria State Beach or seek out other nearby parks and recreation facilities. Generally, project-related work would not occur during on weekends or holidays when visitation is higher than during the week. Weekend work could be implemented, but only to accelerate the proposed project or address emergency or unforeseen circumstances. Noise associated with the proposed project is considered to have a potentially significant short-term impact to nearby noise-sensitive receptors. Integration of **STANDARD PROJECT REQUIREMENT NOISE-1, NOISE EXPOSURE** (See Chapter 2) for nose exposure would reduce potential impacts of the project to a less than significant level.

b) Construction activity will not involve the use of explosives, pile driving, or other intensive construction techniques that could generate significant ground vibration or noise. Minor vibration from a mechanized hammer, drill or similar methods could be used to insert the soil nails into the bluff. Use of this type of equipment could cause limited exposer to both ground-borne vibration and noise generated from inserting the nails into the bluff. Construction would be limited to daylight hours and be of a temporary nature; therefore the project will have a less than significant impact.

c) Once the proposed project is completed, all related construction noise will disappear. Nothing within the scope of the proposed project will result in a substantial permanent increase in ambient noise levels. No impact.

d) See Discussion XI (a) and XI (c) above. Integration of **STANDARD PROJECT REQUIREMENT NOISE-1, NOISE REDUCTION** (See Chapter 2 Project Description) would reduce any potential impacts to a less than significant level.

e) & f) This project is not located within an airport land use plan, within two miles of a public airport, or in the vicinity of a private air strip. No impact.

XII. POPULATION AND HOUSING

ENVIRONMENTAL SETTING

Carpinteria State Beach is in Santa Barbara County along the coast in southern California approximately twelve miles southeast of the City of Santa Barbara. Carpinteria State Beach is boarded by commercial, residential, and industrial properties to the north and east, Carpinteria Salt Marsh to the west and the Pacific Ocean to the south in the City of Carpinteria (City of Carpinteria 2011)

Population

The California Department of Finance estimates that in 2010 Santa Barbara County has a population of 423,895 people of which 67,800 live in unincorporated areas (DOF 2011). The City of Carpinteria's reported population is 14,394 (City of Carpinteria 2011).

Housing

Camp hosts live inside the park on a seasonal basis usually in recreation vehicles (RV's). Employee housing is located on another parcel approximately 500 feet north of the railroad tracks and 150 feet west of Carpinteria Creek outside the main Carpinteria State Beach unit.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

DISCUSSION

a), b) & c) The project does not have a housing component and all work will occur within the confines of Carpinteria State Beach. The project would neither permanently modify nor displace any existing housing or population. A Camp host in a recreation vehicle would be relocated during the period of construction to another part of the park. All jobs created by this project would be tied to short-term construction related activities and would be temporary in nature. This project therefore it would have no impacts on population growth or housing. No Impact.

XIII. PUBLIC SERVICES

ENVIRONMENTAL SETTING

Carpinteria State Beach is an approximately 58-acre park unit located on the southern California coast approximately twelve miles southeast of Santa Barbara. This popular park unit includes approximately one mile of beach and provides both passive and active recreational opportunities for visitors. In addition to the main park unit, visitors can go to Rincon Point, Tarpits and Jellybowl Day Use areas.

Fire Protection

According to the Fire Department Directory the project site is located within the Carpinteria-Summerland Fire Project District. The closest fire station to Carpinteria State Beach is the Carpinteria Volunteer Fire Station located one mile north of the park (CSFD).

Police Protection

The Department of Parks and Recreation (DPR) Rangers assigned to Carpinteria State Beach are Peace Officer Standards and Training (POST) certified law enforcement officers and provide year round law enforcement within park unit boundaries. The nearest Santa Barbara County Sheriff Station to the park is the approximately one half mile to the southeast. The Santa Barbara County Sheriff and the California Highway Patrol would assist DPR with any emergency and law enforcement issues within the boundaries of Carpinteria State Beach

Schools

The project site lies within the boundaries of the Carpinteria School District (K-12). The Carpinteria Middle School is the closet school, approximately 0.50 mile west of the project work site on Carpinteria Avenue (City of Carpinteria 2011).

Parks

There are three other State Park units located on the Santa Barbara County coast: Gaviota State Park, Refugio State Beach, and El Capitan State Beach (CDPR 2011). The City of Carpinteria provides 97.96 acres of various park and recreation facilities, including sport playing fields (e.g. soccer), playgrounds, picnic and barbecue sites, and natural open space areas (City of Carpinteria 2003). Santa Barbara County offers recreational opportunities at three day-use coastal parks in the Carpinteria and Summerland area (County of Santa Barbara 2011). These parks are the 9.4-acre Rincon Beach Park south of Carpinteria, the Bluff-top Lookout Beach occupies four acres in the community of Summerland, and Oceanview Park on the east side of Summerland.

Public Facilities

Public Facilities within a half mile of Carpinteria State Beach include Carpinteria Elementary and Middle Schools, Carpinteria City Hall, and the City and the District Sanitary facility.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Result in significant environmental impacts from construction associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

DISCUSSION

This proposed project would provide cover on a section of the coastal bluff addressing public health and safety concerns raised by Santa Barbara County Environmental Health Agency.

a) Fire Protection: No components of the proposed project would contribute to an increase of visitation and the level of required public services is expected to remain the same. No Impact.

Police Protection: As noted in the Environmental Setting, DPR rangers with law enforcement authority patrol Carpinteria State Beach with emphasis on campgrounds and public use areas. DPR rangers have full law enforcement authority and only require assistance form local police as backup for unusual situations. No additional demands on rangers or local police are expected as a result of this project. No impact.

Schools: as noted in the Environmental Setting this project would provide cover for the historic dumpsite only and would not change the number of students within the Carpinteria School District. No Impact.

Parks and Other Public Facilities: There would be no impact to any public use areas as a result of this project, although access to the immediate area under construction may be restricted during the project. However, the project area is only a small portion of the park with multiple alternative areas camping and view areas available for visitors to use. No other park in the surrounding area should show any increase in use due to this project. No adverse impact would occur at Carpinteria State Beach or any other public facilities as a result of this project. No Impact.

XIV. RECREATION

ENVIRONMENTAL SETTING

Carpinteria State Beach is an approximately 58-acre park unit located on the southern California coast approximately twelve miles southeast of Santa Barbara. This popular park unit includes approximately one mile of beach and provides both passive and active recreational opportunities for visitors. In addition to the main park unit, visitors can go to Rincon Point, Tarpits and Jellybowl Day Use areas.

Carpinteria State Beach Recreational Facilities

Carpinteria State Beach contains four campgrounds loops (see Table XIV-1) with a total of 216 campsites (CDPR 2011). Each campsite is equipped with a table and fire ring; drinking water is on-site or available nearby. The restrooms in each campground have coin-operated hot showers and toilet facilities. Two of the campgrounds loops include group sites. Enroute camping is available for self-contained vehicles when all spaces are occupied.

Day use parking is available at four locations. The main day-use area adjacent to Anacapa Campground loop offers beach access, restrooms, changing rooms, outdoor showers, barbecues, and picnic tables. Rincon Point provides parking, restrooms, and beach access. The Tarpits and Jellybowl day-use areas only provide parking.

Table XIV-1: Carpinteria State Beach Existing Facilities

NAME	DESCRIPTION
Anacapa Campground Loop (Sites 1-27) Bobcat Group Site Fox Group Site Raccoon Group Site	Tents, motorhomes, trailers (35' max. length); no hook-ups; 24 sites; hike/bike campsite available for I night maximum stay Space for a maximum of 25 people & 3 vehicles Space for a maximum of 25 people & 3 vehicles Space for a maximum of 40 people & 5 vehicles
Santa Cruz Campground Loop (Sites 28-66) Gull Group Site Plover Group Site Egret Group Site Heron Group Site	Tents, motorhomes, trailers (35' max. length); no hook-ups Space for a maximum of 25 people & 3 vehicles Space for a maximum of 25 people & 3 vehicles Space for a maximum of 25 people & 3 vehicles Space for a maximum of 65 people & 8 vehicles
Santa Rosa Campground Loop (Sites 67-146)	All sites are full hook-up (water, sewer, electric)
San Miguel Campground Loop (Sites 147-216)	Sites 169-199 with water & electricity; no tents sites 200-216

Main Day Use near Anacapa Campground Loop	Parking, restrooms, 17 ramadas (i. e. covered patios), changing rooms, outdoor showers, barbecues, and picnic tables
Tarpits Day Use	Parking
Jellybowl Day Use	Parking
Rincon Point	Parking, restroom, trail to beach

Carpinteria State Beach Recreational Activities

Surfing, swimming, surf fishing, and wildlife viewing are popular visitor activities (CDPR 2011). The shallow waters and a gently sloping beach provide a relatively safe swimming experience during normal sea conditions. Surf fishermen often catch barred perch, cabezon, and corvina from the beach. Visitors engaged in tide pool exploration may encounter starfish, sea anemones, crabs, snails, octopi and sea urchins. From December through May seals and sea lions can be seen in the area, as well as an occasional gray whale.

Interpretive Programs include summer campfire programs that feature informative presentations about the park's natural and cultural history as well as other relevant topics. A Junior Rangers program for children is scheduled during the summer months. A pre-Junior Ranger program for children age's four to six is also offered. Visitor Center interpretive displays educate visitors on Chumash history and the park's natural resources. An indoor tide pool at the Visitor Center showcasing live marine animals is a popular attraction.

Carpinteria State Beach Attendance Figures

The annual total visitor attendance for Carpinteria State Beach averaged 842,423 from 1996 to 2010. This attendance figure comprises 97,749 paid day use, 366,869 free day use, and 377,805 campers. May through October are the busiest months; in 2010 total attendance ranged from 46,084 in September to 104,906 in August.

Public Lands and Parks in Santa Barbara County

CDPR

Three other State Park units are located along the Santa Barbara County coast: Gaviota State Park, Refugio State Beach, and El Capitan State Beach (CDPR 2011). Each of these parks provides camping opportunities as well as the passive and active recreational activities listed above for Carpinteria State Beach.

City of Carpinteria

The City of Carpinteria provides 97.96 acres of various park and recreation facilities, including sport playing fields (e.g. soccer), playgrounds, picnic and barbecue sites, and natural open space areas (City of Carpinteria 2003). Six-acre Carpinteria City Beach complements the state park, providing parking, restrooms, and boating access.

Other Coastal Open Space/Recreational Facilities

Santa Barbara County offers recreational opportunities at three day-use coastal parks in the Carpinteria and Summerland area (County of Santa Barbara 2011). The 9.4-acre Rincon Beach

Park south of Carpinteria provides restrooms, parking lot, and picnic tables along a shoreline with a rocky beach. Bluff-top Lookout Beach occupies four acres in the community of Summerland, providing beach access, picnic tables, hiking trails, a playground, restrooms, and surfing opportunities. On the east side of Summerland, Oceanview Park provides picnic tables, restrooms hiking trails, and opportunities for bird watching.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Criteria for Determining Significance

The analysis of determining the significance of impacts of the Proposed Action to recreation is based on criteria XIV a-b, described in the environmental checklist above.

DISCUSSION

A & b) The proposed project would apply an eight inch thick layer of reinforced shotcrete to cover all exposed soils and trash at the historic dumpsite along the bluff at the southend of the San Miguel Campground loop at Carpinteria State Beach. Project implementation would result in the temporary closure of a small number of the coastal campsites at the southern end and ocean side of the loop. No other camping spaces will be closed and given the time of year construction is projected alternate camping spaces within the park will be available for reservation. No increase of use at other existing neighborhood and regional parks or other recreational facilities is anticipated. This project would not involve the construction or expansion of recreational facilities. No impact.

XV. TRANSPORTATION/TRAFFIC

ENVIRONMENTAL SETTING

Carpinteria State Beach is located in an urban setting surrounded on its northern and eastern boundaries by an extensive network of roads. Vehicular access to the park unit is via Highway 101, located 0.06 mile to the east, at the Casitas Pass Road exit to Carpinteria Avenue, then south down Palm Avenue (State Route 224). .

The streets in the vicinity of the park unit are divided into several functional classifications. Each type of street provides for a general level of traffic movement through the City. There are four categories in the roadway hierarchy, ranging from freeways with the highest capacity to two-lane undivided roadways with the lowest capacity. Freeways are limited-access and high-speed travel ways that carry regional through-traffic. Access is provided by interchanges with typical spacing of one mile or greater. Arterial roadways carry the majority of traffic entering and traveling through the City and are generally developed as commercial corridors. Arterials are generally designed with two to six travel lanes (Carpinteria has Two Lanes) has and their major intersections are signalized. This roadway type is divided into two categories: principal and minor arterials. Principal arterials are typically four-or-more lane roadways that serve both local and regional through traffic.

Minor arterials are typically two to four lane streets that service local and commute traffic. Collector roadways are intended to provide for the movement of traffic between arterials and neighborhoods. Collector roadways are typically designed with two through travel lanes that may accommodate on-street parking. Local roadways distribute traffic within a neighborhood, or similar adjacent neighborhoods, and are not intended for use as a through street or a link between higher capacity facilities such as collector or arterial roadways. Local streets are fronted by residential uses and do not typically serve commercial uses.

U.S. 101 is the only freeway serving the Carpinteria area. It is the principal intercity arterial highway connecting cities between Los Angeles and San Francisco. It also provides access for residents of Ventura County commuting to jobs in Santa Barbara. To a lesser degree, it serves as an intra-city arterial for trips that may originate and terminate at the various interchanges within the city.

Casitas Pass Road is a two-lane arterial running from the SR 192 southerly to Carpinteria Avenue. A traffic signal exists at Casitas Pass Road and Carpinteria Avenue. A full diamond interchange provides access to the freeway, although the northbound on-ramp is separated from the interchange.

Carpinteria Avenue is a two-lane arterial street that parallels the freeway, passing through the central business district to the western edge of the city. Left turn lanes are provided at several intersections and traffic signals exist at Linden Avenue and Casitas Pass Road. Carpinteria Avenue is the only continuous street running through the city on the south side of the freeway.

To identify the operating condition at the study area intersections, a level of service (LOS) ranking scale is used. This scale compares traffic volumes to roadway and intersection capacity and assigns a letter value to this relationship. The letter scale ranges from A to F with LOS A representing free flow conditions and LOS F representing congested conditions. The City of

Carpinteria acceptable intersection standard is LOS C. Caltrans has established the cusp of the LOS C/D range as the target level of service standard for State Highway intersections.

