CITY OF MORRO BAY
PLANNING COMMISSION
AGENDA

The City of Morro Bay is dedicated to the preservation and enhancement of the quality of life. The City shall be committed to this purpose and will provide a level of municipal service and safety consistent with and responsive to the needs of the public.

Regular Meeting - Wednesday, December 18, 2013
Veteran's Memorial Building - 6:00 P.M.
209 Surf Street, Morro Bay, CA

Chairperson Rick Grantham
Vice-Chairperson Vacant — Commissioner John Fennacy
Commissioner Michael Lucas — Commissioner Robert Tefft

ESTABLISH QUORUM AND CALL TO ORDER
MOMENT OF SILENCE / PLEDGE OF ALLEGIANCE
PLANNING COMMISSIONER ANNOUNCEMENTS

PUBLIC COMMENT PERIOD
Members of the audience wishing to address the Commission on matters not on the agenda may do so at this time. In a continual attempt to make the public process open to members of the public, the City also invites public comment before each agenda item. Commission hearings often involve highly emotional issues. It is important that all participants conduct themselves with courtesy, dignity and respect. All persons who wish to present comments must observe the following rules to increase the effectiveness of the Public Comment Period:

- When recognized by the Chair, please come forward to the podium and state your name and address for the record. Commission meetings are audio and video recorded and this information is voluntary and desired for the preparation of minutes.
- Comments are to be limited to three minutes so keep your comments brief and to the point.
- All remarks shall be addressed to the Commission, as a whole, and not to any individual member thereof. Conversation or debate between a speaker at the podium and a member of the audience is not permitted.
- The Commission respectfully requests that you refrain from making slanderous, profane or personal remarks against any elected official, commission and/or staff.
- Please refrain from public displays or outbursts such as unsolicited applause, comments or cheering.
- Any disruptive activities that substantially interfere with the ability of the Commission to carry out its meeting will not be permitted and offenders will be requested to leave the meeting.
- Your participation in Commission meetings is welcome and your courtesy will be appreciated.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Public Services' Administrative Technician at (805) 772-6291. Notification 24 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. There are devices for the hearing impaired available upon request at the staff's table.

PRESENTATIONS

Informational presentations are made to the Commission by individuals, groups or organizations, which are of a civic nature and relate to public planning issues that warrant a longer time than Public Comment will provide. Based on the presentation received, any Planning Commissioner may declare the matter as a future agenda item in accordance with the General Rules and Procedures. Presentations should normally be limited to 15-20 minutes.

A. CONSENT CALENDAR

A-1 Approval of minutes from the Planning Commission meeting of December 4, 2013
Staff Recommendation: Approve minutes as submitted.

B. PUBLIC HEARINGS

Public testimony given for Public Hearing items will adhere to the rules noted above under the Public Comment Period. In addition, speak about the proposal and not about individuals, focusing testimony on the important parts of the proposal; not repeating points made by others.

B-1 **Case No.:** UP0-371
Site Location: 1500 Embarcadero (Dirt Embarcadero between Morro Creek & the Colman Drive & Embarcadero Road Intersection) APNs (066-331-039, 066-331-028, 066-461-004, 066-461-002, 066-461-005, 066-461-012 & 066-461-013)
Proposal: The Morro Creek Multi-use Trail and Bridge Project will provide universally accessible beach access for pedestrians and a new Class 1 bike path to the beach access point. This project will also extend the pedestrian and bike path system from the existing Harborwalk with a 130 foot long, 12.5 foot wide steel bridge to include emergency vehicle access over Morro Creek closing a critical gap in the California Coastal Trail system.
CEQA Determination: Mitigated Negative Declaration (State Clearinghouse #2013101083)
Staff Recommendation: Conditionally Approve and Adopt Mitigated Negative Declaration
Staff Contact: Kathleen Wold, Planning Manager, (805) 772-6211

C. UNFINISHED BUSINESS

C-1 Current and Advanced Planning Processing List
Staff Recommendation: Receive and file.
Upcoming Projects: 800 Quintana

D. NEW BUSINESS

E. DECLARATION OF FUTURE AGENDA ITEMS

- Appoint Chairperson and Vice-Chairperson of the Planning Commission who shall both hold office for a period of one year.
- Schedule regular and joint Planning Commission meeting dates for 2014.

F. ADJOURNMENT

Adjourn to the a next regularly scheduled Planning Commission meeting at the Veteran's Memorial Building, 209 Surf Street, on Wednesday, January 15, 2014, at 6:00 p.m.

PLANNING COMMISSION MEETING PROCEDURES

This Agenda is subject to amendment up to 72 hours prior to the date and time set for the meeting. Please refer to the Agenda posted at the Public Services Department, 955 Shasta Avenue, for any revisions or call the department at 772-6291 for further information.

Written testimony is encouraged so it can be distributed in the Agenda packet to the Commission. Material submitted by the public for Commission review prior to a scheduled hearing should be received by the Planning Division at the Public Services Department, 955 Shasta Avenue, no later than 5:00 P.M. the Tuesday (eight days) prior to the scheduled public hearing. Written testimony provided after the Agenda packet is published will be distributed to the Commission but there may not be enough time to fully consider the information. Mail should be directed to the Public Services Department, Planning Division.

Materials related to an item on this Agenda are available for public inspection during normal business hours in the Public Services Department, at Mill's/ASAP, 495 Morro Bay Boulevard, or the Morro Bay Library, 695 Harbor, Morro Bay, CA 93442. Materials related to an item on this Agenda submitted to the Planning Commission after publication of the Agenda packet are available for inspection at the Public Services Department during normal business hours or at the scheduled meeting.

This Agenda may be found on the Internet at: www.morro-bay.ca.us/planningcommission or you can subscribe to Notify Me for email notification when the Agenda is posted on the City's website. To subscribe, go to www.morro-bay.ca.us/notifyme and follow the instructions.

The Brown Act forbids the Commission from taking action or discussing any item not appearing on the agenda, including those items raised at Public Comment. In response to Public Comment, the Commission is limited to:

1. Responding to statements made or questions posed by members of the public; or
2. Requesting staff to report back on a matter at a subsequent meeting; or
3. Directing staff to place the item on a future agenda. (Government Code Section 54954.2(a))

Commission meetings are conducted under the authority of the Chair who may modify the procedures outlined below. The Chair will announce each item. Thereafter, the hearing will be conducted as follows:

1. The Planning Division staff will present the staff report and recommendation on the proposal being heard and respond to questions from Commissioners.
2. The Chair will open the public hearing by first asking the project applicant/agent to present any points necessary for the Commission, as well as the public, to fully understand the proposal.
3. The Chair will then ask other interested persons to come to the podium to present testimony either in support of or in opposition to the proposal.
4. Finally, the Chair may invite the applicant/agent back to the podium to respond to the public testimony. Thereafter, the Chair will close the public testimony portion of the hearing and limit further discussion to the Commission and staff prior to the Commission taking action on a decision.

APPEALS

If you are dissatisfied with an approval or denial of a project, you have the right to appeal this decision to the City Council up to 10 calendar days after the date of action. Pursuant to Government Code §65009, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Commission, at, or prior to, the public hearing. The appeal form is available at the Public Services Department and on the City's web site. If legitimate coastal resource issues related to our Local Coastal Program are raised in the appeal, there is no fee if the subject property is located with the Coastal Appeal Area. If the property is located outside the Coastal Appeal Area, the fee is $250 flat fee. If a fee is required, the appeal will not be considered complete if the fee is not paid. If the City decides in the appellant's favor then the fee will be refunded.

City Council decisions may also be appealed to the California Coastal Commission pursuant to the Coastal Act Section 30603 for those projects that are in their appeals jurisdiction. Exhaustion of appeals at the City is required prior to appealing the matter to the California Coastal Commission. The appeal to the City Council must be made to the City and the appeal to the California Coastal Commission must be made directly to the California Coastal Commission Office. These regulations provide the California Coastal Commission 10 working days following the expiration of the City appeal period to appeal the decision. This means that no construction permit shall be issued until both the City and Coastal Commission appeal period have expired without an appeal being filed. The Coastal Commission's Santa Cruz Office at (831) 427-4863 may be contacted for further information on appeal procedures.

AGENDA ITEM: A- 1

DATE: December 18, 2013

ACTION: _____

SYNOPSIS MINUTES – MORRO BAY PLANNING COMMISSION
REGULAR MEETING – DECEMBER 4, 2013
VETERANS MEMORIAL HALL – 6:00 PM

Chairperson Grantham called the meeting to order at 6:00 p.m.

PRESENT:	John Solu	Vice-Chairperson
	John Fennacy	Commissioner
	Michael Lucas	Commissioner
	Robert Tefft	Commissioner
ABSENT:	Rick Grantham	Chairperson
STAFF:	Rob Livick	Public Services Department
	Kathleen Wold	Planning Manager
	Cindy Jacinth	Associate Planner

ESTABLISH QUORUM AND CALL TO ORDER
MOMENT OF SILENCE / PLEDGE OF ALLEGIANCE
PLANNING COMMISSIONER ANNOUNCEMENTS

Commissioner Solu announced he will be resigning from the position of Planning Commissioner, effective at the close of the meeting.

PUBLIC COMMENT

Commissioner Solu opened Public Comment period, and seeing none, closed Public Comment period.

PRESENTATIONS

None.

Unless an item is pulled for separate action by the Planning Commission, the following actions are approved without discussion.

CONSENT CALENDAR

A-1 Approval of minutes from Planning Commission meeting of November 20, 2013
Staff Recommendation: Approve minutes as submitted.

Commissioner Lucas made one correction to the minutes. He stated his comment on page 3 should read *"Lucas expressed concern that the nearby residences **could** be negatively affected"* rather than *"Lucas expressed concern that the nearby residences **would** be negatively affected."*

MOTION: Commissioner Fennacy moved to approve the Consent Calendar.

Commissioner Tefft seconded and the motion passed unanimously. (4-0).

A. PUBLIC HEARINGS

B-1 **Project:** City of Morro Bay's Climate Action Plan
Site Location: Citywide
Proposal: The City of Morro Bay Climate Action Plan (CAP) is a long-range plan to reduce greenhouse gas (GHG) emissions from City government operations and community activities within Morro Bay and prepare for the anticipated effects of climate change. The CAP will also help achieve multiple community goals such as lowering energy costs, reducing air pollution, supporting local economic development, and improving public health and quality of life.
CEQA Determination: Negative Declaration.
Staff Recommendation: Conditionally approve.
Staff Contact: Kathleen Wold, Planning Manager, 805-772-6211

Wold presented the staff report.

Commissioner Lucas asked staff if any major changes have been made to the document since the Commission last discussed the CAP on March 6, 2013 (then called the "Central Coast Greenhouse Gas Emission Reduction Plan"). Wold stated the current draft is the same as the one presented previously, the Commission's comments from the March 6, 2013 meeting incorporated.

Commissioner Lucas asked staff how the CAP would affect the City's growth strategies for low-income housing. Wold stated the goals in the document are all voluntary and are not detrimental to affordable housing, the development of businesses, or any other similar development.

Commissioner Lucas asked staff if the CAP addresses the Morro Bay Power Plant which is slated to shut down in February 2014. Wold explained that when redevelopment of that scale is proposed, a full environmental document would be required; due to the size of the power plant project, the project would not fall under the threshold. Lucas clarified with staff the CAP does not inhibit any particular type of development on the power plant site.

Commissioner Fennacy asked staff if the City has developed a monitoring program for the CAP. Wold stated the City will work collectively with other cities in the county to develop a cost-effective monitoring program. The program will utilize existing resources so that it does not become a burden for the City. Wold stated staff will report back to the Commission as policies for the monitoring program develop.

Livick provided an example of how the City will incorporate the CAP goals into existing City policies. He explained that when the City updates the General Plan/Local Coastal Plan (GP/LCP), staff will ensure that policy modifications are consistent with the CAP.

Commissioner Tefft asked staff to discuss how other cities' CAPs compare with Morro Bay's CAP. Wold stated all cities' plans in the county are fairly similar. The only area where Morro Bay differs is with the City's commitment to transit. The City has chosen to not expand the transit system, whereas Paso Robles and Arroyo Grande have chosen to integrate land use with transit stops. Wold noted Morro Bay may be able to modify this option in the future.

Commissioner Tefft asked staff if the additional implementation measures for the monitoring program would be identified in advance or at a later time. Wold stated the measures would be determined at a later time because climate change is such a dynamic issue. She stated the CAP is a living document and staff will report its status to the Commission on a yearly basis.

Commissioner Solu asked for clarification from staff regarding how the CAP will relate to the GP/LCP. Livick explained that when the City revises the GP/LCP, the City will want to ensure that the goals in the CAP are reflected in the GP/LCP.

Commissioner Solu asked staff if the City offers incentives to builders to utilize green building strategies. Livick explained Morro Bay does have a green building incentive program which offers economic incentives for such development. Livick clarified with Solu that staff should enhance its outreach efforts to inform builders of these opportunities.

Commissioner Solu opened Public Comment period, and seeing none, closed Public Comment period.

Commissioner Tefft stated the largest category for greenhouse gas (GHG) reductions is in transportation. As such, he urged staff to focus on vehicle miles travelled and the associated GHG emissions produced (instead of looking at how many sidewalks or bicycle lanes the City has built) when developing the monitoring program.

Commissioner Lucas discussed the importance of how the CAP policies will positively affect water use in the City. Lucas also discussed the difficulty the City has in encouraging people to drive less due to the fact that Morro Bay is both a tourist-oriented city and a city with a lack of industry, for example residents must commute to other cities for jobs.

MOTION: Commissioner Lucas moved to adopt Planning Commission Resolution 02-13.

Commissioner Fennacy seconded and the motion passed unanimously. (4-0).

B-2 ***This item has been withdrawn by the Applicant***
Case No.: N/A
Site Location: 2783 Coral
Proposal: Determination that the sale of an undeveloped piece of City owned property located at 2783 Coral Avenue (APN 065-386-015) is consistent with the City's General Plan (California Government Code 65402) and Local Coastal Plan.

CEQA Determination: Mitigated Negative Declaration (SCH#2007061081)
Staff Recommendation: Make Finding of Consistency
Staff Contact: Kathleen Wold, Planning Manager, (805) 772-6211

Wold stated the City, as the applicant, has withdrawn the application.

UNFINISHED BUSINESS

C-1 Current and Advanced Planning Processing List
Staff Recommendation: Receive and file.
Upcoming Projects: Morro Creek Multi Use Trail and Bridge Project.

Wold reviewed the Work Program with the Commission.

NEW BUSINESS

None.

DECLARATION OF FUTURE AGENDA ITEMS

None.

ADJOURNMENT
The meeting adjourned at 6:39 p.m. to the next regularly scheduled Planning Commission meeting at the Veteran's Hall, 209 Surf Street, on Wednesday, December 18, 2013 at 6:00 pm.

_____
Rick Grantham, Chairperson

ATTEST:

_____
Rob Livick, Secretary

AGENDA NO: B-1

MEETING DATE: December 18, 2013

Staff Report

TO: **Planning Commissioners** **DATE: December 11, 2013**

FROM: **Kathleen Wold, Planning Manager**

SUBJECT: Conditional Use Permit (#UP0-371) for the construction of The Morro Creek Multi-use Trail and Bridge Project to provide universally accessible beach access for pedestrians and a new Class 1 bike path to the beach access point. This project will also extend the pedestrian and bike path system from the existing Harborwalk with a 130 foot long, 12.5 foot wide steel bridge to include emergency vehicle access over Morro Creek closing a critical gap in the California Coastal Trail system.

RECOMMENDATION:

Forward a favorable recommendation to the City Council to approve the Mitigated Negative Declaration (SCH#2013101083) and conditionally approve Conditional Use Permit (#UP0-371) as both Concept and Precise plan by adopting resolution PC # 03-13 .

APPLICANT/AGENT:

City of Morro Bay
Public Works Division

DESCRIPTION/APN'S:

APN	ACREAGE	OWNER
066-461-002	1.5945	Dynegy Morro Bay LLC
066-461-004	1.6205	City of Morro Bay
066-461-005	.4855	City of Morro Bay
066-461-007	1.4099	City of Morro Bay
066-461-008	2.4	City of Morro Bay
066-461-011	34.9443	City of Morro Bay
066-462-012	.2447	City of Morro Bay
066-461-013	1.2965	City of Morro Bay
066-461-015	2.6722	Dynegy Morro Bay LLC
066-462-016	1.32	Dynegy Morro Bay LLC

Prepared By: KW **Dept Review:** RL

066-461-028	33.7	City of Morro Bay
066-461-039	92.6124	Dynegy Morro Bay LLC

The applicant has indicated that an easement has been obtained from Dynegy Morro Bay LLC to proceed with this project on land owned by them. To date no authorization has been granted although the City is in negotiations with Dynegy. Due to the nature of this important public project the City is prepared to proceed with the project and declare the area owned by Dynegy as Phase II if obtaining the easement becomes problematic.

PROJECT LOCATION:

The project is located at 1500 Embarcadero within Morro Bay and along the northern portion of the Morro Bay Embarcadero, adjacent to the existing Morro Bay Power Plant (MBPP).

PROJECT SUMMARY DESCRIPTION:

The Morro Creek Multi-use Trail and Bridge Project will provide universally accessible beach access for pedestrians and a new Class 1 bike path to the beach access point. This project will also extend the pedestrian and bike path system from the existing Harborwalk with a 130 foot long, 12.5 foot wide steel bridge to include emergency vehicle access over Morro Creek closing a critical gap in the California Coastal Trail system.

PROJECT SETTING:

Adjacent Zoning/Land Use			
North:	C-VS/PD, RV and Trailer park	South	H, Habor
East:	M-2/PD/I, Power Plant	West:	OA-1/PD, Beach

Site Characteristics	
Site Area	Multiple parcels (see plans dated October 29, 2013)
Existing Use	Dirt Road, open space
Terrain	Flat, adjacent to dunes
Vegetation/Wildlife	See Biological Assessment and Natural Environment Study
Archaeological Resources	Project site within ½ mile of resources
Access	Embarcadero Road

General Plan, Zoning Ordinance & Local Coastal Plan Designations	
General Plan/Coastal Plan Land Use Designation	Open-Space/ Environmentally Sensitive Habitat. The Morro Bay Waterfront Plan identifies the project site as "Area 1: Morro Rock/Coleman Park"
Base Zone District	Multiple Zones, OA-2/CF/ PD, M-2/PD/I and CVS/PD.
Zoning Overlay District	Planned Development, Interim
Special Treatment Area	
Combining District	N/A
Specific Plan Area	N/A

Coastal Zone	Located within original jurisdiction

BACKGROUND:

The Waterfront Master Plan adopted in 1996 envisioned a number of projects to enhance access and enjoyment of Morro Bay's waterfront. In 2008, the City of Morro Bay completed one of these projects; the Morro Bay Harborwalk. This project consisted of a continuous off-roadway bike path and separate pedestrian boardwalk constructed along the shoreline with a terminus at the beach access located at the north end of the Morro Rock parking area. This required the realignment of Coleman Drive, a two-lane road that leads to the public parking area at Morro Rock, and dune scrub habitat restoration related to the realignment.

This project, the Morro Creek Multi-Use Trail and Bridge project, will complete this project by extending the pedestrian walkway and the Class 1 bike path. A major component of this project will be the construction of a bridge across Morro Creek.

PROJECT DESCRIPTION:

The total extension of pedestrian boardwalk and separated Class I bike path for the proposed project would be 1,533 and 2,170 linear feet, respectively. The pedestrian boardwalk would be eight feet wide and the proposed bike path would be 12 feet wide. The extension of the pedestrian boardwalk and bike path would begin with a 12 foot wide Class 1 bike path from the Morro Bay Power Plant entry way to the intersection of Embarcadero and Coleman Drive. The path would continue northward along the unpaved portion of Embarcadero Road to Morro Creek.

An approximately 130-foot long by 12.5-foot wide, clear-span, pedestrian and bicycle bridge would extend the pedestrian boardwalk and bike path across Morro Creek to connect to north Morro Bay on Embarcadero Road (State Route 41). The span would be pre-fabricated and pre-engineered and would not include any support structures within the creek bed, however, the northern bridge abutment will require excavation within the top of Morro Creek bank. The bridge would be designed to accommodate emergency vehicle access only. Staff has conditioned the project to prohibit non-emergency vehicle access in order to ensure pedestrian and bicycle access only.

In addition, bicycle and surrey parking would be located toward the end of the northward pathway extension along the south side of Morro Creek. The project would also include two educational interpretive facilities. One located along the pedestrian path overlooking the dune scrub habitat and Morro Rock and beach vistas, and the second, at the terminus of the southward pedestrian path along Morro Creek overlooking Morro Creek and the beach. The interpretive materials would be consistent with the Route 1, SLO North Coast Scenic Byway, interpretive plan and implementation strategies (National Scenic Byways Program grant 2006). In addition, Embarcadero Road at Coleman Drive would be upgraded to paved roadway for approximately 100 feet to allow for the installation of a new crosswalk.

The applicant has indicated that the project's stage area will be an existing parking lot that appears to be currently used for overflow parking by Dynegy Energy Inc., employees. This parking lot is located approximately 1.4 miles northwest of the intersection of Embarcadero Road and Beach Street. The parking lot is not a natural habitat and does not contain any

vegetation except for a few non-native weeds around the perimeter. It consists of road base, which is an aggregate, compact mixture of sand and stone. Project activities that will occur in the staging area will be restricted to the limits of the parking area only and shall not extend beyond the limits of the road base surface onto adjacent vegetated areas.

Due to the proximity of sensitive receptors to the staging area and the mitigations contained within the Mitigated Negative Declaration, equipment utilizing diesel fuel will not be able to utilize this area for routine staging. The applicant will have to find an additional staging area or demonstrate that there are no other feasible areas to stage this equipment.

To meet water quality and habitat protection goals for the City and the Morro Bay Estuary, new waterfront facilities would be designed to reduce and/or eliminate surface runoff and pollution. The project would utilize low impact development (LID) to minimize potential impacts to hydrology and water quality and allow for percolation alongside the expanded bicycle and pedestrian facilities, and include Americans with Disabilities Act (ADA) approved access throughout the project features. Non-irrigated native and drought-tolerant shrubs and groundcover landscaping would be provided adjacent to the multi-use bicycle and pedestrian pathways.

Construction of the proposed project would require grading and excavation. Based on the design of the project, excavated material would be balanced onsite and importation of fill would not be required. No underground utilities would be required. The following is a list of the equipment that is anticipated to be used onsite during project implementation:

- Drilling equipment, Dump trucks, Concrete trucks, Water trucks, Paving equipment, Compacting equipment, Crane, Fence post installation equipment, Loader, Grader, and Scraper.

No equipment will enter and/or be used within the Morro Creek channel. Construction is anticipated to be conducted between the months of August through February and is expected to take approximately six months to complete or one construction season.

PROJECT SPECIFICS

Environmental Determination

An Initial Study was conducted for the project that identified a number of potentially impacted environmental areas. As such mitigations where developed which have been identified within the Mitigated Negative Declaration to reduce these impacts to less than significant. A Mitigated Monitoring Plan has been developed to ensure compliance with these mitigations and is included in this report as an attachment for your consideration. The Initial Study/Mitigated Negative Declaration was routed to the State Clearinghouse (SCH#2013101083) pursuant to CEQA guidelines for public and agency review on October 28, 2013 for the required 30 day public comment period. Two comment letters were received which include the San Luis Obispo County Air Pollution Control District and the California Coastal Commission. No changes to the IS/MND were necessary to address the comments received.

General Plan/Local Coastal Plan

Staff review of the project included review for consistency with the City's General Plan and Local Coastal Plan. The following policies and objectives were identified as the critical policies

and objectives which include adhering to the City's environmentally sensitive habitat, bicycle transportation, open space and recreation policies.

Pursuant to the City's General Plan which requires all environmentally sensitive areas to be protected against adverse impacts to the maximum extent feasible. This project conducted the following studies to identify and ensure this General Plan policy was met, including the Wetlands Delineations, Biological Assessment of the area and a Natural Environment Study. These studies are included as attachments to this staff report.

Although the site is predominantly open space, it supports a high level of recreational use. As an implementation policy, the City adopted the Bicycle and Pedestrian Master Plan in 2012. This project meets the goals and objectives of that plan by providing gap closure to an existing fragmented area.

One of the predominant goals of the Coastal Act is to provide for coastal access to the public. The creation of the Morro Creek Multi-use Trail and Bridge Project supports and enhances coastal access by ensuring connectivity among pedestrians and bicyclists between the Harborwalk and north Morro Bay. The bridge has been designed to maintain view corridor consistent with the Coastal Act.

Zoning Ordinance

The project is being proposed adjacent to Morro Creek and established Environmental Sensitive Habitat Area. The Zoning Ordinance contains specific policies regarding these areas including specific buffers. Exhibit F identifies the location and type of wetlands in the project areas. Staff has reviewed the project, this exhibit and the policies contained in Section 17.40.040 and has found that as it concerns the Stream ESH and its associated buffers the project is in compliance. Specifically, the code provides for public trails and bridges.

Planned Development (PD) overlay

Section 17.40.030 of the Municipal Code requires a Concept plan for projects on publicly owned land. Since both a Concept plan and a Precise plan are required for this project, staff is processing them concurrently. Staff has decided to process the project in this manner to expedite the processing and because the project has been fully designed at the Concept level and no further refinement will occur between the Concept Plan and the Precise Plan.

PUBLIC NOTICE: Notice of this item was published in the San Luis Obispo Tribune newspaper on December 6, 2013 as a 1/8 page notice meeting the legal requirements for projects affecting over 1,000 property owners. In addition, the site was posted with the appropriate notice indicating when the public hearing was to be held and how to voice concerns.

CONCLUSION:

This project will complete the Harborwalk project and with the construction of the bridge will close a gap in the State's Scenic Byway. The project as conditioned is consistent with the General Plan, Local Coastal Plan, and Municipal Code, therefore staff recommends approval of the Conditional Use Permit.

Exhibits:

Exhibit A – Resolution PC #03-13 containing the Findings and Conditions of Approval and Attachment 1 containing the Mitigation Monitoring and Reporting Program (MMRP)

Exhibit B – Plans dated October 29, 2013

Exhibit C – Final Initial Study/Mitigated Negative Declaration (MND)

Exhibit D – Natural Environment Study (NES) dated December 2013

Exhibit E – Biological Assessment (BA) dated December 2013

Exhibit F – Delineation of Potentially Jurisdictional Wetlands and Waters

Exhibit G – Wetland Delineation Map prepared by Althouse and Meade, Inc.

EXHIBIT A

RESOLUTION NO. PC 03-13

A RESOLUTION OF THE MORRO BAY PLANNING COMMISSION RECOMMENDING THE CITY COUNCIL APPROVE USE PERMIT UP0-371 "THE MORRO CREEK MULTI-USE TRAIL AND BRIDGE PROJECT

WHEREAS, the Planning Commission of the City of Morro Bay conducted a public hearing at the Morro Bay Veteran's Hall, 209 Surf Street, Morro Bay, California, on December 18, 2013, for the purpose of considering Conditional Use Permit #UP0-371.

WHEREAS, notices of said public hearing were made at the time and in the manner required by law; and

WHEREAS, a Mitigated Negative Declaration was routed to the State Clearinghouse pursuant to the California Environmental Quality Act (CEQA); and

WHEREAS, the Planning Commission has duly considered all evidence, including the testimony of the applicant, interested parties, and the evaluation and recommendations by staff, presented at said hearing.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Morro Bay as follows:

Section 1. Findings. Based upon all the evidence, the Commission makes the following findings:

California Environmental Quality Act (CEQA)

1. That for purposes of the California Environmental Quality Act, an Initial Study was prepared for the project which resulted in a Mitigated Negative Declaration (SCH#2013101083). The Mitigated Negative Declaration was routed to the State Clearinghouse for the required 30 day review and all other legal noticing and review has been met. The project applicant agreed to all mitigations therefore with the incorporation of these mitigations the project will have a less than significant impact on the environmental. A mitigation monitoring and reporting program has been developed and will be incorporated as conditions of approval.

Conditional Use Permit Findings

2. That the project is an allowable use in its zoning district and is in accordance with the certified Local Coastal Program and the General Plan for the City of Morro Bay.

3. The establishment, maintenance, or operation of the use applied for will, under the circumstances of the particular case, will not be detrimental to the health, safety, morals, comfort and general welfare of the persons residing or working in the neighborhood of such proposed use in that the project will be consistent with all applicable zoning and plan requirements as indicated in the attached staff report dated December 11, 2013.

4. The use will not be injurious or detrimental to property and improvements in the neighborhood or the general welfare of the City since the project, as conditioned, will be conducted consistent with all applicable City regulations, as indicated in the attached staff report dated December 11, 2013.

Section 2. Action. The Planning Commission does hereby approve the Mitigated Negative Declaration (SCH#2013101083) with the incorporated Mitigation Monitoring and Reporting Program (MMRP) and approve Conditional Use Permit #UP0-371 as a combined concept and precise plan to be forwarded to the City Council subject to the following conditions:

Standard Conditions

1. This permit is granted for the land described in the staff report dated December 11, 2013, for the project depicted on plans dated October 29, 2013 on file with the Public Services Department, as modified by these conditions of approval, and more specifically described as follows:

   Site development, including the bridge and other features of the project, shall be located and designed substantially as shown on plans, unless otherwise conditioned.

2. Inaugurate Within Two Years: Unless the construction or operation of the structure, facility, or use is commenced not later than two (2) years after the effective date of this approval and is diligently pursued thereafter, this approval will automatically become null and void; provided, however, that upon the written request of the applicant, prior to the expiration of this approval, the applicant may request up to two extensions for not more than one (1) additional year each. Said extensions may be granted by the Public Services Director, upon finding that the project complies with all applicable provisions of the Morro Bay Municipal Code, General Plan and Local Coastal Program Land Use Plan (LCP) in effect at the time of the extension request.

3. Changes: Minor changes to the project description and/or conditions of approval shall be subject to review and approval by the Public Services Director. Any changes to this approved permit determined not to be minor by the Director shall require the filing of an application for a permit amendment subject to Planning Commission review. In no case shall modifications be made which alter the project description as stated in the Initial Study.

4. Compliance with the Law: (a) All requirements of any law, ordinance or regulation of the State of California, City of Morro Bay, and any other governmental entity shall be complied with in the exercise of this approval, (b) This project shall meet all applicable requirements under the Morro Bay Municipal Code, and shall be consistent with all programs and policies contained in the certified Coastal Land Use Plan and General Plan for the City of Morro Bay.

5. Hold Harmless: The applicant, as a condition of approval, hereby agrees to defend, indemnify, and hold harmless the City, its agents, officers, and employees, from any claim, action, or proceeding against the City as a result of the action or inaction by the City, or from any claim to attack, set aside, void, or annul this approval by the City of the applicant's project; or applicants failure to comply with conditions of approval. Applicant understands and acknowledges that City is under no obligation to defend any legal actions challenging the City's actions with respect to the project. This condition and agreement shall be binding on all successors and assigns.

6. Compliance with Conditions: The applicant's establishment of the use and/or development of the subject property constitutes acknowledgement and acceptance of all Conditions of approval. Compliance with and execution of all conditions listed hereon shall be required prior to obtaining final building inspection clearance from the Planning Division, Public Works Division, Fire Department, Harbor Department, Police Department and the Building Division (as applicable). Deviation from this requirement shall be permitted only by written consent of the Public Services Director and/or as authorized by the Planning Commission/City Council. Failure to comply with these conditions shall render this entitlement, at the discretion of the Director, null and void. Continuation of the use without a valid entitlement will constitute a violation of the Morro Bay Municipal Code and is a misdemeanor.

7. Compliance with Morro Bay Standards: This project shall meet all applicable requirements under the Morro Bay Municipal Code, and shall be consistent with all programs and policies contained in the certified Coastal Land Use plan and General Plan for the City of Morro Bay.

8. Conditions of Approval on Building Plans: Prior to the issuance of a Building Permit, the final Conditions of Approval shall be attached to the set of approved plans. The sheet containing Conditions of Approval shall be the same size as other plan sheets and shall be the last sheet in the set of Building Plans.

9. It is the applicant's responsibility to contact the Planning Division for inspections related to this project including all inspections relating to environmental mitigations. Please note that the City of Morro Bay requires 24 hour notice to schedule an inspection. Contact information is on the City's website at www.morro-bay.ca.us

Fire Conditions

1. Live Loading. The bridge shall be designed to bear sufficient load capacity to support the imposed loads of fire apparatus (CFC 102.1). Sheet BR-01 depicts Caltrans Standard H-20 Vehicular Load Standard.

2. Bridge Width. The bridge shall provide adequate clear width to accommodate emergency fire apparatus. Sheet BR-01 depicts a 12 ft. 6 in. clear width, consistent with our apparatus specifications and Caltrans requirements.

3. Embarcadero Dirt Road Width. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (CFC 503.1). As a result of the project, the existing dirt road width is reduced to approximately 17 feet in width. In addition to providing and maintaining the 20 foot width, the project shall provide No Parking signage on both sides of Embarcadero Dirt Road.

4. Bridge Entrance Security. The bridge entrances shall be designed to ensure that no vehicles, other than emergency vehicles, may have access to the bridge. The City Engineering Division recommends consideration of Standard MUTCD 9C.101, in the bridge design, to the satisfaction of the City Engineer.

Public Works Conditions

Conditions:

1. At the intersection of "Dirt" Embarcadero Rd and Coleman Dr. the dirt road shall be paved for a distance of 15ft minimum, to minimize gravel intrusion in the bike path and existing street.

2. Provide a new park sign for Coleman Park and relocate the drinking fountain in the park to the satisfaction of the City Engineer.

3. Due to maintenance issues with the current boardwalk, install a surface that sand will not be able to migrate under and durable enough that equipment can be used to remove the sand. The width of this walkway shall be wide enough to allow for the equipment to access.

4. Stormwater Management: The City shall implement the Post-Construction requirements required by the Central Coast Regional Water Quality Control Board (R3-2013-0032) for this project.

Code Requirements:

5. The site appears to have more than one acre of land disturbance and therefore to requires the project to obtain a Construction General Permit from the Regional Water Board. Provide a copy of the SWPPP and the WDID provided by the Regional Water Quality Control Board. Reference the WDID on the first page of the plans.

6. Acquire an easement for the portion of "Dirt" Embarcadero Rd that is not within City right-of-way/property.

7. Submit a signage and striping plan to the satisfaction of the City Engineer at the time of building permit submittal. Refer to the Manual on Uniform Traffic Control Devices (MUTCD) section 9B.01 the California supplement for signing and delineation.

8. A 2ft horizontal clearance is required from the paved edge of the bike path to any fixed object. An 8ft vertical clearance is required across the width of the bike path and pedestrian pathway. (per highway design manual for Class one bike lane)

9. The maximum cross slope of the multiuse path is 2%. Design the plans at 1-1.5% so that this percent is not exceeded in construction. Design all handicap slopes less than the required slopes so that these slopes are not exceeded during construction.