The operating conditions for intersections in the vicinity of the project are outlined in Table 1 below:

Table 1: Intersection Operating Conditions (Penfield & Smith, 2011)

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		V/C Ratio or Delay	LOS	V/C Ratio or Delay	LOS
U.S.101 NB Ramp - Via Real/ Casitas Pass Rd	All-Way Stop	20.3	LOS C	15.1	LOS C
U.S.101 SB Ramps/Casitas Pass Rd	All-Way Stop	14.5	LOS B	20.2	LOS C
Carpinteria Ave/Casitas Pass Rd	Signal	0.52	LOS A	0.70	LOS B

The Union Pacific Railroad forms the eastern boundary of Carpinteria State Beach. Crossing the railroad tracks at an armed and signaled access point is required to enter the park unit requiring heightened sensitivity of visitors. An Amtrak station .04 miles away at the corner of 5th Street and Elm Street provides access by commuter rail.

Airports and airstrips in Santa Barbara and Ventura Counties include those in Table 2 below:

Table 2: Airports in Project Vicinity

Airport	County	Distance to Park Unit
Christy Airstrip	Santa Barbara County	31 miles
Crawford Airport	Santa Barbara County	30 miles
Lompoc Airport	Santa Barbara County	55 miles
New Cuyama Airport	Santa Barbara County	37 miles
Northside Airpark	Santa Barbara County	68 miles
Santa Barbara Municipal Airport	Santa Barbara County	19 miles
Santa Cruz Island Airport	Santa Barbara County	32 miles
Santa Maria Airport	Santa Barbara County	64 miles
Santa Ynez Airport	Santa Barbara County	34 miles
Shepherd Ranch Airport	Santa Barbara County	34 miles
Camarillo Airport	Ventura County	27 miles
Point Mugu Naval Air Station	Ventura County	29 Miles
Santa Paula Airport	Ventura County	27 miles
Oxnard Airport	Ventura County	28 miles

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Cause a substantial increase in traffic, in relation to existing traffic and the capacity of the street system (i.e., a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☒

b) Exceed, individually or cumulatively, the level of service standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Cause a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	☐	☐	☐	☒
d) Contain a design feature (e.g., sharp curves or a dangerous intersection) or incompatible uses (e.g., farm equipment) that would substantially increase hazards?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

DISCUSSION

a & b) All intersections used by visitors to access Carpinteria State Beach, for which data has been analyzed, operate at acceptable Level of Service (LOS) at both am and pm peak times (Penfield & Smith, 2011). The project entails constructing a shotcrete cover to prevent further failure of an old historic dumpsite on which the San Miguel Campground is located. Equipment required for the project would include a crane, excavator, and concrete trucks as well as the contractors' personal vehicles. It is not a project that would generate additional park attendance and consequently, additional vehicle trips. Construction is projected to begin in March 2013 and would conclude within 45 days. The peak time for visitors to the park unit is May through September when attendance averages over 100,000 each month. Attendance ranges between 40,000 and 60,000 in March and April when construction would occur. Therefore, the project will not conflict with any applicable plan regarding performance of the area circulation system or reduce the LOS at any area intersection.

c) Carpinteria State Beach is not located within an airport land use plan area and does not serve as normal reporting point for air traffic in the area. The nearest airstrip is about 19 miles from the park unit. No part of the project would affect or change existing air traffic patterns. No impact.

c) Carpinteria State Beach is not located within an airport land use plan area and does not serve as a normal reporting point for air traffic in the area. The airport nearest Carpinteria State Beach is over 19 miles away. No part of the project would affect or change existing air traffic patterns. No impact.

d) The proposed project entails constructing a cover on an historic dumpsite. None of the work would result in an increased hazard as a result of a design feature or incompatible use. No impact.

e) The proposed project does not entail a change in availability of emergency access nor create a need for additional emergency access. No impact.

f) The proposed project will not result in additional parking demand nor will it remove available parking. No Impact.

g) The proposed project entails placing a cover on the historic dumpsite. It involves nothing that would conflict with any policies regarding transit or alternative transportation. No Impact

XVI. UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL SETTING

Water

Water is supplied by the Carpinteria Valley Water District (CVWD) through line and storage facilities controlled by the District (DPR 2008). The CVWD has three sources of water: the Cachuma Project, the State Water Project, and local groundwater (Carpinteria Sanitary District 2009).

Wastewater

Wastewater collection and treatment services are managed by the Carpinteria Sanitary District (CSD). CSD operates and maintains this system for the transmission, treatment and disposal of sewage generated within this area and is also responsible for providing treatment to the level necessary to meet various discharge requirements set by the Regional Water Quality Control Board and other state and federal agencies. Sewage is conveyed through district lines to the treatment facility located between Olive and Oak Avenues south of 6th Street (DPR 2008).

Solid Waste

Solid waste is collected by E.J. Harrison and Sons, Inc., which provides solid waste collection and disposal for all residential, commercial, and industrial areas in the city of Carpinteria (DPR 2008).

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Exceed wastewater treatment restrictions or standards of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities?	☐ Yes	☒ No		
Would the construction of these facilities cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities?	☐ Yes	☒ No		
Would the construction of these facilities cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination, by the wastewater treatment provider that serves or may serve the project, that it has adequate capacity to service the project's anticipated demand, in addition to the provider's existing commitments?	☐	☐	☐	☒

f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g)	Comply with federal, state, and local statutes and regulations as they relate to solid waste?	☐	☐	☐	☒

DISCUSSION

a) Carpinteria State Beach is in the jurisdiction of the Central Coast Regional Water Quality Control Board. The proposed project would be in compliance with all applicable water quality standards and waste discharge requirements. The application of shotcrete to the eroding bluff would not exceed wastewater treatment standards or standards applicable to the Central Coast Regional Water Quality Control Board. Consultation with the Central Coast Regional Water Quality Control Board is ongoing and a 401 Certification obtained before work begins. No impact.

b) The proposed project will not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. No impact.

c) The proposed project will not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. No impact.

d) The proposed project may require minimal water for project related activities; existing entitlements and resources will be sufficient. No Impact.

e) The proposed project would not require wastewater treatment service above and beyond what is available on-site. Existing restroom facilities would be used by project personnel and would not constitute a noticeable increase in wastewater. No impact.

f) The proposed project involves the application of shotcrete onto a bluff face and does not have a solid waste component. No impact.

g) The proposed project does not have a solid waste component. No impact.

CHAPTER 4
MANDATORY FINDINGS OF SIGNIFICANCE

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal?	☐	☐	☒	☐
b) Have the potential to eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
c) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, other current projects, and probably future projects?)	☐	☐	☒	☐
d) Have environmental effects that will cause substantial adverse effects on humans, either directly or indirectly?	☐	☐	☒	☐

DISCUSSION

a) The proposed project was evaluated for potential significant adverse impacts to the natural environment and its plant and wildlife communities (Biological Resources, Hydrology and Water Quality). Project activities will not affect any sensitive, candidate or special status species either directly or through habitat modification. DPR has determined that the proposed project would have the potential to disturb or cause to fall, an active raptor nests and/or other bird species. The project also would have the potential to degrade water quality by causing erosion, sedimentation, and release of pollutants, such as vehicle fluids and elevated metal concentrations into the environment. However, full integration of all project requirements into this proposed project would reduce those impacts, both individually and cumulatively, to a less than significant level.

b) The proposed is designed cover solution will likely provide the additional benefit of protecting a portion of CA-SBA-3736 (the historic dump site) at Carpinteria State Beach.

c) DPR often has other construction, maintenance, restoration, and interpretive projects planned for the park unit. The Nature Education Facilities project (mentioned in chapter 2) is scheduled to begin construction in late spring/early fall and continue for several years. With the Dumpsite Cover scheduled to begin in March 2013 construction activities for both projects

and maintenance activities may transpire at the same time. The Dumpsite Cover Project and Nature Education Facilities Project each have separate purposes and needs, therefore, were not considered to be combined as a single project. Impacts from these projects, along with other environmental issues addressed in this evaluation, would not overlap in such a way as to result in cumulative impacts that are greater than the sum of its parts. Coordination shall take place to ensure construction impacts are not duplicated. Full implementation of all project requirements incorporated into the design of this project would reduce all impacts to a less than significant level.

d) Most project-related environmental effects have been determined to pose a less than significant impact on humans. However, possible impacts from fugitive dust (Air Quality), earthquakes, landslide, and collapse (Geology and Soils), construction accidents, spills, and wildfire (Hazards and Hazardous Waste), and construction-generated noise (Noise), though temporary in nature, have the potential to result in significant adverse effects on humans. These potential impacts would be reduced to a less than significant level if all project requirements are fully integrated into the project.

CHAPTER 5
MITIGATION STATEMENT

In general, CEQA requires that for each potentially significant impact identified in the Initial Study, there must be a discussion of feasible measures to avoid or substantially reduce the project's significant environmental effects. The Guidelines provide for five categories or mitigation measures that avoid, minimize, rectify, reduce or eliminate, or compensate for the significant environmental effect of the proposed project (Guidelines 15126.4(a).

As described in Section 2.7, DPR has developed and integrated both Standard and Specific Project Requirements into this project description to prevent and/or reduce potentially significant impacts to less than significant levels or no impact during project design. Therefore, DPR determined that mitigation measures are not necessary for this project.

CHAPTER 6
REFERENCES

Aesthetics

Leftwich, B. L. Soils, S. Black, and C. Woodman (2009). *Phase II Arccheological Testing Report: CA-SBA-3736H Carpinteria State Beach.* Goleta, CA: URS Corporation.

California Department of Parks and Recreation. (1979). *Preliminary General Plan Carpinteria State Beach.* Sacramento: Sate of California.

California Department of Transportation. (2011). *Scenic Highway Program Eligible (E) And Officially Designated (OD) Routes*. Retrieved October 10, 2011, from California Department of Transportation: http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm

California Department of Transportation. (2007). *Scenic Highway Guidelines.* Sacramento: State of California.

Skelly Engineering. (1999). *Carpinteria State BeachSan Miguel Campground Shoreline Erosion Study.* Encinitas, CA: Skelly Engineering.

Agricultural and Forest Resources

County of Santa Barbara. 2011 Agricultural Production Report 2010 - Agricultural Commissioner's Office http://www.countyofsb.org/agcomm/default.aspx?id=11562&terms=agricultural+production+report Accessed September 7, 2011

_____. 2011 General Guidelines for the Agricultural Preserve Program http://longrange.sbcountyplanning.org/programs/genplanreformat/PDFdocs/GP_main.pdf Accessed September 7, 2011

_____. 2009 County of Santa Barbara General Plan http://longrange.sbcountyplanning.org/general_plan.php Accessed September 7, 2011

City of Carpinteria. 2003. General Plan and Local Coastal Land Use Plan http://www.carpinteria.ca.us/PDFs/cd_General%20Plan.pdf. Accessed September 7, 2011

_____. 2011 City of Carpinteria Zoning Map http://www.carpinteria.ca.us/PDFs/cd_zoning%20map.pdf Accessed September 7, 2011

California Department of Conservation (CDC). 2010. Williamson Act Program. Website: http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx. Accessed September 6, 2011.

ANR University of California. 2003. Forestry, Forest Industry, and Forest Products Consumption in California (Publication 8070). Division of Agriculture and Natural Resources.

Air Quality

California Environmental Protection Agency; Air Resources Board (CalEPA). 2003. State Area Designations Definitions. http://www.arb.ca.gov/desig/adm/define.htm

California Environmental Protection Agency; Air Resources Board (CalEPA(a)). 2011. Federal Standard Designations. http://www.arb.ca.gov/desig/feddesig.htm

California Environmental Protection Agency; Air Resources Board (CalEPA(b)). 2011. Standards and Area Designations. http://www.arb.ca.gov/desig/desig.htm

California Environmental Protection Agency; Air Resources Board (CalEPA (c)). 2011. Area Designations Maps / State and National. http://www.arb.ca.gov/desig/adm/adm.htm

California Environmental Protection Agency; Air Resources Board (CalEPA (d)). 2011. California Air Basins – South Central Coast. http://www.arb.ca.gov/knowzone/basin/basin.swf

California Environmental Protection Agency; Air Resources Board (CalEPA (e)). 2011. Ambient Air Quality Monitoring. http://www.arb.ca.gov/aaqm/aaqm.htm#background

County of Santa Barbara Public Works. 2009. http://www.countyofsb.org/pwd/pwwater.aspx?id=27904

California Department of Parks and Recreation (DPR). 2008. Initial Study Mitigated Negative Declaration, Carpinteria Interpretive Play Area/Bioswale/Palm-Linden Trail Project (Draft). http://www.parks.ca.gov/pages/980/files/draft%20mnd2.pdf

Santa Barbara County Air Pollution Control District (SBCOVERCD). 2009. Monitoring Air Quality. http://www.sbcapcdsbcapcovercd.org/sbc/monitaq.htm

Santa Barbara County Air Pollution Control District (SBCOVERCD). 2010. Annual Air Monitoring Network Plan For Santa Barbara County. http://www.epa.gov/ttnamti1/files/networkplans/CASBCAPCDPlan2010CASBCAPCOVERCDPlan2010.pdf

United States Environmental Protection Agency (USEPA). 2010. Six Common Air Pollutants. http://www.epa.gov/air/urbanair/

United States Environmental Protection Agency (USEPA). 2011(a). Green Book; Designations. http://www.epa.gov/air/oaqps/greenbk/define.html#Designations

United States Environmental Protection Agency (USEPA). 2011(b). Technology Transfer Network; National Ambient Air Quality Standards. http://www.epa.gov/ttn/naaqs/standards/pb/s_pb_index.html

United States Environmental Protection Agency (USEPA). 2011(c). Technology Transfer Network; National Ambient Air Quality Standards. http://www.epa.gov/ttn/naaqs/

Biological Resources

Brigham, R. M., M. J. Vonhoff, R. M. R. Barclay, and J. C. Gwilliam. 1997. Roosting behavior and roost-site preferences of forest-dwelling California bats (*Myotis californicus*). J. Mammal. 78:1231-1239.

California Native Plant Society (CNPS). 2009. Inventory of Rare and Endangered Plants of California, 7th edition, electronic version. Website: http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi Accessed January 8, 2009.

California Oak Mortality Task Force (COMTF). 2008. W. & L.E. Stenzel. 1981. The Breeding Status of the Snowy Plover in California. Western Birds, VOL. 12, NO. 1, Pages 1-40.

Waldecker, Debbie. 2010. Memorandum: Carpinteria Campground ADA Improvement Project, Carpinteria State Beach.

Cultural

Arnold, Jeanne E.

1992 Complex Hunter-Gatherers-Fishers of Prehistoric California: Chiefs, Specialists, and Maritime Adaptations of the Channel Islands. *American Antiquity* 57:60-84.

California Department of Parks and Recreation (CDPR)

1979 *Interpretive Prospectus*.

Colten, Roger H. and Jon M. Erlandson

1991 Perspectives on Early Hunter-Gathers of the California Coast: In *Hunter-Gatherers of Early Holocene Coastal California*, edited by Jon M. Erlandson and Roger H. Colten, pp. 133-139. Perspectives in California Archaeology, Volume 1. Institute of Archaeology, University of California, Los Angeles

Fages, Pedro

1937 *A Historical, Political, and Natural Description of California by Pedro Fages, Soldier of Spain [1775]*. Herbert I. Priestley, trans. Berkeley: University of California Press. (Reprinted by Ballena Press, Romana, California, 1972).

Gamble, Lynn H.

2002 Archaeological Evidence for the Origin of the Plank Canoe in North America. *American Antiquity* 67:301-315.

Gamble, Lynn H

2008 *The Chumash World at European Contact: Power, Trade, and Feasting Among Complex Hunter-Gatherers*. University of California Press, Berkeley.

Gilbert, Shannon

2004 *A Cultural Resource Study of Historical Features at Carpinteria State Beach, Santa Barbara County, California*. Brian F. Smith and Associates, Poway, CA.

Glassow, Michael

1997 Middle Holocene Cultural Development in the Central Santa Barbara Channel Region. In Archaeology of the California Coast During the Middle Holocene, edited by Jon M. Erlandson and Michael A. Glassow, pp. 73-90. *Perspectives in California Archaeology*, Volume 4. Institute of Archaeology, University of California, Los Angeles.

Glassow, Michael, Lynn H. Gamble, Jennifer E. Perry, and Glenn S. Russell

2007 Prehistory of the Northern California Bight and the Adjacent Transverse Ranges, In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 191-213. AltaMira Press, Lanham, MD.

Grant, Campbell

1978 Chumash: Introduction In Handbook of the North American Indian, Volume 8, *California*, edited by Robert F. Heizer, pp. 505-508. Smithsonian Institution. Washington D.C.

Greenaway, B.

2007 *Carpinteria State Beach2007 Testing of CA-SBA-3736H Archaeological Report, Carpinteria State Beach.* California Department of Parks and Recreation.

Haley, B. and A. York

1988 Archaeological Site Record Update for CA-SBA-7

Higgins, H.

2002 Archaeological Site Record Update for CA-SBA-7

Johnson, John R., Thomas W. Stafford, Jr., Henry O. Ajie, and Don P. Morris

2002 Arlington Springs Revisited. In *Proceedings of the Fifth California Islands Symposium*, edited by D. R. Brown, K. C. Mitchell and H. W. Chaney, pp. 541-545. Santa Barbara Museum of Natural History. Santa Barbara, California.

Jones, Terry L.

2008 Culture or Adaptation: Milling Stone Reconsidered. In *Avocados to Milling stones: Papers in Honor of D. L. True*, edited by Georgie Waugh and Mark E. Basgall, pp. 137-154. Monographs in California and Great Basin Anthropology Number 5.

Jones, Terry L., R. T. Fitzgerald, D. J. Kennett, C. H. Miksicek, J. L. Fagan, J. Sharp, and J. M. Erlandson

2002 The Cross Creek Site (CA-SLO-1797) and Its Implications for New World Colonization. *American Antiquity* 67:213-230.

King, Chester

1967 The Sweetwater Mesa Site (LAN-267) and its place in Southern California Prehistory. In *Archaeological Survey Annual Report* Volume 9: 29-112. University of California, Los Angeles.

1990 *Evolution of Chumash Society*. Garland Publishing, Inc. New York and London

Kirkish, A. and B.F. Smith

1997 *Chumash Cemetery Location Information at the Village of Mishopshnow (CA-SBA-7) at Carpinteria State Beach, Carpinteria, CA*. On file at California Department of Parks and Recreation.

Leftwich, B., L. Solis, S. Black, and C. Woodman

2009 *Phase II Archaeological Testing Report: CA-SBA-3736H Carpinteria State Beach*. Report prepared by URS Corporation for California Department of Parks and Recreation.

McKusic

1960 CA-SBA-7, Fig Tree, Letter report.

Moratto, Michael J.

1984 *California Archaeology*. Academic Press, Orlando.

Olson, R. L.

1930 Chumash Prehistory. *University of California Publications in American Archaeology and Ethnography* 28(1):1-21.

Orr, Phil C.

1943 *Archaeology of Mescalitan Island and the Customs of the Canaliño*. Santa Barbara Museum of Natural History Occasional Papers.

Rogers, David Banks

1929 *Prehistoric Man of the Santa Barbara Coast, California*. Santa Barbara Museum of Natural History. Santa Barbara, Calif.

Santa Barbara Museum of Natural History

2002 Chumash Life. <http://www.sbnature.org/research/anthro/chumash/intro.htm>

Smith, Brian and Associates

2003 Archaeological Site Recordation Form Update for CA-SBA-7.

Spanne, L.

1968 Archaeological Site Record for CA-SBA-7.

Wallace, William J.

1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology American* 11:214-230.

Whitehead, R

1955 Application for Registration of Historical Point of Interest for Carpinteria and Indian Village of “Mishopshnow.”

Woodward, J.

1983 Archaeological Site Record Update for CA-SBA-7.

GEOLOGY AND SOIL

California Department of Parks and Recreation (DPR). 1979. Santa Barbara/Ventura Coastal State Park System General Plan: Unit 514 Carpinteria State Beach. http://www.parks.ca.gov/pages/21299/files/514.pdf
http://www.parks.ca.gov/pages/21299/files/514.pdf

California Department of Parks and Recreation (DPR). 2009. Carpinteria State Beach, Interpretation Master Plan. http://www.parks.ca.gov/pages/599/files/carpinteria_inter_mp.pdf

California Department of Parks and Recreation (DPR). 2010. Initial Study Mitigated Negative Declaration, Humboldt Redwoods State Park Williams Grove Water System Repair Project.

California Geologic Survey (CGS). 2010. Alquist-Priolo Earthquake Fault Zones. California Department of Conservation. http://www.quake.ca.gov/gmaps/ap/ap_maps.htm

City of Carpinteria. 2006. Lagunitas Mixed Use Development Revised SEIR (Section 4.2 Geology). http://www.ci.carpinteria.ca.us/PDFs/cd_L%20EIR%20Geology.pdf

O'Tousa, James. 1995. La Conchita Landslide, Ventura County, California. Association Engineering Geologists News, Fall, 1995, p 22 – 24.

Greenhouse Gas Emissions

AB 32. Assembly Bill No. 32 California Global Warming Solutions Act of 2006.

California Executive Order S-13-08 - Sea Level Rise Considerations 2008

Coastal and Ocean Working Group of the California Climate Action Team. State of California Sea-Level Rise Interim Guidance Document October 2010.

CARB. 2008. Climate Change Scoping Plan - A framework for change 2008. by the California Air Resource Board

CDPR 2008. Department of Parks and Recreation Memorandum Vision Statement and strategic Initiatives issued February 8, 2008

California Integrated Waste Management Board – Letter to Department of Parks and Recreation Subject: Sampling Results Carpinteria State BeachHistoric Dump Site May 4, 2009

Carpinteria State BeachSan Miguel Campground Shoreline Erosion Study by SE SKELLY Engineering - November 1999

NOAA. National Oceanic and Atmosphere Administration National Climate Data Center – Greenhouse Gases - February 23, 2010 Website: http://lwf.ncdc.noaa.gov/oa/climate/gases.html (accessed September 12, 2011).

USEPA. United States Environmental Protection Agency. Climate change – Greenhouse Gas Emissions. Website http://www.epa.gov/climatechange/emissions/index.html (accessed on September 12, 2011).

Hazards and Hazardous Materials

Carpinteria-Summerland Fire Protection District 2011 - http://carpfire.com/home . Accessed September 9, 2011

Carpinteria Unified School District. 2011. http://www.cusd.net/general-info-1 Accessed on September 9, 2011

Department of Forestry and Fire Protection (CalFire). 2007 Guidelines for fire Hazard Zoning Review and Fire and Resource Assessment Program.

Department of Toxics Substances Control 2010. Envirostor Database Search http://www.envirostor.dtsc.ca.gov/public/ Accessed on September 12, 2011

Google Maps. 2010 Website: http://maps.google.com/maps?hl=en&tab=wl accessed September 10, 2011.

Hydrology and Water Quality

California Department of Parks and Recreation (DPR). 1979. Santa Barbara/Ventura Coastal State Park System General Plan: Unit 514 Carpinteria State Beach. http://www.parks.ca.gov/pages/21299/files/514.pdf

Central Coast Regional Water Quality Control Board (CCRWQCB). 2006. 2006 CWA Section 303(d) List of Water Quality Limited Segments Requiring TMDLS. http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/303dlists2006/epa/r3_06_303d_reqtmdls.pdf

Padre Associates, Inc. 2005. City of Carpinteria Creeks Preservation Program Final Document Volume One. http://www.carpinteria.ca.us/PDFs/cd_creeks%20report.pdf

FEMA 2009. Flood Insurance Map www.FEMA.gov

Padre Associates, Inc. 2008. Carpinteria Water District, El Carro Well Replacement and Central Zone Pipeline Improvements Project, Initial Study. http://www.cvwd.net/pdfs/El%20Carro%20Well%20Initial%20Study_MND/El%20Carro%20Well%20&%20CZ%20Pipe%20IS.pdf

Land Use and Planning

Carpinteria State Beach1979 Santa Barbara/Ventura Coastal State Park System General Plan – Carpinteria Department of Parks and Recreation approved July 1979

City of Carpinteria. 2003. General Plan and Local Coastal Land Use Plan http://www.carpinteria.ca.us/PDFs/cd_General%20Plan.pdf. Accessed September 7, 2011

_____. 2011 City of Carpinteria Zoning Map http://www.carpinteria.ca.us/PDFs/cd_zoning%20map.pdf Accessed September 7, 2011

Mineral Resources

County of Santa Barbara 2009 County of Santa Barbara General Plan http://longrange.sbcountyplanning.org/general_plan.php Accessed October 7, 2011

City of Carpinteria. 2003. General Plan and Local Coastal Land Use Plan http://www.carpinteria.ca.us/PDFs/cd_General%20Plan.pdf. Accessed October 7, 2011

Noise

Bearden, David M. 2000. Noise Abatement and Control: An Overview of Federal Standards and Regulations. Website: http://ncseonline.org/NLE/CRSreports/Risk/rsk-52.cfm?&CFID=7463199&CFTOKEN=71822941. Accessed September 30, 2010.

Humboldt County Community Development Services Department. 2008. General Plan Update: (Planning Commission Hearing Draft): Chapter 13 Noise Element. Website: http://co.humboldt.ca.us/gpu/docs/HearingDraft/Part4Chapter13 PlanningCommissionHearingDraftOne11-20-08.pdf . Accessed September 30, 2010.

Population and Housing

California Department of Finance (DOF) 2008, E-4 Population Estimates for Cities, Counties, and the State, 2000-2008. http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/ReportsPapers.php (accessed February 17, 2009).

City of Carpinteria 2011 http://www.carpinteria.ca.us/edd/economic_profile.shtml

Public Services

California Department of Parks and Recreation. 2009. Find a Park. http://www.parks.ca.gov/parkindex/region_info.asp?id=1&tab=1 (accessed September 3, 2010).

Recreation

California Department of Parks and Recreation (CDPR). 2011. California State Parks, Visit A Park. Website: http://www.parks.ca.gov/mediagallery/?page_id=599&viewtype=7 Accessed 9-16-11.

City of Carpinteria. 2003. General Plan/Local Coastal Land Use Plan & Environmental Impact Report. Website: http://www.carpinteria.ca.us/PDFs/cd_General%20Plan.pdf Accessed 9-19-11.

County of Santa Barbara. 2011. Website: http://www.countyofsb.org/parks/parks02.aspx?id=7942 Accessed 9-19-11.

Transportation

Penfield & Smith. (2011). *Traffic Impact Study for the Albertsons Expansion project, City of Carpinteria.* Santa Barbara: Penfield & Smith.

Utilities and Services

California Department of Parks and Recreation (DPR). 2008. Initial Study Mitigated Negative Declaration, Carpinteria Interpretive Play Area/Bioswale/Palm-Linden Trail Project (Draft). http://www.parks.ca.gov/pages/980/files/draft%20mnd2.pdf

http://www.parks.ca.gov/pages/980/files/draft%20mnd2.pdf

Carpinteria Sanitary District. 2009. Bluffs Sewer Relocation Project Initial Study and Mitigated Negative Declaration (Draft). http://www.carpsan.com/publicinfo/documents/draft_is_mnd.pdf

Chapter 6
Report Preparation

STEPHANIE COLEMAN, ENVIRONMENTAL COORDINATOR
NORTHERN SERVICE CENTER

BARBARA FOSBRINK, DISTRICT SERVICES MANAGER
CHANNEL COAST DISTRICT

DAN KOPP, ENVIRONMENTAL SCIENTIST
NORTHERN SERVICE CENTER

ROY MARTIN, ENVIRONMENTAL SCIENTIST
NORTHERN SERVICE CENTER

MARLA MEALEY, ASSOCIATE STATE ARCHEOLOGIST
SOUTHERN SERVICE CENTER

BRAD MICHALK, ENVIRONMENTAL COORDINATOR
NORTHERN SERVICE CENTER

APPENDIX A
MAP AND PHOTOS OF SITE

Carpinteria
State Beach
Legend
Freeway
Paved road
Railroad
Accessible Feature
Campground
Campfire Center
En route Camping
Group Campground
Hike/Bike Campground
Parking
Picnic Area
Ranger Station
Restrooms
RV
RV Sanitation Station
Showers
Telephone
Viewpoint
to Santa Barbara
101
224
AMTRAK Stop
5th St
6th St
Sandyland Road
Exit Only
Linden Ave
Carpinteria City Beach
Palm Ave
Access Park from Palm Avenue
Carpinteria Ave
Casitas Pass Road
CARPINTERIA
Carpinteria Creek
to Ventura
Anacapa
Day Use
Park Entrance
Santa Cruz
see detail map right
Santa Rosa
Tarpits
San Miguel
Jellybowl
PACIFIC OCEAN
CARPINTERIA STATE BEACH
0 500 1000 1500 Feet
0 100 200 300 400 Meters
© 2005 California State Parks
Map by Eureka Cartography, Berkeley, CA
Santa Maria
166
Carrizo Plain NM
1
101
to San Luis Obispo
Los Padres NF
246
Solvang
Lompoc
154
33
Refugio SB
El Capitan SB
El Presidio de Santa Barbara SHP
Ojai
Gaviota SP
Santa Barbara
Carpinteria SB
150
Ventura
San Buenaventura SB
McGrath SB
Oxnard
Santa Barbara Channel
San Miguel Island
Channel Islands NP
Santa Cruz Island
to Los Angeles
Santa Rosa Island
Anacapa Island
0 10 20 Miles
0 10 20 30 Kilometers
PACIFIC OCEAN
Anacapa Loop 1-27
Camp Host
Junior Ranger Area
Ramada 9
Visitor Center
Ramada 8
Park Entrance
ANACAPA & SANTA CRUZ CAMPGROUNDS
Camp Host
Santa Cruz Loop 28-66
SANTA ROSA & SAN MIGUEL CAMPGROUNDS
Camp Hosts
Santa Rosa Loop 67-146
Camp Host
Tarpits
Lifeguard Headquarters
Camp Host
San Miguel Loop 147-216
Tide Pool Area
Camp Host
Jellybowl

Carpinteria State Beach
San Miguel Loop
Project
Location

View of Project Location looking to the right.