10. The minimum vehicle travel lane width shall be 10ft. Therefore the total road width shall be 20ft wide minimum. It appears that the multiuse path currently does not allow for the minimum 20ft vehicle travel lanes.

11. The Bridge entrances shall be designed to ensure that no vehicles (other than Emergency vehicles) can access the bridge. MUTCD 9C.101 should be considered in this design and the design shall be to the satisfaction of the City Engineer

Harbor Conditions

1. The Emergency Beach Access ramp to the sand shall remain open and available at all times before, during, and after construction. Completed project shall not impede or alter a minimum ramp approach and ramp width of 25 feet.

2. The planned crosswalk for the boardwalk and bike path on the south side of Morro Creek shall be designed without impediments that would inhibit the relocation of the 3,000 pound steel skid lifeguard towers which are relocated at the beginning and end of each summer season through this crosswalk area.

Planning Conditions

1. No new lighting shall be installed beyond that which currently exists.

Environmental Conditions.

1. Applicant shall be subject to the mitigations as detailed in the Mitigation Monitoring and Reporting Program (MMRP) which is attached hereto as Attachment 1.

PASSED AND ADOPTED by the Morro Bay Planning Commission at a regular meeting thereof held on this 18th day of December, 2013 on the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Rick Grantham, Chairperson

ATTEST

_____
Rob Livick, Planning Secretary

The foregoing resolution was passed and adopted this 18th day of December 2013.

Attachment 1 to Resolution No. PC 03-13

MORRO CREEK MULTI-USE TRAIL AND BRIDGE PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM

CEQA requires that a reporting or monitoring program be adopted for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment. The mitigation monitoring and reporting program is designed to ensure compliance with adopted mitigation measures during project implementation. For each mitigation measure recommended in the Final Initial Study-Mitigated Negative Declaration (Final IS-MND) that applies to the applicant's proposal, specifications are made herein that identify the action required and the monitoring that must occur. In addition, a responsible City department is identified for verifying compliance with individual conditions of approval contained in the Mitigation Monitoring and Reporting Program.

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
BIOLOGICAL RESOURCES							
BIO-1 California Red-legged Frogs Avoidance and Minimization a) Only City-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs. b) Ground disturbance shall not begin until the lead agency receives written approval from the USFWS/Caltrans that the biologist is qualified to conduct the work, unless the individual(s) has/have been approved previously and the USFWS has not revoked that approval. c) A City-approved biologist shall survey the project site no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the work site before work begins. The USFWS-approved biologist will relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and that will not be affected by activities associated with the proposed project. The relocation site shall be in the same drainage to the extent practicable. The lead agency will coordinate with Caltrans on the relocation site prior to the capture of any California red-legged frogs. d) Before any activities begin on a project, a City-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve	Prior to the start of the project, a City-approved qualified biologist shall conduct a survey and a training session for all construction personnel on the California red-legged frog and its habitat. The California red-legged frog shall be relocated if found. During the project, all trash and debris shall be removed from the work areas.	Survey and training session done prior to construction. Trash and debris monitoring done during project construction.	Survey and training session done once prior to start of construction. Removal of trash done on an as-needed basis during project.	City of Morro Bay Public Services Department (PSD), U.S. Fish & Wildlife Service (USFWS), Caltrans			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions. e) A City-approved biologist shall be present at the work site until all known California red-legged frogs have been relocated pursuant to BIOL-1(c), workers have been instructed, and disturbance of habitat has been completed. After this time, the lead agency shall designate a person to monitor on-site compliance with all minimization measures. The City-approved biologist will ensure that the monitor receives the training outlined in measure BIO-1(d) above and in the identification of California red-legged frogs. If the monitor or the City-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the USFWS during the review of the proposed action, they will notify the resident engineer (the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the adverse effect immediately or require that all actions causing these effects be halted. If work is stopped, the USFWS shall be notified as soon as possible. f) During project activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas. g) All refueling, maintenance, and staging equipment and vehicles shall occur at least 60 feet from							

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
riparian habitat or water bodies and in a location from where a spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water). The monitor (designated pursuant to BIOL-1-(e)) will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. h) Habitat contours shall be returned to their original configuration at the end of project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the lead agency, USFWS, and Caltrans determine that it is not feasible or modification of original contours would enhance habitat or otherwise benefit the California red-legged frog. i) The lead agency shall limit the number of access routes, size of staging areas, and the total area of activity to the minimum necessary to achieve the project goals. Environmentally Sensitive Areas will be delineated to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable. j) The lead agency shall schedule work activities for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding shall be avoided during the breeding season (November through May).							

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year shall be avoided during the late summer and early fall. Habitat assessments, surveys, and coordination between the lead agency, Caltrans, and the USFWS during project planning will be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year. k) To control sedimentation during and after project implementation, Caltrans, and the lead agency shall implement all Best Management Practices (BMPs) outlined in any authorizations or permits issued under the authorities of the Clean Water Act that it receives for the specific project. If BMPs are not effective, the lead agency will attempt to remedy the situation immediately by implementing additional BMPs, in coordination with Caltrans and the USFWS. l) If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh no larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the stream bed shall be avoided, and any imported material shall be removed from the stream bed upon completion of the project. m) Unless approved by the City, water shall not be impounded in a manner that may attract California red-legged frogs.							

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
n) A City-approved biologist shall permanently remove any identified individuals of non-native species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus; Procambarus clarkii*), and centrarchid fishes from the project area. The City-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code. o) To ensure that diseases are not conveyed between work sites by the City-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force shall be followed at all times. p) Project sites shall be re-vegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials shall be used, and invasive, exotic plants shall be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the lead agency, USFWS, and Caltrans determine that it is not feasible or practicable. q) Herbicides shall not be used as the primary method used to control invasive, exotic plants, if avoidable. If Caltrans determines the use of herbicides is the only feasible method for controlling invasive plants at a specific site, herbicides shall be applied in accordance with the FHWA-approved Programmatic Biological Opinion for the project.							

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
BIO-2 Steelhead Avoidance and Minimization a) Before any activities begin on a project, a City-approved qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training will include a description of the steelhead and its habitat, the specific measures that are being implemented to conserve this species for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions. b) During the duration of project activities, all trash that may attract predators shall be properly contained and secured, promptly removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from the work areas. c) All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 feet from riparian habitat or bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). The monitor (designated pursuant to BIOL-1-(e)) shall ensure that contamination of suitable habitat does not occur during such operations. Prior to the onset of work activities, a plan must be in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should an accidental spill occur. d) The number of access routes, size of staging	Prior to the start of the project, a City-approved qualified biologist shall conduct a training session for all construction personnel on steelhead and its habitat. During the project, all trash and debris shall be removed from the work areas.	Survey and training session done prior to construction. Removal of trash and debris done during project construction.	Survey and training session done once prior to start of construction. Removal of trash done on an as-needed basis during project.	PSD			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
areas, and the total area used for construction activities shall be limited to the minimum area necessary to achieve the project goals. e) The City shall schedule work for times of the year when potential impacts to steelhead would be minimal, to the maximum extent practicable. If work occurs during the wet season (November through May), Best Management Practices (BMPs) shall be implemented to avoid indirect water quality impacts to steelhead habitat. f) To control sedimentation during and after project implementation, the City shall implement any and all BMPs outlined in all authorizations or permits issued under the authorities of the Clean Water Act that it obtains for this specific project. If the BMPs are somehow ineffective, the City will attempt to remedy the situation immediately. g) No pets shall be allowed at the project site. h) The monitor (designated pursuant to BIOL-1-(e)) shall inspect construction activities, in-stream habitat, and overall performance of BMPs and sediment controls for the purpose of identifying and reconciling any condition that could adversely affect steelhead or their habitat. The monitor shall halt work if necessary and will recommend site-specific measures to avoid adverse effects to steelhead and their habitat. i) The monitor shall check equipment daily for leaks prior to the initiation of construction activities. A spill kit will be placed near the creek and will remain readily available during construction in the event that any contaminant is accidentally released.							

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
BIO-3 Morro Shoulderband Snail (MSS) Avoidance and Minimization a) Only City-approved biologists shall participate in activities associated with the capture, handling, and monitoring of MSS. b) Environmental training sessions for all project-related personnel shall be conducted by a City-authorized biologist prior to the start of vegetation removal, grading, and ground-disturbing construction-related activities. These trainings shall continue for the duration the project and be initiated whenever new personnel come on-board. c) Construction areas shall be clearly marked with high visibility flagging or barrier fencing. Construction equipment and personnel shall be restricted to the identified work areas only. The delineation of construction areas is ongoing and shall continue for the duration of project implementation. d) Pre-construction MSS surveys shall be conducted in the coastal dune scrub and ice plant habitat to be removed in association with site preparation and construction activities will be conducted by a City-approved biologist. Surveys will include cutting coastal dune scrub shrubs off at ground-level and careful examination of the lower branches and litter beneath each shrub for the presence of this species. Prior to any disturbance, all ice plant shall be carefully examined for MSS individuals and egg masses. Once coastal dune scrub and ice plant areas have been cleared and all surveys have been completed, vegetation removal may commence and can be removed by mechanical means. As vegetation is removed, it will not be stockpiled onsite but rather moved to a	Prior to the start of vegetation removal, a City-approved qualified biologist shall conduct a training session for all project-related personnel on MSS. Prior to the start of construction, a City-approved qualified biologist shall conduct the required MSS surveys. Throughout construction of the project, the City-approved biologist shall monitor vegetation removal, grading, and ground-disturbing construction-related activities within habitat suitable for MSS. Within 90 days following completion of the project, the City-approved biologist shall provide the required summary report documenting the results of monitoring activities throughout the duration of the project.	Survey and training session done prior to construction. Monitoring done throughout construction. Summary report done within 90 days following completion of the project.	Survey and training session done once prior to start of construction. Monitoring done throughout construction period. Summary report done once following completion of the project.	PSD, USFWS, Caltrans			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
location offsite where it there is no chance of re-occupation by MSS. e) The City-approved biologist will be retained to monitor all vegetation removal, grading, and ground-disturbing construction-related activities that will take place within habitat suitable for MSS. Monitoring activities shall be required daily until completion of initial disturbance at each location and to ensure appropriate minimization measures are implemented during construction. The monitoring biologist will be granted full authority to stop work at his or her discretion and will stop work if project-related activities occur outside the demarcated boundaries of the construction footprint. The monitoring biologist will stop work if MSS is detected within the proposed construction footprint and will capture and relocate them to suitable habitat out of harm's way prior to construction activities resuming. If no suitable habitat opportunities are available in the immediate vicinity of the construction footprint, captured individuals may be transported to an off-site location in accordance with a capture and relocation methodology approved by USFWS prior to the initiation of any surveys for the species. f) The City-approved biologist shall provide a summary report to the lead agency, Caltrans, and USFWS that documents the results of all monitoring activities throughout the duration of the project. The report will document the number of MSS captured and relocated from the project area, the locations of all MSS relocations, and the number of MSS known to have been be killed or injured. The report will contain a brief discussion of any problems encountered in implementing minimization measures, results of biological							

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
surveys, observations, and any other pertinent information. The City-approved biologist shall provide a comprehensive final report that summarizes the information provided in the annual reports to the lead agency, Caltrans and USFWS within 90 days following the completion of the proposed project.							
BIO-4 Legless Lizard Relocation a) Prior to the onset of construction activities, a City-approved qualified biologist shall conduct focused surveys for legless lizard within all potentially suitable habitat onsite during the appropriate active periods for these species. If no legless lizards are observed, no further efforts are required. b) If legless lizard is observed onsite, the wildlife biologist shall map the locations on an aerial photograph of the project site at a scale no less than 1"=200'. A legless lizard technical report (or memorandum) shall be submitted to the City that documents the survey results prior to the onset of construction activities. Mapped locations of sensitive reptile species shall be integrated into the grading plans. c) To avoid potential indirect impacts to legless lizard, identified locations that are not within the immediate disturbance footprint, but are located within 50 feet of disturbance limits shall have highly visible orange protective fencing and drift fencing installed at least 30 feet beyond their extent to protect them from harm during the construction phase. d) If it is determined that complete avoidance of an identified legless lizard population(s) is not	Prior to the start of the project, a City-approved qualified biologist shall conduct a survey and a training session for all construction personnel on the legless lizard and its habitat. If the legless lizard is observed onsite, the wildlife biologist shall map the locations on an aerial photograph of the project site. Relocation and monitoring of the site shall occur if the legless lizard is found.	Survey and training session done prior to construction.	Once prior to construction.	PSD			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
feasible, then a City-approved qualified biologist shall carefully rake or use an equivalent method to scarify the ground surface within the reptile habitat to encourage the reptiles to vacate the area prior to construction initiation. This shall occur at least 48 hours prior to the construction activities and shall be repeated if construction is halted for more than 48 hours. Alternatively, the qualified biologist can facilitate the installation of drift fencing around the occupied habitat, before construction begins, to exclude the reptiles from the work areas. e) A City-approved qualified biologist shall physically relocate any legless lizard to equivalent suitable habitat adjacent to the BSA or on other areas within its vicinity that occur beyond the limits of construction activities. If this method is utilized, the reptiles shall be hand-captured and relocated to a designated location of suitable habitat as described above. f) A City-approved qualified biologist shall monitor construction activities onsite if they occur within legless lizard habitat that is determined to be occupied during all vegetation clearing and immediately after vegetation clearing. The qualified biologist shall relocate the reptiles out of harm's way and into an equivalent habitat within the project site or immediate vicinity. The qualified biologist shall monitor the area(s) on a weekly basis after initial sufficient clearing of legless lizard has occurred throughout the duration of construction activities in order to inspect exclusionary fencing if it is used and to physically relocate legless lizard that have re-entered the construction zones during subsequent brush clearing or vegetation removal.							

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
BIO-5 Nesting Bird Species Avoidance and Minimization a) If feasible, removal of vegetation within suitable nesting bird habitats shall be scheduled to occur in the fall and winter (between September 1 and February 14), after fledging and before the initiation of the nesting season. If construction activities are scheduled to occur during the nesting season (February 15 through August 31), a pre-construction nesting bird survey shall be conducted by a City-approved qualified biologist throughout all areas of potentially suitable and accessible habitats within 200 feet of any proposed construction activities. The pre-construction nesting bird survey will be performed no more than two weeks prior to construction to determine the presence/absence of nesting birds within the project area. b) The City and Caltrans shall be immediately notified if any nesting bird species protected under federal law (including the MBTA) are observed during surveys. Caltrans shall coordinate with USFWS regarding appropriate avoidance measures and the City shall coordinate with CDFW regarding appropriate avoidance measures. Work activities shall be avoided within 100 feet of active passerine nests and 200 feet of active raptor nests until young birds have fledged and left the nest(s). This buffer may be reduced if determined appropriate by a qualified biologist. Readily visible exclusion zones shall be established in areas where nests must be avoided. Nests, eggs, or young of birds covered by the MBTA and California Fish and Game Code would not be moved or disturbed until the end of the nesting season or until young fledge,	Surveys shall be conducted during the time of day when birds are active. The name, qualifications, scope, and contact information for the surveying biologist must be submitted to the City of Morro Bay and Caltrans in advance of the surveys. A report of the nesting bird survey results, if applicable, shall be submitted to the PSD for review and approval prior to construction.	Active nests shall be monitored at a minimum of once per week until it has been determined that the nest is no longer being used by either the young or adults.	A minimum of once per week, while any nests are active (in use by either the young or adults).	PSD, USFWS, Caltrans			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
whichever is later, nor would adult birds be killed, injured, or harassed at any time.							
BIO-6 Central Dune Scrub Habitat and Jurisdictional Waters Avoidance a) Prior to the initiation of construction activities, high-visibility orange construction fencing shall be installed outside of the tops of the banks of Morro Creek (and outside of the arroyo willow woodland riparian vegetation) along the limits of the existing development to ensure avoidance of these sensitive resources. Specifically, the fencing would be installed within the limits of the existing ruderal/developed areas. These avoidance setbacks are suitable and appropriate because of this portion of the BSA is already developed (i.e., roadways and parking areas) and subject to high levels of traffic, pedestrians, and passive recreational use. A qualified biological monitor will facilitate installation of the avoidance fencing and will conduct periodic site visits to ensure that the fencing remains intact for the duration of project development. b) Access routes, staging, and construction areas shall be limited to the minimum area necessary to achieve the project goal and minimize impacts to jurisdictional wetlands/waters including locating access routes and construction areas outside of jurisdictional areas to the maximum extent feasible. c) To control sedimentation during and after project implementation, appropriate Best Management Practices (BMP) shall be implemented to minimize adverse effects on jurisdictional areas in the vicinity of the project.	Install high-visibility orange construction fencing outside of the tops of the banks of Morro Creek. Apply BMP's to minimize adverse effects on jurisdictional areas in the vicinity of the project.	Inspection of the site must be done a minimum of once per week to ensure protective fencing is in place.	A minimum of once per week during ground disturbance.	PSD			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
d) During construction, the City shall not dump and/or permit any litter or construction debris to enter the limits of Morro Creek. All such debris and waste shall be disposed of in closed, secure containers and will be picked up daily and properly disposed of at an appropriate refuse site. e) All project-generated debris, building materials, and rubbish shall be removed from Morro Creek and from areas where such materials could be washed into the creek. f) Raw cement, concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish or wildlife resulting from project-related activities, shall be prevented from contaminating the soil and/or entering Morro Creek. g) All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 feet from riparian habitat or bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). The biological monitor and/or construction foreman shall ensure that contamination of these habitats does not occur during such operations. Prior to the onset of work activities, an acceptable plan must be in place for prompt and effective response to any accidental spills. All project workers and other project personnel shall be informed of the importance of preventing spills and of the appropriate measures to take should an accidental spill occur.							

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
BIO-7 Central Dune Scrub Habitat Minimization a) To minimize impacts to central dune scrub habitat, any and all removal of this vegetation community type shall be limited to the minimum amount necessary to complete construction of the project. b) Prior to the onset of construction, a comprehensive Habitat Mitigation and Monitoring Plan (HMMP) will be prepared that provides for a 3:1 mitigation ratio (3 acres of mitigation for every 1 acre of impacts) for all permanently impacted areas of central dune scrub habitat, unless otherwise approved by USFWS. All mitigation activities associated with replacement of central dune scrub habitat shall occur in the immediate vicinity of the project site, and shall not inadvertently result in additional impacts to sensitive plant or wildlife species. The final HMMP will identify the exact location(s) for the required central dune scrub habitat mitigation and the HMMP will be implemented immediately after project completion. c) Mitigation areas pursuant to the HMMP would require disturbance outside of the BSA. Mitigation efforts in these areas would predominantly involve foot traffic and hydroseeding, but would also require ice plant removal, which may result in residual impacts to Morro shoulderband snail. These mitigation efforts would be subject to Mitigation Measure BIO-3, which would reduce residual impacts to Morro shoulderband snail to a less than significant level.	Prepare HMMP with a 3:1 mitigation ratio (3 acres of mitigation for every 1 acre of impacts) for all permanently impacted areas of central dune scrub habitat, unless otherwise approved by USFWS.	Inspection of the site prior to initiation of ground disturbance. The City of Morro Bay PSD shall oversee implementation of the Habitat Restoration Plan.	Once prior to initiation of ground disturbance.	PSD, USFWS			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
d) Access routes, staging, and all construction areas shall be limited to the minimum amount necessary to achieve the project goals and shall minimize impacts to this sensitive community including locating all access routes and construction areas outside of and offset from the central dune scrub habitat to the maximum extent feasible. e) When practicable, invasive and exotic plant species on the project site shall be removed and properly disposed of in an acceptable refuse site.							
BIO-8 Invasive Weed Avoidance and Prevention. a) Any and all invasive plant species that have been identified within the project footprint shall be removed during construction activities and will not be replanted. b) Appropriate Best Management Practices (BMPs) that are intended and designed to curtail the spread of invasive plant species shall be implemented throughout the construction phase of the project and likely to include the following: c) No fill shall be imported and soils currently existing on-site shall be used for fill material. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species; or the material must consist of purchased clean material such as crushed aggregate, sorted rock, or other similar substances.	In order to avoid the spread of invasive species, the contractor shall: Stockpile topsoil and redeposit the stockpiled soil on the slopes after construction of the new bridge is complete; or transport the topsoil to a certified landfill for disposal. The Hazardous Material Management Plan (HMMP) shall emphasize the use of native species that are expected to occur in the area. The City shall ensure that all erosion control materials including straw bales, straw wattles, or mulch used on-site are	Prior to construction.	Once prior to construction.	PSD			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
	free of invasive species seed to the maximum extent practicable. Exotic and invasive plant species shall be excluded from any erosion control seed mixes and/or landscaping plant palettes associated with the proposed project.						
BIO-9 Sensitive plant species (Blochman's leafy daisy) Avoidance and Minimization a) Prior to initiation of construction activities (any vegetation removal, grubbing, or grading) a pre-construction botanical survey shall be conducted within the central dune scrub habitat onsite that was not surveyed by Althouse and Meade, Inc. This survey shall be conducted within the appropriate bloom period for Blochman's leafy daisy; June through August. The botanical survey shall be conducted by a qualified botanist. The purpose of the survey is to document the presence or absence, and number of individuals (if any), of sensitive plant species within this portion of the construction footprint. All sensitive plant species identified onsite shall be mapped onto a site-specific aerial photograph at a scale no less than 1"= 200'. b) If Blochman's leafy daisy or any other sensitive plant species are observed during the botanical survey required above, the applicant shall reconfigure and redesign the proposed development footprint to avoid impacts to sensitive plants to the maximum extent feasible.	If Blochman's leafy daisy or any other sensitive plant species are observed during the botanical survey, the applicant shall reconfigure and redesign the proposed development footprint to avoid impacts to sensitive plants to the maximum extent feasible. If Blochman's leafy daisy or any other sensitive plant species cannot be avoided, a qualified botanist shall oversee, direct, and generally facilitate transplantation of these individuals into an area of suitable and equivalent habitat within the central dune scrub mitigation area onsite.	Botanical survey done prior to initiation of construction activities.	Survey done once during appropriate bloom period for Blochman's leafy daisy (June through August) prior to construction.	PSD			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
Avoidance shall be accomplished by installation of high-visibility fencing around areas that are occupied by sensitive plant species. A qualified botanist shall oversee, direct, and generally facilitate fence installation and he or she will monitor the fencing periodically to ensure that it remains intact and is effective for the intended avoidance throughout the duration of construction activities within this location. After construction within this area is complete, the fencing may be removed by construction personnel under the supervision of the qualified botanist. c) If Blochman's leafy daisy or any other sensitive plant species cannot be avoided, a qualified botanist shall oversee, direct, and generally facilitate transplantation of these individuals into an area of suitable and equivalent habitat within the central dune scrub mitigation area onsite. If transplantation of sensitive plant species is necessary, these activities shall be completed prior to initiation of any construction activities.							
CULTURAL RESOURCES							
CUL-1 Extended Phase I (XPI) Archaeological Study An extended phase I (XPI) study shall be conducted by a qualified archaeologist prior to issuance of a project grading permit and in accordance with Caltrans guidelines. The XPI study shall comprise subsurface testing designed to establish the presence or absence and extent of intact archaeological deposits within the area of potential effect (APE) of the project. The XPI testing shall be observed by a Native American representative.	Prior to issuance of a land use permit for grading, the applicant shall submit for PSD review and approval, a contract or Letter of Commitment between the applicant and the archaeologist, consisting of a project description and scope of work, and once approved, shall execute the contract. The XPI testing shall be	The applicant shall provide PSD compliance monitoring staff with the name and contact information for the assigned onsite monitor(s) prior to grading permit issuance	Once prior to issuance of grading permit and periodically, as determined by the PSD throughout construction activities.	PSD			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
	observed by a Native American representative.	and pre-construction meeting. PSD compliance monitoring staff shall confirm monitoring by the archaeologist and PSD grading inspectors shall spot check field work.					
CUL-2 Phase II Subsurface Archaeological Testing If avoidance of a potential archaeological site(s) identified pursuant to Mitigation Measure CUL-1 is not possible, a Phase II subsurface testing program shall be completed to assess the site's integrity, (i.e., how intact the site and/or feature is) and evaluate of the site's significance through a study of its features and artifacts. The subsurface archaeological testing shall be conducted prior to issuance of a project grading permit and shall be observed by a Native American representative. The Phase II program shall be performed by a qualified archaeologist, and shall include: • Mapping the location of the surface remains within the proposed impact area; • Surface collection of artifacts; • Excavation of a sample of the cultural deposit to characterize the nature of the buried portions of the	Phase II subsurface testing program shall be completed to assess the site's integrity, (i.e., how intact the site and/or feature is) and evaluating of the site's significance through a study of its features and artifacts.	Prior to construction.	Once prior to construction	PSD			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
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site within the proposed impact area; • Monitoring of excavations containing Native American Indian resources by a Native American representative; • Repatriation of Native American Indian cultural resources at the recommendation of a Native American representative; • Analysis of all remains, submission of a final report detailing the results of the investigations, and curation of all artifacts and records detailing the results of the investigations at a county approved curation facility. If the site is determined significant, prior to issuance of a grading permit, the applicant may choose to cap the resource or have a qualified archaeologist conduct Phase III Data Recovery Excavation. Capping shall be conducted using culturally sterile and chemically neutral fill material and shall include open space accommodations and interpretive displays for the site to ensure its protection from development. An archaeologist and Native American consultant knowledgeable in both Salinan and Chumash culture shall be retained to monitor the placement of fill upon the site and to make open space and interpretive recommendations. If a significant site will not be capped, the Phase III Data Recovery Excavation shall be implemented to exhaust the significant data potential of the resource under observation by a Native American consultant. Archaeological and Native American monitoring shall be conducted for ground disturbing construction activities. If the site is determined insignificant, no capping and or further archaeological investigation shall be required.							

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
The results and recommendations of the Phase II study shall determine the need for construction monitoring, which shall be implemented as identified. In addition, the following mitigation is required to prevent impacts to unidentified cultural resources that may be encountered during construction activities:							
CUL-3 Archaeological and Native American Construction Monitoring Archaeological resource monitoring shall accompany any construction trenching and excavation within the project area. A Cultural Resource Monitoring Plan shall be developed and approved by the City of Morro Bay which will include the following elements: • A pre-construction archaeological workshop shall be conducted by a qualified archaeologist in order to educate construction personnel as to the type of cultural material that may be encountered; • Provision of an opportunity for review of and comment on the contents and implementation of the Prehistoric Cultural Resource monitoring plan by a Native American representative(s); and • Implementation of a restriction that results of all surveys, construction or shared information related to the Native American community shall be kept in strict confidentiality.	A Cultural Resource Monitoring Plan shall be developed and approved by the City of Morro Bay.	Prior to construction.	Once prior to construction and monitored periodically throughout the project construction.	City of Morro Bay, PSD			
CUL-4 Stop Work at Encounter The applicant and/or their agents, representatives or contractors shall stop or redirect work immediately in the event that buried cultural materials are encountered during grading, construction, landscaping or other construction-related activity. Cultural resource remains may include artifacts, shell, bone, features,	This condition shall be printed on all building and grading plans.	PSD permit processing planner shall check plans prior to issuance of land use permit for grading and	Once prior to issuance of land use permit prior to issuance of land use permit.	PSD			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
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foundations, and trash pits, etc. Work in the area shall stop until a City-approved archaeologist can evaluate the nature and significance of the find.		subdivision improvements, and PSD compliance monitoring staff shall spot check in the field throughout grading and construction.					
NOISE							
N-1 Construction Timing Limitations Noise-generating construction activity at the site shall be limited to the daytime hours between 7:00 a.m. to 6:00 p.m. Monday through Friday, with no construction on State or County recognized holidays (e.g., Thanksgiving, Labor Day, etc.).	The applicant shall provide and post signs stating these restrictions at all construction site entries. Signs shall be posted prior to commencement of construction and maintained throughout construction. Violations may result in suspension of permits.	The applicant shall demonstrate that required signs are posted prior to grading/building permit issuance and pre-construction meeting. Building inspectors and permit compliance staff shall spot check and respond to complaints.	Once prior to grading/building permit issuance and periodically as determined by PSD during construction activities.	PSD			
N-2 Construction Equipment Maintenance/New Construction Equipment Newer construction equipment shall be used whenever possible. All construction equipment shall be maintained per manufacturer's specifications.	Use newer construction equipment whenever possible. Maintain construction equipment throughout project construction.	During project construction.	Every day during construction period.	PSD			

Mitigation Measure/Condition of Approval	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
N-3 Acoustical Shelters/Sound Blankets Power-generating and other noise-generating machinery used for construction shall be partially or completely surrounded by temporary acoustical shelters or covered with a sound blanket if within 300 feet of an existing residential unit or recreational vehicle.	Sound blankets shall be used for power-generating and other noise-generating machinery within 300 feet of an existing residential unit or recreational vehicle.	During project construction.	Every day during construction activities for noise-generating machinery within 300 feet of an existing residential unit or recreational vehicle.	PSD			

EXHIBIT B

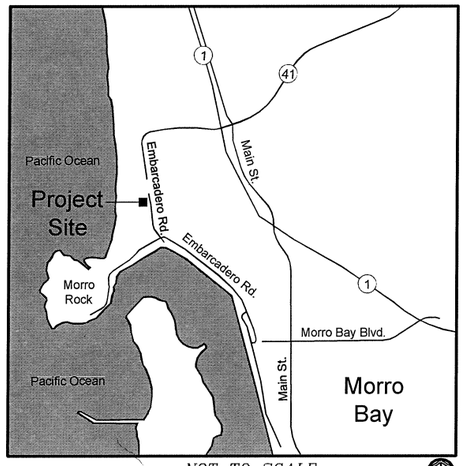
CITY OF MORRO BAY PUBLIC SERVICES DEPARTMENT

PERMIT REVIEW PLANS FOR CONDITIONAL USE PERMIT

MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

DIRT EMBARCADERO BETWEEN MORRO CREEK & THE COLMAN DRIVE & EMBARCADERO ROAD INTERSECTION

VICINITY MAP



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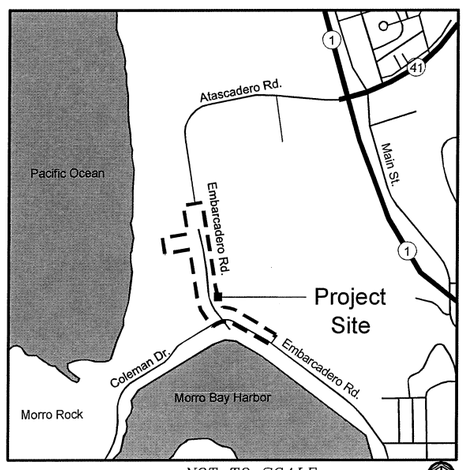
SITE MAP



NOT TO SCALE

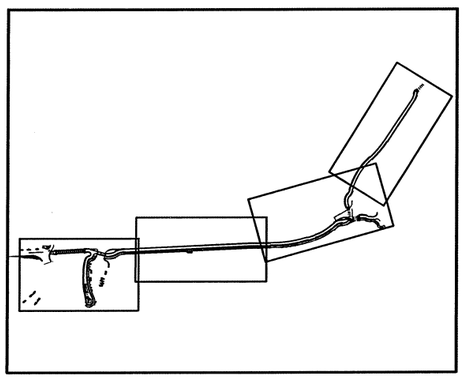
PROJECT DESCRIPTION

The Morro Creek Multi-use Trail and Bridge Project will provide universally accessible beach access for pedestrians and a new Class 1 bike path to the beach access point. This project will also extend the pedestrian and bike path system from the existing Harborwalk over Morro Creek closing a critical gap in the California Coastal Trail system. The project is located along Dirt Embarcadero between Morro Creek and the Colman Drive and Embarcadero Road intersection.

PROJECT BENCHMARK

Tidal Bench Mark 941 2298 C set flush in the concrete median of Embarcadero Street at the entrance to the city pier and just northwest of the last planting area in the median, having an elevation of 15.26 feet.

KEY PLAN



KEY_MAP

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SHEET INDEX

No.	Title
TS-1.01	TITLE SHEET
RS-1.01	EXISTING CONDITIONS
RS-2.01	EXISTING CONDITIONS
RS-2.02	EXISTING CONDITIONS
RS-2.03	EXISTING CONDITIONS
RS-2.04	EXISTING CONDITIONS
SP-1.01	SITE PLAN
SP-2.01	SITE PLAN
SP-2.02	SITE PLAN
SP-2.03	SITE PLAN
SP-2.04	SITE PLAN
BR-01	GENERAL PLAN
BR-02	FOUNDATION PLAN
BR-03	SECTIONS & DETAILS
GP-2.01	GRADING & DRAINAGE PLAN
GP-2.02	GRADING & DRAINAGE PLAN
GP-2.03	GRADING & DRAINAGE PLAN
GP-2.04	GRADING & DRAINAGE PLAN
EC-2.01	EROSION CONTROL PLAN
EC-2.02	EROSION CONTROL PLAN
EC-2.03	EROSION CONTROL PLAN
EC-2.04	EROSION CONTROL PLAN
LP	LANDSCAPE PLAN IN PROGRESS
SS	SITE SECTIONS IN PROGRESS
AC-1.01	ARCHITECTURAL CONCEPTS
AC-1.02	ARCHITECTURAL CONCEPTS
AC-1.03	ARCHITECTURAL CONCEPTS
AC-1.04	ARCHITECTURAL CONCEPTS
AC-1.05	ARCHITECTURAL CONCEPTS

PROJECT DIRECTORY

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AT LEAST TWO DAYS BEFORE YOU DIG
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A California Corporation | Victor Montgomery, Architect #C11931 | Jerry Michael, PE #49885, LS #6276 | Jeff Fecker, LA #2644

MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

TITLE SHEET

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY:
CHECKED BY:
DATE: October 25, 2013
CAD FILE: TS-1311040.dwg
JOB NUMBER: 1311040
SHEET: TS-1.01

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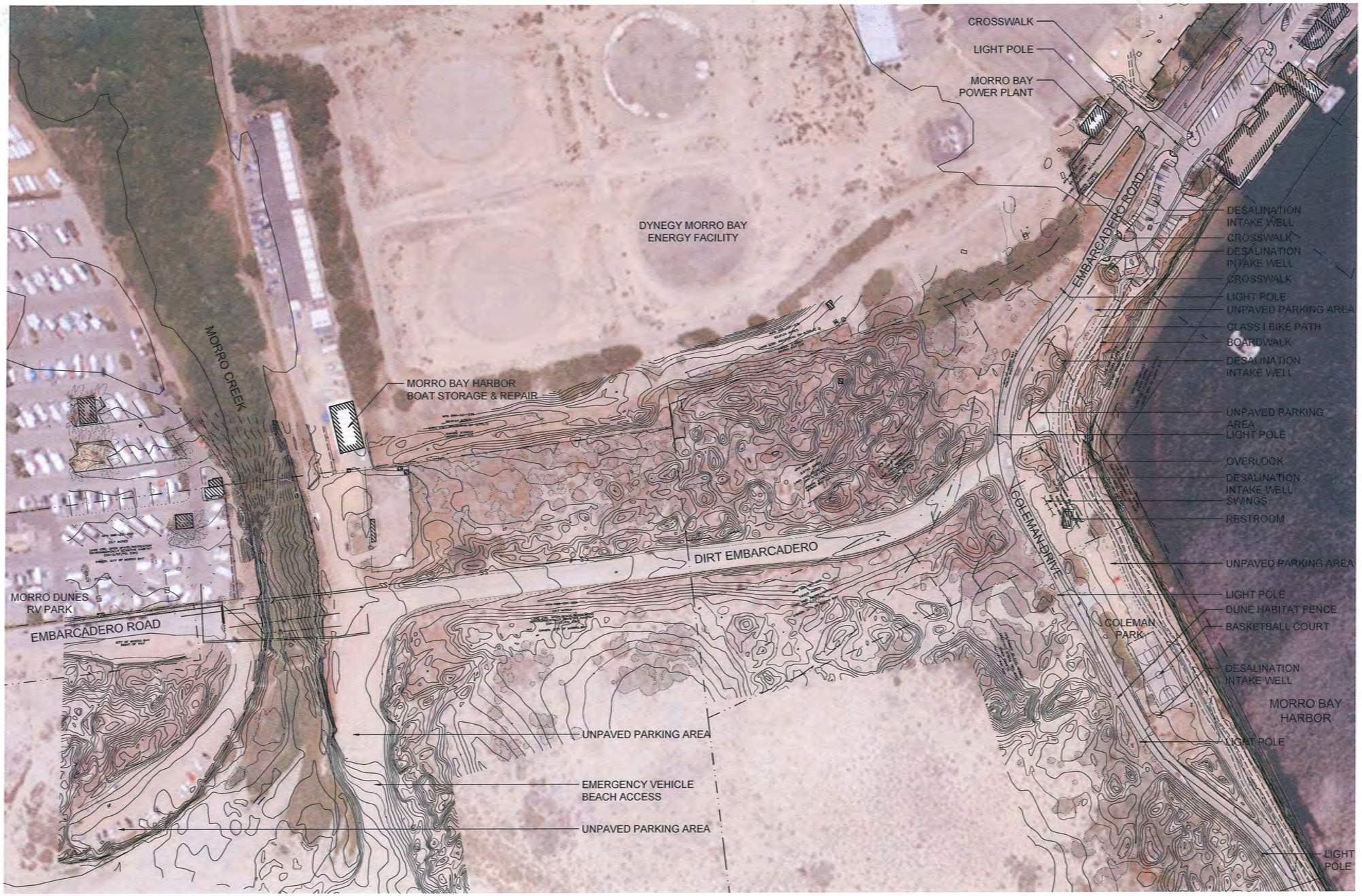
EXHIBIT B



NOTE: PROTECT EXISTING UTILITIES IN PLACE

EXISTING_CONDITIONS

north

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

EXISTING CONDITIONS

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY | CHECKED BY
DATE: October 25, 2013
CAD FILE: RS-1311040.dwg
JOB NUMBER: 1311040
SHEET: RS-1.01

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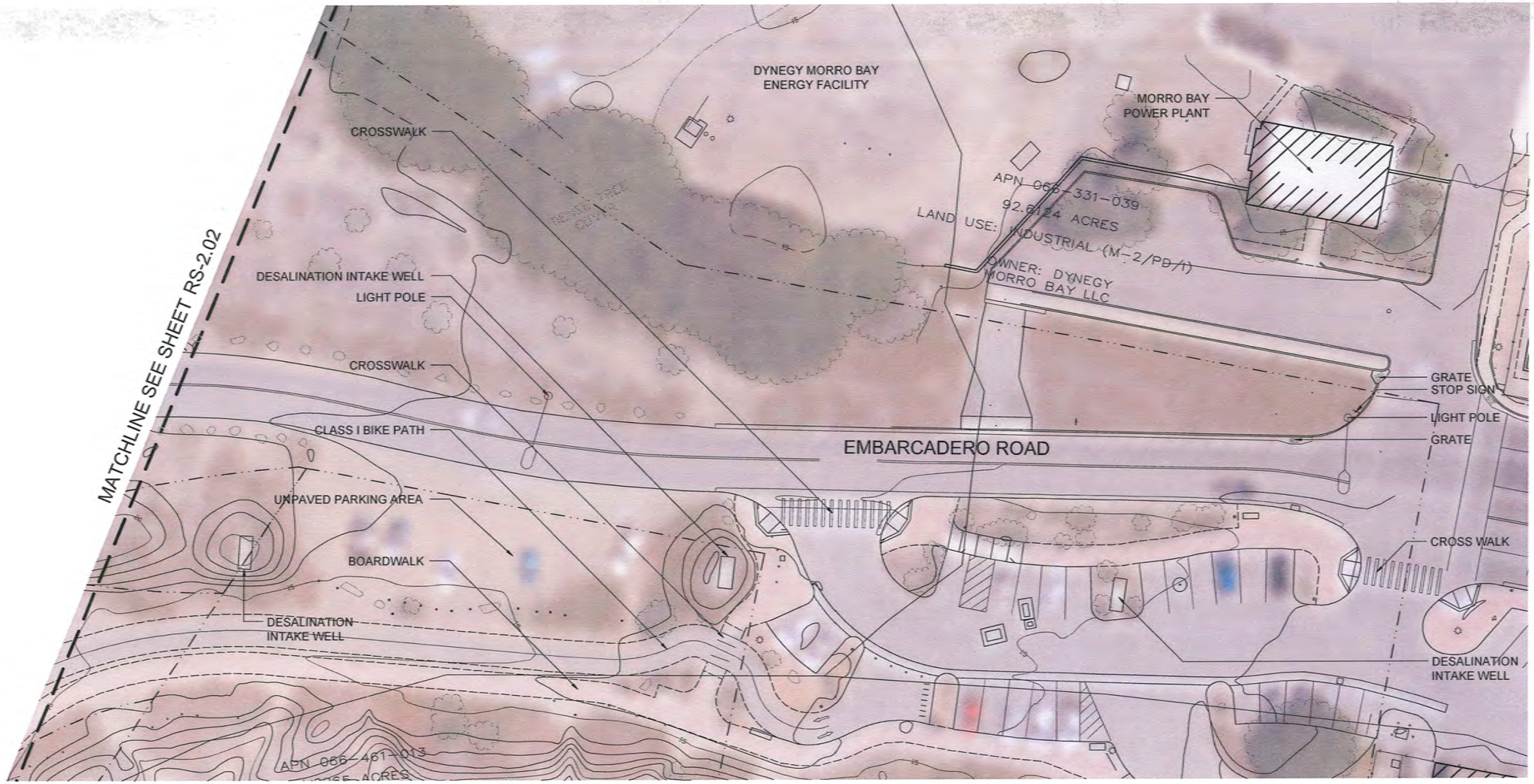
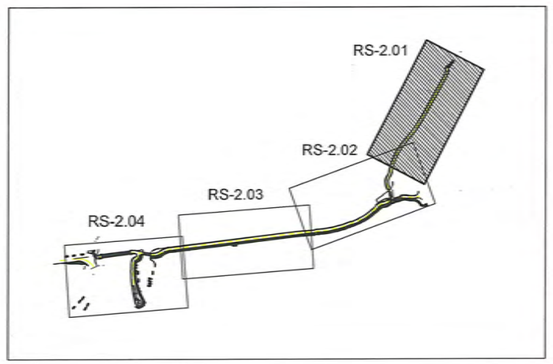


NOTE: PROTECT EXISTING UTILITIES IN PLACE

PROTECT EXISTING UTILITIES IN PLACE



EXISTING_CONDITIONS

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KEY_MAP

north
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MORRO CREEK MULTI-USE
TRAIL & BRIDGE PROJECT

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CAD FILE: RS-1311040.dwg
JOB NUMBER: 1311040
SHEET: RS-2.01

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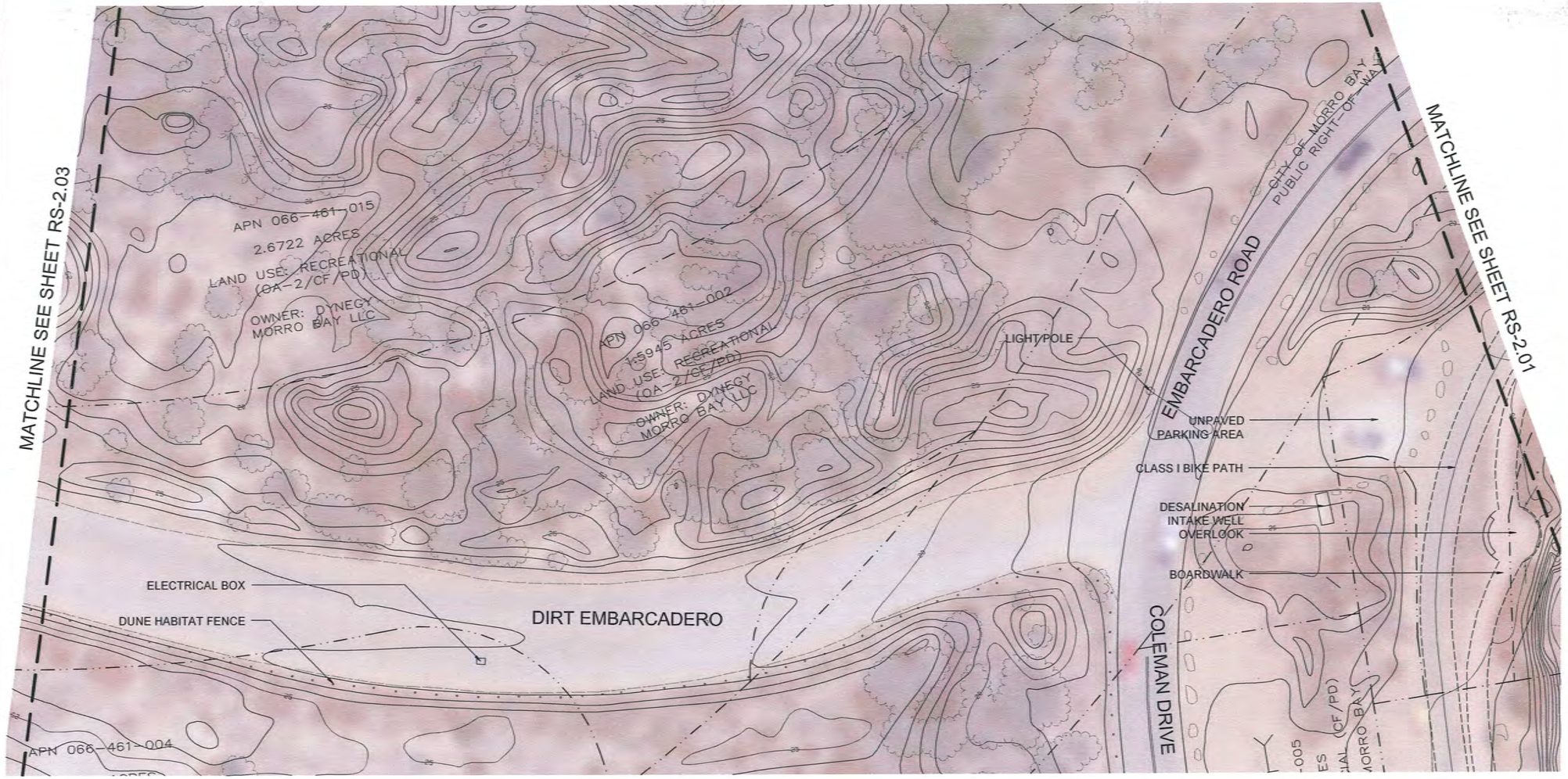

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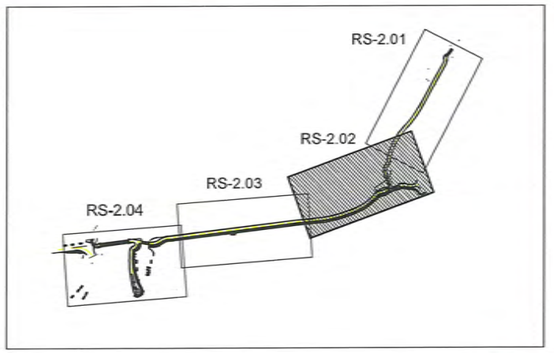

KEY_MAP

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

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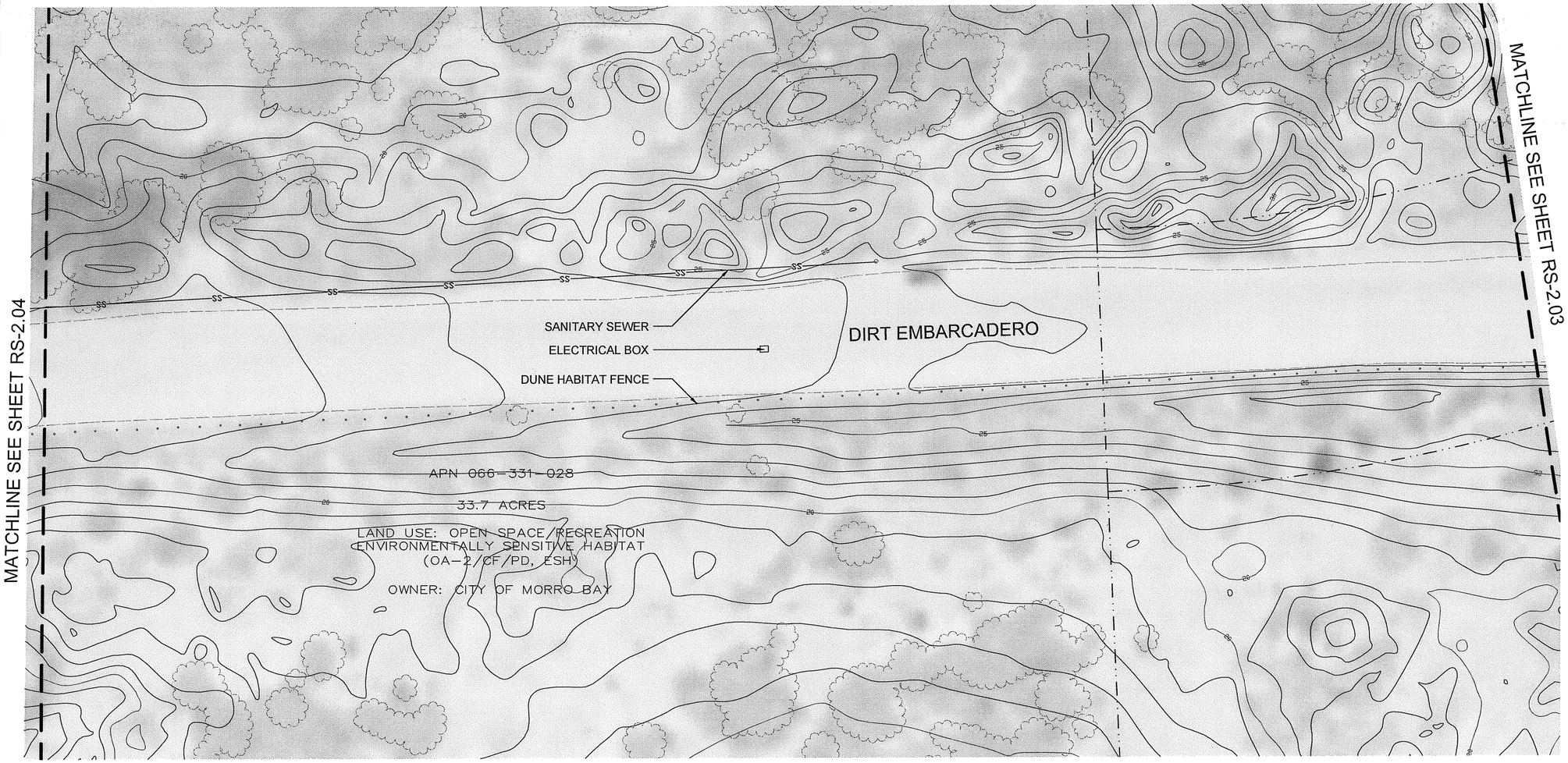

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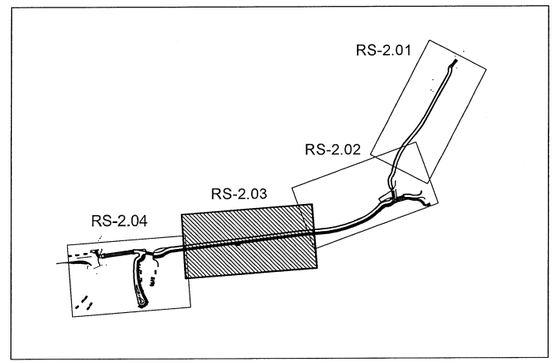

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

EXISTING CONDITIONS

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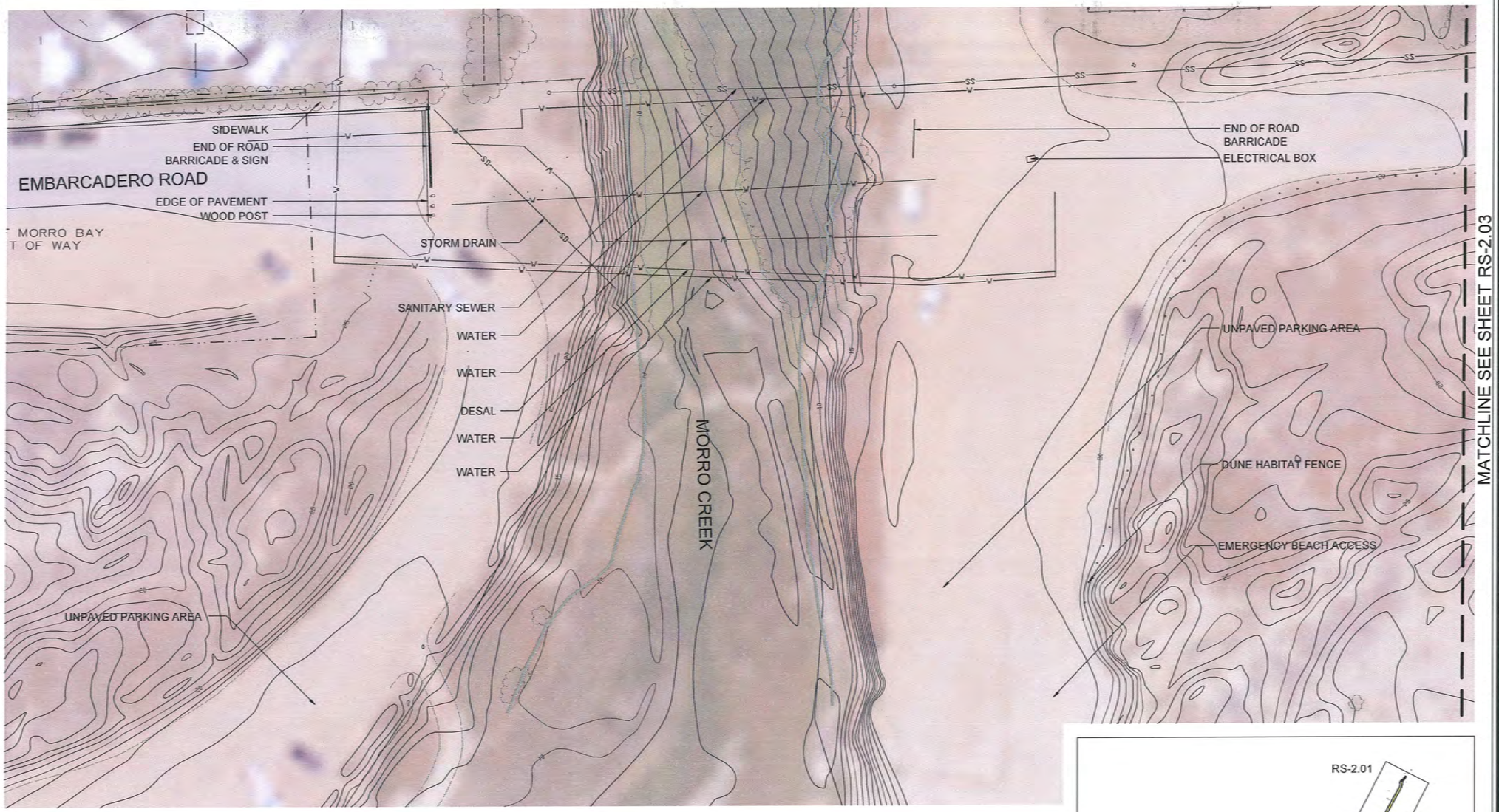
EXHIBIT B



NOTE: PROTECT EXISTING UTILITIES IN PLACE

EXISTING_CONDITIONS

north
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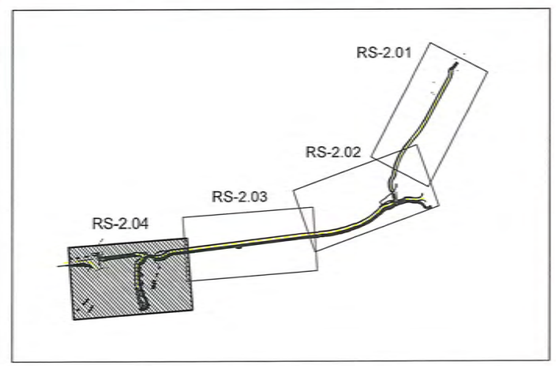

KEY_MAP

north
SCALE:1"=300'-0"

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

EXISTING CONDITIONS

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY:
CHECKED BY:
DATE: October 25, 2013
CAD FILE: RS-1311340.dwg
JOB NUMBER: 1311040
SHEET: RS-2.04

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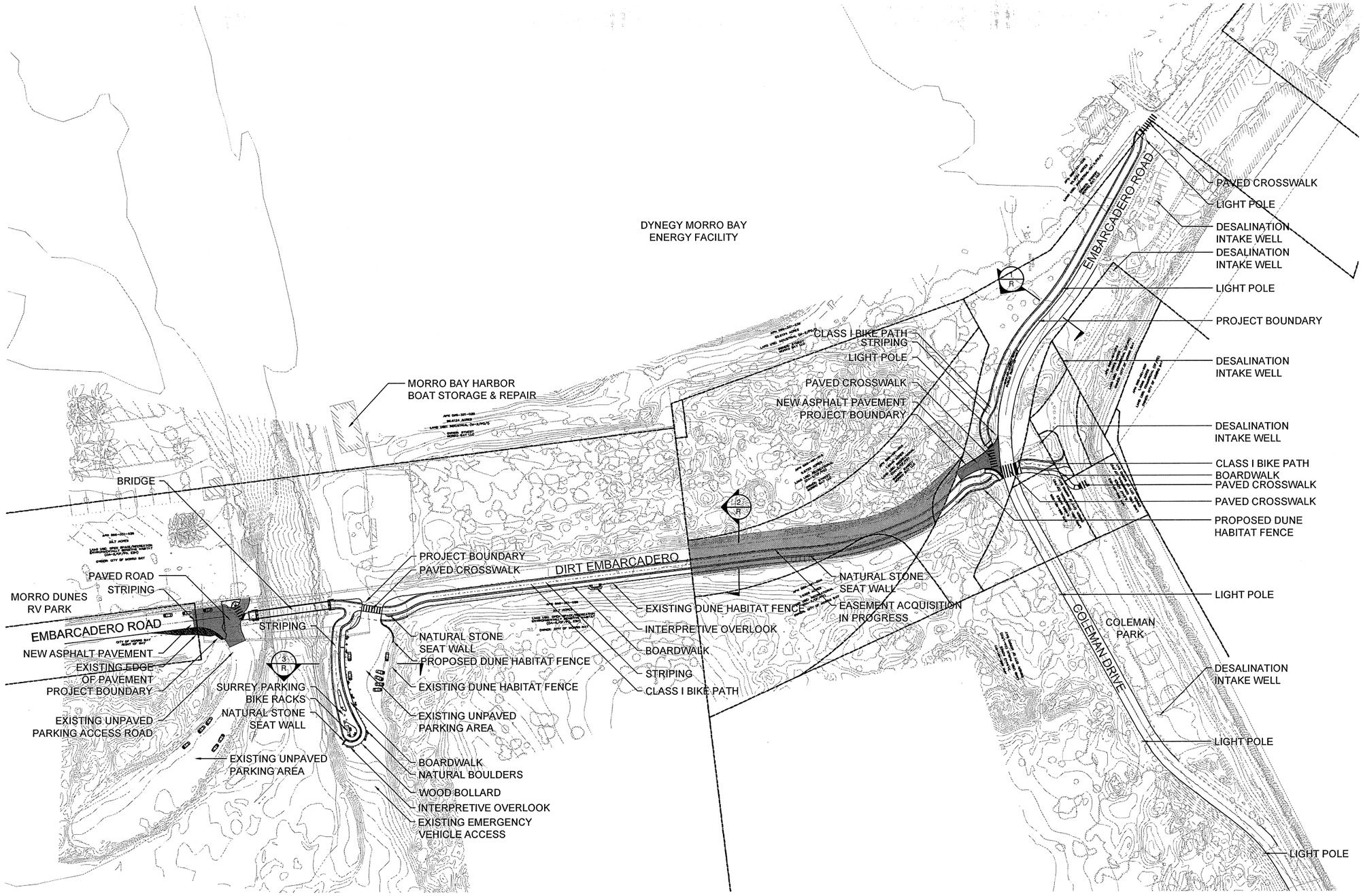

NOTE: PROTECT EXISTING UTILITIES IN PLACE

SITE_PLAN

north

SCALE:1"=80'-0"

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MORRO CREEK MULTI-USE
TRAIL & BRIDGE PROJECT

SITE PLAN

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY:
CHECKED BY:
DATE: October 25, 2013
CAD FILE: SP-1311040.dwg
JOB NUMBER: 1311040
SHEET: SP-1.01

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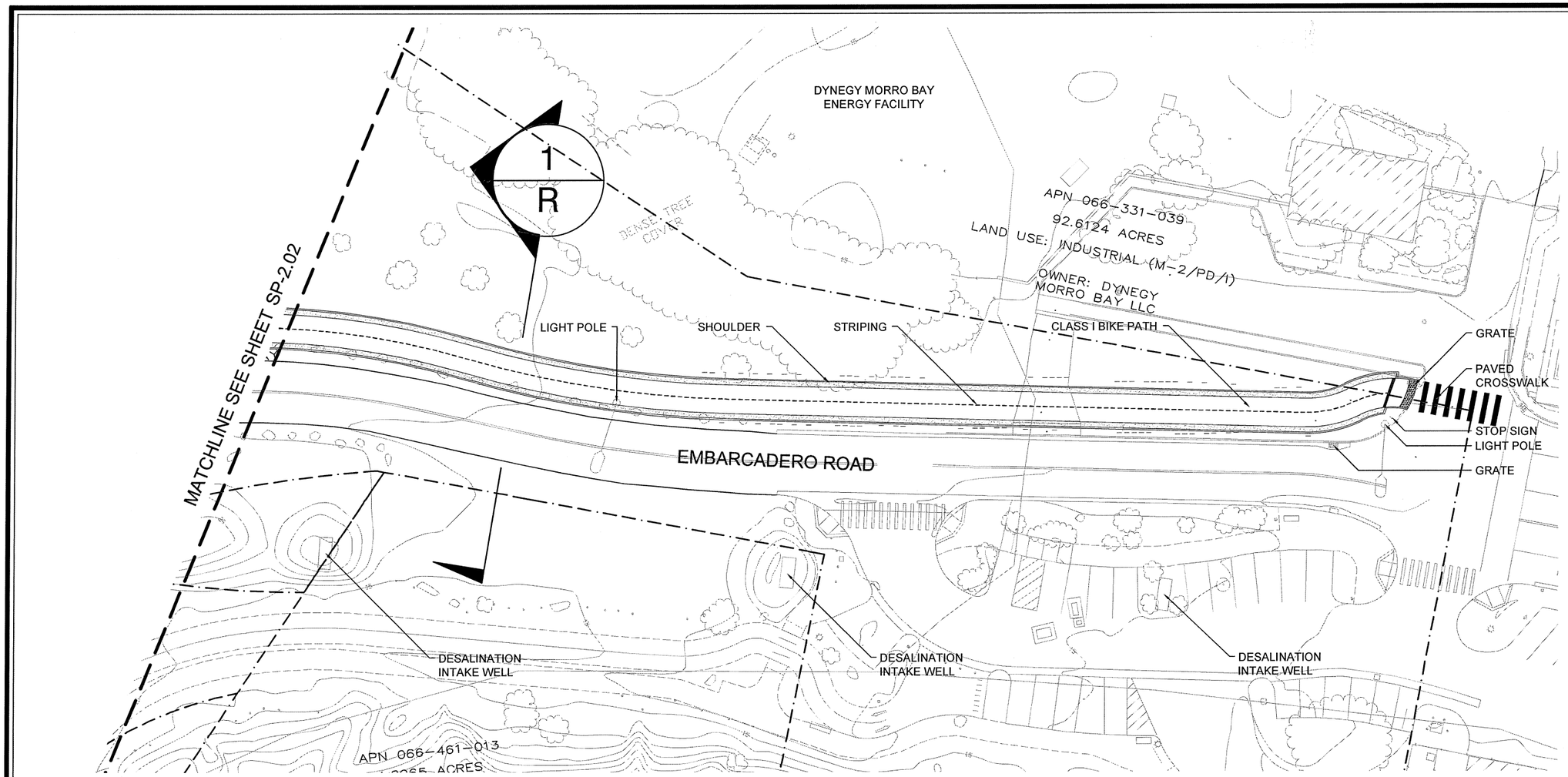
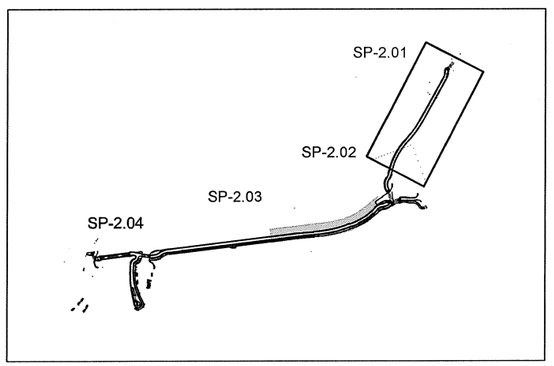


NOTE: PROTECT EXISTING UTILITIES IN PLACE



SITE_PLAN

north
SCALE:1"=20'-0"

KEY_MAP

north
SCALE:1"=300'-0"

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

SITE PLAN

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY:
CHECKED BY:
DATE: October 25, 2013
CAD FILE: SP-1311040.dwg
JOB NUMBER: 1311040
SHEET: SP-2.01

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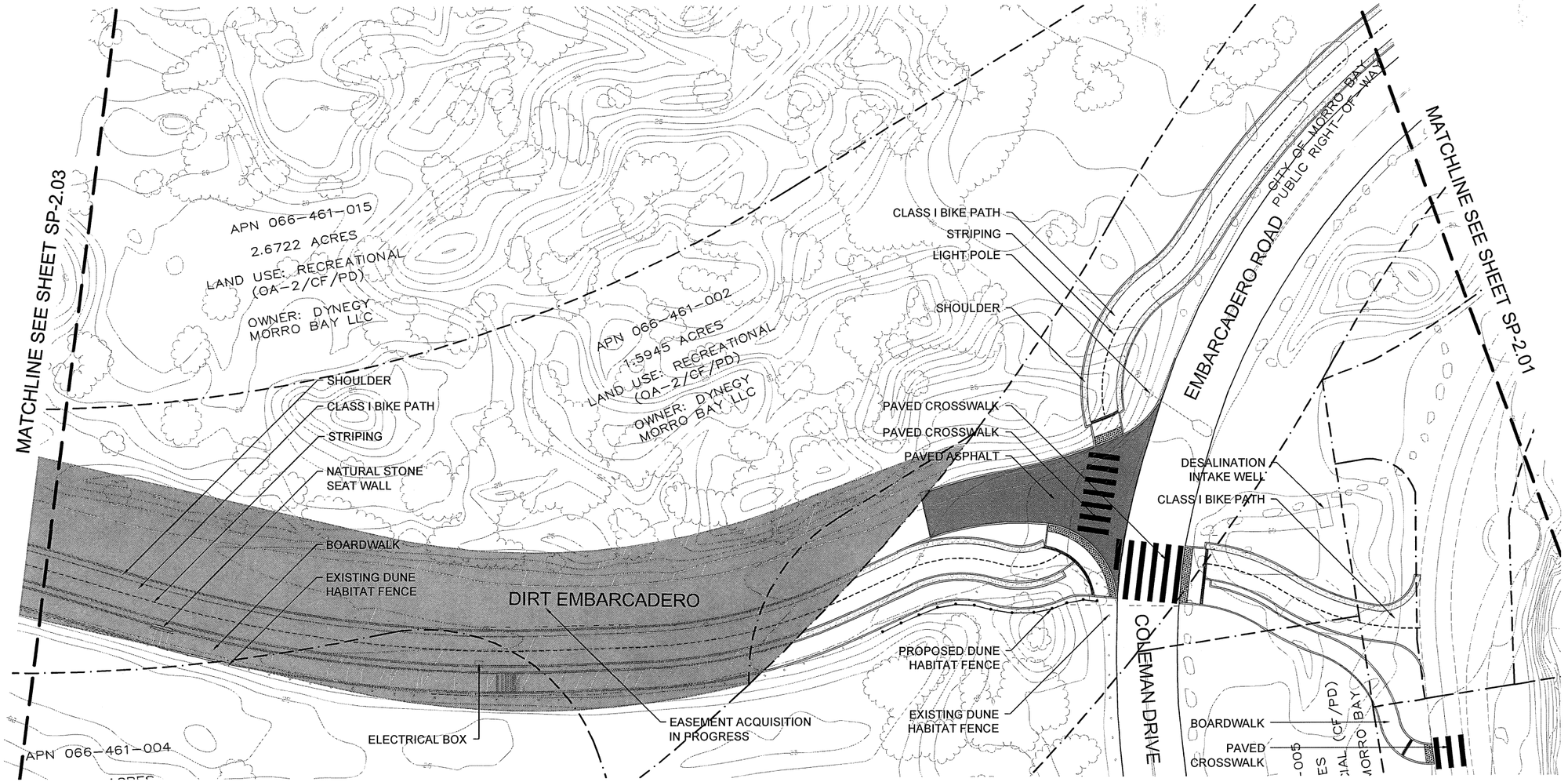
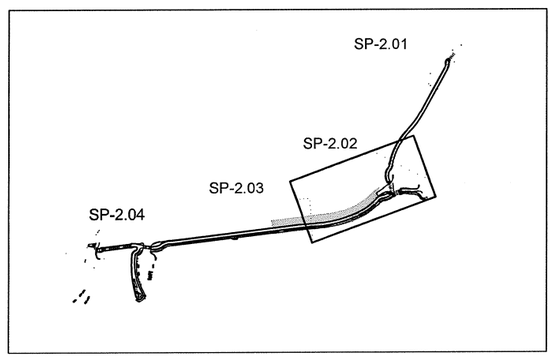