Historic Dumpsite Cover - San Miguel Loop
Carpinteria State Beach
California Department of Parks & Recreation

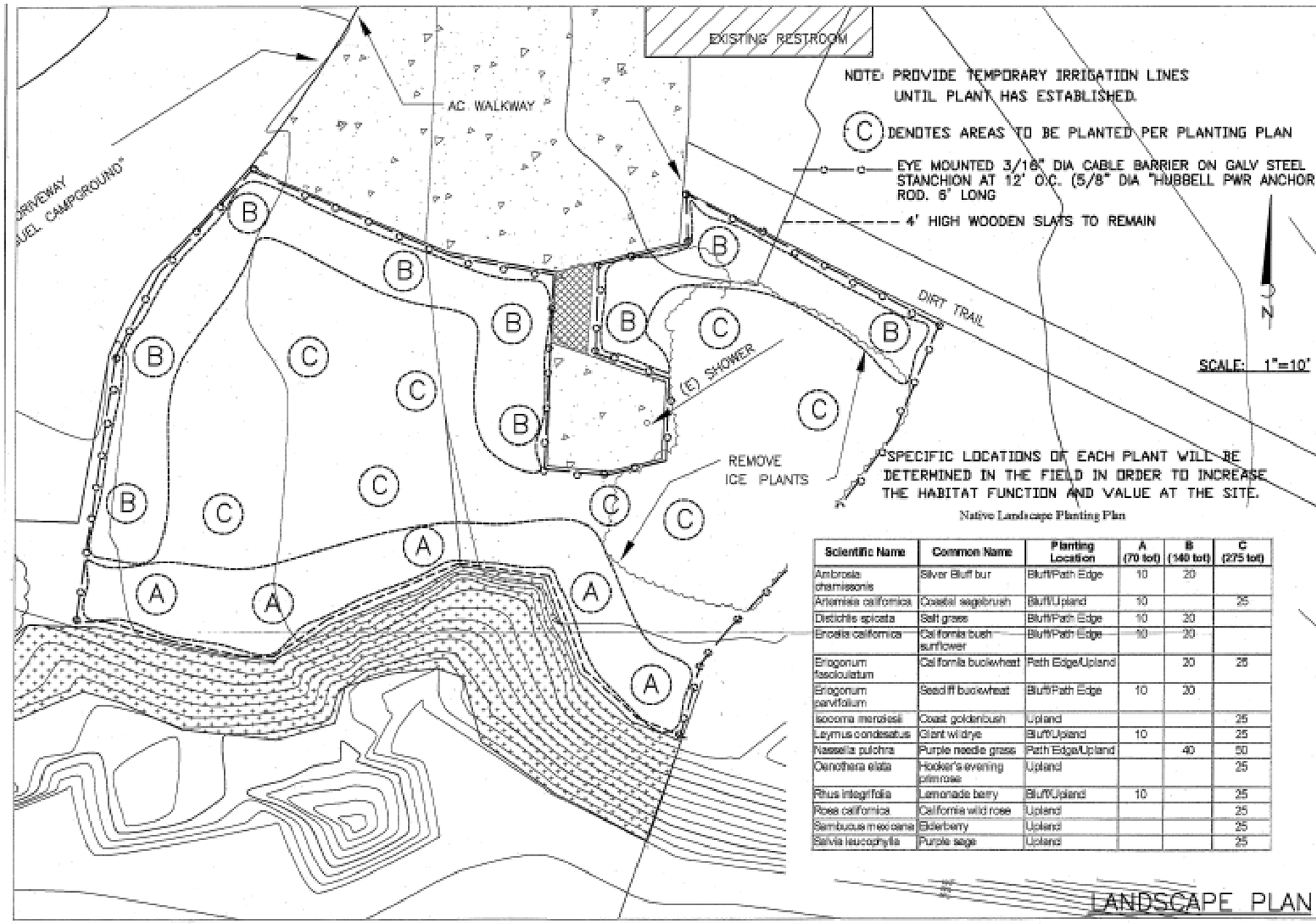
APPENDIX B

Examples of Sculpted Concrete

Historic Dumpsite Cover - San Miguel Loop
Carpinteria State Beach
California Department of Parks & Recreation

APPENDIX C

LANDSCAPE PLANTING PLAN



Native Landscape Planting Plan

Scientific Name	Common Name	Planting Location	A (70 tot)	B (140 tot)	C (275 tot)
Ambrosia chamissonis	Silver Bluff bur	Bluff/Path Edge	10	20	
Artemisia californica	Coastal sagebrush	Bluff/Upland	10		25
Distichlis spicata	Salt grass	Bluff/Path Edge	10	20	
Encelia californica	California bush sunflower	Bluff/Path Edge	10	20	
Eriogonum fasciculatum	California buckwheat	Path Edge/Upland		20	25
Eriogonum parvifolium	Seaclff buckwheat	Bluff/Path Edge	10	20	
Isocoma menziesii	Coast goldenbush	Upland			25
Leymus condensatus	Giant wildrye	Bluff/Upland	10		25
Nassella pulchra	Purple needle grass	Path Edge/Upland		40	50
Oenothera elata	Hooker's evening primrose	Upland			25
Rhus integrifolia	Lemonade berry	Bluff/Upland	10		25
Rosa californica	California wild rose	Upland			25
Sambucus mexicana	Elderberry	Upland			25
Salvia leucophylla	Purple sage	Upland			25

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED NAT COX
DRAWN FRED SKOLSI
CHECKED XXXXX
DATE 12-06-2011

REVISIONS

	DATE
1	11-08-11 BY NAT COX
2	03-01-12 BY NAT COX

CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
LANDSCAPE PLAN

PROJECT NUMBER

SHEET NO.
11
11 OF 11

APPENDIX D

Acronyms

AB – Assembly Bill
AD – After Death
ADA - Americans with Disabilities Act
AADT – Average annual daily trip
APCD – Air Pollution Control District
APE - Area of Potential Effect
APEFZ - Alquist-Priolo Earthquake Fault Zoning
ARB/CARB - California Air Resources Board
BAAQMD – Bay Area Air Quality Management District
BMP - Best Management Practices
BP – Before Present
CA - California
Caltrans - California Department of Transportation
CARB – California Air Resources Board
CBC/UBC - California Uniform Building Code
CCR - California Code of Regulations
CDF - California Department of Forestry and Fire
CDFG - California Department of Fish and Game
CDPR or DPR – California Department of Parks and Recreation
CDTSC – California Department of Toxic Substance Control
CEQA - California Environmental Quality Act
CGS - California Geological Survey
CHP – California Highway Patrol
cmbs – centimeters below surface
CNDDB - California Natural Diversity Database (Calif. Dept. of Fish and Game)
CNPS - California Native Plant Society
CO2 – Carbon Dioxide
CRHR - California Register of Historic Resources
CRPGP – California River Parkways Grant Program
CSQA – California Stormwater Quality Association
CWA – Clean Water Act
dB – decibels
DOF – California Department of Finance
DPR - California Department of Parks and Recreation
DWR – Department of Water Resources
EIR - Environmental Impact Report
EPA – United States Environmental Protection Agency
FEMA - Federal Emergency Management Agency
FMMP - Farmland Mapping and Monitoring Program
FPPA – Federal Farmland Protection Policy Act
g – Gravity
GAN – Global Aviation Navigator
GHG – greenhouse gas
GP - General Plan
GWP – Global Warming Potential

HCP – Habitat Conversation Plan
IS/ND - Initial Study / Negative Declaration
Ldn - day-night average levels
LOS - level of service
ND - Mitigated Negative Declaration
MBTA – Migratory bird Treaty Act
MSL - mean sea level
mph - miles per hour
N2O – Nitrous Oxide
NCCP – natural community conservation plan
NCAB – North Coast Air Basin
NOx - nitrogen oxide
NOAA – National Oceanic Atmosphere Administration
NPS – National Park Service
NPDES - National Pollutant Discharge Elimination System
NRHP - National Register of Historic Places
NSC - Northern Service Center
OHP – California Office of Historic Resources
PM_{10} - particulate matter (particles with an aerodynamic diameter of 10 Microns or less)
$PM_{2.5}$ - particulate matter (particles with an aerodynamic diameter of 2.5 Microns or less)
POST – Peace Officer Standards and Training
PRC - Public Resources Code
QMU – Pleistocene-age older alluvium of the Upper Modesto Formation
Qsc – Quaternary stream channel
SP – State Parks
SPR – Standard Project Requirements
SR – State Route
SWPPP - Storm Water Pollution Prevention Plan
SWRCB - State Water Resource Control Board
U.S. - United States
USACOE - United States Army Corps of Engineers
USDA – NRCS – Untied States Department of Agriculture – Natural Resource Conservation Service
USDA – SCS – United States Department of Agriculture – Soil Conservation Service
USEPA - United States Environmental Protection Agency
USFWS - United States Fish and Wildlife Service
USGS - United States Geological Service
VRP – Visibility Reducing Particle

APPENDIX E

Plan Set

HISTORIC DUMPSITE COVER
SAN MIGUEL CAMPGROUND
CARPINTERIA STATE BEACH

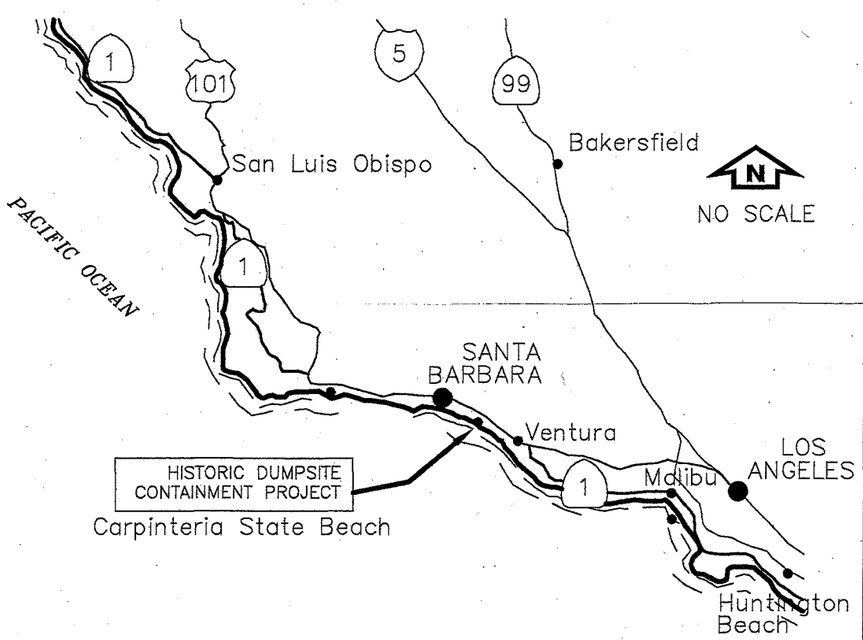
AT:

CARPINTERIA STATE BEACH
SANTA BARBARA COUNTY,
CALIFORNIA

FOR:

CHANNEL COAST DISTRICT
911 SAN PEDRO STREET
VENTURA, CA 93001
(805) 585-1850

PREPARED BY:
FRED SOLIS P.E.
CHANNEL COAST DISTRICT
911 San Pedro Street
VENTURA, CA 93001
(805) 585-1850



LOCATION MAP

1. CONTRACTOR SHALL CONDUCT ALL WORKS IN ACCORDANCE WITH THE LATEST SAFETY RULES OF VARIOUS AGENCIES (CAL-OSHA etc).
2. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO PRESENTING BIDS.
3. ALL DEBRIS THAT SHALL NOT BE REUSED SHALL BE LEGALLY DISPOSED AWAY FROM PARKS PROPERTY.
4. ALL WORK SHALL COMPLY WITH THE CURRENT EDITION OF THE FOLLOWING LISTED CODES AND ALL OTHERS HAVING JURISDISTION OVER THE WORK.
   HEALTH & SAFETY SECTION OF CALIFORNIA BUILDING CODE.
   CAL-OSHA
   STANDARD SPECS FOR PUBLIC WORKS CONSTN (SSPWC0
   STANDARD PLANS FOR PUBLIC WORKS CONSTN (SPPWC)
   STATE STANDARD PLANS FROM CALTRANS
   STATE STANDARD SPECS FROM CALTRANS
5. CONTRACTOR SHALL PLAN, SCHEDULE & COORDINATE HIS OPERATION WITH STATE PARKS PERSONNEL TO ENSURE PROPER COORDINATION WITH VARIOUS ACTIVITIES IN THE PARK. THE PARK IS OPEN TO PUBLIC DURING CONSTRUCTION.
6. THIS PROJECT IS LOCATED ON AN ARCHEOLOICALLY SENSITIVE AREA. THE STATE RESERVES THE RIGHT TO HALT THE CONTRACTOR'S OPERATION FOR UP TO 48 HOURS SHOULD IT BECOMES NECESSARY TO INVESTIGATE ANY CONCERNS BY THE STATE ARCHEOLOGIST. CONTRACTOR TO PROTECT EXISTING GROUND SURFACE FROM DAMAGE BY EQUIPMENT.
7. NO EQUIPMENT WILL BE ALLOWED ON THE BEACH. NO EQUIPMENT STORAGE ON THE BEACH. ALL EQUIPMENT TO BE STAGED AT LEAST 10 FEET AWAY FROM THE TOP EDGE OF THE BLUFF.
8. CONTRACTOR TO PROTECT EXISTING PAVEMENT FROM DAMAGE. CONTRACTOR TO REPAIR DAMAGE TO SATISFACTION OF THE STATE AT CONTRACTOR EXPENSE.