NOTE: PROTECT EXISTING UTILITIES IN PLACE

SITE_PLAN

north

SCALE:1"=20'-0"



KEY_MAP

north

SCALE:1"=300'-0"

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

SITE PLAN

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY:
CHECKED BY:
DATE: October 25, 2013
CAD FILE: SP-1311040.dwg
JOB NUMBER: 1311040
SHEET: SP-2.02

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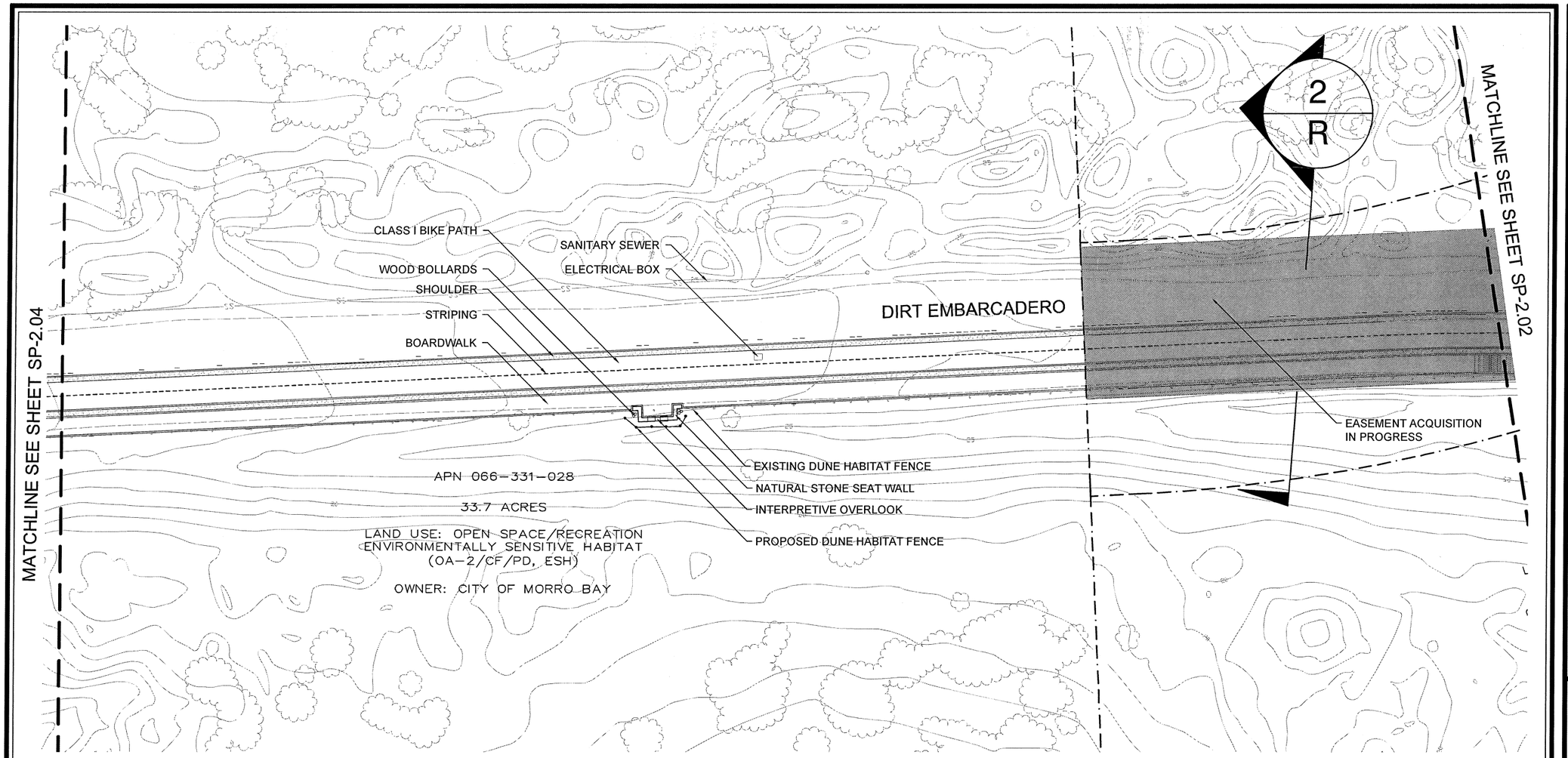
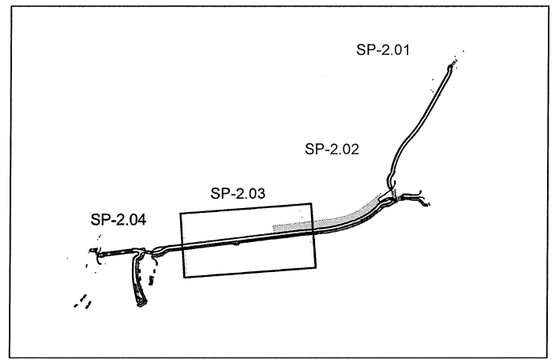


NOTE: PROTECT EXISTING UTILITIES IN PLACE

SITE_PLAN

north

SCALE:1"=20'-0"



KEY_MAP

north

SCALE:1"=300'-0"

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MORRO CREEK MULTI-USE
TRAIL & BRIDGE PROJECT

SITE PLAN

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY | CHECKED BY
DATE: October 25, 2013
CAD FILE: SP-1311040.dwg
JOB NUMBER: 1311040
SHEET: SP-2.03

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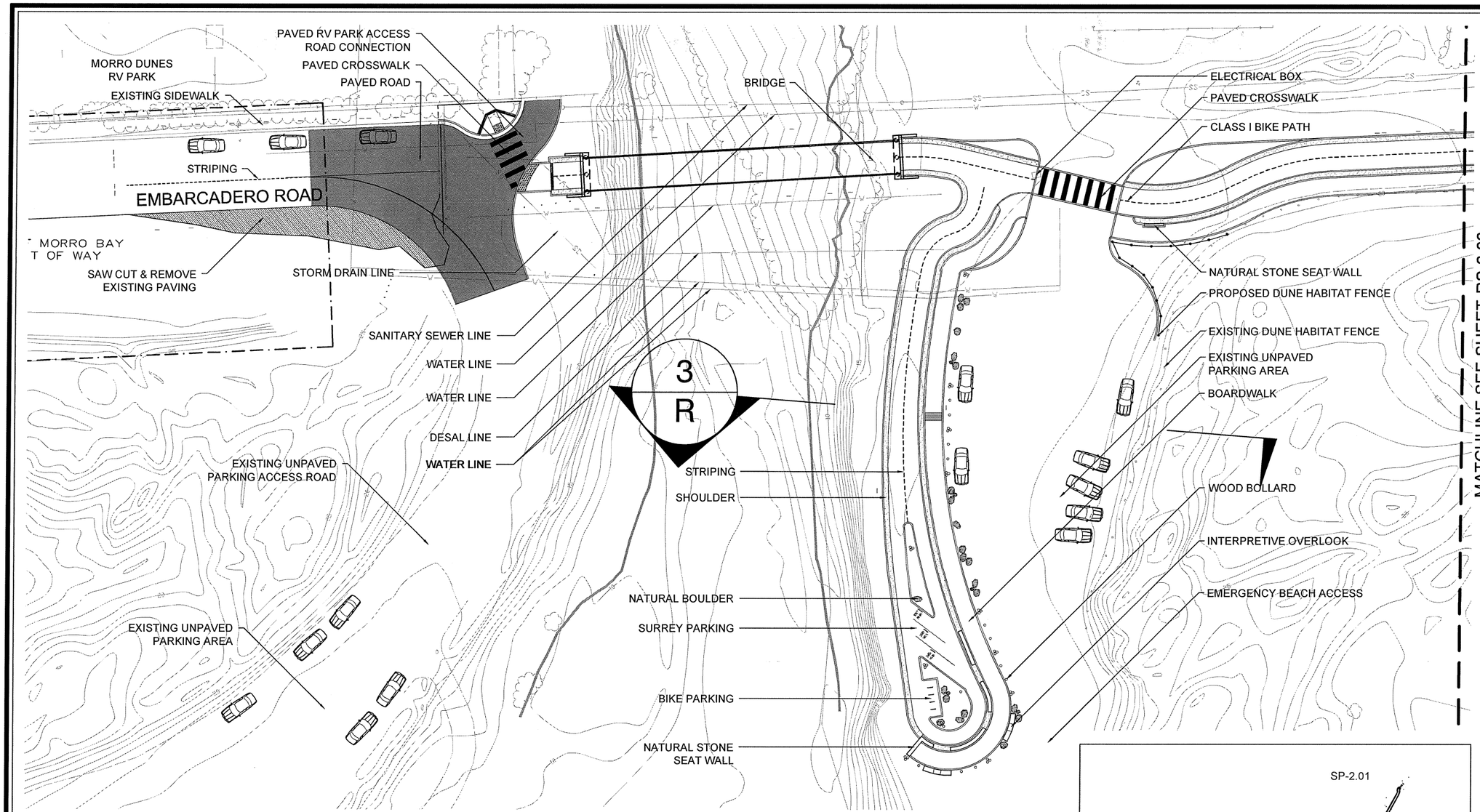
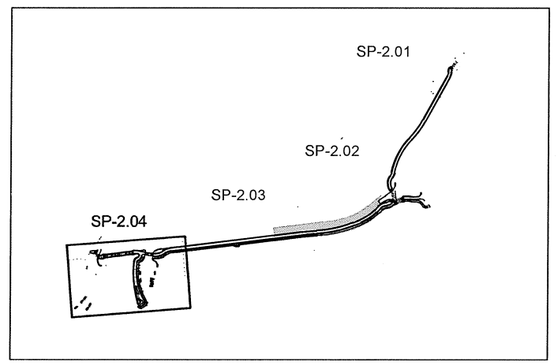


NOTE: PROTECT EXISTING UTILITIES IN PLACE

SITE_PLAN

north

SCALE:1"=20'-0"



KEY_MAP

north

SCALE:1"=300'-0"

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MORRO CREEK MULTI-USE
TRAIL & BRIDGE PROJECT

SITE PLAN

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY | CHECKED BY
DATE: October 25, 2013
CAD FILE: SP-1311040.dwg
JOB NUMBER: 1311040
SHEET: SP-2.04

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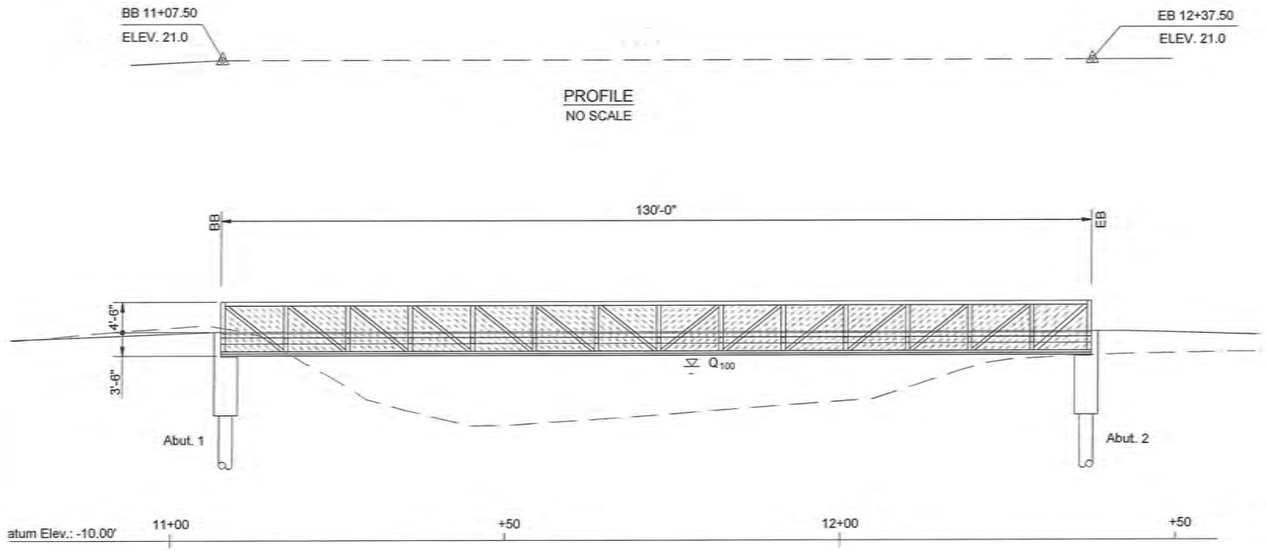
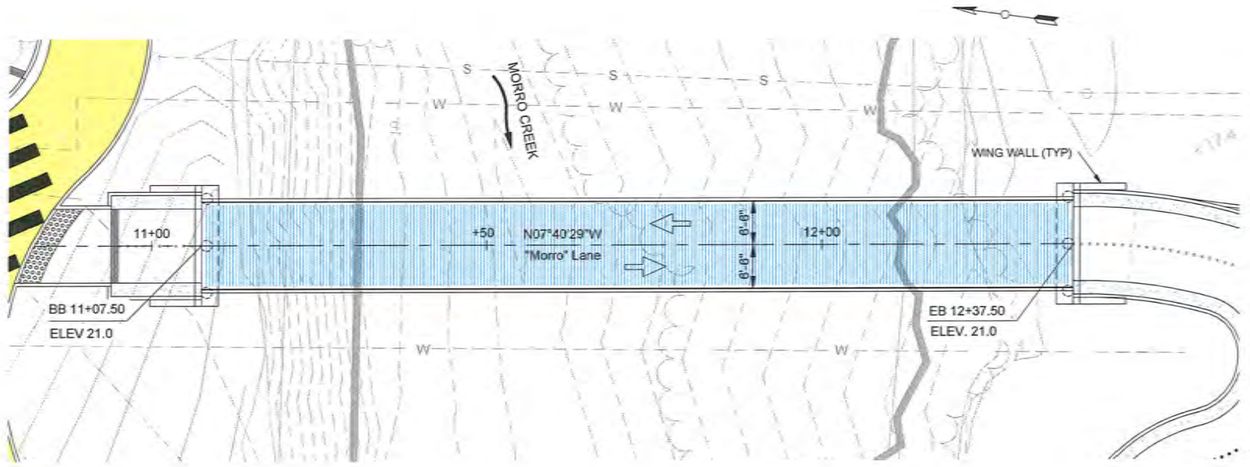
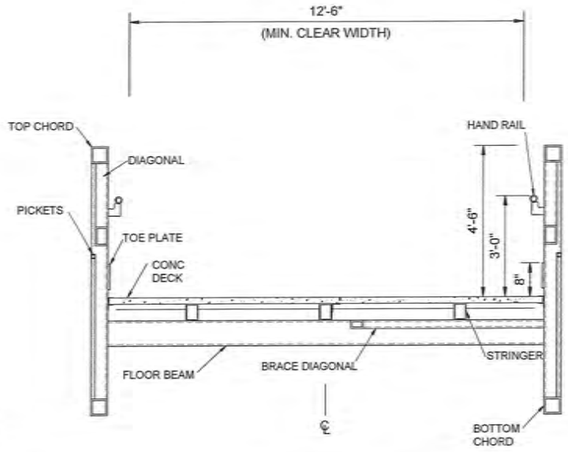


PROFILE
NO SCALE

ELEVATION
SCALE: 1" = 10'-0"



PLAN
SCALE: 1"= 10'-0"



TYPICAL SECTION
No Scale

LIVE LOAD:

1. H20 VEHICULAR LOAD
2. 90 PSF PEDESTRIAN LOAD

HYDRAULICS DATA:

CONDITION	ELEVATION (FT. NAVD)	TOP WIDTH (FT.)
Q50 = 5,000 CFS	15.20	97.3
Q100 = 5,760 CFS	15.81	99.7
Q100 + SEA LEVEL RISE	16.14	101.1

INDEX OF SHEETS

DRAWING No.	DESCRIPTION
BR-01	GENERAL PLAN
BR-02	FOUNDATION PLAN
BR-03	SECTIONS & DETAILS

CALTRANS STANDARD PLANS, 2010

A10-A,B	ACRONYMS AND ABBREVIATIONS
A10 - C,D	SYMBOLS
A62-A	EXCAVATION AND BACKFILL - MISCELANEOUS DETAILS
A62-C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
B0-1	BRIDGE DETAILS
B2-3	16" AND 24" CAST-IN-DRILLED-HOLE CONCRETE PILE
B2-5	PILE DETAILS CLASS 90 AND CLASS 140
B3-6	RETAINING WALL DETAILS NO. 2

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

GENERAL PLAN

NO.	REVISION	DATE

PROJECT MANAGER
DRAWN BY | CHECKED BY
DATE
DATE
CAD FILE
20131023 Morro Creek Alternative 1A_2005.dwg
JOB NUMBER
1311040
SHEET
BR-01

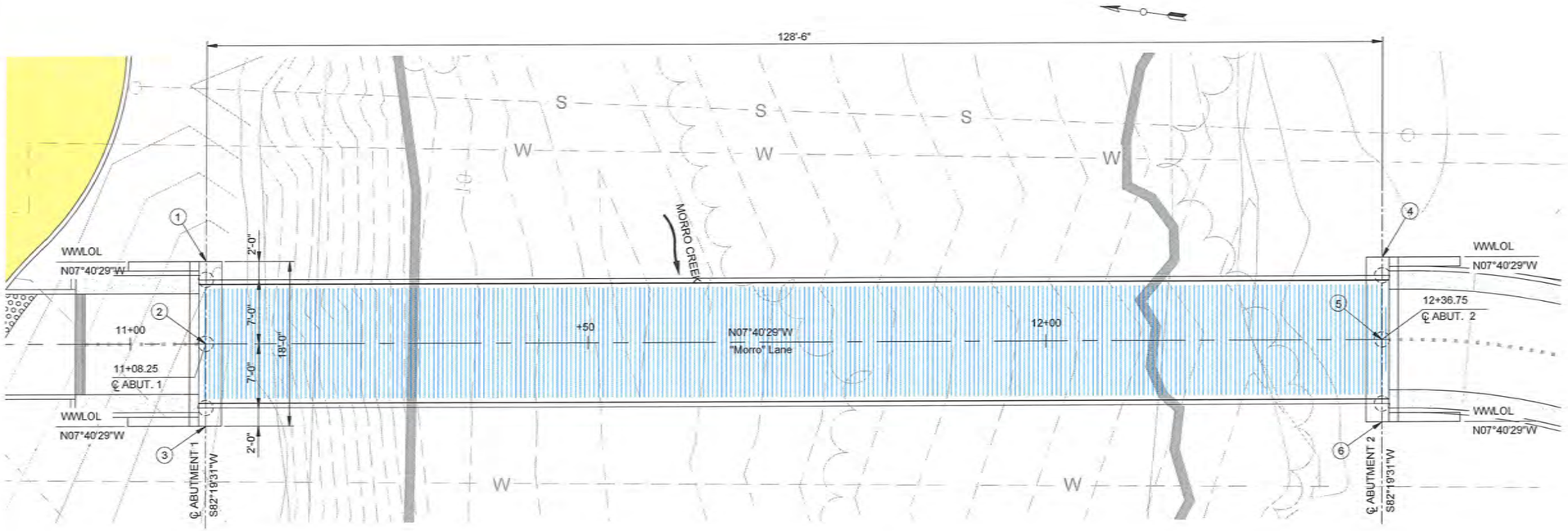
EXHIBIT B

POINT #	NORTHING	EASTING	DESCRIPTION
①	2335417.6162	5708681.1305	N. END OF ABUTMENT 1
②	2335416.4141	5708672.2111	INT. OF "MORRO" & ℄ ABUTMENT 1 LINE
③	2335415.2119	5708663.2918	S. END OF ABUTMENT 1 WINGWALL LOL
④	2335290.2655	5708698.2917	N. END OF ABUTMENT 2
⑤	2335289.0638	5708689.3723	INT. OF "MORRO" & ℄ ABUTMENT 2 LINE
⑥	2335287.8621	5708680.4529	S. END OF ABUTMENT 2

PILE DATA TABLE							
LOCATION	PILE TYPE	DESIGN LOADING (KIPS)	NOMINAL RESISTANCE (KIPS)		CUT-OFF ELEVATION (FT)	DESIGN TIP ELEVATION (FT)	SPECIFIED TIP ELEVATION (FT)
			COMPRESSION	TENSION			
ABUT 1	CISS PP 24x0.625	112	168	0	6.25	-65 (1), -40 (2)	-64
ABUT 2	CISS PP 24x0.625	112	168	0	6.25	--65 (1), -40 (2)	-64

DESIGN TIP ELEVATION IS CONTROLLED BY THE FOLLOWING DEMAND:
(1) COMPRESSION, (2) LATERAL

BENCH MARK:
Tidal Bench Mark 941 2298 C set flush in the concrete median of Embarcadero Street at the entrance to the city pier and just northwest of the last planting area in the median, having an elevation of 15.26 feet



FOUNDATION PLAN
SCALE: 1" = 6'-0"

SECTION IDENTIFICATION
CALTRANS STANDARD PLAN SHEET NO.
DETAIL NUMBER
BENCHMARK

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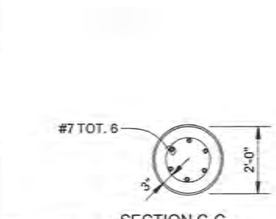
MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

FOUNDATION PLAN

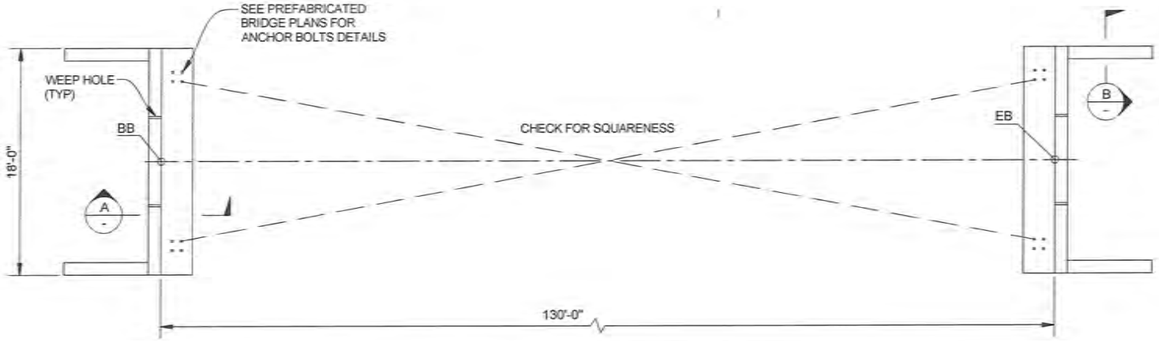
NO.	REVISION	DATE

PROJECT MANAGER
DRAWN BY | CHECKED BY
DATE
DATE
CAD FILE
20131023 Morro Creek Alternative 1A_2005.dwg
JOB NUMBER
1311040
SHEET
BR-02

EXHIBIT B

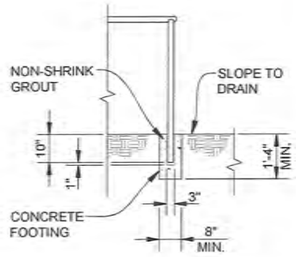


SECTION C-C

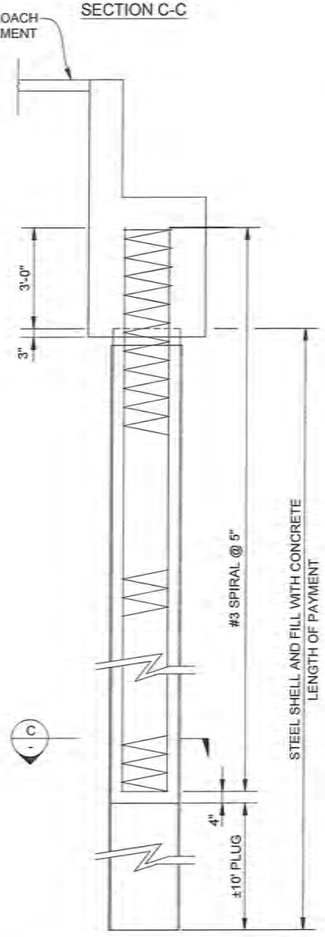


ABUTMENT DETAIL
NO SCALE
B0-3

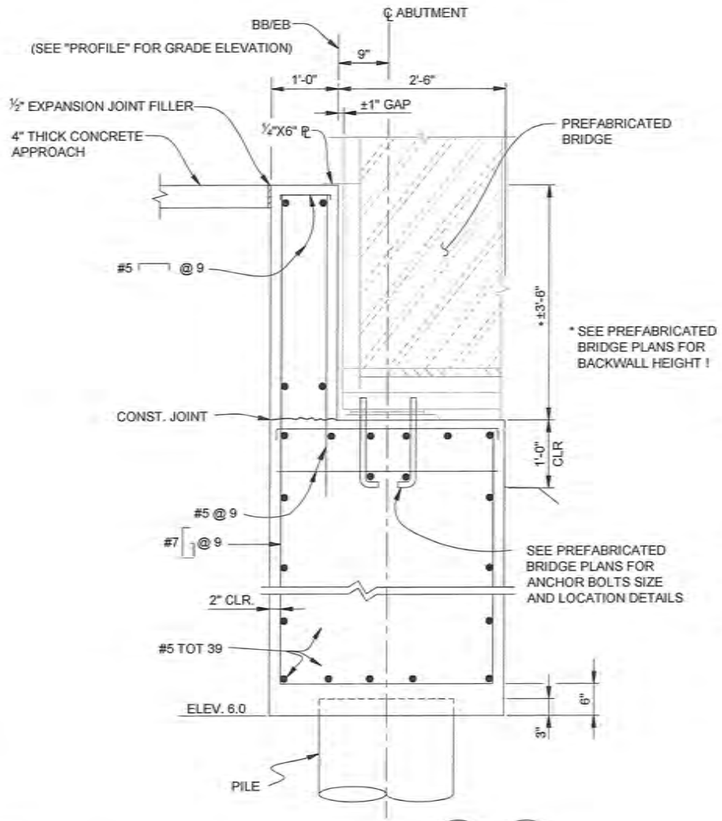
NOTE:
"DETAIL A" REFERS TO HANDRAIL POST SUPPORT ON GROUND.



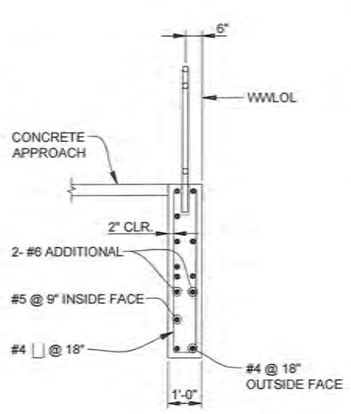
DETAIL A
SCALE 1/2"= 1'-0"



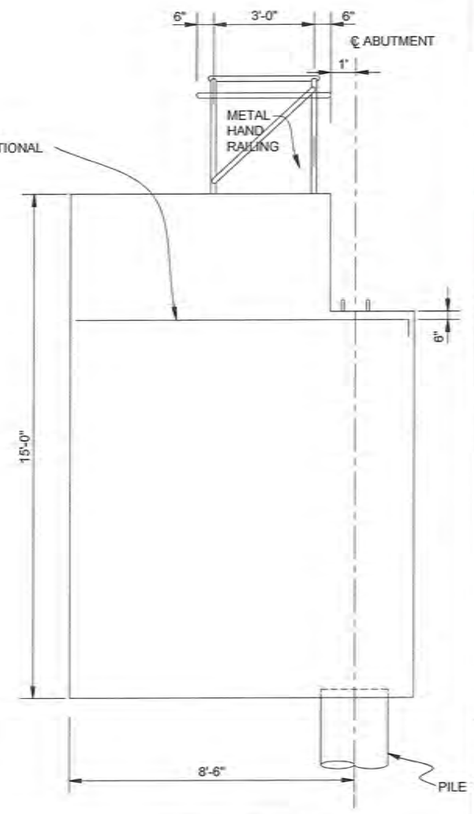
CAST-IN-STEEL-SHELL (CISS)
CONCRETE PILE
NO SCALE
B2-3



SECTION A-A
SCALE 1"= 1'-0"
B0-1
B0-3



SECTION B-B
NO SCALE
B0-1



WINGWALL ELEVATION
SCALE 1/2"= 1'-0"

NOTES:
1. MAXIMUM SIZE OF AGGREGATE IS ¾".
2. NO SPLICES ALLOWED IN THE LONGITUDINAL REINFORCEMENT.
3. DETAILS NOT SHOWN, SEE CALTRANS SP SHEET B2-5.
4. SEE PREFABRICATED BRIDGE PLAN FOR ANCHOR BOLT DETAILS.

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

SECTIONS & DETAILS

NO.	REVISION	DATE

PROJECT MANAGER:
DRAWN BY:
CHECKED BY:
DATE: DATE
CAD FILE: 20131023 Morro Creek Alternative 1 A_2005.dwg
JOB NUMBER: 1311040
SHEET: BR-03

EXHIBIT B

NOTES:

1. ALL EXISTING UTILITIES WERE PLOTTED FROM RECORD INFORMATION AND FIELD TOPOGRAPHY. ACTUAL LOCATIONS MAY VARY AND ADDITIONAL CROSSINGS MAY EXIST IN THE FIELD. IT IS IMPERATIVE THAT "U.S.A. LOCATING SERVICES" LOCATE AND MARK EXISTING UTILITIES PRIOR TO THE START OF EXCAVATION.
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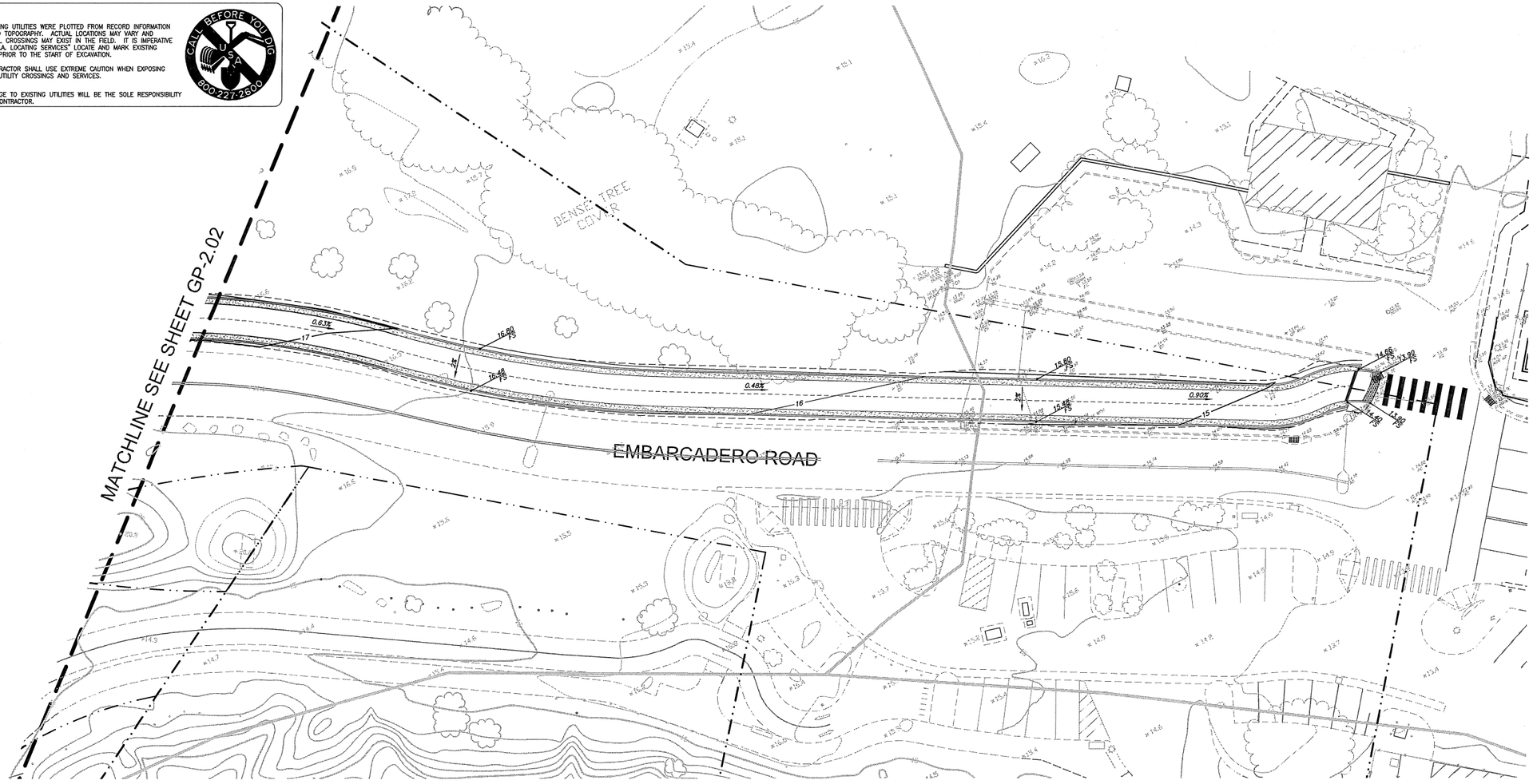


GRADING NOTES

1. GRADING SHALL BE IN CONFORMANCE WITH THE CITY OF MORRO BAY GRADING ORDINANCES, THE STANDARDS AND REQUIREMENTS PERTAINING THERETO, RELEVANT SECTIONS OF THE CURRENT ADOPTED VERSION OF THE BUILDING CODE, THIS PLAN, AND THE RECOMMENDATIONS AND REQUIREMENTS OF THE SUPERVISING SOILS ENGINEER.
2. A PRE-CONSTRUCTION MEETING SHALL BE REQUIRED, THE PURPOSE OF THE MEETING IS TO VERIFY INSTALLATION AND MONITORING OF EROSION CONTROL DEVICES, SWPPP MONITORING AND DISCUSS REPORTS REQUIRED. AT THE MEETING SHALL BE THE CONTRACTOR, GEOTECHNICAL ENGINEER, ENGINEER OF RECORD, AND QSP.
3. CONSTRUCTION ACTIVITIES ARE TO BE KEPT OUTSIDE OF THE JURISDICTIONAL LIMIT OF MORRO CREEK AT ALL TIMES.
4. DUST CONTROL MEASURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE CITY GRADING ORDINANCE AND COUNTY APCD REQUIREMENTS.
5. WORK SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY BENGAL ENGINEERING, DATED ?????.
6. CONTRACTOR TO CLEAR AND GRUB PRIOR TO GRADING AS INDICATED IN GEOTECHNICAL REPORT.
7. CONSTRUCTION CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR PROTECTION OF PUBLIC AND PRIVATE PROPERTY ADJACENT TO THE JOB SITE AND THAT HE/SHE SHALL AT HIS/HER EXPENSE, REPAIR OR REPLACE TO ORIGINAL CONDITION ALL EXISTING IMPROVEMENTS WITHIN OR ADJACENT TO THE JOB SITE WHICH ARE DESIGNATED FOR REMOVAL AND WHICH ARE DAMAGED OR REMOVED AS A RESULT OF HIS/HER OPERATIONS.
8. NO CUT OR FILL SLOPES WILL BE CONSTRUCTED STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1). UNLESS OTHERWISE APPROVED BY THE SOILS ENGINEER.
9. SOILS TESTS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF MORRO BAY CODE. ALL TESTS MUST BE MADE WITHIN 15 DAYS PRIOR TO PLACING THE MATERIAL. THE TEST RESULTS SHALL CLEARLY INDICATE THE LOCATION AND SOURCE OF THE MATERIAL.
10. COMPACTION TESTS SHALL BE MADE ON SUBGRADE MATERIAL AND MATERIAL AS SPECIFIED BY THE ENGINEER. SAID TESTS SHALL BE MADE PRIOR TO THE PLACING OF THE NEXT MATERIAL.GRADING AND COMPACTIONS REQUIREMENTS SHOULD BE AS PER THE RECOMMENDATIONS OF THE SOILS ENGINEER REPORT AND/OR CITY OF MORRO BAY STANDARDS.
11. SCARIFY SUBGRADE PRIOR TO PLACEMENT OF FILL AS INDICATED IN GEOTECHNICAL REPORT.
12. SUBGRADE MATERIAL IN PAVEMENT AREAS SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 95R IRELATIVE COMPACTION.
13. UNSUITABLE MATERIAL ENCOUNTERED DURING GRADING SHALL BE REMOVED PER GEOTECHNICAL REPORT.
14. FILL MATERIAL TO COMPLY WITH REQUIREMENTS OF GEOTECHNICAL REPORT.
15. NON-COMPLYING FILL MATERIAL SHALL BE REMOVED PER THE GEOTECHNICAL REPORT.
16. DURING CONSTRUCTION/GROUND DISTURBING ACTIVITIES, THE APPLICANT SHALL IMPLEMENT THE FOLLOWING PARTICULATE (DUST) CONTROL MEASURES, THESE MEASURES SHALL BE SHOWN ON THE GRADING PLANS. IN ADDITION, THE CONTRACTOR SHALL DESIGNATE A PERSON OR PERSONS TO MONITOR THE DUST CONTROL PROGRAM AND TO ORDER INCREASED WATERING AS NECESSARY, TO PREVENT TRANSPORT OF DUST OFF SITE. THEIR DUTIES SHALL INCLUDE HOLIDAY AND WEEKEND PERIODS WHEN WORK MAY NOT BE IN PROGRESS. THE NAME AND TELEPHONE NUMBER OF SUCH PERSONS SHALL BE PROVIDED TO THE APCD PRIOR TO COMMENCEMENT OF CONSTRUCTION.

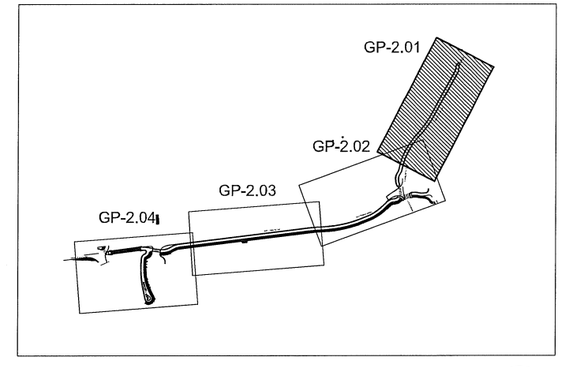
    A. USE OF WATER TRUCKS OR SPRINKLER SYSTEMS IN SUFFICIENT QUANTITIES TO PREVENT AIRBORNE DUST FROM LEAVING THE SITE. INCREASED WATERING FREQUENCY WOULD BE REQUIRED WHENEVER WIND SPEEDS EXCEED 15 MPH. RECLAIMED (NON POTABLE) WATER SHOULD BE USED WHENEVER POSSIBLE.
17. IN THE EVENT ARCHAEOLOGICAL RESOURCES ARE DISCOVERED IN CONJUNCTION WITH A CONSTRUCTION PROJECT, ALL ACTIVITIES SHALL CEASE AND THE CITY PLANNING DEPARTMENT SHALL BE NOTIFIED SO THAT THE PROCEDURES REQUIRED BY STATE LAW MAY BE APPLIED.
18. DISTURBED SURFACES SLOPED FOUR HORIZONTAL TO ONE VERTICAL (4:1) AND GREATER SHALL BE PREPARED AND MAINTAINED TO CONTROL EROSION BY EFFECTIVE PLANTING TO BE COMPLETED NO LATER THAN 30 DAYS PRIOR TO A REQUEST FOR FINAL INSPECTION APPROVALS.
19. ACTIVITIES ASSOCIATED WITH CONSTRUCTION AND OPERATION FOR THE PROJECT SHALL COMPLY AT ALL TIMES WITH ALL CURRENT APCD RULES AND REGULATIONS AS APPLICABLE, INCLUDING BUT NOT LIMITED TO PM-10, NOx EMISSIONS, BEST AVAILABLE CONTROL TECHNOLOGIES, CONSTRUCTION ACTIVITY MANAGEMENT PLANS, AND PHASING TECHNIQUES.
19. FIRE DEPARTMENT PERMIT IS REQUIRED IF FUEL IS STORED ON-SITE.

LEGEND

- EX. PROPERTY LINE
- EX. GRADE
- EX. CONTOUR
- EX. CURB
- PROPOSED GRADE (21.54 FS)
- PROPOSED CONTOUR (25)
- PROPOSED SLOPE (1.67%)
- PROPOSED LIMITS OF GRADING

EARTHWORK QUANTITIES

CUT: 0 C.Y.
FILL: 0 C.Y.
NET: 0 C.Y.



KEY MAP

north

SCALE:1"=300'-0"

GRADING & DRAINAGE PLAN

north

20 0 10 20 40
(IN FEET)
1 INCH = 20 FT.

PRELIMINARY NOT FOR CONSTRUCTION

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

GRADING & DRAINAGE PLAN

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY | CHECKED BY
DATE: October 25, 2013
CAD FILE: GP-1311040.dwg
JOB NUMBER: 1311040
SHEET: GP-2.01

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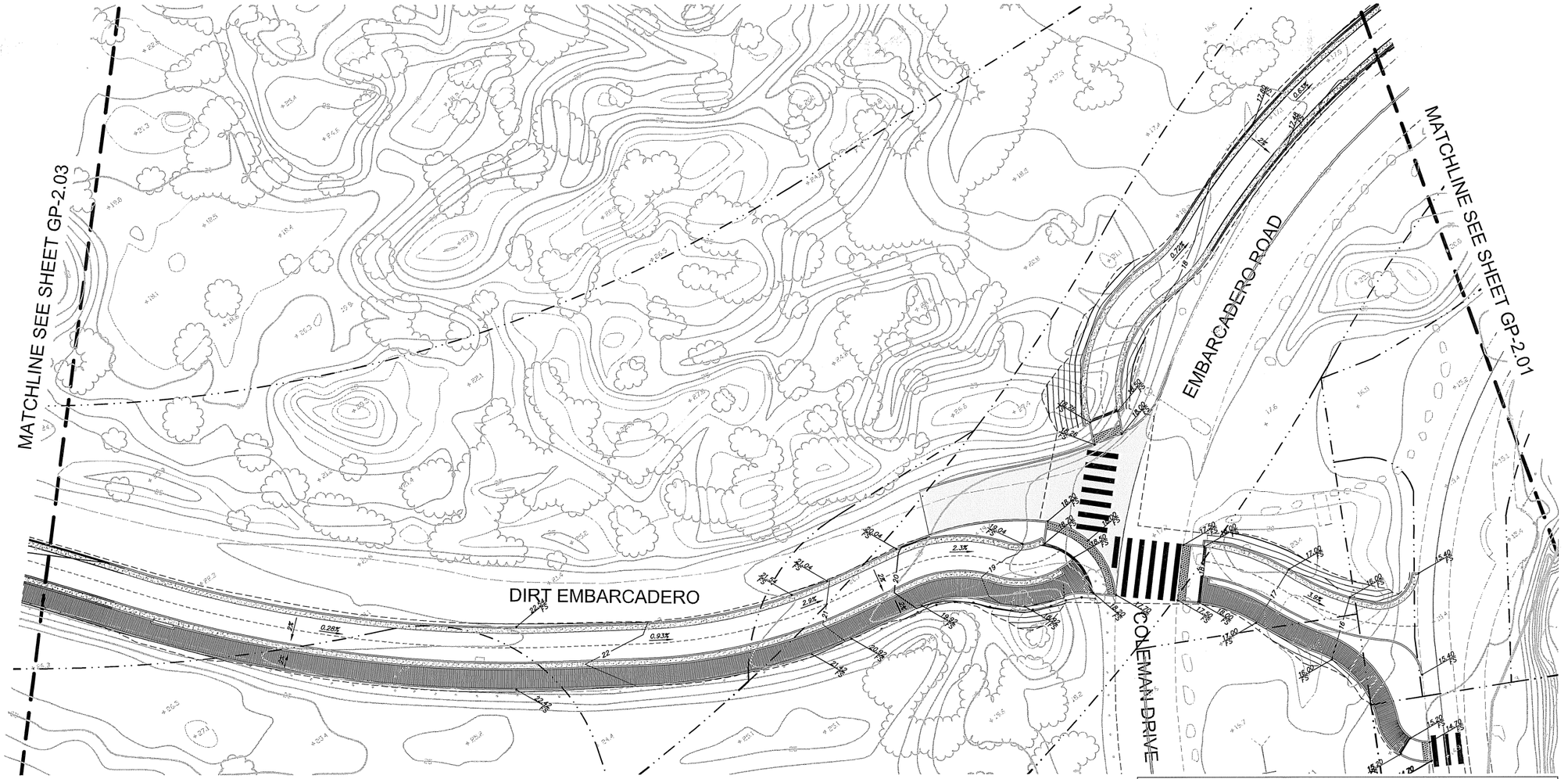
EXHIBIT B



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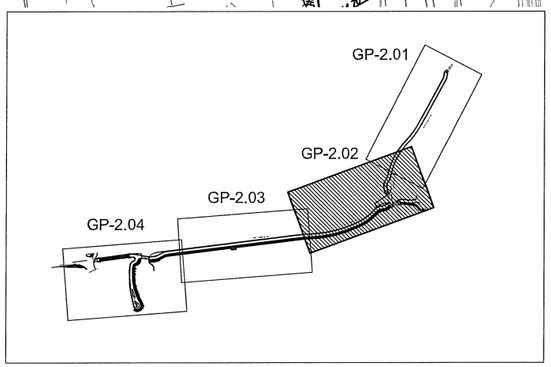
LEGEND

- EX. PROPERTY LINE
- EX. GRADE
- EX. CONTOUR
- EX. CURB
- PROPOSED GRADE
- PROPOSED CONTOUR
- PROPOSED SLOPE
- PROPOSED LIMITS OF GRADING



north

20 0 10 20 40

(IN FEET)
1 INCH = 20 FT.

GRADING & DRAINAGE PLAN

KEY MAP

SCALE:1"=300'-0"

PRELIMINARY
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MORRO CREEK MULTI-USE
TRAIL & BRIDGE PROJECT

GRADING & DRAINAGE PLAN

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY | CHECKED BY
DATE: October 25, 2013
CAD FILE: GP-1311040.dwg
JOB NUMBER: 1311040
SHEET: GP-2.02

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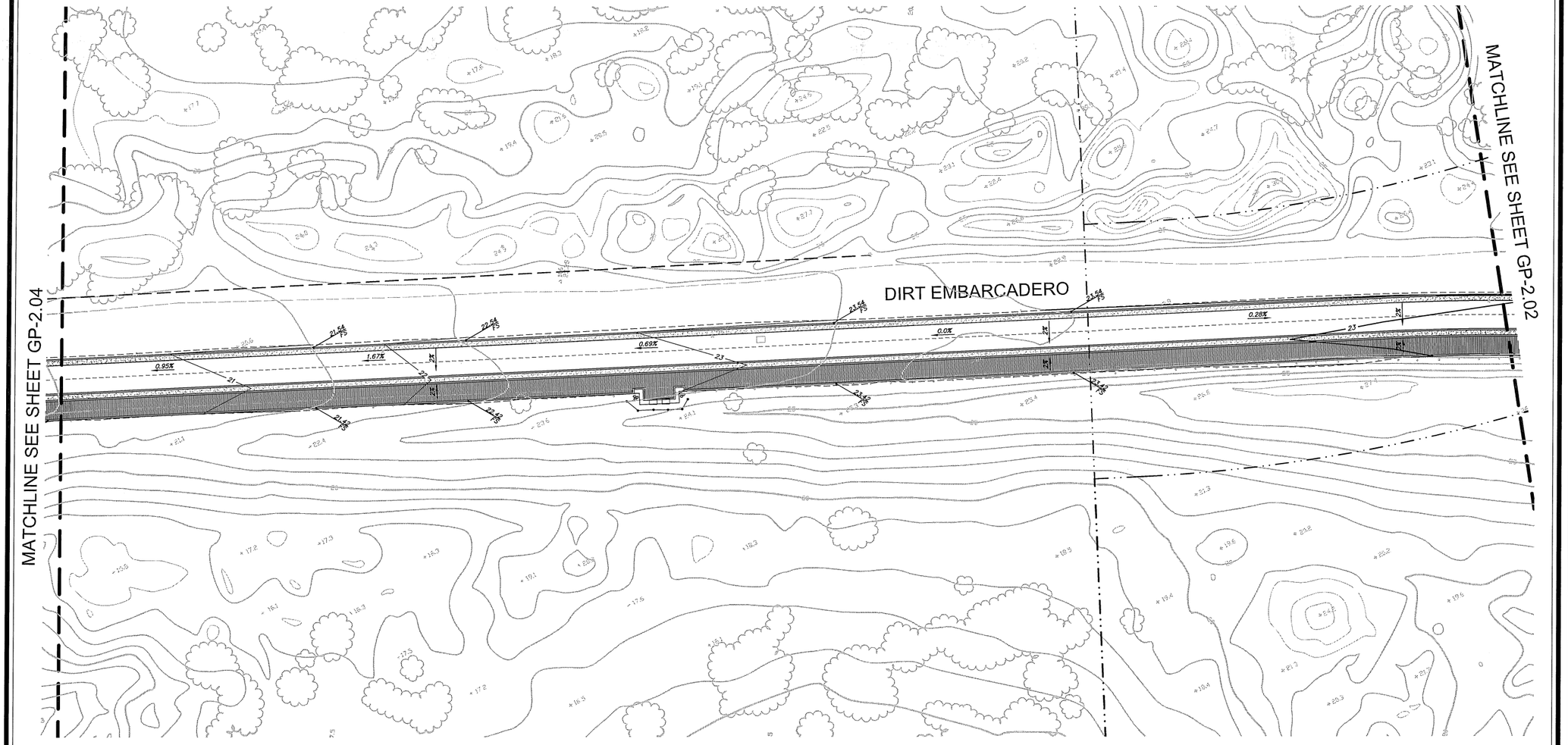
EXHIBIT B



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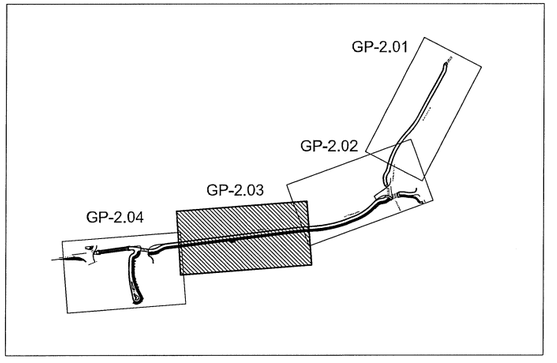
CALL BEFORE YOU DIG USA 800-227-2600

LEGEND

- EX. PROPERTY LINE
- EX. GRADE (19.6 / 19.57 EG)
- EX. CONTOUR (25)
- EX. CURB
- PROPOSED GRADE (21.54% FS)
- PROPOSED CONTOUR (25)
- PROPOSED SLOPE (1.67%)
- PROPOSED LIMITS OF GRADING



KEY MAP

north

SCALE:1"=300'-0"

GRADING & DRAINAGE PLAN

north

20 0 10 20 40

(IN FEET)

1 INCH = 20 FT.

PRELIMINARY
NOT FOR CONSTRUCTION

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

GRADING & DRAINAGE PLAN

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY:
CHECKED BY:
DATE: October 25, 2013
CAD FILE: GP-1311040.dwg
JOB NUMBER: 1311040
SHEET: GP-2.03

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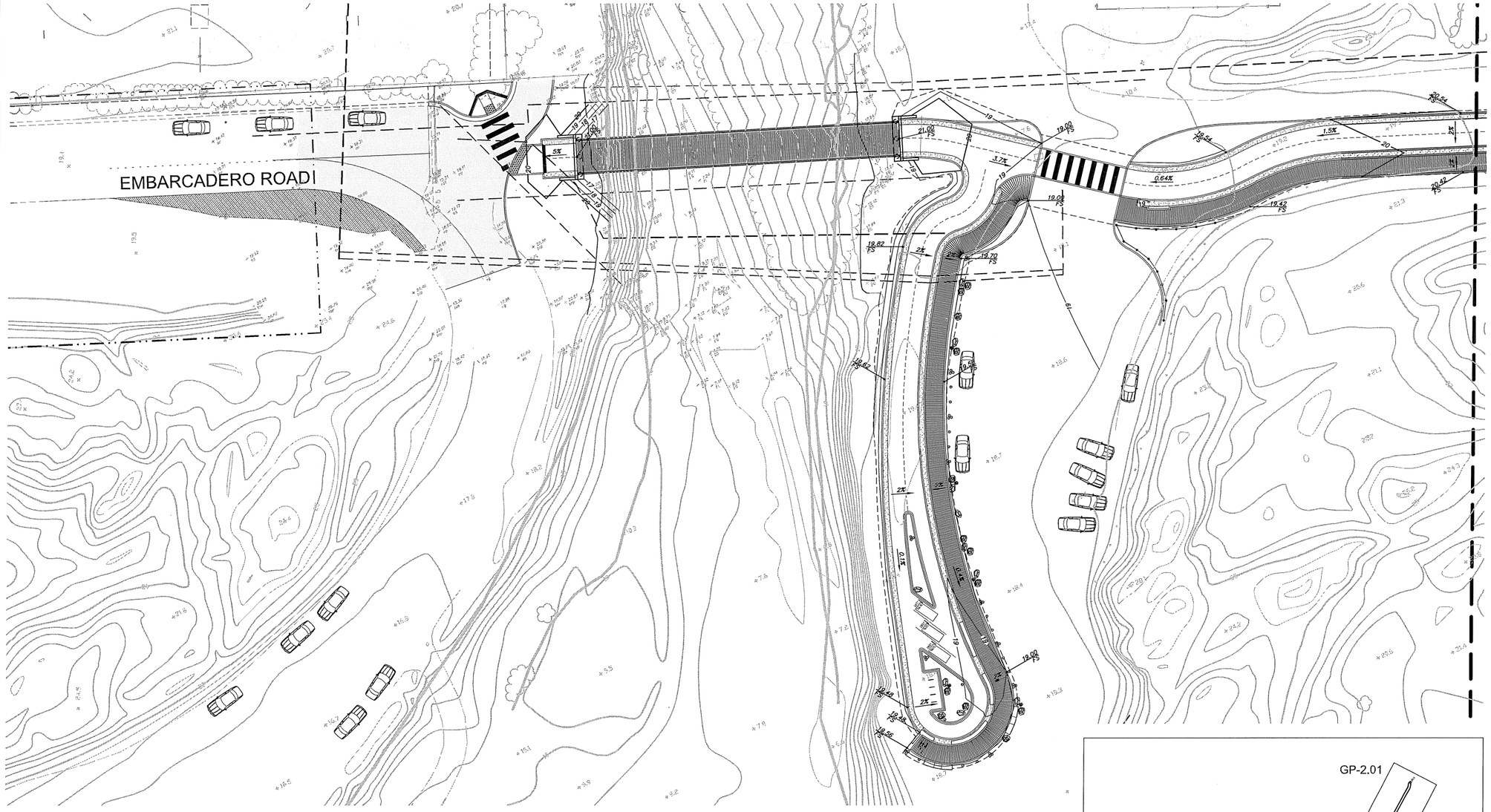
EXHIBIT B



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LEGEND

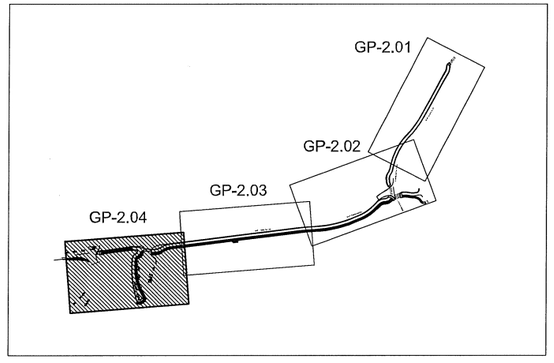
- EX. PROPERTY LINE
- EX. GRADE
- EX. CONTOUR
- EX. CURB
- PROPOSED GRADE
- PROPOSED CONTOUR
- PROPOSED SLOPE
- PROPOSED LIMITS OF GRADING

north

20 0 10 20 40

(IN FEET)
1 INCH = 20 FT.

GRADING & DRAINAGE PLAN



KEY MAP

north

SCALE:1"=300'-0"

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MORRO CREEK MULTI-USE TRAIL & BRIDGE PROJECT

GRADING & DRAINAGE PLAN

NO.	REVISION	DATE

PROJECT MANAGER: MS
DRAWN BY:
CHECKED BY:
DATE: October 25, 2013
CAD FILE: GP-1311040.dwg
JOB NUMBER: 1311040
SHEET: GP-2.04

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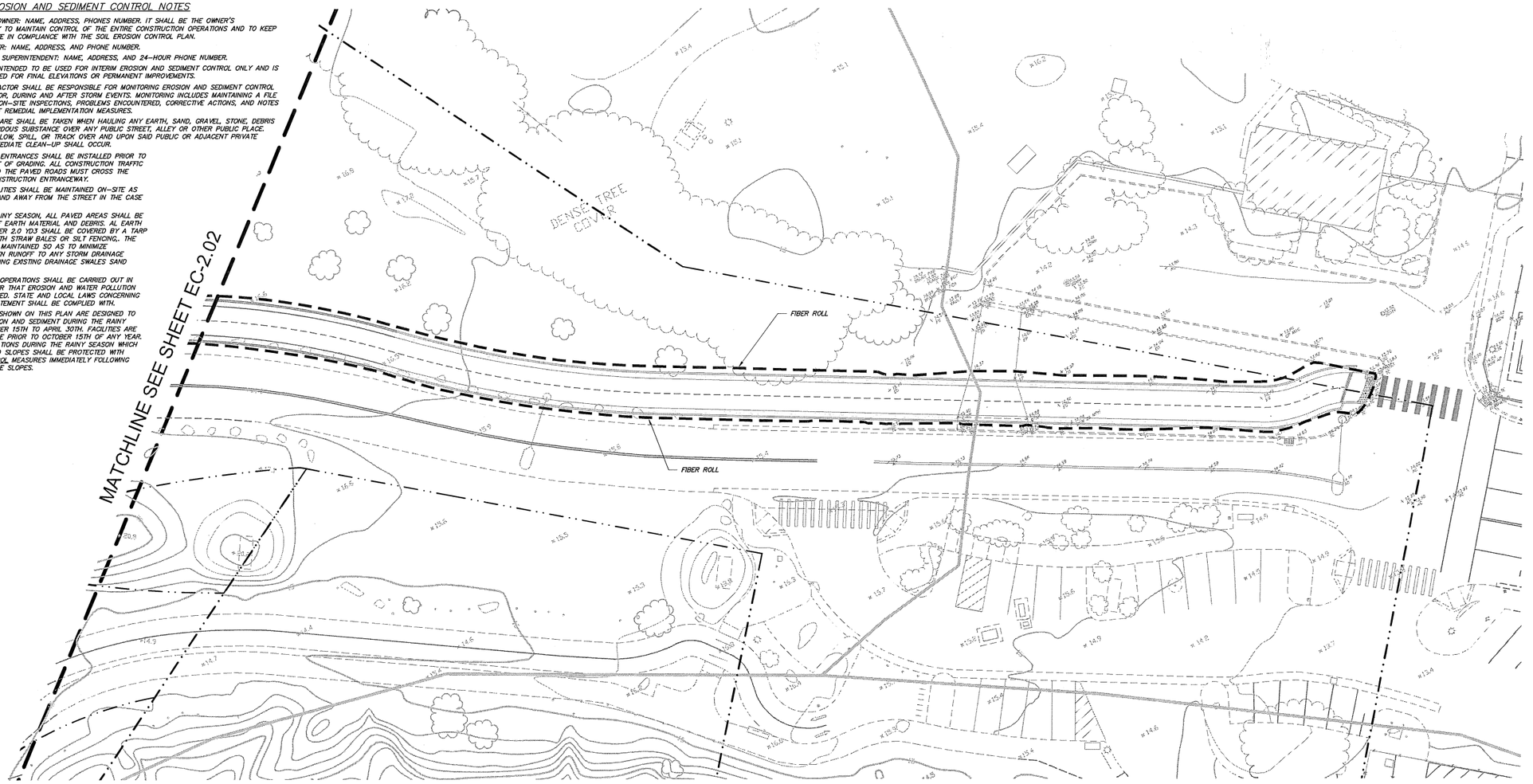
EXHIBIT B

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- CONTRACTOR/OWNER: NAME, ADDRESS, PHONES NUMBER. IT SHALL BE THE OWNER'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATIONS AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THE SOIL EROSION CONTROL PLAN.
- PLAN PREPARER: NAME, ADDRESS, AND PHONE NUMBER.
- CONSTRUCTION SUPERINTENDENT: NAME, ADDRESS, AND 24-HOUR PHONE NUMBER.
- THIS PLAN IS INTENDED TO BE USED FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY AND IS NOT TO BE USED FOR FINAL ELEVATIONS OR PERMANENT IMPROVEMENTS.
- OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR, DURING AND AFTER STORM EVENTS. MONITORING INCLUDES MAINTAINING A FILE DOCUMENTING ON-SITE INSPECTIONS, PROBLEMS ENCOUNTERED, CORRECTIVE ACTIONS, AND NOTES AND A MAP OF REMEDIAL IMPLEMENTATION MEASURES.
- REASONABLE CARE SHALL BE TAKEN WHEN HAULING ANY EARTH, SAND, GRAVEL, STONE, DEBRIS OR ANY HAZARDOUS SUBSTANCE OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE. SHOULD ANY SLOW, SPILL, OR TRACK OVER AND UPON SAID PUBLIC OR ADJACENT PRIVATE PROPERTY, IMMEDIATE CLEAN-UP SHALL OCCUR.
- CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCEWAY.
- SANITARY FACILITIES SHALL BE MAINTAINED ON-SITE AS APPROPRIATE AND AWAY FROM THE STREET IN THE CASE OF A SPILL.
- DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. AL EARTH STOCKPILES OVER 2.0 YD3 SHALL BE COVERED BY A TARP AND RINGED WITH STRAW BALES OR SILT FENCING,. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM INCLUDING EXISTING DRAINAGE SWALES SAND WATERCOURSES.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT SHALL BE COMPLIED WITH.
- THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 15TH TO APRIL 30TH. FACILITIES ARE TO BE OPERABLE PRIOR TO OCTOBER 15TH OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.



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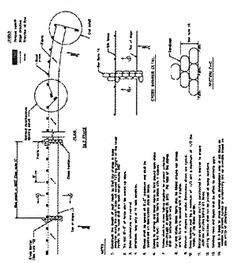
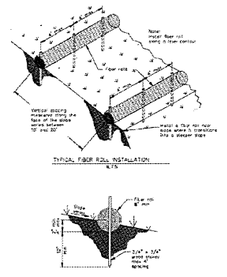
LEGEND

- INSTALL FIBER ROLL PER DETAIL SE-5, SHEET EC-2.01
- INSTALL SILT FENCE PER DETAIL X, SHEET EC-2.01
- INSTALL INLET PROTECTION PER DETAIL SE-10, SHEET EC-2.01

Silt Fence SE-1



SE-5 Fiber Rolls



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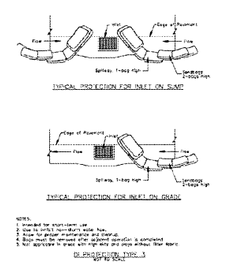

EROSION CONTROL PLAN

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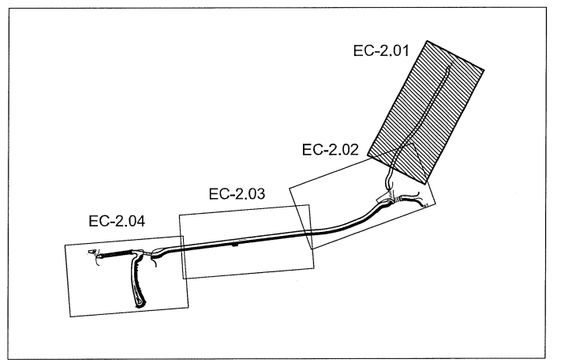

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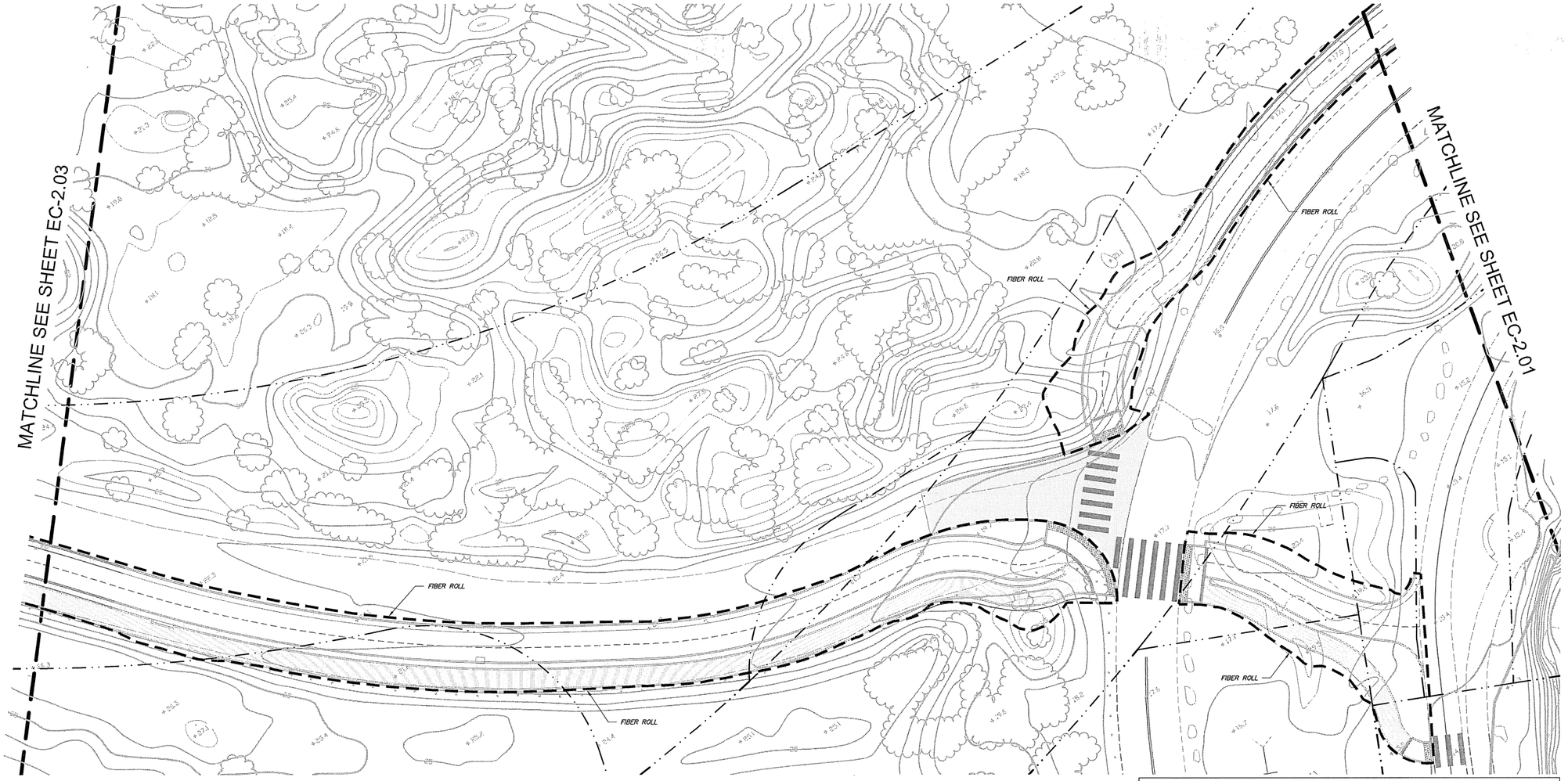

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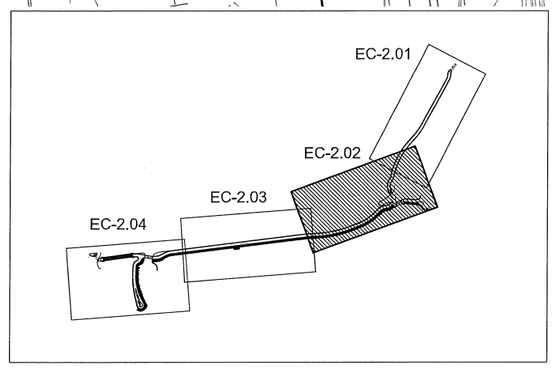