GENERAL NOTES

1 COVER SHEET
2 SITE PLAN
3 SITE PLAN & SITE ELEVATION
4 CROSS SECTION
5 CROSS SECTION
6 CROSS SECTION
7 CROSS SECTION
8 CROSS SECTION
9 DETAILS
10 COASTAL PROCESSES INFORMATION
11 LANDSCAPE PLAN

SHEET INDEX

APPROVALS

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	07-25-2011

REGISTERED PROFESSIONAL ENGINEER
ALFREDO M. SOLIS
NO. C-42983
CIVIL
STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

Approval of this plan does not authorize or approve any omission of deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by Date

DSA/OPR MOU - 8.01
ACCESSIBILITY REVIEW

CERTIFICATION #

Reviewed by Date

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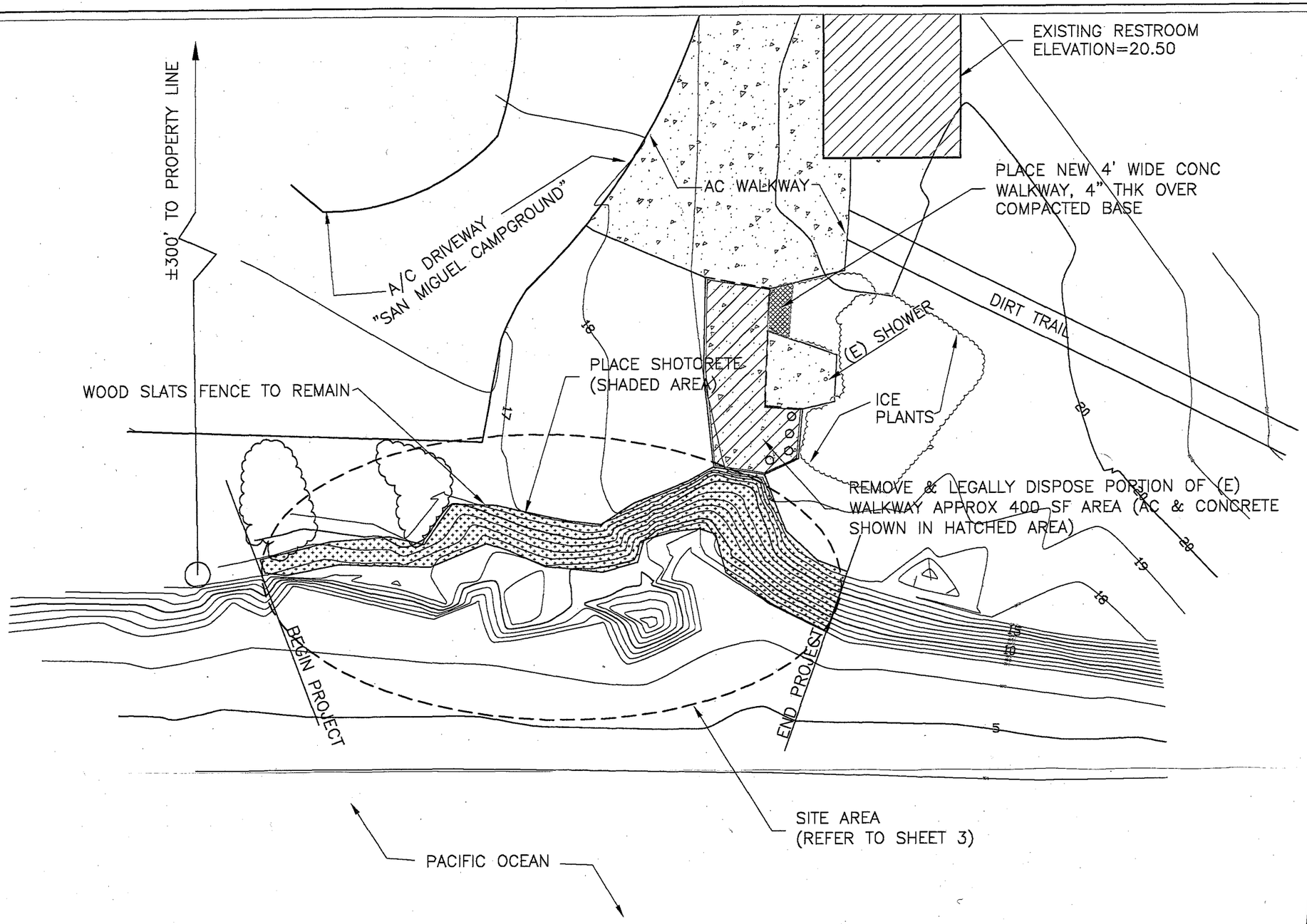
△	DATE

CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
COVER SHEET

PROJECT NUMBER
000000

SHEET NO.
1
1 OF 11



SCALE: 1"=20'

SITE PLAN

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	07-25-2011

REGISTERED PROFESSIONAL ENGINEER
ALFREDO M. SOLIS
NO. C-42083
CIVIL
STATE OF CALIFORNIA

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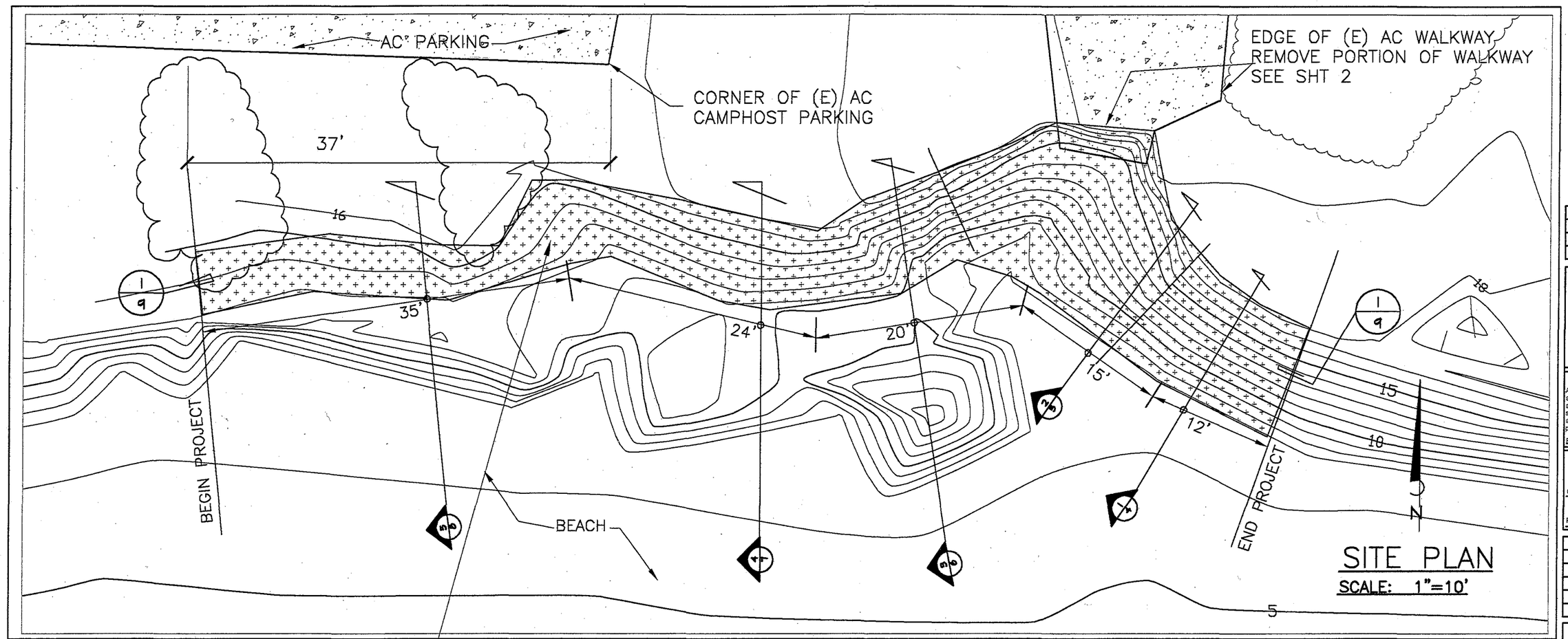
1	11-28-11 BY NAT COX

CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
SITE PLAN

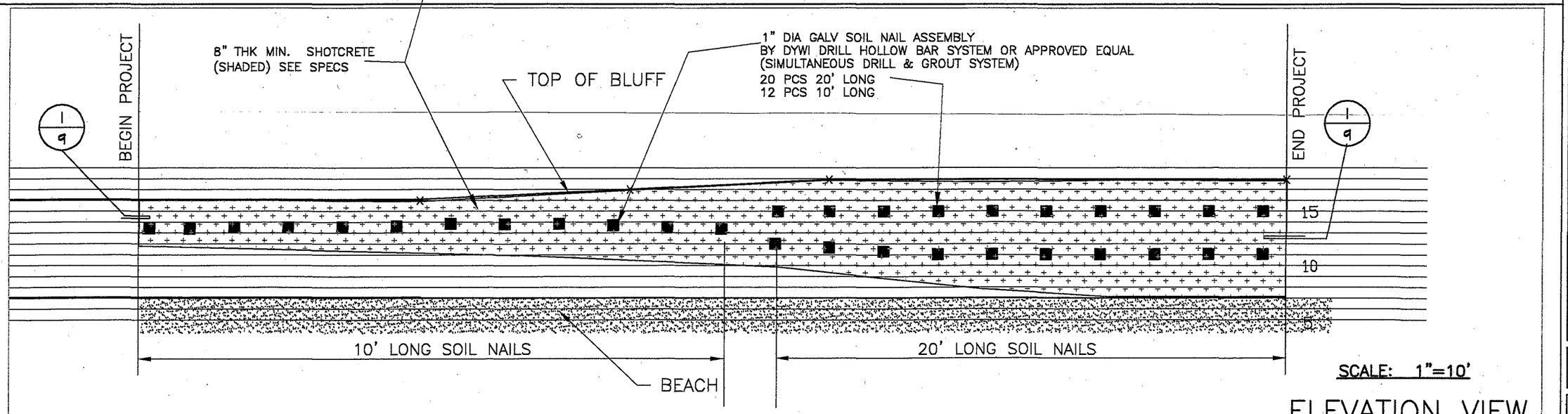
PROJECT NUMBER

SHEET NO.
2
2 OF 10



SITE PLAN

SCALE: 1"=10'



SCALE: 1"=10'

ELEVATION VIEW

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	07-25-2011

REGISTERED PROFESSIONAL ENGINEER
WILFREDO M. SOLIS
NO. C-42983
CIVIL
STATE OF CALIFORNIA

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	11-28-11 BY NAT COX

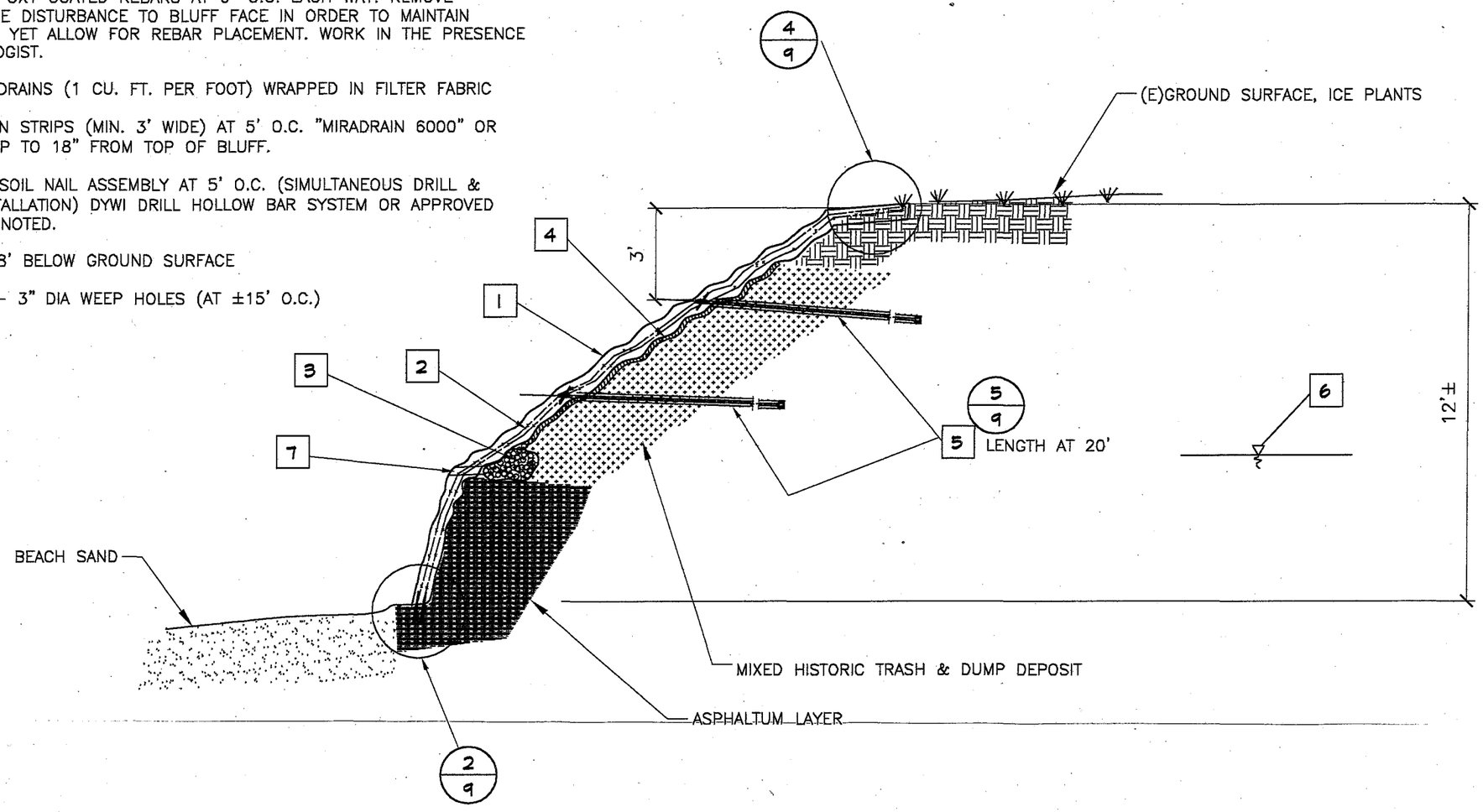
CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
SITE PLAN

PROJECT NUMBER

SHEET NO.
3
3 OF 11

CROSS–SECTION NOTES:

1. 8" THK SHOTCRETE (SEE SPECS). THEN ADD 1.5"–3" THK HAND SCULPTED AND STAINED SHOTCRETE FACE TO MATCH NATURAL APPEARING FINISH SURFACES. FILL WITH SHOTCRETE ALL POCKET VOIDS NOT ADDRESSED BY SHAVING. PROVIDE WITH SYNTHETIC FIBER REINFORCEMENT AT 2 LBS/CU. YDS. AND CORROSION INHIBITOR ADDITIVES.
2. TWO LAYERS #3 EPOXY COATED REBARS AT 6" O.C. EACH WAY. REMOVE VEGETATION. MINIMIZE DISTURBANCE TO BLUFF FACE IN ORDER TO MAINTAIN EXISTING CONTOURS YET ALLOW FOR REBAR PLACEMENT. WORK IN THE PRESENCE OF STATE ARCHEOLOGIST.
3. 3/4" DIA GRAVEL DRAINS (1 CU. FT. PER FOOT) WRAPPED IN FILTER FABRIC
4. GEOCOMPOSITE DRAIN STRIPS (MIN. 3' WIDE) AT 5' O.C. "MIRADRAIN 6000" OR APPROVED EQUAL UP TO 18" FROM TOP OF BLUFF.
5. 1" DIA GALVANIZED SOIL NAIL ASSEMBLY AT 5' O.C. (SIMULTANEOUS DRILL & GROUT SYSTEM INSTALLATION) DYWI DRILL HOLLOW BAR SYSTEM OR APPROVED EQUAL. LENGTH AS NOTED.
6. GROUND WATER AT 8' BELOW GROUND SURFACE
7. DRILL TOTAL OF 6 – 3" DIA WEEP HOLES (AT ±15' O.C.)



CROSS SECTION 1

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	07-25-11

REGISTERED PROFESSIONAL ENGINEER
ALFREDO M. SOLIS
NO. C-42863
CIVIL
STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

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ACCESSIBILITY REVIEW

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CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
SECTION

PROJECT NUMBER

SHEET NO.
4
4 OF 11

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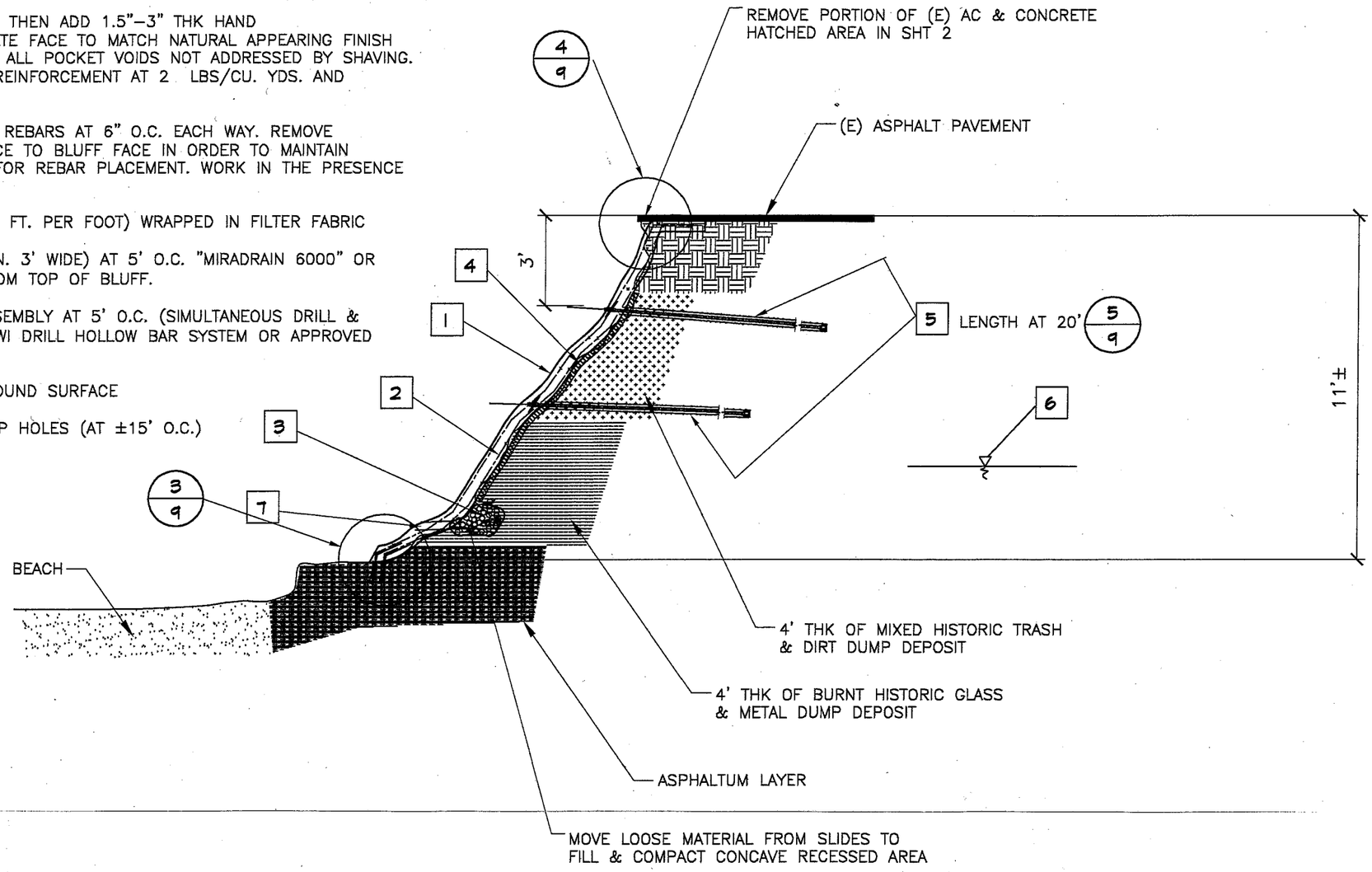

CROSS SECTION 2

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
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CHECKED	XXXXX
DATE	07-25-11

REGISTERED PROFESSIONAL ENGINEER ALFREDO M. SOLIS NO. C-42983 CIVIL STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

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CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
SECTION

PROJECT NUMBER

SHEET NO.
5
5 OF 11

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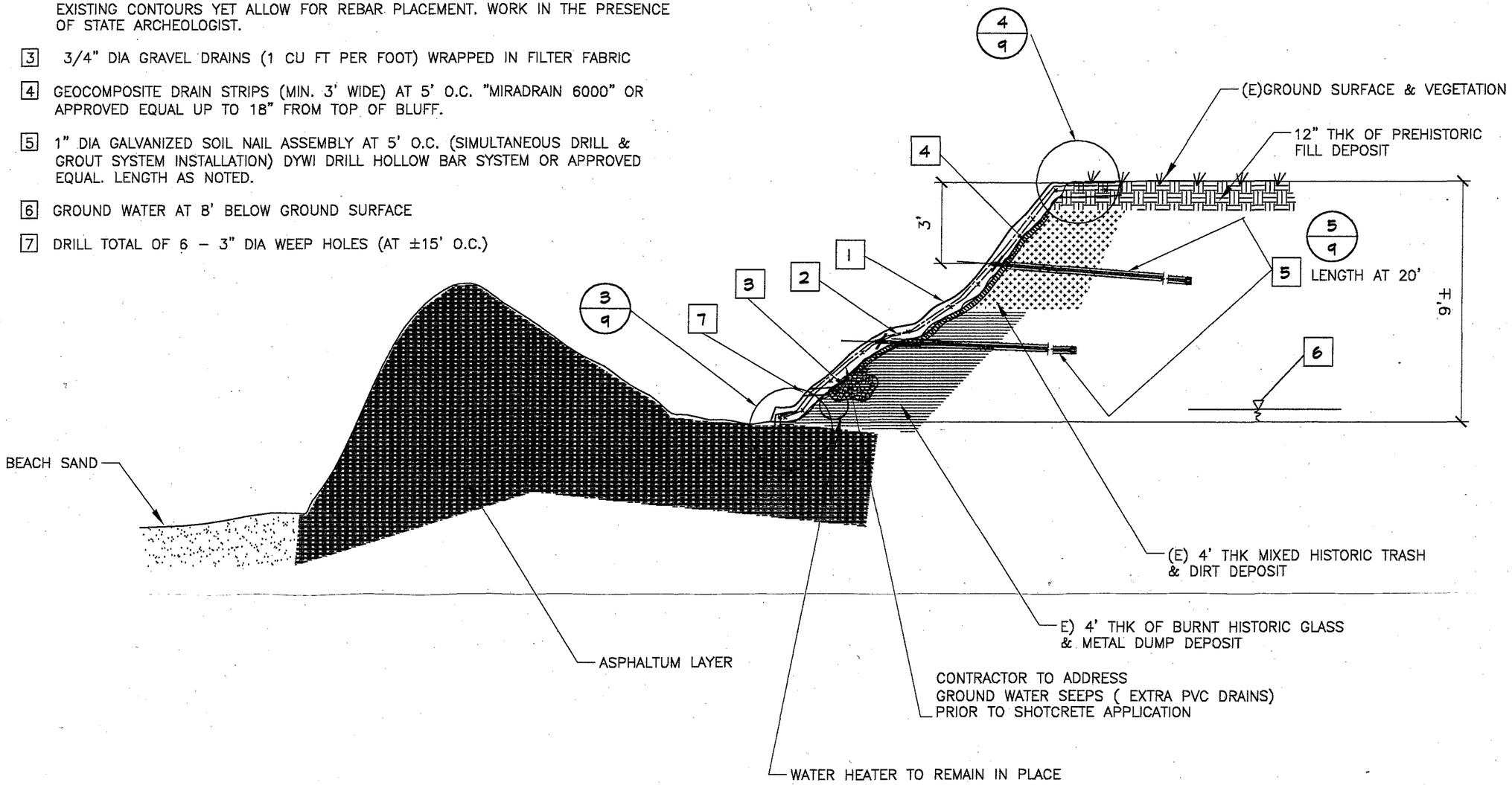

CROSS SECTION 3

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	07-25-11

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CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
SECTION

PROJECT NUMBER

SHEET NO.
6
6 OF 11

CROSS–SECTION NOTES:

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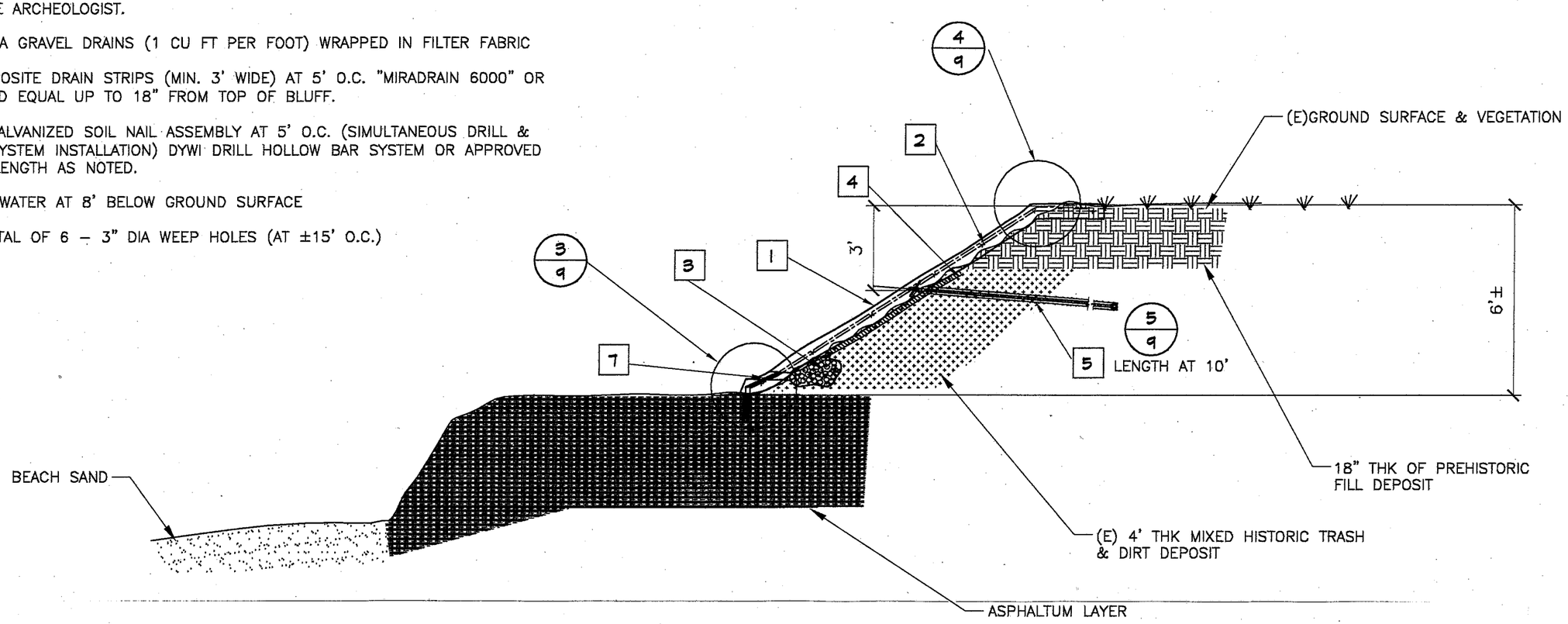

CROSS SECTION 4

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	07-25-11

REGISTERED PROFESSIONAL ENGINEER WILFREDO M. SOLIS NO. C-42863 CIVIL STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

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Reviewed by Date

DSA/OPR MOU - 8.01
ACCESSIBILITY REVIEW

CERTIFICATION #

Reviewed by Date

REVISIONS	
△	DATE
	11-28-11 BY NAT COX

CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
SECTION

PROJECT NUMBER

SHEET NO.
7
7 OF 11

CROSS–SECTION NOTES:

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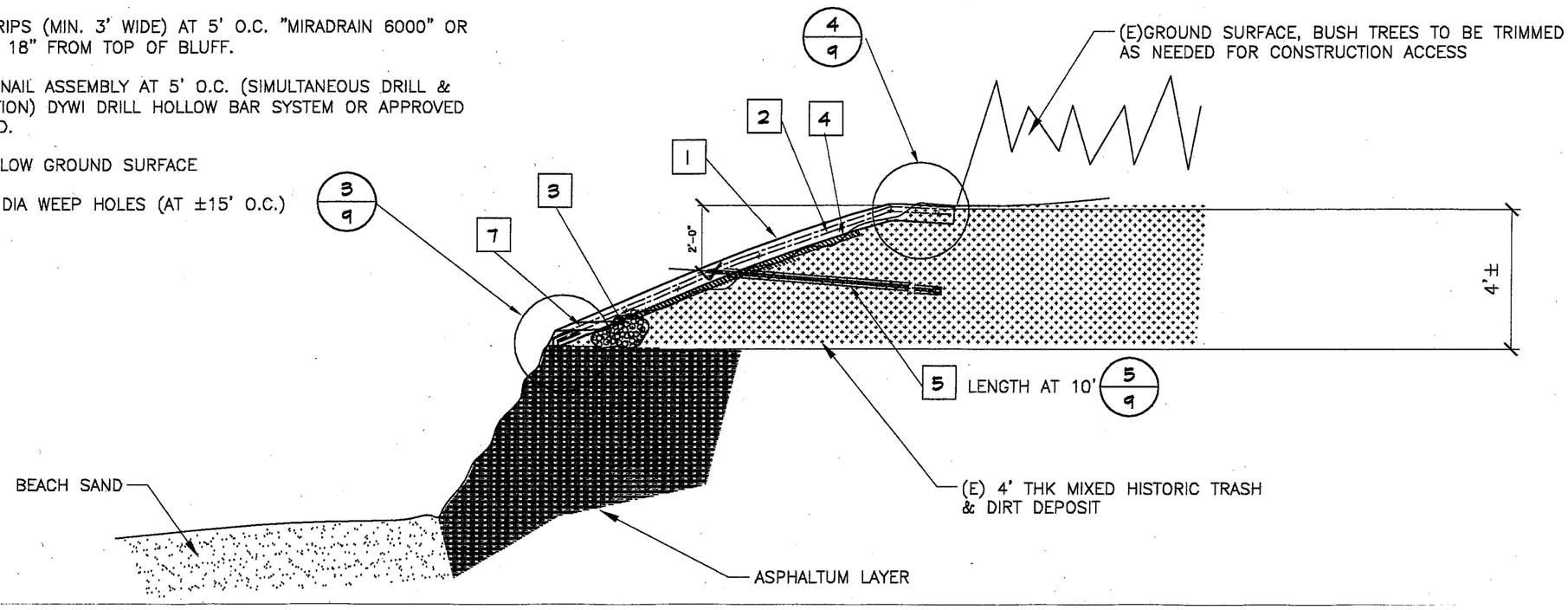
3. 3/4" DIA GRAVEL DRAINS (1 CU FT PER FOOT) WRAPPED IN FILTER FABRIC
4. GEOCOMPOSITE DRAIN STRIPS (MIN. 3' WIDE) AT 5' O.C. "MIRADRAIN 6000" OR APPROVED EQUAL UP TO 18" FROM TOP OF BLUFF.
5. 1" DIA GALVANIZED SOIL NAIL ASSEMBLY AT 5' O.C. (SIMULTANEOUS DRILL & GROUT SYSTEM INSTALLATION) DYWI DRILL HOLLOW BAR SYSTEM OR APPROVED EQUAL. LENGTH AS NOTED.
6. GROUND WATER AT 8' BELOW GROUND SURFACE
7. DRILL TOTAL OF 6 – 3" DIA WEEP HOLES (AT ±15' O.C.)