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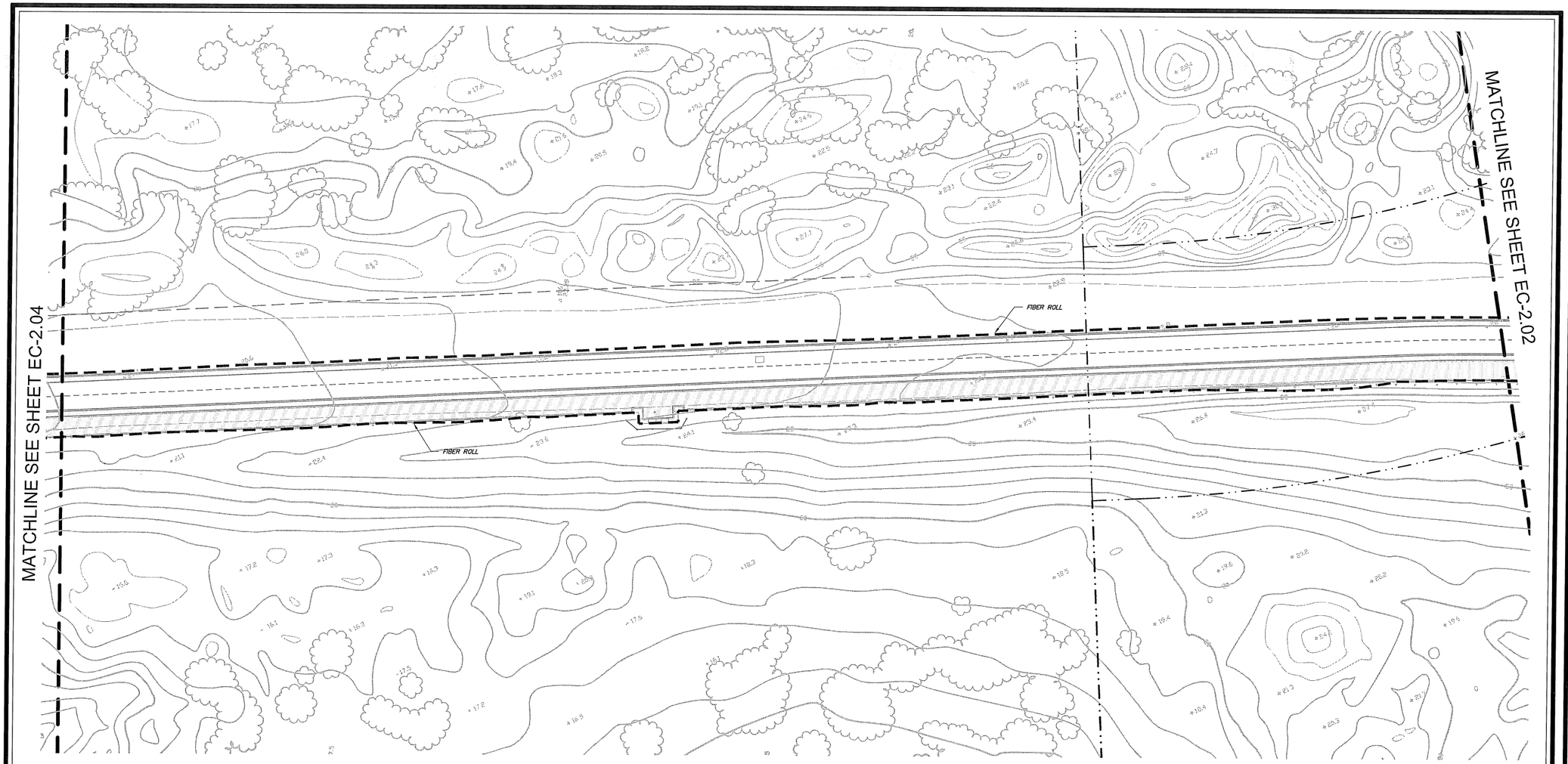

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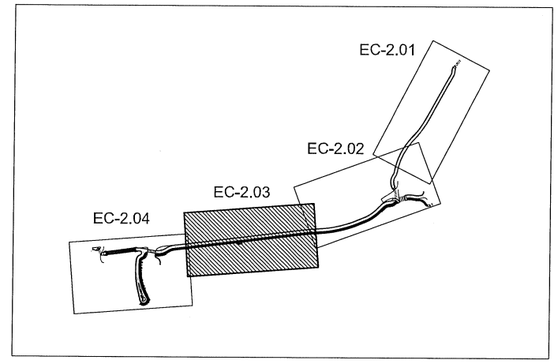

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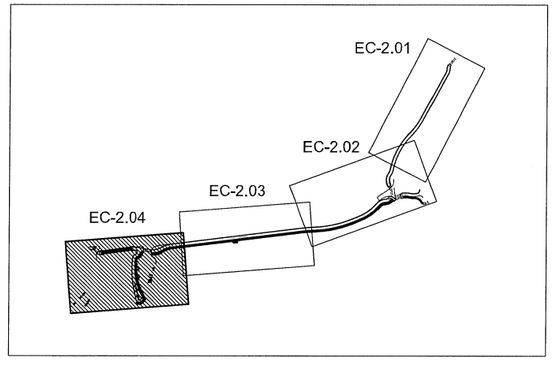

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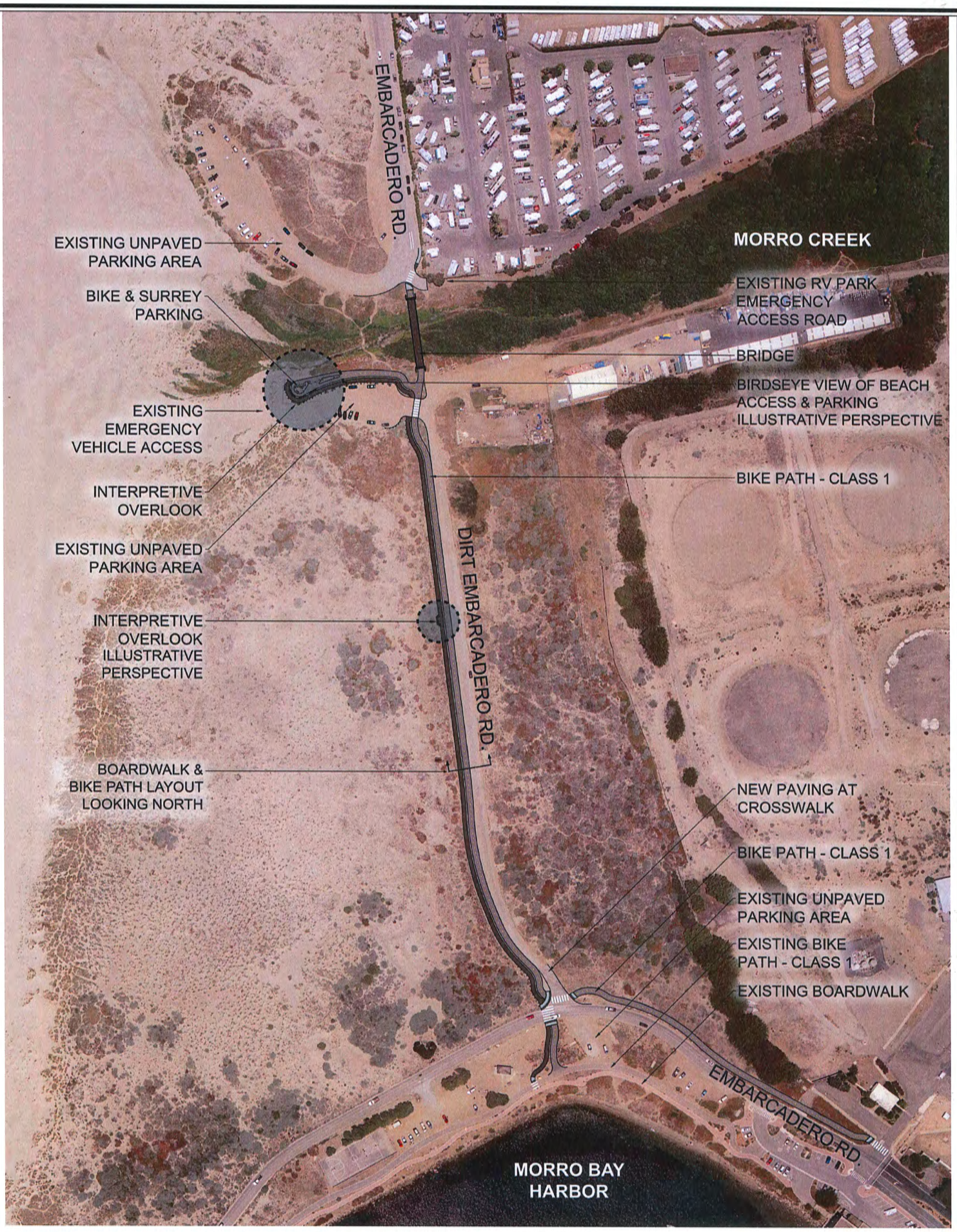

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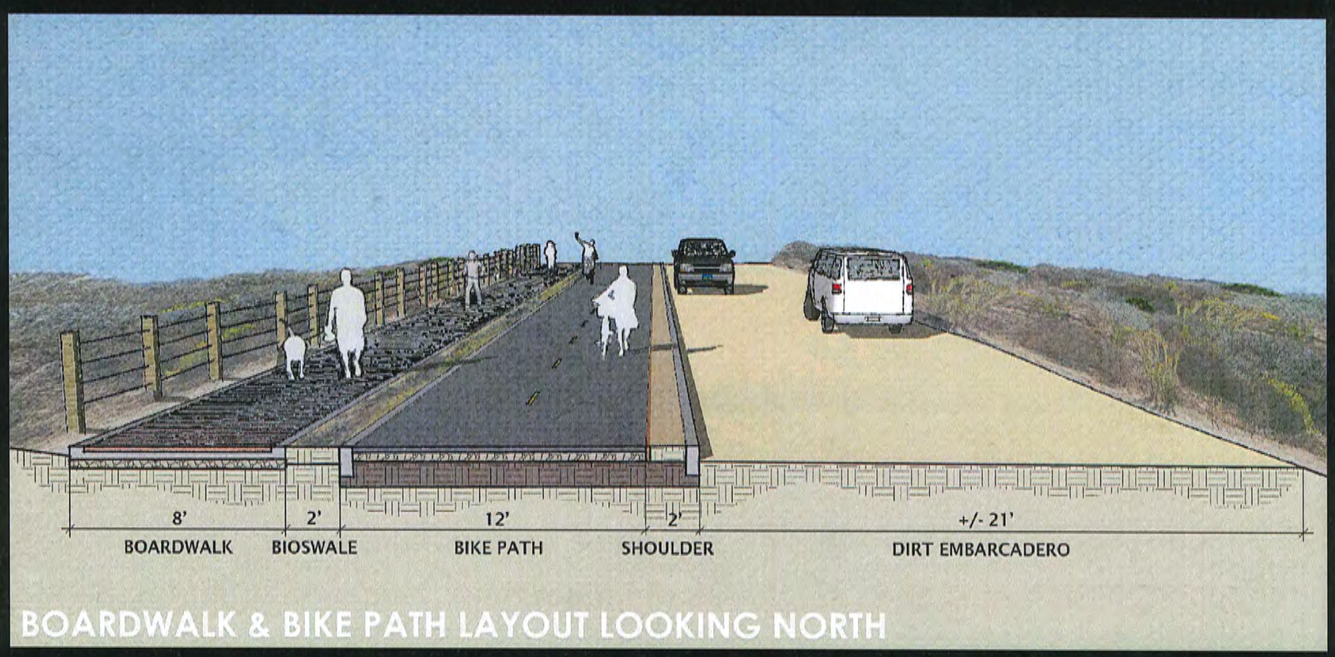

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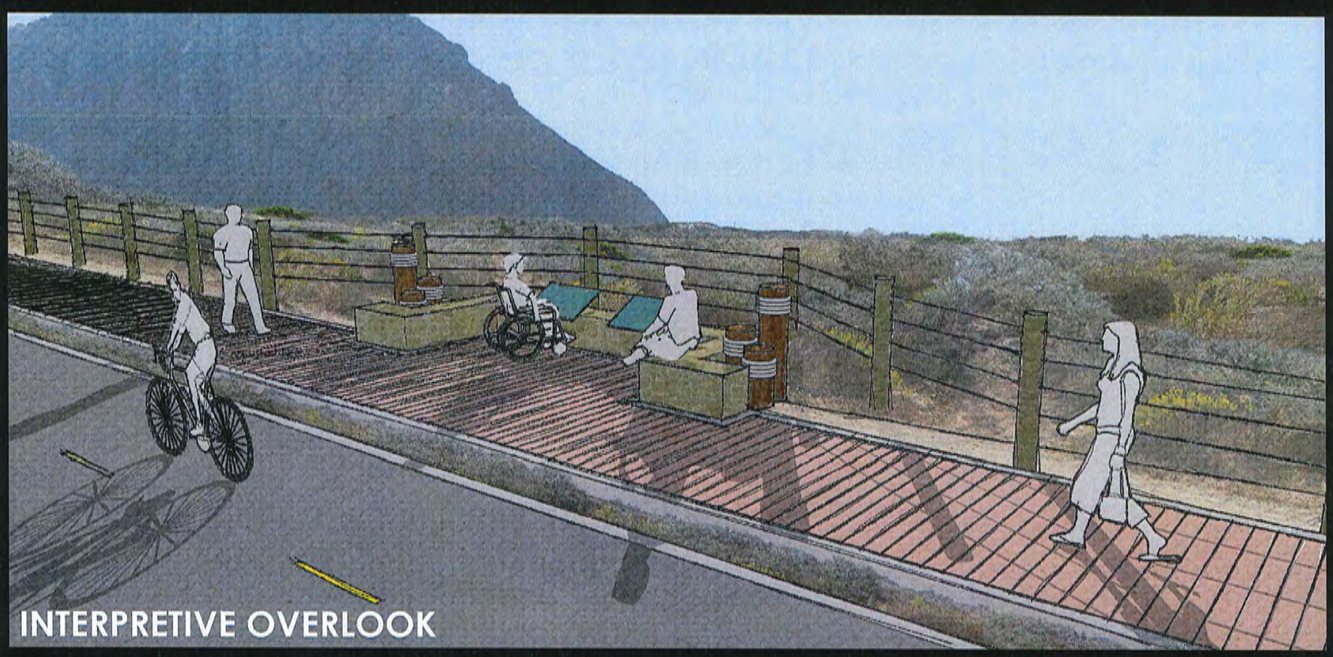

INTERPRETIVE OVERLOOK

BIRDSEYE VIEW OF BEACH ACCESS & PARKING

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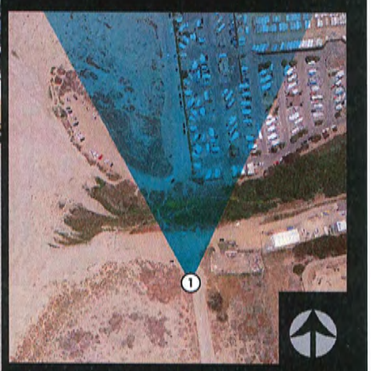
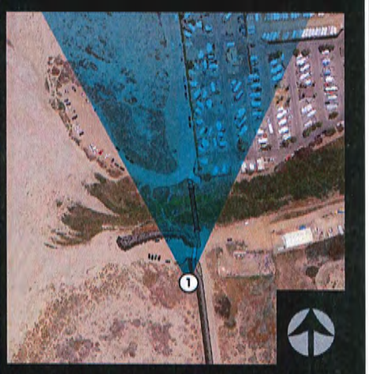


KEY MAP
(EXISTING CONDITIONS)

IMAGE VIEWING ANGLE
1 PHOTO LOCATION



KEY MAP
(PROPOSED CONDITIONS)

IMAGE VIEWING ANGLE
1 PHOTO LOCATION

VIEW_LOOKING_NORTH

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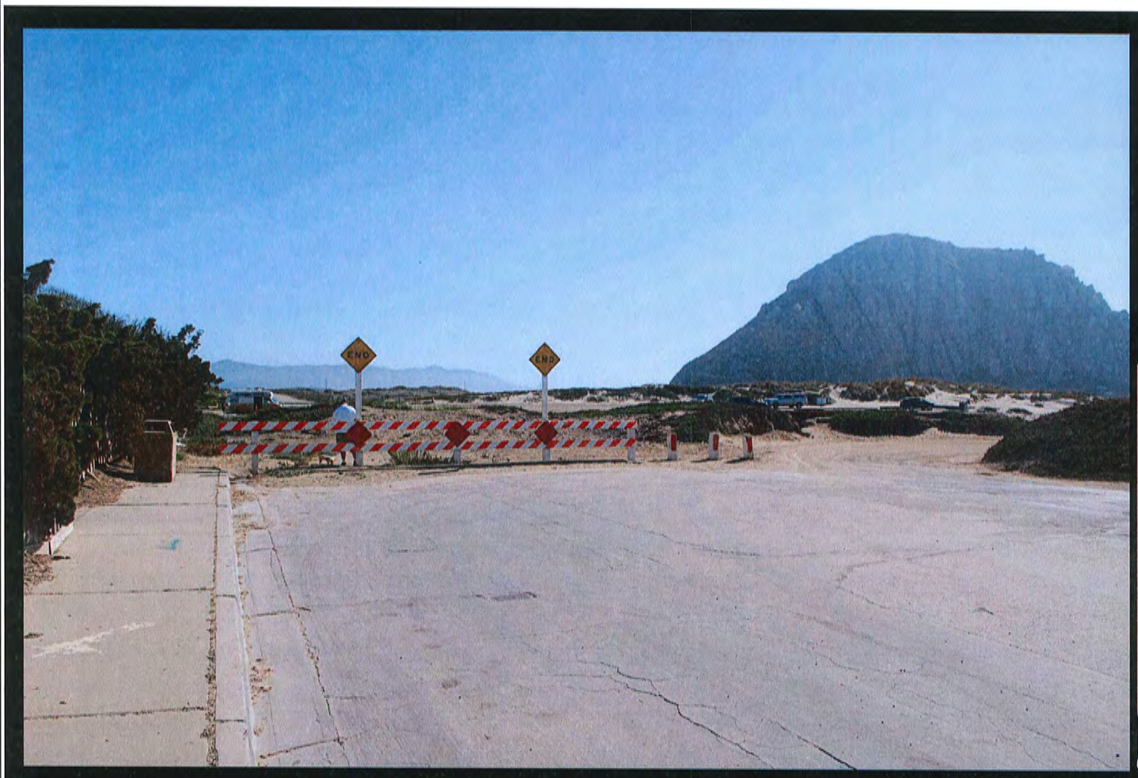
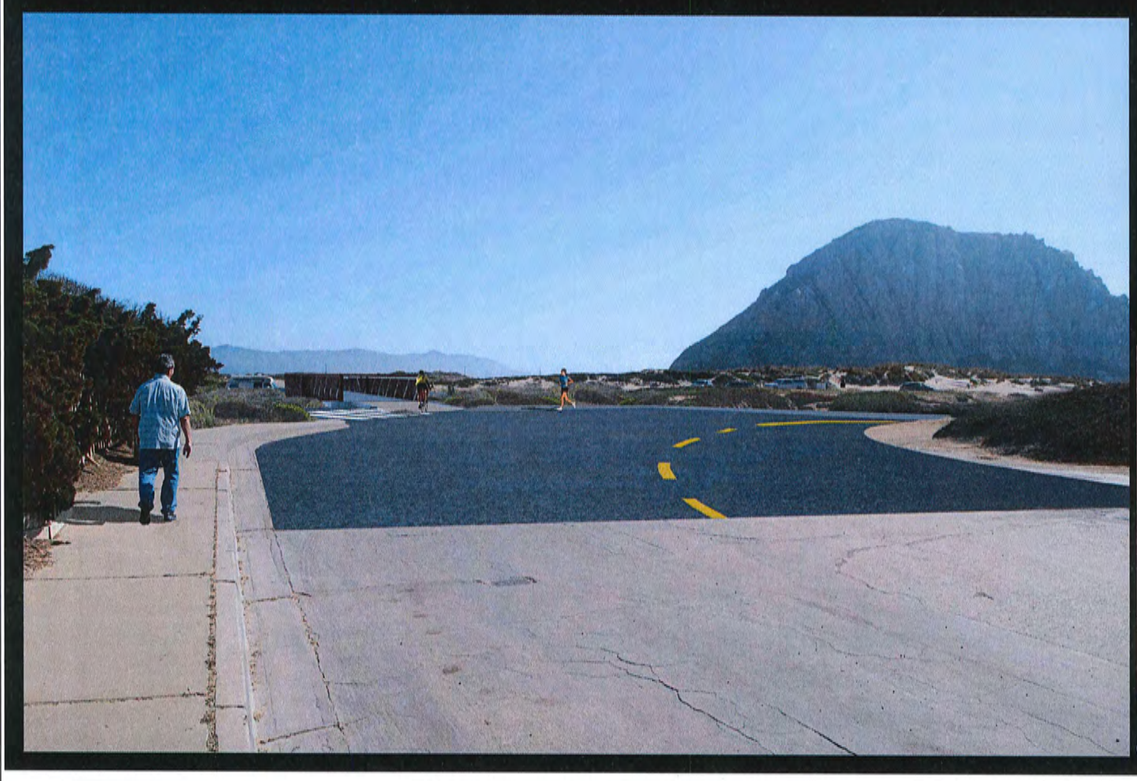


KEY MAP
(EXISTING CONDITIONS)

IMAGE VIEWING ANGLE
2 PHOTO LOCATION



KEY MAP
(PROPOSED CONDITIONS)

IMAGE VIEWING ANGLE
2 PHOTO LOCATION

VIEW_LOOKING_SOUTH

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VIEW_LOOKING_EAST

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City of Morro Bay

Morro Creek Multi-Use Trail and Bridge Project

Final Initial Study-Mitigated Negative Declaration

December 2013

rincon

Environmental Scientists Planners Engineers

EXHIBIT C

MORRO CREEK MULTI-USE TRAIL AND BRIDGE PROJECT

Final
Initial Study – Mitigated Negative Declaration

Prepared by:

City of Morro Bay Public Services Department
Rob Livick, Public Services Director
955 Shasta Avenue
Morro Bay, CA 93442

With the Assistance of:

Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, California 93401

December 2013

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1.0 INTRODUCTION

1.1 LEGAL AUTHORITY

This Initial Study-Mitigated Negative Declaration (IS-MND) has been prepared in accordance with the *CEQA Guidelines* and relevant provisions of the California Environmental Quality Act (CEQA) of 1970, as amended.

Initial Study. Section 15063(c) of the *CEQA Guidelines* defines an Initial Study as the proper preliminary method of analyzing the potential environmental consequences of a project. The purposes of an Initial Study are:

> *(1) To provide the Lead Agency with the necessary information to decide whether to prepare an Environmental Impact Report (EIR) or a Mitigated Negative Declaration;*
> *(2) To enable the Lead Agency to modify a project, mitigating adverse impacts, thus avoiding the need to prepare an EIR; and*
> *(3) To provide sufficient technical analysis of the environmental effects of a project to permit a judgment based on the record as a whole, that the environmental effects of a project have been adequately mitigated.*

1.2 IMPACT ANALYSIS AND SIGNIFICANCE CLASSIFICATION

The following sections of this IS-MND provide discussions of the possible environmental effects of the proposed project for specific issue areas that have been identified in the CEQA Initial Study Checklist. For each issue area, potential effects are isolated.

A "significant effect" is defined by Section 15382 of the *CEQA Guidelines* as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." According to the *CEQA Guidelines*, "an economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

2.0 PROJECT DESCRIPTION

2.1 PROJECT TITLE

Morro Creek Multi-Use Trail and Bridge Project

2.2 LEAD AGENCY and CONTACT PERSON

City of Morro Bay Public Services Department
Rob Livick, Public Services Director
955 Shasta Avenue
Morro Bay, CA 93442

2.3 PROJECT APPLICANT

City of Morro Bay Public Services Department
955 Shasta Avenue
Morro Bay, CA 93442

2.4 PROJECT LOCATION

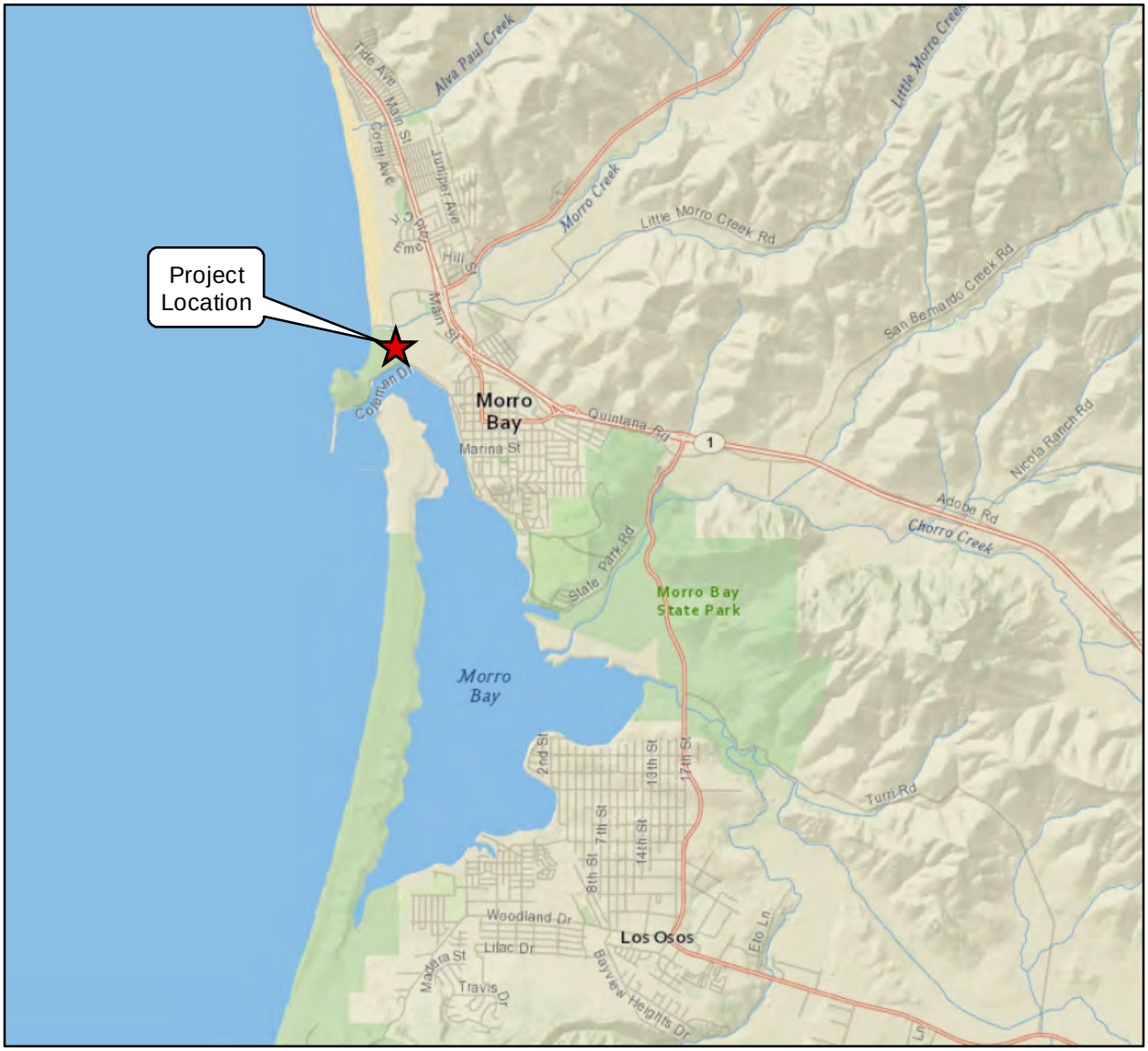
The project is located at 1500 Embarcadero within Morro Bay and along the northern portion of the Morro Bay Embarcadero, adjacent to the existing Morro Bay Power Plant (MBPP). The City of Morro Bay is located along Highway 1 in central San Luis Obispo County, approximately 15 miles west of the City of San Luis Obispo. The City of Morro Bay has a mix of residential, commercial, and marine commercial and industrial uses. In addition, the City has several notable coastal resource areas including sandy beaches, coastal bluffs, an estuary, sand spit and the prominent Morro Rock. As of 2013, Morro Bay has an estimated population of 10,317 (California Department of Finance, 2013). Figure 2-1 shows the regional lcoation of the proposed project. Figure 2-2 shows the project site in its local context, and Appendix A of the IS-MND shows the proposed site plan.

The project site is designated by the City of Morro Bay General Plan as Open-Space, Commercial/ Recreational Fishing and Planned Development (QA-2/CF/ PD). The Morro Bay Waterfront Plan identifies the project site as "Area 1: Morro Rock/Coleman Park" (Morro Bay Waterfront Plan, adopted 1996). Portions of the project site are located on property owned by Dynegy, but with an easement for public access.

2.5 PROJECT BACKGROUND

Morro Bay's waterfront area includes a working commercial fishing waterfront with visitor serving uses, recreational uses, and natural resource preservation. The waterfront provides views of Morro Rock and the Morro Bay sandspit, and serves both residents and tourists.

The Waterfront Master Plan adopted in 1996 envisaged a number of projects to enhance access and enjoyment of Morro Bay's waterfront. In 2008 the City of Morro Bay completed one of these projects: the Morro Bay Harborwalk. This project consisted of a continuous off-roadway bike



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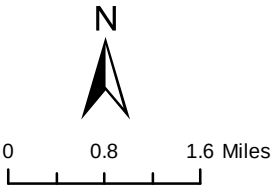

Regional Location

Figure 2-1

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Project Site Location

Figure 2-2

path and separate pedestrian boardwalk constructed along the shoreline with a terminus at the beach access located at the north end of the Morro Rock parking area. This development required the realignment of Coleman Drive, a two lane road that leads to the public parking area at Morro Rock, and dune scrub habitat restoration related to the realignment. There is currently a gap in the existing pedestrian and bicycle trail network between Morro Rock and downtown Morro Bay from the north. An extension of this project to the north, connecting the two sections of the Embarcadero separated by Morro Creek with a multi-use trail and bridge, is the subject of this proposed project.

2.6 PROJECT OBJECTIVES

The objectives of the proposed project are as follows:

- *Improve the local trail network to benefit the youth, residents and visitors to the Morro Bay Waterfront;*
- *Develop new educational interpretive facilities for pedestrians and cyclists in Morro Bay;*
- *Create opportunities for additional dune restoration adjacent to pedestrian and bicycle facilities;*
- *Facilitate safe bicycle and pedestrian crossing of Morro Creek;*
- *Create and additional route for emergency vehicle access and disaster evacuation; and*
- *Assist SLOCOG and the City of Morro Bay complete the local priority connection of the North Coast Scenic Byway and California Coastal Trail.*

2.7 PROJECT DESCRIPTION

The proposed project would extend the existing Morro Bay Harborwalk with a pedestrian boardwalk and separated Class I bike path to provide a connection between the Morro Bay waterfront and north Morro Bay. A 12-foot wide paved separated Class I bike path would extend from the Morro Bay Power Plant entry way to the intersection of Embarcadero Road and Coleman Drive. The pedestrian boardwalk and separated Class I bike path would extend from the existing Morro Bay Harborwalk, south of the parking area at Embarcadero Road and Coleman Drive, and continue northward adjacent to the unpaved portion of Embarcadero Road, to Morro Creek. Along this segment, the boardwalk improvements would include an 8-foot wide pedestrian boardwalk, a 2-foot bioswale, a 12-foot wide Class I bicycle path, and a 2-foot shoulder. Bicycle and surrey parking would be located toward the end of the northward pathway extension along the south side of Morro Creek. The total extension of pedestrian boardwalk and separated Class I bike path for the proposed project would be approximately 1,500 and 2,200 linear feet, respectively. An approximately 130-foot long, 13-foot wide, clear span, pedestrian and bicycle bridge would extend the pedestrian boardwalk and bike path across Morro Creek to connect to north Morro Bay on Atascadero Road (State Route 41). The clear-span bridge would be pre-fabricated and pre-engineered and would not include any support structures within the creek bed. For design specifications and visual simulations of the proposed improvements, including the bridge, refer to Appendix A. The bridge would be designed to bear sufficient load and provide adequate clear width to handle emergency vehicles, consistent with Caltrans requirements. The northern bridge abutment will require excavation within the top of Morro Creek bank. Pile driving would not be required.

The project will require a Conditional Use Permit (CUP Number UP0-371) for construction of a bridge project within a stream corridor.

Project construction would be staged at a disturbed area adjacent to the Dynegy parking lot, east of Embarcadero Road. The area is currently used for overflow parking.
The project would also include two educational interpretive facilities: one located along the pedestrian path overlooking the dune scrub habitat, Morro Rock, and beach vistas; and a second located at the terminus of the northward pedestrian path along the south side of Morro Creek overlooking Morro Creek and the beach. The interpretive materials would consist of stone seat walls and interpretive panels, and would be consistent with the Route 1, SLO North Coast Scenic Byway, interpretive plan and implementation strategies (NSBP grant 2006). In addition, Embarcadero Road at Coleman Drive would be upgraded to paved roadway for approximately 100 feet to allow for the installation of a new crosswalk.

The project would connect with existing unpaved parking areas along Embarcadero Road on the north and south sides of Morro Creek, facilitating the use of those parking areas for users of the proposed trail; however, the project does not include development of any new parking areas.

To meet water quality and habitat protection goals for the City of Morro Bay and the Morro Bay Estuary, new waterfront facilities would be designed to reduce and/or eliminate surface runoff and pollution. The project would utilize low impact development (LID) to minimize potential impacts to hydrology and water quality and allow for percolation alongside the expanded bicycle and pedestrian facilities. The small amount of surface area of the paved pathways, and available permeable ground surface adjacent to the multi-use pathways, would maintain the pre-project hydrological runoff patterns of the project site. The project would include Americans with Disabilities Act (ADA) approved access throughout the project features. Non-irrigated native and drought-tolerant shrubs and groundcover landscaping would be provided adjacent to the multi-use bicycle and pedestrian pathways.

Construction of the proposed project would require grading and excavation. Based on the design of the project, excavated material would be balanced on site and importation of fill would not be required. No underground utilities would be required.

Construction is anticipated to begin in August 2014 and is expected to take approximately 6 months to complete.

2.8 RESPONSIBLE/TRUSTEE AGENCIES

Section 15381 of the State CEQA Guidelines defines a Responsible Agency as a "public agency, which proposes to carry out or approve a project for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration." For the purposes of CEQA, the term Responsible Agency" includes all public agencies other than the Lead Agency, which have a discretionary approval power over the project. Trustee Agencies are listed in the State CEQA Guidelines Section 15386 and defined as a State agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of California.

The following agencies could be expected to use this document for future permits or approvals for the project:

- Central Coast Regional Water Quality Control Board - General construction National Pollution Discharge Elimination System (NPDES);
- U.S. Fish and Wildlife Service – Biological Opinion;
- California Department of Fish & Wildlife – Streambed Alteration Agreement pursuant to Section 1600 et seq. of the California Fish and Game Code; and
- California Coastal Commission – Coastal Development Permit.

2.9 ENVIRONMENTAL FACTORS 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	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ 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

2.10 DETERMINATION

On the basis of this initial evaluation:

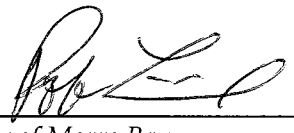
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. 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 is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



City of Morro Bay

10-25-2013

Date

3.0 ENVIRONMENTAL CHECKLIST

I. AESTHETICS: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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 that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Setting

The City of Morro Bay General Plan and Local Coastal Plan, Visual Resources and Scenic Highways Element, describes Morro Bay as an area with "spectacular visual qualities." The bay itself is an estuary comprised of a confluence of creeks, wetlands, salt marshes, mudflats, sand dunes, and open water that attracts a variety of wildlife. The aesthetic and visual resources of the bay include Morro Rock, which stands over 500 feet high and dominates the entrance to Morro Bay. Morro Bay also has an abundance of wildlife including a variety of birds that contribute to the visual resources of the area.