CROSS SECTION 5

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	07-25-11

REGISTERED PROFESSIONAL ENGINEER ALFREDO M. SOLIS NO. C-42983 CIVIL STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

Approval of this plan does not authorize or approve any omission of deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by Date

DSA/DPR MOU - 8.01
ACCESSIBILITY REVIEW

CERTIFICATION #

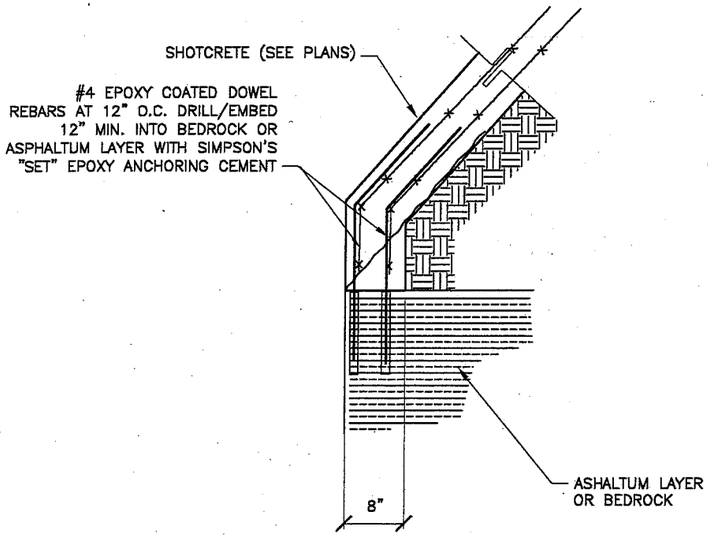
Reviewed by Date

REVISIONS	
△	DATE
	11-28-11 BY NAT COX

CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
SECTION

PROJECT NUMBER

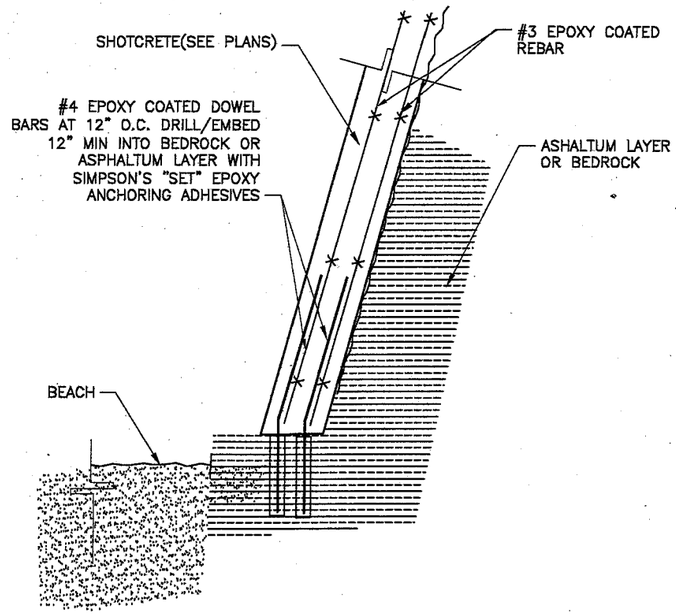
SHEET NO.
8
8 OF 11



DETAIL AT SHOTCRETE BASE

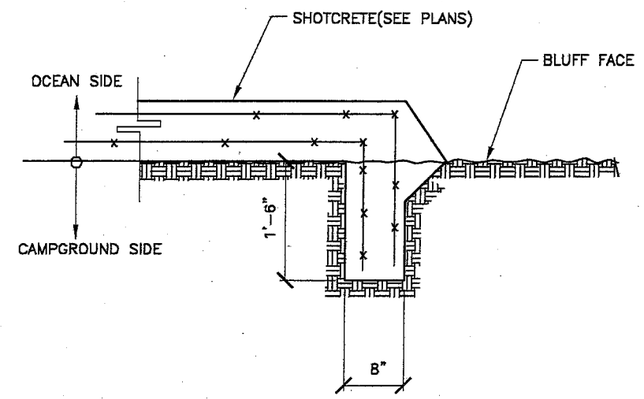
3

SHOTCRETE4



DOWEL DETAIL AT BASE

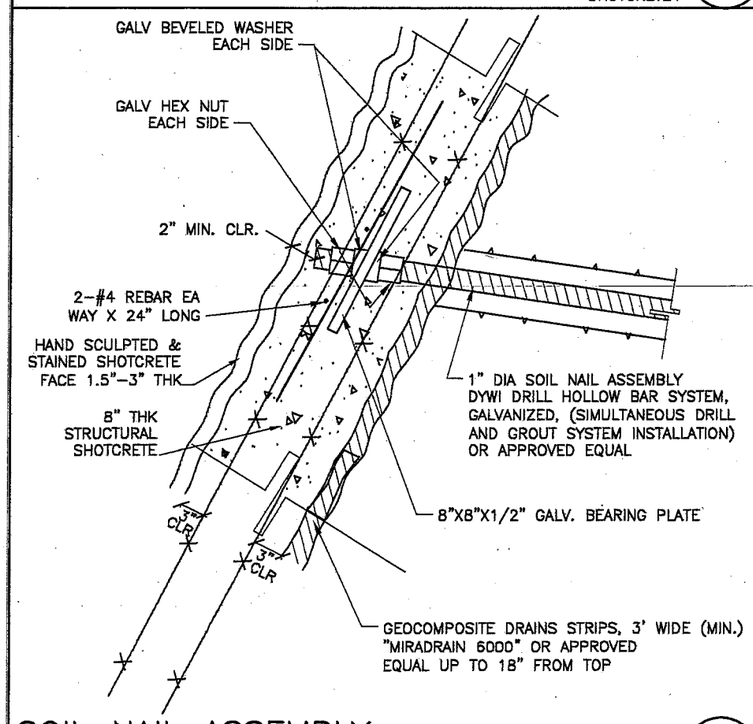
2



WALL RETURN AT ENDS

1

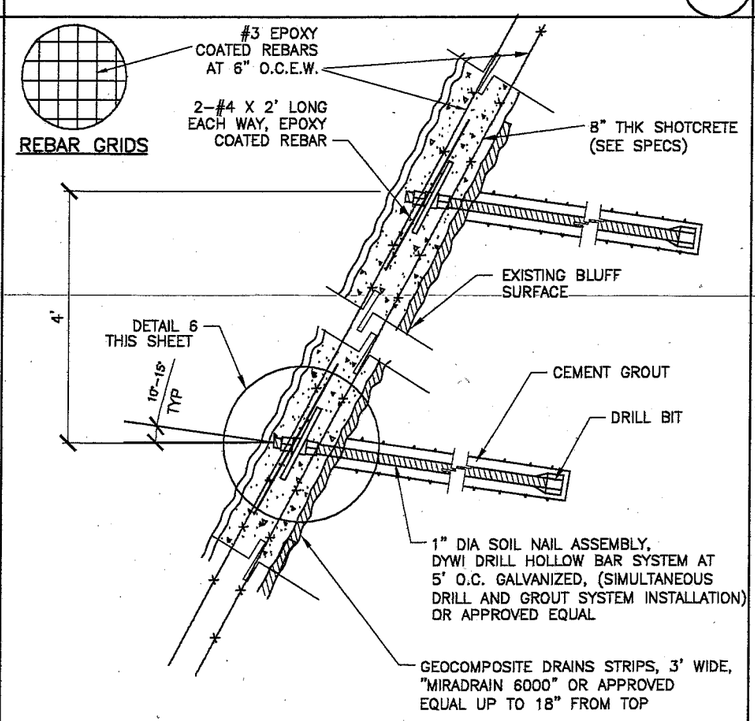
SHOTCRETE1



SOIL NAIL ASSEMBLY

6

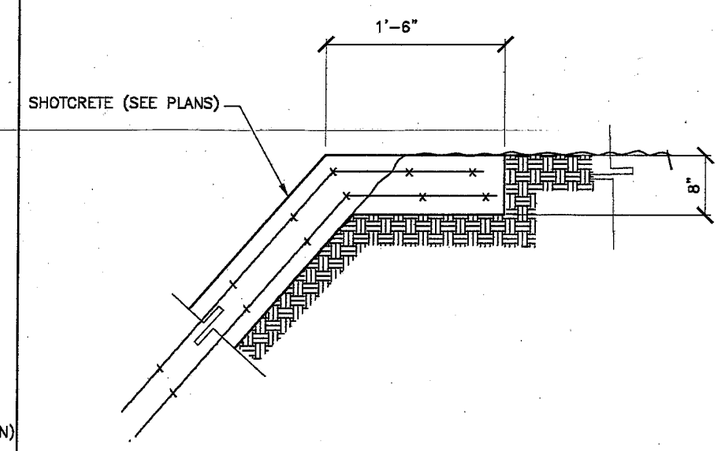
SHOTCRETE6



TYPICAL SECTION – SHOTCRETE

5

SHOTCRETE5



DETAIL AT TOP

4

SHOTCRETE4

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	07-25-11

REGISTERED PROFESSIONAL ENGINEER ALFREDO M. SOLIS NO. C-42863 CIVIL STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

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Reviewed by Date

DSA/OPR MOU - 9.01
ACCESSIBILITY REVIEW

CERTIFICATION #

Reviewed by Date

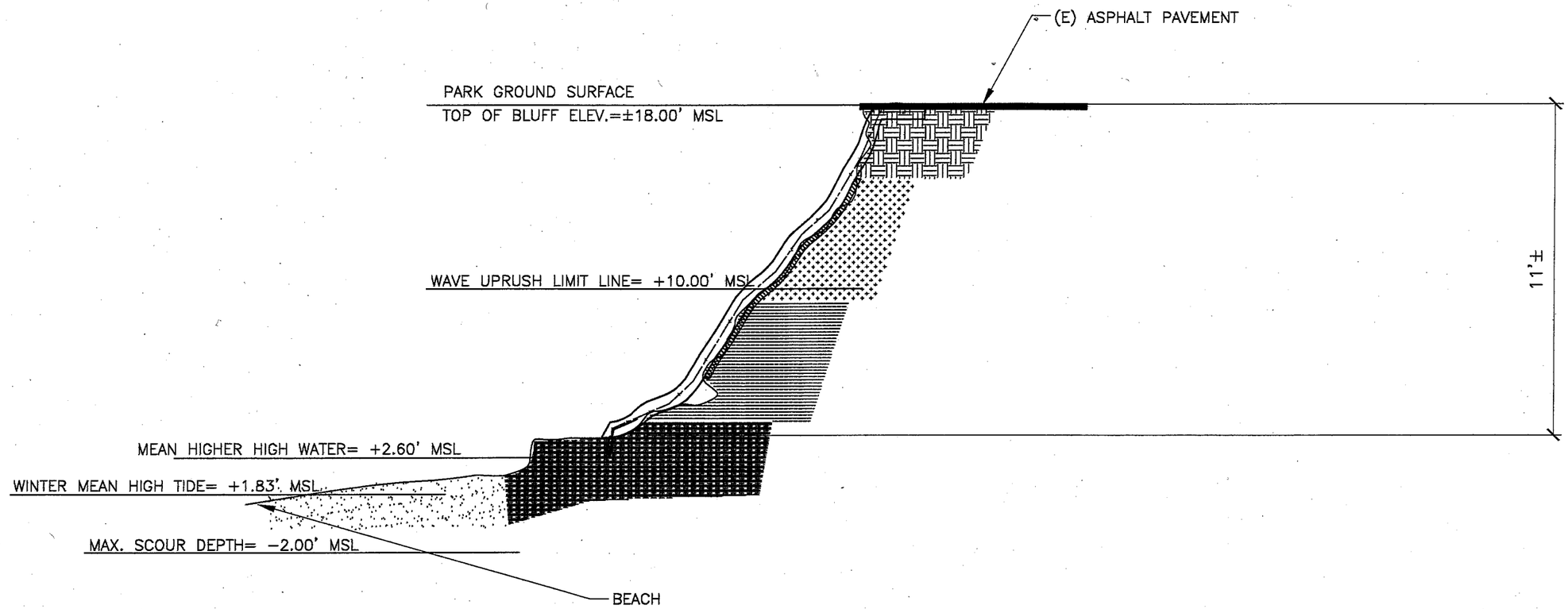
REVISIONS

	DATE

CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
COASTAL PROCESSES INFORMATION

PROJECT NUMBER

SHEET NO.
9
9 OF 11



CARPINTERIA STATE BEACH

COASTAL PROCESSES INFORMATION
BASED ON SKELLY COASTAL ENGINEERING REPORT OF NOVEMBER 1999

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	07-25-11

REGISTERED PROFESSIONAL ENGINEER
WILFREDO M. SOLIS
NO. C-42863
CIVIL
STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