The City of Morro Bay has established Scenic View Areas as places of important visual and aesthetic quality as contained within the Visual Resources Element of the General Plan. Visual resources near the project area identified as "Significant Scenic Resources" by the Visual Resource Element include the following:

- Morro Rock. Located 0.3 miles west of the project site, Morro Rock is the most prominent visual feature of the area as it can be seen from almost any location within the City, particularly from the project site;
- Morro Rock City Beach. Located immediately north of the project site, Morro Rock City Beach is a sandy beach that spans from Morro Rock to Cayucos and provides unobstructed views of the coastline;
- Morro Bay Sand Spit. Located to the south of the project site, Morro Bay sand spit is an ecologically intact, windblown dune peninsula visible from the project site; and

- Harbor and Navigable Ways. Located to the west and south of the project site, views overlooking the harbor are regarded for their natural beauty and include the mudflats, wildlife and low-growing vegetation, the sand spit and Morro Rock.

The portion of Highway 1 that travels through Morro Bay is designated by the California Department of Transportation as a scenic highway. However, the project site is approximately 0.4 miles from Highway 1 and is not visible from the highway due to existing structures and vegetation as well as topography.

a) The proposed project includes a pedestrian boardwalk and separate bike path with a span over Morro Creek, bicycle parking, educational interpretive facilities, and a paved crosswalk at the intersection of Coleman Drive and Embarcadero Road. The proposed clear span bridge design would have a maximum height of four feet, six inches, and would be designed in compliance the Embarcadero design criteria outlined in the Morro Bay General Plan Visual Resources Element program VR-2.1. This program states, "Permitted development shall be sited and designed to protect views to and along the coast and designated scenic areas and shall be visually compatible with the surrounding areas." The proposed facilities would be low-profile and would provide additional opportunities to view the scenic resources of the area by providing a multi-use recreational path, interpretive education areas, and bicycle parking area.

The proposed facilities would be low-profile and would not interfere with the existing views of Morro Rock, Morro Rock City Beach, the Morro Bay sand spit, or the harbor and navigable ways. Refer to the visual simulations provided in Appendix A. Rather, the proposed facilities would accommodate additional visitors and provide additional opportunities to view the scenic resources of the area by providing a multi-use recreational path, interpretive education areas, and bicycle parking area. **Therefore, no impacts to scenic vistas would result.**

b) The portion of Highway 1 that travels through the City is a State-designated scenic highway. However, the project would be located approximately 0.4 miles from Highway 1, and would not visible due to existing structures, vegetation, and topography. Morro Rock is located 0.3 miles west of the project site. The project would not damage Morro Rock, or disturb views of Morro Rock. There are no significant historic buildings located on or adjacent to the project site. The City of Morro Bay does not contain any historical resources that are identified in the National or State Registers, or that are designated as State Landmarks or Points of Historical Interest (State Office of Historic Preservation, 2013/ National Register of Historic Places, 2013), and there are no existing buildings or structures located on the project site. **Therefore, no impacts to scenic resources would result.**

c) Currently, the project site is undeveloped and primarily comprised of informal dirt/gravel roadways and parking areas, as well as coastal vegetation. The proposed development would be an extension of similar existing adjacent facilities, which would include a multi-use recreational path, low profile pedestrian and bicycle bridge across Morro Creek, bicycle parking area and two educational interpretive facilities, thereby resulting in minimal changes to the character of the area. As described above, the proposed clear span bridge design would be low-profile, and would be designed in compliance the Embarcadero design criteria outlined in the Morro Bay General Plan Visual Resources Element. The proposed facilities would provide additional opportunities to view the scenic resources of the area by providing a multi-use

recreational path, interpretive education areas, and bicycle parking area. **Therefore, potential impacts to the existing visual character of the area and quality of the site would be less than significant.**

d) The project does not propose the installation of any lighting fixtures. **Therefore, potential light and glare impacts would be less than significant**.

Mitigation

No mitigation measures are required.

Findings

Impacts would be less than significant without mitigation.

II. AGRICULTURE AND FORESTRY RESOURCES: Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**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 section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

II. AGRICULTURE AND FORESTRY RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Setting

The project site does not have existing agricultural operations or forest resources. The project site is not zoned for agricultural use or under a Williamson Act Contract.

a-c) The project site is designated by the City of Morro Bay General Plan as Open-Space, Commercial/ Recreational Fishing and Planned Development (QA-2/CF/ PD), and is comprised primarily of ruderal/developed land, coastal dune scrub, and ice plant. The project site is not used for agricultural operations and is not under a Williamson Act Contract (State of California Department of Conservation, 2010). **As such, no impacts to agricultural resources would result.**

d-e) There is no forested land present on the project site (U.S. Fish and Wildlife Service National Wetlands Inventory, 2013). The project will not result in the loss of forest land, or the conversion of forest land to non-forest land. The project site is currently comprised primarily of ruderal/developed land, coastal dune scrub, and ice plant. **Therefore no impacts to forested land or farmland would result.**

Mitigation

No mitigation measures are required.

Findings

No impacts would result.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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 non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Setting

Airflow plays an important role in the movement and dispersion of air pollutants in the San Luis Obispo region. The speed and direction of local winds are controlled by: 1) the location and strength of the Pacific High pressure system and other global patterns, 2) topographical factors, and 3) circulation patterns resulting from temperature differences between the land and sea. The coolest months are December and January with an average monthly low temperature of 42 F; the warmest month is October with an average monthly high temperature of 69 F.

The City of Morro Bay falls within the jurisdiction of the San Luis Obispo Air Pollution Control District (SLOAPCD). SLOAPCD is located within the South Central Coast Air Basin. SLOAPCD monitors air pollutant levels to assure that air quality standards are met, and if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the air basin is classified as being in "attainment" or as "non-attainment." SLOAPCD is in non-attainment for the 24-hour and annual state standards for particulate matter less than ten microns in diameter (PM_{10}) and the one-hour state standard for ozone (O_3), and the eight-hour state and federal standards for ozone (SLOAPCD, 2012).

The primary pollutants of concern in San Luis Obispo County are ozone and PM_{10}. The major local sources for PM_{10} are agricultural operations, vehicle dust, grading, and dust produced by high winds. Ozone is a secondary pollutant that is not produced directly by a source, but rather is formed by a reaction between nitrogen oxides (NO_X) and reactive organic gases (ROGs) in the

presence of sunlight. Reductions in ozone concentrations are dependent on reducing the amount of these precursors. In San Luis Obispo County, the major sources of ROGs are motor vehicles, organic solvents, the petroleum industry, and pesticides. The major sources of NO_X are motor vehicles, public utility power generation, and fuel combustion by various industrial sources (SLOAPCD, 2001).

Sources of air pollutants associated with the existing marina include motor vehicles (marina tenants, service vehicles and State Park visitors), marine vessel engines and maintenance-related activities (coating solvents, sanding dust, etc.). Other sources nearby include commercial (fishing) vessel operations, marine vessel fueling operations, periodic harbor dredging operations, the wastewater treatment plant, and the Morro Bay Power Plant (MMPP).

Pollutant emissions quantification for the project was conducted using the California Emissions Estimator Model (CalEEMod) version 2013.2.1. For CalEEMod results, refer to Appendix B.

a) The regional 2001 Clean Air Plan (CAP) prepared by the San Luis Obispo Air Pollution Control District (SLOAPCD) addresses the attainment and maintenance of state and federal ambient air quality standards within the South Central Coast Air Basin (SCCAB). The consistency of a proposed project with the CAP is based on the following criteria:

1. Are the population projections used in the plan or project equal to or less than those used in the most recent CAP for the same area?
2. Is the rate of increase in vehicle trips and miles traveled less than or equal to the rate of population growth for the same area?
3. Have all applicable land use and transportation control measures and strategies from the CAP been included in the plan or project to the maximum extent feasible?

The proposed project would not increase the population of the area as the project does not propose or otherwise involve residential uses. In addition, the project would primarily serve existing residents, visitors, and other trail users, and would not generate a substantial number of new vehicle trips (refer to the discussion of this issue under *Traffic and Circulation*). Finally, none of the SLOAPCD's Transportation Control Measures (TCMs) or Land Use Planning Strategies are directly applicable to the proposed project; however, the proposed recreational path would be consistent with TCM T-3 (Bicycling and Bikeway Enhancements), the goal of which is to achieve a county-wide average bicycle mode share of 5% within seven years. Therefore, the project would be consistent with the 2001 CAP. **Impacts would be less than significant.**

b-c) *Construction Emissions*. The use of construction vehicles and equipment during project construction would generate temporary increases in air pollutant emissions. These impacts would primarily be associated with diesel equipment emissions and dust generated by on-site grading. The project would not import or export material. The SLOAPCD has adopted daily and quarterly construction emissions thresholds, which are contained in the District's publication, *CEQA Air Quality Handbook* (April 2012), shown in Table 3-1, below. Construction emissions were estimated based on an assumed maximum area of disturbance of 4.8 acres. Maximum daily and quarterly emissions are shown in Table 3-1 (see Appendix B for full CalEEMod results).

Table 3-1. Construction Emissions

Pollutant	ROG + NO_X (combined)	Diesel Particulate Matter (DPM)	Fugitive Particulate Matter (PM_{10}), Dust [1]
Daily [2]	63.59 lbs	3.14 lbs	18.24 lbs
Quarterly [3]	0.18 tons	0.02 tons	0.04 tons
SLOAPCD Construction Emission Thresholds			
Daily [4]	137 lbs	7 lbs	-
Threshold Exceeded?	*NO*	*NO*	*n/a*
Quarterly Tier 1 [4]	2.5 tons	0.13 tons	2.5 tons
Threshold Exceeded?	*NO*	*NO*	*NO*
Quarterly Tier 2 [4]	6.3 tons	0.32 tons	-
Threshold Exceeded?	*NO*	*NO*	*n/a*

1. Any project with a grading area greater than 4.0 acres of worked area can exceed the 2.5 ton PM_{10} quarterly threshold.
2. Daily emissions based on winter CalEEMod results, which are considered by SLOAPCD to be worst-case.
3. Quarterly emissions calculated by dividing annual emissions by two (to account for anticipated six-month duration of project construction.
4. Daily and quarterly emission thresholds are based on the California Health & Safety Code and the CARB Carl Moyer Guidelines.

As shown in Table 3-1, construction emissions would be below both daily and quarterly thresholds set by SLOAPCD.

SLOAPCD requires that projects with grading areas that are greater than 4-acres or are within 1,000 feet of any sensitive receptor implement dust control measures to minimize nuisance impacts and to reduce fugitive dust emissions. Due to the project's proximity to the Morro Dunes R.V. Park, the project would be required to implement the applicable SLOAPCD dust control measures:

a. Reduce the amount of the disturbed area where possible;

b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;

c. All dirt stock pile areas should be sprayed daily as needed;

d. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;

e. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;

f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;

g. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;

h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;

i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;

j. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;

k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible;

l. All of these fugitive dust mitigation measures shall be shown on grading and building plans; and

m. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.

In addition, SLOAPCD requires the following idle restricting measures for the construction phase of projects:

a. <u>Idling Restrictions Near Sensitive Receptors for Both On and off-Road Equipment</u>

   1. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
   2. Diesel idling within 1,000 feet of sensitive receptors is not permitted;
   3. Use of alternative fueled equipment is recommended whenever possible; and
   4. Signs that specify the no idling requirements must be posted and enforced at the construction site.

b. <u>Idling Restrictions for On-road Vehicles</u>

   Section 2485 of Title 13, the California Code of Regulations limits diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:

   1. Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and
   2. Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when

within 100 feet of a restricted area, except as noted in Subsection (d) of the regulation.

Signs must be posted in the designated queuing areas and job sites to remind drivers of the 5-minute idling limit. The specific requirements and exceptions in the regulation can be reviewed at the following web site: www.arb.ca.gov/msprog/truck-idling/2485.pdf.

c. Idling Restrictions for off-Road Equipment

Off-road diesel equipment shall comply with the 5 minute idling restriction identified in Section 2449(d)(3) of the California Air Resources Board's In-Use off-Road Diesel regulation:

www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf.

Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5 minute idling limit.

Project construction would be staged at a disturbed area adjacent to the Dynegy parking lot, east of Embarcadero Road. This location is approximately 300 feet from the nearest residential receptor; however, the project staging area would be predominantly used for vehicle storage when not in use (such as overnight), and equipment idling would be prohibited in the staging area. To the maximum extent practicable, no diesel equipment would be used in the staging area. Therefore, with implementation of applicable SLOACPD dust control measures, **the proposed project would have a less than significant impact to air quality from project construction.**

Operational Emissions. SLOAPCD has adopted significance thresholds for emissions from development projects, which are contained in the District's publication, *CEQA Air Quality Handbook* (April 2012). However, the proposed project does not involve new land uses that would result in long-term emissions of criteria air pollutants. The proposed pedestrian boardwalk and bike path and paved crosswalk would provide improved connectivity for pedestrian and bicycle travel. The proposed pedestrian and bicycle facilities, in combination with the proposed interpretive educational facilities, would attract new users, but would not result in a substantial increase in vehicle trips that would generate new criteria pollutant emissions. In addition, by encouraging bicycle and pedestrian travel, the project may reduce motor vehicle trips to the area. **Impacts to air quality from project operations would therefore be less than significant.**

d) The proposed development would not result in new long-term emissions of hazardous air pollutants. Similarly, the project would not result in a substantial number of new vehicle trips that could create or contribute to CO hotspots. Therefore, the proposed project would not contribute substantial construction, vehicle, or operation emissions that would significantly affect sensitive receptors. Nearby receptors as well as adjoining uses generate a moderate level of vehicle traffic from personal, employee, and beach visitor trips; however, this traffic is the only existing source of vehicle emissions in the project area; therefore, the project would not expose sensitive receptors to substantial hazardous air pollutant concentrations. **Impacts would be less than significant.**

e) The proposed project does not include uses that would result in any objectionable odors. Impacts would be less than significant.

Mitigation

As described above, the project would be required to implement all applicable SLOACPD dust control measures. No additional mitigation measures are required.

Findings

Impacts would be less than significant without mitigation.

IV. BIOLOGICAL RESOURCES: Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or 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, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 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?	☐	☐	☒	☐

IV. BIOLOGICAL RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Setting

The project site is located between Morro Bay and Morro Creek; north of the Embarcadero Waterfront in the City of Morro Bay, south of and including a lower reach of Morro Creek, east of Morro Rock, and west of the Morro Bay Power Plant (MBPP). In October 2013 Rincon Consultants, Inc. completed a Natural Environment Study (NES) for the Morro Creek Multi-Use Trail and Bridge Project, including a field survey of the project site conducted on September 5, 2013. The Biological Study Area (BSA) for the NES begins at the driveway entrance for the Dynegy Electric Utility Morro Bay Power Plant along Embarcadero and extends west along Embarcadero to Coleman City Park. The BSA includes a small portion of Coleman Park, located east of the public restroom facilities, on the south side of Embarcadero. It extends north along the unpaved portion of Embarcadero Road and widens where it meets Morro Creek to include the existing unpaved parking area for coastal access to the west and a small portion of the driveway into an existing industrial storage yard to the east. The BSA continues along Embarcadero Road for a short distance to the north. It widens slightly on this side of Morro Creek to include a second existing unpaved parking area for coastal access to the west and a small peripheral area behind the Morro Dunes Mobile Home and RV Park. The BSA encompasses approximately 4.79 acres. It consists of the minimum area needed in order to complete the proposed project and includes the locations of the proposed pedestrian boardwalk and bike path, the bridge over Morro Creek, two interpretive areas, road alignment and improvements, potential staging areas, and non-irrigated native landscape areas. The BSA includes the banks and channel of Morro Creek and road shoulders.

Vegetation Communities. Five vegetation communities were identified within the BSA during the field survey including: central dune scrub, ice plant, arroyo willow woodland/riparian, bulrush/cattail wetland, and ruderal/developed.

Central Dune Scrub. Central dune scrub habitat occurs along the western side of Embarcadero and on both sides of the intersection where Embarcadero extends north and becomes Coleman Drive to the west. Approximately 1.35 acres of the BSA are composed of central dune scrub habitat.

Ice Plant. Ice plant habitat occurs in several locations within the BSA. This vegetation community type was observed within the curbed median in front of the Dynegy Electric Utility Morro Bay Power Plant administrative building, along the north side of Embarcadero, within Coleman City Park, and along the upper limits of the banks of Morro Creek. Approximately 0.52 acre of the BSA is composed of ice plant habitat.

Arroyo Willow Woodland/Riparian. Only a small portion of the BSA supports the arroyo willow woodland/riparian vegetation community type. This habitat occurs along relatively narrow margins along both the northern and southern banks of Morro Creek. Approximately 0.10 acre of the BSA is composed of arroyo willow woodland/riparian habitat.

Bulrush/Cattail Wetland. Bulrush/cattail wetland habitat is restricted to the channel of Morro Creek within the BSA. Approximately 0.07 acre of the BSA is composed of bulrush/cattail wetland habitat.

Ruderal/Developed. The last vegetation community type identified within the BSA is ruderal/developed, which is the most abundant habitat observed onsite. Approximately 3.01 acres of the BSA are composed of ruderal/developed habitat.

Species of Concern. Regional species of concern include taxa that are afforded protection by the FESA, or the California Endangered Species Act (CESA), those that are considered to be species of special concern by other resource agencies, and additional taxa that are provided protections or otherwise considered sensitive. Regional habitats of concern include those that are regulated or considered sensitive by federal, state, and/or other regional agencies, or meet these criteria under CEQA. Species that are simply tracked by resource agencies (such as CDFW) or those that do not meet criteria for formal listing status (e.g., CRPR List 3 and List 4 plant species) were reported if observed onsite during the field survey, but are not otherwise included in this analysis.

The project site contains suitable habitat for 12 regional species of concern, including seven special status plant species and five special status wildlife species. These species have all been previously documented by the CNDDB within a five-mile radius of the site. The regional species of concern with potential to occur onsite include:

- California red-legged frog (*Rana draytonii*)
- black legless lizard (*Anniella pulchra nigra*)
- silvery legless lizard (*Anniella pulchra pulchra*)
- steelhead – south/central California coast DPS (*Onchorhynchus mykiss irideus*)
- Morro shoulderband snail (*Helminthoglypta walkeriana*)
- Morro manzanita (*Arctostaphylos morroensis*)
- marsh sandwort (*Arenaria paludicola*)
- salt marsh bird's-beak (*Chloropyron maritimum ssp. maritimum*)
- beach spectaclepod (*Dithyrea maritima*)
- Blochman's leafy daisy (*Erigeron blochmaniae*)
- coast woolly-heads (*Nemacaulis denudata var. denudata*)
- California seablite (*Suaeda californica*)

In addition to regional species of concern, sensitive habitat types are also considered biological resources of regional concern that are afforded protections. Two of the regional habitats of concern that have been previously documented within a five-mile radius of the project site were observed within the BSA. These include central dune scrub and coastal brackish marsh. The bulrush/cattail wetland habitat within the BSA meets the criteria of coastal brackish marsh and is treated as such in several vegetation classification systems.

The arroyo willow woodland/riparian is also considered a sensitive habitat type by CDFW because it is a riparian vegetation community that is associated with a perennial or intermittent stream course. Streams, including Morro Creek and its surrounding riparian vegetation, fall under CDFW jurisdiction. Similarly, Morro Creek is also considered a sensitive habitat resource because it is afforded protections by the USACE and is assumed to be within this agency's jurisdiction as "other waters" of the United States.

In addition, the project site was reviewed for its potential to contain federally designated critical habitats for plant and wildlife species. The BSA contains federally designated critical habitat for two wildlife species: the south/central California Coast distinct population segment (DPS) of steelhead and western snowy plover. Morro Creek has been designated as federal critical habitat for steelhead – south/central California Coast DPS and almost the entire area west of Embarcadero (including the parking areas) has been federally designated as critical habitat for western snowy plover (USFWS, 2013a). However, aside from the existing parking areas within the BSA, the project area does not fall within the critical habitat designation for western snowy plover. Similarly, the BSA does not have suitable habitat for this species. Beach strand habitat that is suitable for western snowy plover occurs in the vicinity of the BSA, but it does not occur within it.

Waters of the United States. Waters of the United States occur in the form of wetlands on-site and are defined in the Code of Federal Regulations (CFR) as: "Those areas that are inundated or saturated by surface of groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 CFR 328.3(b)). Wetlands are considered a special aquatic site and are subject to Section 404 of the federal Clean Water Act (CWA), as administered by the U.S. Environmental Protection Agency (USEPA) and U.S. Army Corps of Engineers (USACE). The USACE is responsible to approve the use of Department of the Army permits for the discharge of dredged or fill material into wetlands. Furthermore, the Regional Water Quality Control Board (RWQCB) is responsible for the issuance of water quality certifications for impacts to wetlands pursuant to Section 401 of the CWA.

The California Coastal Commission (CCC) defines wetlands as: "… lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to vegetated wetlands or deepwater habitats" (Section 13577(b) of the California

Coastal Act). The CDFG does not regulate wetlands; however, CDFG jurisdiction pursuant to California Fish and Game Code 1600 et seq. includes riparian vegetation adjacent to rivers, streams and lakes, and extends to the outer dripline of such vegetation (State of California 2006).

A *Delineation of Potentially Jurisdictional Wetlands and Waters for Morro Bay Pedestrian Bridge* report was prepared by Althouse and Meade, Inc. (2013a). The delineation was performed to determine the location, type, and aerial extent of waters, including wetlands, within the BSA that would likely be subject to USACE and RWQCB jurisdiction. The area below the Ordinary High Water Mark (OHWM) of Morro Creek is considered an "other waters" feature and is subject to USACE and RWQCB jurisdiction. It is a Relatively Permanent Water (RPW) and is hydrologically connected to a Traditional Navigable Waterway (TNW), the Pacific Ocean. Approximately 0.16 acre of jurisdictional wetlands and waters were delineated below the OHWM of Morro Creek within the BSA. Morro Creek also falls under the jurisdiction of CDFW, as it has a clear bed and bank, and provides habitat for various aquatic, semi-aquatic, and terrestrial wildlife species. The approximate area within CDFW jurisdiction is approximately 0.22 acre. The final jurisdictional determinations of the boundaries of waters and riparian habitats are made by each agency.

a, d) Special Status Plant Species. No state or federally listed, proposed, or candidate plant species were observed within the BSA during the field survey.

The central dune scrub and/or bulrush/cattail wetland habitats within the BSA are considered to be suitable for the following sensitive plant species and these species have been previously documented within a five-mile radius of the project site by the CNDDB (refer to Figure 5 and Table 1): Morro manzanita (*Arctostaphylos morroensis*), marsh sandwort (Arenaria paludicola), salt marsh bird's-beak (*Chloropyron maritimum ssp. maritimum*), beach spectaclepod (*Dithyrea maritima*), Blochman's leafy daisy (*Erigeron blochmaniae*), coast woolly-heads (*Nemacaulis denudata* var. *denudata*), and California seablite (*Suaeda californica*). None of these sensitive plant species were observed within the BSA during the field survey.

The reconnaissance field survey Rincon performed was conducted within the appropriate blooming period for salt marsh bird's-beak, coast woolly-heads, and California seablite. This field survey effort was not conducted within the appropriate blooming periods for Morro manzanita, marsh sandwort, beach spectaclepod, or Blochman's leafy daisy. However, Althouse and Meade, Inc., conducted determinant-level botanical surveys within most of the BSA. These survey efforts were performed within the appropriate blooming periods for marsh sandwort, beach spectaclepod, and Blochman's leafy daisy; specifically the surveys were conducted during May, June, and July of 2013 (Althouse and Meade, Inc., 2013b). The biologists/botanists that conducted these surveys also encountered red-sand verbena and Blochman's ragwort within the BSA. However, both of these plant species are CRPR List 4 species, which are not regarded as rare, threatened, or endangered pursuant to CEQA. No other sensitive plant species were observed within the BSA during the botanical surveys that Althouse and Meade, Inc. conducted.

The BSA contains a relatively small linear area that is adjacent to the north side of Embarcadero Road, and east of the intersection of Embarcadero and Coleman Drive, that was not included in

the Althouse and Meade, Inc., botanical survey efforts. This area is composed of central dune scrub, ice plant, and ruderal/developed habitats. In general, central dune scrub is considered suitable habitat for beach spectaclepod and Blochman's leafy daisy. However, the central dune scrub habitat within this portion of the BSA is not likely to support beach spectaclepod. All of the previously documented occurrences of this species within the CNDDB in the vicinity of the project site are located on the Morro Bay sandspit, south of the project site across the mouth of Morro Bay. The closest previous documented CNDDB occurrence of beach spectaclepod is located approximately two miles south of the project site on the sandspit (CDFW, 2003). There are no CNDDB documented occurrences of beach spectaclepod on the north side of the mouth of Morro Bay. In addition, the central dune scrub habitat in this region of the BSA is heavily invaded by non-native and invasive plant species that frequently occur in proximity to roads and roadside corridors. Beach spectaclepod is considered highly unlikely to occur in this portion of the BSA. However, Blochman's leafy daisy does have potential to occur within the central dune scrub habitat within this portion of the BSA.

All manzanita species are readily identified to the genus level of taxonomy regardless of the time of year surveys are conducted because manzanitas are evergreen shrubs that have distinctive bark and growth habits. No manzanita species were observed within the BSA or immediate vicinity during any of the field survey efforts.

Therefore, impacts to sensitive plant species (Blochman's leafy daisy) would be potentially significant and mitigation would be required to reduce these potential impacts to a less than significant level.

Special Status Animal Species. No state or federally listed or otherwise sensitive animal species were observed within the BSA during the field survey. However, several of the habitat types within the BSA are suitable for the following sensitive animal species and these species have been previously documented within a five-mile radius of the project site by the CNDDB: California red-legged frog (*Rana draytonii*), south/central California coast DPS steelhead (*Oncorhynchus mykiss irideus*), Morro shoulderband snail (*Helminthoglypta walkeriana*), black legless lizard (*Anniella pulchra nigra*), and silvery legless lizard (*Anniella pulchra pulchra*). The potential project-related impacts to each of these sensitive wildlife species are discussed below.

In addition to these sensitive wildlife species, the project site has suitable habitat for a variety of more common nesting bird species that are afforded protection under the California Fish and Game Code and the Migratory Bird Treaty Act (MBTA). The potential project-related impacts to nesting birds are discussed below.

California Red-Legged Frog. California red-legged frog (CRLF) is a federally threatened and CDFW species of special concern that requires ponds and streams with adequate plant cover that occur within forest, woodland, grassland, and coastal scrub communities. No CRLF were observed within the BSA during the reconnaissance field survey; however, protocol-level surveys were not conducted. The BSA was assessed for the potential to support this species in accordance with the most recent USFWS Guidance (USFWS, 2005). Suitable habitats for CRLF that were observed within the BSA consist of the Morro Creek stream channel (although brackish) and any of the multiple small mammal burrows that were observed along the banks of this feature, which could be utilized by this species during the dry season. Adjacent habitats that are within approximately one mile of the BSA include ruderal/developed, agriculture,

grassland, coastal dune scrub, chaparral, ephemeral and intermittent drainages, riparian woodland, beach strand, and ocean open water. A similar review of aerial imagery of areas that surround the BSA was conducted and reveals a single agricultural pond that is located approximately 1.15 miles north of the BSA. The BSA is not within the designated critical habitat for CRLF. However, the BSA is approximately 0.9 mile west of the nearest CRLF designated critical habitat unit.

To the maximum extent feasible, the project has been designed to avoid disturbing Morro Creek which provides aquatic habitat for CRLF. However, CRLF could potentially be present within the upland habitat areas of the BSA during implementation of the project. Therefore, **impacts to CRLF would be potentially significant, and mitigation would be required to reduce impacts to a less than significant level**.

South/Central California Coast Steelhead DPS. The south/central California Coast DPS of steelhead (steelhead) is a federally threatened and CDFW species of special concern that requires shaded pools within cool low-flow streams and warm water habitats below some dams or pipeline outfalls where summer releases provide high flows and fast-waters. No steelhead were observed within the BSA during the reconnaissance field survey; however, determinant-level surveys were not conducted. The BSA was assessed for the potential to support this species in accordance with the most recent guidance provided by the National Marine Fisheries Service (NMFS). Suitable habitat for steelhead within the BSA includes the Morro Creek stream channel. Morro Creek is considered suitable spawning habitat for steelhead because it supports overhanging vegetation in certain regions, has a suitable gravel substrate, and sufficient water quality. As previously mentioned, most of the area surveyed within the stream channel was dry, except for a single remaining pool within the BSA that was inundated and contained several threespine stickleback. The BSA is located within the designated critical habitat for steelhead.

To the maximum extent feasible, the project has been designed to avoid disturbing Morro Creek where steelhead may be present by utilizing a free-span bridge that avoids disturbance within steelhead habitat. Further the bridge abutments are design to avoid pile-driving construction techniques, which result in vibrations that have the potential to impact steelhead. However, steelhead could potentially be present within the BSA and therefore the project may have indirect impacts to steelhead during implementation of the project. Therefore, **impacts to steelhead would be potentially significant, and mitigation would be required to reduce impacts to a less than significant level**.

Morro Shoulderband Snail. Morro shoulderband snail (MSS) is a federally endangered species that occurs in a variety of native and non-native habitat types. It requires coastal scrub, coastal dune scrub, and maritime chaparral communities that are typically underlain by Baywood fine sands substrates. It will also utilize non-native stands that are dominated by ice plant and/or perennial veldt grass (*Ehrharta calycina*) within its range. No MSS were observed within the BSA during the reconnaissance field survey; however, determinant-level surveys were not conducted. The BSA was assessed for the potential to support this species in accordance with guidance provided by USFWS. Suitable habitat for MSS within the BSA includes the central dune scrub and ice plant communities.

The central dune scrub habitat within the BSA is considered suitable habitat for MSS because it contains sandy soils, occurs on slopes that are less than 10 percent, and is comprised of several of the characteristic plant species associated with central dune scrub vegetation. The understanding of suitable habitat for this species have expanded since the critical habitat designation and now include non-native communities. The BSA does not occur within the designated critical habitat for MSS. The BSA is approximately 0.25 mile north, across the mouth of Morro Bay, from the nearest MSS designated critical habitat unit.

To the maximum extent feasible, the project has been designed to avoid disturbing areas where MSS may be present by reducing the project footprint within ice plant and central dune scrub habitat to the minimum area necessary to construct the project. However, MSS could potentially be present within the BSA during implementation of the project. Therefore, **impacts to this species and its habitat would be potentially significant, and mitigation would be required to reduce impacts to a less than significant level.**

Legless Lizard. Both black and silvery legless lizard are CDFW species of special concern that require moist, warm, loose soils and adequate cover within beach dune, chaparral, pine and oak woodland, desert scrub, sandy wash, and stream terrace habitats. These species will utilize leaf litter, rocks, cover boards, driftwood, and downed logs for cover and refugia. However, the two subspecies are no longer recognized as genetically distinct and are now referred to as a single species (*Anniella pulchra*) in more modern taxonomic treatments (Papenfuss and Parham, 2013). No legless lizards were observed within the BSA during the reconnaissance field survey; however, determinant-level surveys were not conducted. Suitable habitat for legless lizard within the BSA includes the central dune scrub habitat.
To the maximum extent feasible, the project has been designed to avoid disturbing areas where legless lizard may be present by reducing the project footprint within central dune scrub habitat to the minimum area necessary to construct the project. However, legless lizards could potentially be present within the BSA during implementation of the project. Therefore, **impacts to this species and its habitat would be potentially significant, and mitigation would be required to reduce impacts to a less than significant level.**

Migratory Birds. Nesting and migratory birds are protected by the California Fish and Game Code provisions and under the MBTA. No nesting birds or other evidence of nesting activities were observed within the BSA or immediate vicinity during the field survey; however, comprehensive nesting bird surveys were not conducted. The arroyo willow woodland/riparian, central dune scrub, and bulrush/cattail wetland habitats within the BSA have potential to support nesting bird species. In addition, other trees within the immediate vicinity of the BSA could have birds nesting within them.

To the maximum extent feasible, the project has been designed to avoid disturbing areas where nesting birds may be present. The proposed bridge was designed to avoid impacts to arroyo willow woodland/riparian habitat, which provides habitat for nesting birds. In addition, the bridge was designed to avoid pile driving construction methods, which result in noise levels that have the potential to impact nesting birds. However, nesting bird species could potentially be present within the BSA during implementation of the project, **impacts to these species and the habitats they are utilizing would be potentially significant, and mitigation would be required to reduce impacts to a less than significant level.**

Implementation of the project is not expected to result in any significant loss or fragmentation of habitat for any of the above-described species. Instead this project would enhance the existing habitat by reducing the amount of human disturbance within the stream channel because once installed, the proposed bridge would enable pedestrians to cross over the creek without entering it. Trash and debris within the channel are also likely to be reduced with project implementation. Aside from the above-described species-specific potential impacts, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors.

b) *Arroyo Willow Woodland/Riparian Habitat*. The arroyo willow woodland/riparian habitat is considered a sensitive natural community by the CDFW and is typically afforded protection pursuant to CEQA. It occurs in the northern portion of the BSA and is adjacent to and associated with Morro Creek. Approximately 0.10 acre of arroyo willow woodland/riparian habitat is located within the BSA. It is considered a sensitive natural community type by CDFW and also falls under this agency's jurisdiction because of its association with Morro Creek.

The project has been designed to avoid the arroyo willow woodland/riparian habitat within the BSA; therefore, **impacts to arroyo willow woodland/riparian habitat would be less than significant**.

Central Dune Scrub Habitat. The central dune scrub habitat is also considered a sensitive natural community by the CDFW and is typically afforded protection pursuant to CEQA. It occurs in the central portion of the BSA along Embarcadero to the west. Approximately 1.35 acres of central dune scrub habitat was mapped within the BSA. It is considered a sensitive natural community type by CDFW.

To the maximum extent feasible, the bike path and the boardwalk have been designed to be constructed within the ruderal/developed habitat to avoid the central dune scrub habitat within the BSA; **however, due to the proximity of project development activities, impacts to this natural community would be potentially significant, and mitigation would be required to reduce impacts to a less than significant level**.

Invasive Plant Species. The California Invasive Plant Council (Cal-IPC) maintains an Inventory of invasive plant species that have been documented to occur within the state and provides information on the distributions and overall status of invasive plants that threaten to displace native plant species (Cal-IPC, 2013). Several plant species that are listed within the Cal-IPC Inventory were observed within the BSA during the field reconnaissance survey. These include: sea fig, ice plant, New Zealand spinach (*Tetragonia tetragonioides*), fennel (*Foeniculum vulgare*), snakeroot (*Ageratina adenophora*), brass buttons, bristly ox-tongue, perennial mustard, radish, California burclover, loosestrife (*Lythrum hyssopifolia*), blue gum (*Eucalyptus globulus*), European beachgrass (*Ammophila arenaria*), wild oat, false brome, ripgut grass, soft chess brome, pampas grass (*Cortaderia jubata*), wall barley, kikuyu grass (*Pennisetum clandestinum*), annual beardgrass, curly dock (*Rumex cripsus*), and myoporum (*Myoporum laetum*). **Impacts associated with the spread of invasive weeds during project development would be potentially significant, and mitigation would be required to reduce impacts to a less than significant level**.