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Reviewed by Date

DSA/OPR MOU - 9.01
ACCESSIBILITY REVIEW

CERTIFICATION #

Reviewed by Date

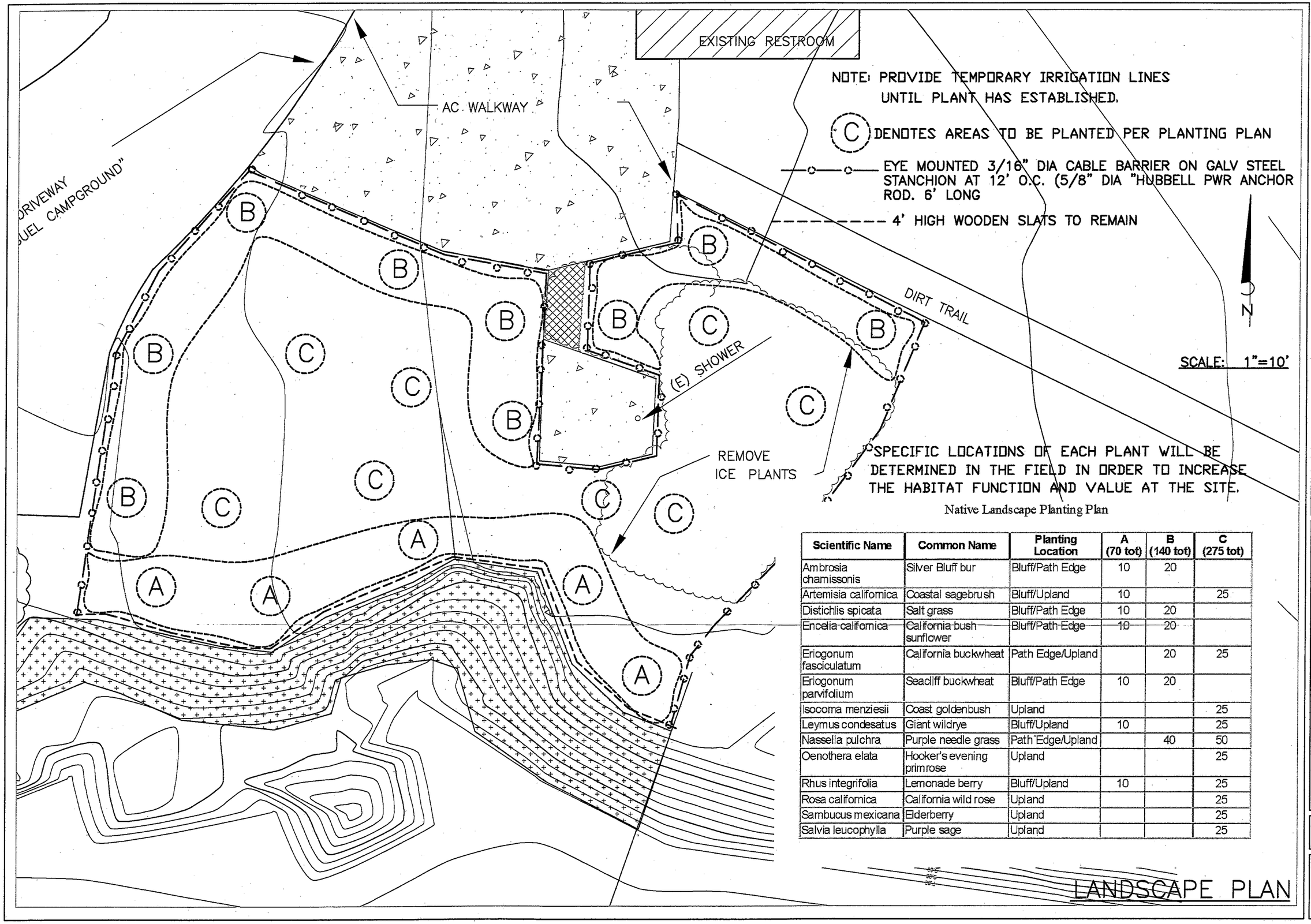
REVISIONS

	DATE
1	

CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
DETAILS

PROJECT NUMBER

SHEET NO.
10
10 OF 11



Native Landscape Planting Plan

Scientific Name	Common Name	Planting Location	A (70 tot)	B (140 tot)	C (275 tot)
Ambrosia chamissonis	Silver Bluff bur	Bluff/Path Edge	10	20	
Artemisia californica	Coastal sagebrush	Bluff/Upland	10		25
Distichlis spicata	Salt grass	Bluff/Path Edge	10	20	
Encelia californica	California bush sunflower	Bluff/Path Edge	10	20	
Eriogonum fasciculatum	California buckwheat	Path Edge/Upland		20	25
Eriogonum parvifolium	Seacliff buckwheat	Bluff/Path Edge	10	20	
Isocoma menziesii	Coast goldenbush	Upland			25
Leymus condesatus	Giant wildrye	Bluff/Upland	10		25
Nasselia pulchra	Purple needle grass	Path Edge/Upland		40	50
Oenothera elata	Hooker's evening primrose	Upland			25
Rhus integrifolia	Lemonade berry	Bluff/Upland	10		25
Rosa californica	California wild rose	Upland			25
Sambucus mexicana	Elderberry	Upland			25
Salvia leucophylla	Purple sage	Upland			25

LANDSCAPE PLAN

CHANNEL COAST DISTRICT
911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	NAT COX
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	12-6-2011

REGISTERED PROFESSIONAL ENGINEER WILFRED W. SEE JR. NO. C-42883 CIVIL STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

Approval of this plan does not authorize or approve any omission of deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by Date

DSA/OPR MOU - 9.01
ACCESSIBILITY REVIEW

CERTIFICATION #

Reviewed by Date

REVISIONS

	DATE
	11-28-11 BY NAT COX
	03-20-12 BY NAT COX

CARPINTERIA STATE BEACH
SAN MIGUEL CAMPGROUND
HISTORIC DUMPSITE COVER
LANDSCAPE PLAN

PROJECT NUMBER

SHEET NO.
11
11 OF 11

Project Requirements Monitoring Plan

Project Requirement	Timing	Responsible for Implementing Measures	Responsible for Insuring Implementation	Required for Task to be Complete	Date Completed	Status/Comments
Aesthetics						
Project Specific Requirement Aesthetics 1						
The cover would be inspected and necessary repairs will be completed as needed to keep the bluff and weathered asphaltum like appearance.	Post construction	District	District Superintendent	Periodic review of the structure		
Air Quality						
Standard Project Requirement Air 1 a-d						
a) All construction areas (dirt/gravel roads and surrounding dirt/gravel area) will be watered at least twice daily during dry, dusty conditions.	Duration of Project	DPR Contractor	DPR construction Manager	Requirements incorporated into the final approved contract agreement and implemented during construction.		
b) All trucks hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.						
c) All construction –related equipment engines will be maintained in proper tune (according to manufacturer's specifications), and in compliance with all state and federal requirements.						
d) Earth or other material that has been transported onto paved roadways by trucks, construction equipment, erosion, or other project-related activity will be promptly removed.						
Biological Resources						
Project Specific Requirement – Bio 1: Nesting Migratory Birds and Raptors						
If project activities occur during the bird breeding season (February 1 – September 15), a DPR`-approved biologist will survey the project area for nesting birds. *Nest surveys will be conducted no more than 7 days prior to the beginning of project implementation. Nesting raptors will be given a 500-foot buffer and non-raptor nests will be given a 150-foot buffer. These buffers may increase if a special-status species is nesting.*	Duration of Project	DPR Contractor and DPR-Approved Staff	DPR Construction Manager	Requirements incorporated into the final approved contract agreement and implemented during construction.		
Project Specific Requirement - Bio-2: Native Plantings						
Native vegetation will be planted in all disturbed areas including the 220 square foot section where the asphalt will be removed.	During construction	DPR Contractor and DPR-Approved Staff	DPR construction Manager, Environmental Scientist and/DPR-Approved staff	Distrubed areas are planted with native vegetation.		

Project Requirement	Timing	Responsible for Implementing Measures	Responsible for Insuring Implementation	Required for Task to be Complete	Date Completed	Status/Comments
Cultural Resources						
Project Specific Requirement Cult 1 Monitoring						
The Project or District Archaeologist and Native American Monitor will monitor all ground disturbing phases of this proposed project at their discretion. Monitoring will include all ground preparation work required for construction on the Historic Dumpsite Cover measure.	During construction	DPR Contractor and DPR-Approved Staff	DPR Construction Manager, Cultural Resource Specialist and/or DPR-Approved Staff	All project activities are completed.		
Standard Project Requirement Cult-2 Previously Undocumented Resources						
In the event that previously undocumented cultural resources (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic trash) are encountered during proposed project construction by anyone, the state archaeologist or state representative will temporarily halt at that specific location and direct contractors to other proposed project-related tasks. The Project or District Archaeologist will record and evaluate the find and work with state representative to implement avoidance, preservation, or recovery measures as appropriate prior to any work resuming at that specific location.	Duration of Project	DPR Contractor and/or DPR-Approved Staff	DPR Construction Manager, Cultural Resource Specialist and/or DPR-Approved Staff	All project activities are completed.		
If archaeological resources are discovered, all ground disturbing work at the location of the find will cease until the archaeologist designs and implements appropriate treatments in accordance with the Secretary of the Interiors Standards and Guidelines for archaeological resource protection.						
Standard Project Requirement Cult-3 Human Remains Discovery						
In the unlikely event that human remains are discovered, work will cease immediately in the area of the find and the project manager/site supervisor will notify the appropriate DPR personnel. The DPR Sector Superintendent (or authorized representative) will notify the County Coroner in accordance with §7050.5 of the California Health and Safety Code. If the coroner determines the remains represent Native American internment, the Native American Heritage Commission in Sacramento will be consulted to identify the most likely descendants and appropriate disposition of the remains. Work will not resume in the area of the find until proper disposition is complete. (PRC §5097.98)	Duration of Project	DPR Contractor and/or DPR-Approved Staff	DPR Construction Manager, Cultural Resource Specialist and/or DPR-Approved Staff	All project activities are completed.		

Project Requirement	Timing	Responsible for Implementing Measures	Responsible for Insuring Implementation	Required for Task to be Complete	Date Completed	Status/Comments
Geology and Soils						
Standard Project Requirement Geo-1 – Erosion Control						
a) Prior to the start of construction, Contractor would prepare a Storm Water Soil Loss Prevention Plan (SWSLPP) for DPR approval that identifies the Best Management Practices to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all excavation, grading or trenching.	Pre-construction	DPR Contractor	DPR Construction Manager and Environmental Scientist and/or DPR-Approved Staff	Requirements incorporated into the final approved contract agreement and implemented until construction completion.		
BMP's must be inplace at all times including covering (tarping) any stockpiled materials or silt and by constructing silt fences, straw bale barriers, fiber rolls, or other structures around stockpiles and disturbed areas.	Construction	DPR Contractor	DPR Construction Manager and Environmental Scientist and/or DPR-Approved Staff	All project activities are completed.		
Project Specific Requirement Geo 2 - Monitoring Plan						
Contractor will develop and submit for approval a monitoring plan for soil-nail installation and a contingency plan in the event of bluff collapse or landslide.	Pre-construction	DPR Contractor	DPR Construction Manager and/or DPR-Approved Staff	Plan is completed and accepted by DPR Project Manger and all requirements in the plan are completed.		
Hazards and Hazardous Materials						
Standard Project Requirement Haz 1 a-c Spill Prevention						
a) Prior to the start of construction, the Contractor would inspect all equipment for leaks and inspect equipment daily thereafter until it is removed from the project site.	Pre-Construction and Construction	DPR Contractor	DPR Construction Manager	Requirements incorporated into the final approved contract agreement and implemented until construction completion.		
b) Prior to the start of construction, the contractor would prepare a Storm Water Pollution Prevention Plan that would include Best Management Practices (BMPs) for materials management, fueling, repair, and maintenance of vehicles and equipment, and spill prevention and control. The Contractor would maintain a spill kit on-site throughout the life of the project. The *SWPPP* would include a map that delineates construction staging areas and where refueling, lubrication, and maintenance of equipment may occur. Areas designated for refueling, lubrication, and maintenance of equipment shall be at least 50 feet away from all streams. In the event of any spill or release of any chemical in any physical form at the project site or within the boundaries of the Park during construction, the contractor would immediately notify the appropriate DPR staff (e.g., project manager, supervisor, or State Representative).		DPR Contractor	DPR Construction Manager and / or Inspector			

Project Requirement	Timing	Responsible for Implementing Measures	Responsible for Insuring Implementation	Required for Task to be Complete	Date Completed	Status/Comments
c) Equipment would be cleaned and repaired (other than emergency repairs) outside the park boundaries. All contaminated water, sludge, spill residue, or other hazardous compounds would be disposed of outside park boundaries, at a lawfully permitted or authorized destination.						
Project Specific Requirement Haz 2 a-c -Fire Safety						
a) A fire safety plan would be developed by the contractor and/or DPR and approved by DPR prior to the start of construction. This plan would include the emergency reporting procedures of the Local Fire Department.	Pre-Construction and Construction	DPR Contractor and / or DPR-Approved Staff	DPR Construction Manager and/or Inspector	Requirements incorporated into the final approved contract agreement and implemented until construction completion.		
b) Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers would be required for all heavy equipment.						
c) Construction crews would be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment would be parked over asphalt or concrete to reduce the chance of fire. The contractor would also be required to have fire extinguishers on site.						
Hazard Project Specific Requirement Haz 3 - Worker Safety						
All construction personal will have appropriate training in compliance with 29 CFR, §§1910, et seq. (Occupational Safety and Health Standards), 1926 et seq (Safety and Health Regulations for Construction) and 8 CCR § 5192 (Hazardous Waste Operations and Emergency Response) to protect workers	Pre-Construction and Construction	DPR Contractor and / or DPR-Approved Staff	DPR Construction Manger and/or Inspector	Requirements incorporated into the final approved contract agreement and implemented until construction completion.		
Hydrology and Water Quality						
Standard Project Requirement Hydro 1 a-b						
Contractor will implement BMP's for the Historic Dumpsite Cover project for the prevention of soil erosion and runoff, for stockpile management, and for spill prevention from vehicle and equipment fluids and any construction materials.	Pre-Construction and Construction	DPR contractor and/or DPR-Approved Staff	DPR Construction Manager, Environmental Scientist and / or DPR-Approved Staff	Requirements incorporated into the final approved contract agreement and implemented until construction completion.		
For contracted project work a Storm Water Soil Loss Water Prevention Plan (SWSLPP) be prepared and implemented prior to the start of construction. This plan would include DPR-approved Best Management Practices for the prevention of soil erosion and runoff, for stockpile management, and for spill prevention from vehicle and equipment fluids and any construction materials.						

Project Requirement	Timing	Responsible for Implementing Measures	Responsible for Insuring Implementation	Required for Task to be Complete	Date Completed	Status/Comments
Noise						
Standard Project Requirement Noise 1 a-b						
a) Construction activities would be limited to the daylight hours Monday – Friday from 8:00 a.m. to 4:00 p.m.	During Construction	DPR contractor and / or DPR-Approved Staff	DPR Construction Manager and / or DPR-Approved Staff	Requirements incorporated into the final approved contract agreement and implemented until construction completion.		
b) Internal combustion engines used for any purpose at the job site would be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction would utilize the best available noise control techniques (e.g., engine enclosures, acoustically attenuating shields, or shrouds, intake silencers, ducts, etc.).						
Stationary noise sources and staging areas will be located as far away from sensitive receptors as possible. If they must be located near sensitive receptors, stationary noise sources will be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds.	During Construction	DPR contractor and / or DPR-Approved Staff	DPR Construction Manager and / or DPR-Approved Staff	Requirements incorporated into the final approved contract agreement and implemented until construction completion.		