Jurisdictional Waters. As described above, the project site contains approximately 0.22 acres that are within CDFW jurisdiction, including the area below the OHWM of Morro Creek and Morro Creek itself. The final jurisdictional determinations of the boundaries of waters and riparian habitats are made by each agency, which typically occurs at the time the authorizations to impact such features is requested. To the maximum extent feasible, the project has been designed to avoid jurisdictional waters; therefore, the project has a limited potential to result in impacts to state and federal jurisdictional waters. The proposed bridge was designed to avoid impacts to jurisdictional waters by spanning Morro Creek. The proposed bridge was also designed to avoid temporary impacts to Morro Creek by utilized a pre-fabricated/pre-engineered bridge that will not require temporary disturbance, such as grading or excavation to construct the bridge abutments. As designed no direct impacts to jurisdictional waters would occur; however, **mitigation measures are recommended to ensure that indirect impacts to jurisdictional waters would not result from the project**.

c) The project is not anticipated to require a Section 404 Permit pursuant to the Clean Water Act from the U.S. Army Corps of Engineers (USACE) because all work associated with the proposed bridge would be conducted well outside the Morro Creek channel limits. Likewise, a Section 401 Water Quality Certification from the Central Coast Regional Water Quality Control Board (RWQCB) is not anticipated to be required. The proposed project is expected to require a Streambed Alteration Agreement, which is issued from the California Department of Fish and Wildlife (CDFW) because a portion of work associated with installation of the proposed bridge would be conducted within the top of the creek bank on the northern side. The BSA occurs within the Coastal Zone and would therefore require a Coastal Development Permit, which is issued from the Central Coast District of the California Coastal Commission. However, compliance with all applicable policies and regulations associated with the Coastal California Coastal Commission would ensure that **impacts would be less than significant**.

e, f) The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or any local regional or state plans. No habitat conservation plans have been established for the project area. The project, through the implementation of the recommended mitigation measures, would either avoid impacts to special status species and sensitive habitats completely or reduce all identified impacts to less than significant levels. **This impact would be less than significant.**

Mitigation

BIO-1 The following measures are required to avoid and minimize impacts to California red-legged frogs. These measures have been approved by the FHWA in a Programmatic Biological Opinion that was created to address projects that are FHWA funded and approved (USFWS, 2011a):

a. Only City-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

b. Ground disturbance shall not begin until the lead agency receives written approval from the USFWS/Caltrans that the biologist is

qualified to conduct the work, unless the individual(s) has/have been approved previously and the USFWS has not revoked that approval.

c. A City-approved biologist shall survey the project site no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the work site before work begins. The USFWS-approved biologist will relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and that will not be affected by activities associated with the proposed project. The relocation site shall be in the same drainage to the extent practicable. The lead agency will coordinate with Caltrans on the relocation site prior to the capture of any California red-legged frogs.

d. Before any activities begin on a project, a City-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

e. A City-approved biologist shall be present at the work site until all known California red-legged frogs have been relocated pursuant to BIOL-1(c), workers have been instructed, and disturbance of habitat has been completed. After this time, the lead agency shall designate a person to monitor on-site compliance with all minimization measures. The City-approved biologist will ensure that the monitor receives the training outlined in measure BIO-1(d) above and in the identification of California red-legged frogs. If the monitor or the City-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the USFWS during the review of the proposed action, they will notify the resident engineer (the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the adverse effect immediately or require that all actions causing these effects be halted. If work is stopped, the USFWS shall be notified as soon as possible.

f. During project activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of

regularly. Following construction, all trash and construction debris shall be removed from work areas.

g. All refueling, maintenance, and staging equipment and vehicles shall occur at least 60 feet from riparian habitat or water bodies and in a location from where a spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water). The monitor (designated pursuant to BIOL-1-(e)) will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

h. Habitat contours shall be returned to their original configuration at the end of project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the lead agency, USFWS, and Caltrans determine that it is not feasible or modification of original contours would enhance habitat or otherwise benefit the California red-legged frog.

i. The lead agency shall limit the number of access routes, size of staging areas, and the total area of activity to the minimum necessary to achieve the project goals. Environmentally Sensitive Areas will be delineated to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

j. The lead agency shall schedule work activities for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding shall be avoided during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year shall be avoided during the late summer and early fall. Habitat assessments, surveys, and coordination between the lead agency, Caltrans, and the USFWS during project planning will be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.

k. To control sedimentation during and after project implementation, Caltrans, and the lead agency shall implement all Best Management Practices (BMPs) outlined in any authorizations or permits issued under the authorities of the Clean Water Act that it receives for the specific project. If BMPs are not effective, the lead agency will attempt

to remedy the situation immediately by implementing additional BMPs, in coordination with Caltrans and the USFWS.

l. If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh no larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the stream bed shall be avoided, and any imported material shall be removed from the stream bed upon completion of the project.

m. Unless approved by the City, water shall not be impounded in a manner that may attract California red-legged frogs.

n. A City-approved biologist shall permanently remove any identified individuals of non-native species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus; Procambarus clarkii*), and centrarchid fishes from the project area. The City-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

o. To ensure that diseases are not conveyed between work sites by the City-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force shall be followed at all times.

p. Project sites shall be re-vegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials shall be used, and invasive, exotic plants shall be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the lead agency, USFWS, and Caltrans determine that it is not feasible or practicable.

q. Herbicides shall not be used as the primary method used to control invasive, exotic plants, if avoidable. If Caltrans determines the use of herbicides is the only feasible method for controlling invasive plants at a specific site, herbicides shall be applied in accordance with the FHWA-approved Programmatic Biological Opinion for the project.

BIO-2 The following measures are required to avoid and minimize indirect impacts to steelhead:

a. Before any activities begin on a project, a City-approved qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training will include a description of the steelhead and its habitat, the specific measures that are being implemented to conserve this species for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

b. During the duration of project activities, all trash that may attract predators shall be properly contained and secured, promptly removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from the work areas.

c. All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 feet from riparian habitat or bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). The monitor (designated pursuant to BIOL-1-(e)) shall ensure that contamination of suitable habitat does not occur during such operations. Prior to the onset of work activities, a plan must be in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should an accidental spill occur.

d. The number of access routes, size of staging areas, and the total area used for construction activities shall be limited to the minimum area necessary to achieve the project goals.

e. The City shall schedule work for times of the year when potential impacts to steelhead would be minimal, to the maximum extent practicable. If work occurs during the wet season (November through May), Best Management Practices (BMPs) shall be implemented to avoid indirect water quality impacts to steelhead habitat.

f. To control sedimentation during and after project implementation, the City shall implement any and all BMPs outlined in all authorizations or permits issued under the authorities of the Clean Water Act that it obtains for this specific project. If the BMPs are somehow ineffective, the City will attempt to remedy the situation immediately.

g. No pets shall be allowed at the project site.

h. The monitor (designated pursuant to BIOL-1-(e)) shall inspect construction activities, in-stream habitat, and overall performance of

BMPs and sediment controls for the purpose of identifying and reconciling any condition that could adversely affect steelhead or their habitat. The monitor shall halt work if necessary and will recommend site-specific measures to avoid adverse effects to steelhead and their habitat.

i. The monitor shall check equipment daily for leaks prior to the initiation of construction activities. A spill kit will be placed near the creek and will remain readily available during construction in the event that any contaminant is accidentally released.

BIO-3 The following measures would ensure that impacts to Morro shoulderband snail (MSS) from the project are reduced to a less than significant level. These measures have been developed in coordination with USFWS and include the following:

a. Only City-approved biologists shall participate in activities associated with the capture, handling, and monitoring of MSS.

b. Environmental training sessions for all project-related personnel shall be conducted by a City-authorized biologist prior to the start of vegetation removal, grading, and ground-disturbing construction-related activities. These trainings shall continue for the duration the project and be initiated whenever new personnel come on-board.

c. Construction areas shall be clearly marked with high visibility flagging or barrier fencing. Construction equipment and personnel shall be restricted to the identified work areas only. The delineation of construction areas is ongoing and shall continue for the duration of project implementation.

d. Pre-construction MSS surveys shall be conducted in the coastal dune scrub and ice plant habitat to be removed in association with site preparation and construction activities will be conducted by a City-approved biologist. Surveys will include cutting coastal dune scrub shrubs off at ground-level and careful examination of the lower branches and litter beneath each shrub for the presence of this species.. Prior to any disturbance, all ice plant shall be carefully examined for MSS individuals and egg masses. Once coastal dune scrub and ice plant areas have been cleared and all surveys have been completed, vegetation removal may commence and can be removed by mechanical means. As vegetation is removed, it will not be stockpiled onsite but rather moved to a location offsite where it there is no chance of re-occupation by MSS.

e. The City-approved biologist will be retained to monitor all vegetation removal, grading, and ground-disturbing construction-related

activities that will take place within habitat suitable for MSS. Monitoring activities shall be required daily until completion of initial disturbance at each location and to ensure appropriate minimization measures are implemented during construction. The monitoring biologist will be granted full authority to stop work at his or her discretion and will stop work if project-related activities occur outside the demarcated boundaries of the construction footprint. The monitoring biologist will stop work if MSS is detected within the proposed construction footprint and will capture and relocate them to suitable habitat out of harm's way prior to construction activities resuming. If no suitable habitat opportunities are available in the immediate vicinity of the construction footprint, captured individuals may be transported to an off-site location in accordance with a capture and relocation methodology approved by USFWS prior to the initiation of any surveys for the species.

f. The City-approved biologist shall provide a summary report to the lead agency, Caltrans, and USFWS that documents the results of all monitoring activities throughout the duration of the project. The report will document the number of MSS captured and relocated from the project area, the locations of all MSS relocations, and the number of MSS known to have been be killed or injured. The report will contain a brief discussion of any problems encountered in implementing minimization measures, results of biological surveys, observations, and any other pertinent information. The City-approved biologist shall provide a comprehensive final report that summarizes the information provided in the annual reports to the lead agency, Caltrans and USFWS within 90 days following the completion of the proposed project.

BIO-4 The following measures would ensure that potential impacts to legless lizard from the project are reduced to a less than significant level:

a. Prior to the onset of construction activities, a City-approved qualified biologist shall conduct focused surveys for legless lizard within all potentially suitable habitat onsite during the appropriate active periods for these species. If no legless lizards are observed, no further efforts are required.

b. If legless lizard is observed onsite, the wildlife biologist shall map the locations on an aerial photograph of the project site at a scale no less than 1″=200′. A legless lizard technical report (or memorandum) shall be submitted to the City that documents the survey results prior to the onset of construction activities. Mapped locations of sensitive reptile species shall be integrated into the grading plans.

c. To avoid potential indirect impacts to legless lizard, identified locations that are not within the immediate disturbance footprint, but are located within 50 feet of disturbance limits shall have highly visible orange protective fencing and drift fencing installed at least 30 feet beyond their extent to protect them from harm during the construction phase.

d. If it is determined that complete avoidance of an identified legless lizard population(s) is not feasible, then a City-approved qualified biologist shall carefully rake or use an equivalent method to scarify the ground surface within the reptile habitat to encourage the reptiles to vacate the area prior to construction initiation. This shall occur at least 48 hours prior to the construction activities and shall be repeated if construction is halted for more than 48 hours. Alternatively, the qualified biologist can facilitate the installation of drift fencing around the occupied habitat, before construction begins, to exclude the reptiles from the work areas.

e. A City-approved qualified biologist shall physically relocate any legless lizard to equivalent suitable habitat adjacent to the BSA or on other areas within its vicinity that occur beyond the limits of construction activities. If this method is utilized, the reptiles shall be hand-captured and relocated to a designated location of suitable habitat as described above.

f. A City-approved qualified biologist shall monitor construction activities onsite if they occur within legless lizard habitat that is determined to be occupied during all vegetation clearing and immediately after vegetation clearing. The qualified biologist shall relocate the reptiles out of harm's way and into an equivalent habitat within the project site or immediate vicinity. The qualified biologist shall monitor the area(s) on a weekly basis after initial sufficient clearing of legless lizard has occurred throughout the duration of construction activities in order to inspect exclusionary fencing if it is used and to physically relocate legless lizard that have re-entered the construction zones during subsequent brush clearing or vegetation removal.

BIO-5 The following measures would ensure that potential impacts to nesting bird species from implementation of the project are reduced to a less than significant level:

a. If feasible, removal of vegetation within suitable nesting bird habitats shall be scheduled to occur in the fall and winter (between September 1 and February 14), after fledging and before the initiation of the nesting season.

b. If construction activities are scheduled to occur during the nesting season (February 15 through August 31), a pre-construction nesting bird survey shall be conducted by a City-approved qualified biologist throughout all areas of potentially suitable and accessible habitats within 200 feet of any proposed construction activities. The pre-construction nesting bird survey will be performed no more than two weeks prior to construction to determine the presence/absence of nesting birds within the project area.

c. The City and Caltrans shall be immediately notified if any nesting bird species protected under federal law (including the MBTA) are observed during surveys. Caltrans shall coordinate with USFWS regarding appropriate avoidance measures and the City shall coordinate with CDFW regarding appropriate avoidance measures. Work activities shall be avoided within 100 feet of active passerine nests and 200 feet of active raptor nests until young birds have fledged and left the nest(s). This buffer may be reduced if determined appropriate by a qualified biologist. Readily visible exclusion zones shall be established in areas where nests must be avoided. Nests, eggs, or young of birds covered by the MBTA and California Fish and Game Code would not be moved or disturbed until the end of the nesting season or until young fledge, whichever is later, nor would adult birds be killed, injured, or harassed at any time.

BIO-6 The following measures would ensure that potential project-related impacts to central dune scrub habitat and jurisdictional waters would be less than significant:

a. Prior to the initiation of construction activities, high-visibility orange construction fencing shall be installed outside of the tops of the banks of Morro Creek (and outside of the arroyo willow woodland riparian vegetation) along the limits of the existing development to ensure avoidance of these sensitive resources. Specifically, the fencing would be installed within the limits of the existing ruderal/developed areas. These avoidance setbacks are suitable and appropriate because of this portion of the BSA is already developed (i.e., roadways and parking areas) and subject to high levels of traffic, pedestrians, and passive recreational use. A qualified biological monitor will facilitate installation of the avoidance fencing and will conduct periodic site visits to ensure that the fencing remains intact for the duration of project development.

b. Access routes, staging, and construction areas shall be limited to the minimum area necessary to achieve the project goal and minimize impacts to jurisdictional wetlands/waters including locating access routes and construction areas outside of jurisdictional areas to the maximum extent feasible.

c. To control sedimentation during and after project implementation, appropriate Best Management Practices (BMP) shall be implemented to minimize adverse effects on jurisdictional areas in the vicinity of the project.

d. During construction, the City shall not dump and/or permit any litter or construction debris to enter the limits of Morro Creek. All such debris and waste shall be disposed of in closed, secure containers and will be picked up daily and properly disposed of at an appropriate refuse site.

e. All project-generated debris, building materials, and rubbish shall be removed from Morro Creek and from areas where such materials could be washed into the creek.

f. Raw cement, concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish or wildlife resulting from project-related activities, shall be prevented from contaminating the soil and/or entering Morro Creek.

g. All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 feet from riparian habitat or bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). The biological monitor and/or construction foreman shall ensure that contamination of these habitats does not occur during such operations. Prior to the onset of work activities, an acceptable plan must be in place for prompt and effective response to any accidental spills. All project workers and other project personnel shall be informed of the importance of preventing spills and of the appropriate measures to take should an accidental spill occur.

BIO-7 The following measures would reduce potential project-related impacts to central dune scrub habitat to a less than significant level:

a. To minimize impacts to central dune scrub habitat, any and all removal of this vegetation community type shall be limited to the minimum amount necessary to complete construction of the project.

b. Prior to the onset of construction, a comprehensive Habitat Mitigation and Monitoring Plan (HMMP) will be prepared that provides for a 3:1 mitigation ratio (3 acres of mitigation for every 1 acre of impacts) for all permanently impacted areas of central dune scrub habitat, unless otherwise approved by USFWS. All mitigation activities associated with replacement of central dune scrub habitat shall occur in the

immediate vicinity of the project site, and shall not inadvertently result in additional impacts to sensitive plant or wildlife species. The final HMMP will identify the exact location(s) for the required central dune scrub habitat mitigation and the HMMP will be implemented immediately after project completion.

Mitigation areas pursuant to the HMMP would require disturbance outside of the BSA. Mitigation efforts in these areas would predominantly involve foot traffic and hydroseeding, but would also require ice plant removal, which may result in residual impacts to Morro shoulderband snail. These mitigation efforts would be subject to Mitigation Measure BIO-3, which would reduce residual impacts to Morro shoulderband snail to a less than significant level.

c. Access routes, staging, and all construction areas shall be limited to the minimum amount necessary to achieve the project goals and shall minimize impacts to this sensitive community including locating all access routes and construction areas outside of and offset from the central dune scrub habitat to the maximum extent feasible.

d. When practicable, invasive and exotic plant species on the project site shall be removed and properly disposed of in an acceptable refuse site.

BIO-8 The following measures would reduce impacts associated with invasive weeds to a less than significant level:

a. Any and all invasive plant species that have been identified within the project footprint shall be removed during construction activities and will not be replanted.

b. Appropriate Best Management Practices (BMPs) that are intended and designed to curtail the spread of invasive plant species shall also be implemented throughout the construction phase of the project and likely to include the following:

- No fill shall be imported and soils currently existing on-site shall be used for fill material. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species; or the material must consist of purchased clean material such as crushed aggregate, sorted rock, or other similar substances.
- To avoid the spread of invasive species, the contractor shall:
  - Stockpile topsoil and redeposit the stockpiled soil on the slopes after construction of the new bridge is complete; or
  - Transport the topsoil to a certified landfill for disposal.

- The HMMP shall emphasize the use of native species that are expected to occur in the area.
- The City shall ensure that all erosion control materials including straw bales, straw wattles, or mulch used on-site are free of invasive species seed to the maximum extent practicable.

c. Exotic and invasive plant species shall be excluded from any erosion control seed mixes and/or landscaping plant palettes associated with the proposed project.

BIO-9 The following measures would reduce potential impacts to sensitive plant species (Blochman's leafy daisy) to a less than significant level:

a. Prior to initiation of construction activities (any vegetation removal, grubbing, or grading) a pre-construction botanical survey shall be conducted within the central dune scrub habitat onsite that was not surveyed by Althouse and Meade, Inc. This survey shall be conducted within the appropriate bloom period for Blochman's leafy daisy; June through August. The botanical survey shall be conducted by a qualified botanist. The purpose of the survey is to document the presence or absence, and number of individuals (if any), of sensitive plant species within this portion of the construction footprint. All sensitive plant species identified onsite shall be mapped onto a site-specific aerial photograph at a scale no less than 1"= 200'.

b. If Blochman's leafy daisy or any other sensitive plant species are observed during the botanical survey required above, the applicant shall reconfigure and redesign the proposed development footprint to avoid impacts to sensitive plants to the maximum extent feasible. Avoidance shall be accomplished by installation of high-visibility fencing around areas that are occupied by sensitive plant species. A qualified botanist shall oversee, direct, and generally facilitate fence installation and he or she will monitor the fencing periodically to ensure that it remains intact and is effective for the intended avoidance throughout the duration of construction activities within this location. After construction within this area is complete, the fencing may be removed by construction personnel under the supervision of the qualified botanist.

c. If Blochman's leafy daisy or any other sensitive plant species cannot be avoided, a qualified botanist shall oversee, direct, and generally facilitate transplantation of these individuals into an area of suitable and equivalent habitat within the central dune scrub mitigation area onsite. If transplantation of sensitive plant species is necessary, these activities shall be completed prior to initiation of any construction activities.

Findings

Implementation of Mitigation Measures BIO-1(a) through BIO-9(c) would reduce potential impacts to biological resources to a less than significant level.

V. CULTURAL RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Setting

Prehistoric settlements have been found throughout Morro Bay. The area's proximity to the ocean and creeks, abundant food sources and raw materials, and the mild climate made it a perfect location for prehistoric people to settle. Throughout the year, the bay offered hunting, fishing, fowling and harvesting opportunities, which allowed the Native Americans to grow into a complex society. Based on archaeological evidence, Native Americans are believed to have settled in the central coast of California over 9,000 years ago. Evidence of these people are found in the grinding stone mortars in Morro Bay State Park and on "Turtle Rock" in Chorro Willows. Middens or trash heaps of shells and other debris is evident on the sand spit (Morro Bay, 2006)

European discovery of the bay occurred in 1542, and the area was further explored in 1769. By the time the town of Morro Bay was formed in the mid 1800's, the Embarcadero was already established as a prominent location for trade. In the early 1900's the majority of development was located on the tops of the bluffs. The Embarcadero remained relatively undeveloped until World War II, when the Navy initiated a national defense project to construct an amphibious training base in the bay. In 1949, the County of San Luis Obispo purchased the old Navy base and waterfront facilities. Shortly thereafter, buildings were constructed along the Embarcadero and the docks and piers were utilized by the growing fishing fleet. In the early 1950's, Pacific Gas & Electric (PG&E) purchased a portion of the base, which would eventually become the MBPP (Morro Bay, 2006).

a) The project site is undeveloped and does not contain any structures that would be eligible for listing as historical resources. Furthermore, the City of Morro Bay does not contain any historical resources that are identified in the National or State Registers, or that are designated as State Landmarks or Points of Historical Interest (State Office of Historic Preservation, 2013/ National Register of Historic Places, 2013). **No impacts to historic resources would result.**

b) At the request of Rincon Consultants, the Central Coast Information Center (CCIC), located at the University of California, Santa Barbara, conducted a search of the California Historical Resources Information System (CHRIS) on September 25, 2013. The search was conducted to identify previously conducted cultural resource studies as well as previously recorded cultural resources in the project area and within a 0.5-mile radius of the project area. The search also included a review of the State Historic Property Data Files, National Register of Historic Places, California Historical Landmarks, California Points of Historic Interest, California OHP Archaeological Determinations of Eligibility, and the Caltrans State and Local Bridge Surveys. These inventories yielded no property evaluations within the search area. The records search also included a review of all available historic USGS 7.5- and 15-minute quadrangle maps.

The CCIC records search identified eleven previously recorded cultural resources within a 0.5-mile radius of the area of potential effect (APE) of the project. One of these resources is recorded within the APE. The CCIC provided two reports that discuss this resource. A report by Dills (1977; Report SL-00085) indicates that the area may have been previously bulldozed. A second report by Singer and Atwood (1991; Report SL-01729) indicates that the resource site was visited as part of a survey for the City of San Luis Obispo Desalination Project in 1991. Singer and Atwood found no surface evidence of the site, and state that it is possible the deposit may have been used to fill in the Morro Creek channel. CEQA provides guidelines for mitigating impacts to archaeological resources in *Section 15126.4*. According to the CEQA Guidelines, public agencies should, whenever feasible, seek to avoid damaging effects on any archaeological resource. The following factors shall be considered to prevent significant impacts to such an archaeological site:

> *(A) Preservation in place (avoidance) is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.*
>
> *(B) Preservation in place may be accomplished by, but is not limited to, the following:*
> - *Planning construction to avoid archaeological sites;*
> - *Incorporation of sites within parks, greenspace, or other open space;*
> - *Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site.*
> - *Deeding the site into a permanent conservation easement.*
>
> *(C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center.*

Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code.

(D) Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented and that the studies are deposited with the California Historical Resources Regional Information Center.

Therefore, due to the potential location of an identified cultural resource on the project site, impacts to archaeological resources would be potentially significant. Avoidance of the resource as part of project construction may not be feasible. If this resource cannot be avoided, Mitigation Measures CUL-1 and CUL-2 would be required. In addition, due to the location of the project site within a region with a substantial number of identified cultural resources, Mitigation Measures CUL-3 and CUL-4, which relates to discovery of previously unidentified cultural resources, is also required.

c) The site is predominantly Quaternary alluvium, landslide and dune deposits with outcrops of Mesozoic metavolcanic rocks. None of these types of soils and rock have a high likelihood of carrying fossil deposits (Hall, 1973). **Therefore, potential impacts to a unique paleontological resource or site or unique geologic feature would be less than significant.**

d) Given the presence of identified prehistoric archaeological sites in the vicinity of the project site, there is potential to encounter human remains during construction activities.

State Health and Safety Code Section 7050.5 requires that, in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner has 24 hours to notify the Native American Heritage Commission. The Native American Heritage Commission must identify the person or persons it believes to be most likely descended from the deceased Native American. The most likely descendent may then make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public resources Code Section 5097.98.

If the Native American Heritage Commission is unable to identify a most likely descendent; or if the most likely descendent fails to make a recommendation within 48 hours after being notified by the commission; or if the landowner or his authorized representative rejects the recommendation of the descendent, and mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner, then the landowner or his authorized representatives shall reinter the Native American human remains and associated grave items with appropriate dignity on the property in a location not subject to further subsurface disturbance. However, any such activity shall be supervised by a Native American representative knowledgeable in both Salinan and Chumash culture if a most likely descendent

is either not identified or fails to respond to notification. **Compliance with these existing regulations would ensure that impacts to human remains are less than significant.**

Mitigation

CUL-1 **Extended Phase I (XPI) Archaeological Study**. An extended phase I (XPI) study shall be conducted by a qualified archaeologist prior to issuance of a project grading permit and in accordance with Caltrans guidelines. The XPI study shall comprise subsurface testing designed to establish the presence or absence and extent of intact archaeological deposits within the area of potential effect (APE) of the project. The XPI testing shall be observed by a Native American representative.

CUL-2 **Phase II Subsurface Archaeological Testing**. If avoidance of a potential archaeological site(s) identified pursuant to Mitigation Measure CUL-1 is not possible, a Phase II subsurface testing program shall be completed to assess the site's integrity, (i.e., how intact the site and/or feature is) and evaluate of the site's significance through a study of its features and artifacts. The subsurface archaeological testing shall be conducted prior to issuance of a project grading permit and shall be observed by a Native American representative.

The Phase II program shall be performed by a qualified archaeologist, and shall include:

- Mapping the location of the surface remains within the proposed impact area;
- Surface collection of artifacts;
- Excavation of a sample of the cultural deposit to characterize the nature of the buried portions of the site within the proposed impact area;
- Monitoring of excavations containing Native American Indian resources by a Native American representative;
- Repatriation of Native American Indian cultural resources at the recommendation of a Native American representative;
- Analysis of all remains, submission of a final report detailing the results of the investigations, and curation of all artifacts and records detailing the results of the investigations at a county approved curation facility.

If the site is determined significant, prior to issuance of a grading permit, the applicant may choose to cap the resource or have a qualified archaeologist conduct Phase III Data Recovery Excavation. Capping shall be conducted using culturally sterile and chemically neutral fill material and shall include open space accommodations and interpretive displays for the site to ensure its protection from development. An archaeologist

and Native American consultant knowledgeable in both Salinan and Chumash culture shall be retained to monitor the placement of fill upon the site and to make open space and interpretive recommendations. If a significant site will not be capped, the Phase III Data Recovery Excavation shall be implemented to exhaust the significant data potential of the resource under observation by a Native American consultant. Archaeological and Native American monitoring shall be conducted for ground disturbing construction activities.

If the site is determined insignificant, no capping and or further archaeological investigation shall be required. The results and recommendations of the Phase II study shall determine the need for construction monitoring, which shall be implemented as identified.

In addition, the following mitigation is required to prevent impacts to unidentified cultural resources that may be encountered during construction activities:

CUL-3 **Archaeological and Native American Construction Monitoring.** Archaeological resource monitoring shall accompany any construction trenching and excavation within the project area. A Cultural Resource Monitoring Plan shall be developed and approved by the City of Morro Bay which will include the following elements:

a. A pre-construction archaeological workshop shall be conducted by a qualified archaeologist in order to educate construction personnel as to the type of cultural material that may be encountered;
b. Provision of an opportunity for review of and comment on the contents and implementation of the Prehistoric Cultural Resource monitoring plan by a Native American representative(s); and
c. Implementation of a restriction that results of all surveys, construction or shared information related to the Native American community shall be kept in strict confidentiality.

CUL-4 **Stop Work.** If buried cultural materials are encountered during construction, work in the area shall stop until a City-approved archaeologist can evaluate the nature and significance of the find.

Findings

Implementation of Mitigation Measures CUL-1 and CUL-2, including all recommended measures identified as part of the Phase II subsurface archaeological testing program or subsequent reports, and compliance with the provisions of State Health and Safety Code 7050.5, would reduce potential impacts to cultural resources to a less than significant level.

VI. GEOLOGY AND SOILS: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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 (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Setting

The project site is generally located within the southernmost portion of the Coast Range Geomorphic Province of California. It is regionally dominated by the Franciscan formation, a heterogeneous assemblage of oceanic and terrigenous rock units that form the core complex of the Coast Range. The Franciscan complex consists of mainly marine sandstone that is interbedded with chert.

The project site is located in the northwestern portion of the City of Morro Bay, adjacent to the harbor. In the immediate vicinity of the project site, alluvium has been deposited in tidal flats at the mouth of Morro Creek where it enters Morro Bay. To the west, the prominent geologic feature is Morro Rock, a volcanic unit composed of dacite. Dune deposits comprise the project site and can be found along the beaches and the sand spit where the transportation of sand is an ongoing process. According to the Morro Bay State Park Marina Renovation and Enhancement Project Environmental Impact Report (2008), littoral transport of beach sand primarily circles throughout the bay with predominantly onshore and offshore movement supplemented by sand transport parallel to the shoreline in both the north and south directions.

A soil survey, prepared by the U.S. Department of Agriculture, Natural Resource Conservation Service, shows that dune land soil underlies over 98 percent of the project site (NRCS, 2008). Dune land soil consists of hummocks, mounds, and hills of loose, wind deposited quartzitic marine sand. The project site has low shrink-swell potential and good drainage and permeability. It is highly susceptible to wind erosion and slightly susceptible to sheet and rill erosion by water. In addition, dune land soil creates moderate to high potential for liquefaction activity during an earthquake (NRCS, 2008).

In general, the project site is situated within a region of complexly-faulted and folded basement rocks. While there are faults in the region, no active faults are known to pass beneath the project site or exist in the immediate vicinity. The closest active fault of local extent is the Los Osos Fault, located about five miles south of the project site. In addition to this fault, large faults that could reasonably cause ground shaking below the project site include the San Andreas, Hosgri, Nacimiento, and Rinconada faults. In addition to ground shaking, potential secondary seismic hazards that could result from the interaction of ground shaking with existing soil and bedrock conditions include liquefaction, settlement, and tsunamis or "tidal waves."

a. i) The City of Morro Bay is not underlain by any known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map (California Department of Conservation, 1990). It is also not identified among the cities or counties affected by Earthquake Fault Zones as of August 16, 2007 (California Department of Conservation, 2012). **Therefore, potential impacts would be less than significant.**

a. ii-iii) While there are no known active faults within or adjacent to the project site, it is located in a seismically active area (City of Morro Bay General Plan Safety Element, 1988). As such, potential threats to life and property from earthquakes are ground shaking and liquefaction. The primary seismic hazard within the project area would be ground shaking. Fault modeling conducted for the *Application for Certification* for the Morro Bay Power Plant (October, 2000) suggests conservative peak site horizontal ground accelerations as high as 0.33g; however, this

is less than California Building Code (CBC) 0.4g seismic design coefficient for Seismic Zone 4, in which the project would be located.

Secondary seismic hazards result from the interaction of ground shaking with existing soil conditions, and include liquefaction, settlement, and landslides. The presence of a high water table and unconsolidated sediments in the project vicinity could amplify ground shaking and result in liquefaction and settlement. According to the City's General Plan Safety Element (1988), the project site is located in an area that would be subject to moderate to high liquefaction potential in the event of a major earthquake. The Safety Element does not report the site at being at risk of landslides due to its relatively flat topography.

A seismic hazard cannot be completely avoided. However, its effect can be minimized by implementing seismic requirements specified by the California Building Code (incorporates the Uniform Building Code) and the California Division of Mines and Geology Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117 (revised 2008), which includes design and construction requirements related to fire and life safety and structural safety. **Compliance with the requirements of the California Building Code and the California Division of Mines and Geology Guidelines for Evaluating and Mitigating Seismic Hazards in California would ensure that impacts associated with seismic ground shaking, seismic-related ground failure, and liquefaction would remain less than significant.**

a.iv) According to the City's General Plan Safety Element (2001), the project site is not located in an area that would be subject to landslides due to its relatively flat topography. **This impact would be less than significant.**

b, c) The project site would be graded; however project construction would not require import or export of soil. The proposed project includes the development of a multi-use trail and clear span bridge across Morro Creek. The span would be installed from the top of the bank of either side of the creek and would not include support structures within the creek bed. In addition, the susceptibility of the surface soils to erosion from surface runoff is considered to be minimal due to the high permeability of the surface soils.

Development of the proposed project site would cumulatively disturb more than one acre. This would trigger the need for completion of a Stormwater Pollution Prevention Plan (SWPPP), in conformance with the National Pollutant Discharge Elimination System (NPDES), as part of standard regulatory compliance. **Implementation of this requirement would ensure that impacts remain less than significant.**

d) Soils subject to shrink-swell potential could cause damage to structures and/or pose a safety hazard during a seismic event or due to elevation changes over time. The NRCS soil survey (2008) for the project site indicates that the soil (Dune land soil) is characterized by low shrink-swell potential. **The relative stability of on-site soil, and compliance with the California Building Code, would result in less than significant impacts related to unstable and expansive soils.**

e) The project scope does not include development of facilities that would generate wastewater. **Therefore, no impacts would result.**

Mitigation

No mitigation measures are required.

Findings

Impacts would be less than significant without mitigation.

VII. GREENHOUSE GAS EMISSIONS: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Setting

Greenhouse gases (GHGs) are emitted by both natural processes and human activities. Of these gases, carbon dioxide (CO_2) and methane (CH_4) are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills.

Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. According to the Air Resources Board (ARB), some of the potential impacts in California of global warming may include loss of snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (ARB, October 2007). While these potential impacts identify the possible effects of climate change at a global and potentially statewide level, in general, scientific modeling tools are currently unable to predict what impacts would occur locally.

The City of Morro Bay has not yet adopted GHG emissions thresholds for use in CEQA documents. In March 2012, the SLOAPCD adopted GHG thresholds in order to achieve goals outlined in the San Luis Obispo County EnergyWise Plan. There are three thresholds that can be used to evaluate the level of significance of GHG emissions impacts for residential and commercial projects. The three thresholds are described below:

- *Qualified GHG Reductions Strategies. A project would have a significant impact if it is not consistent with a qualified GHG reduction strategy that meets the requirements of*

the State CEQA Guidelines. If a project is consistent with a qualified GHG reduction strategy, it would not have a significant impact; OR,

- *Bright-Line Threshold. A project would have a significant impact if it exceeds the "bright-line threshold" of 1,150 metric tons CO2E/year; OR,*
- *"Efficiency" Threshold. A project would have a significant impact if the efficiency threshold exceeds 4.9 metric tons of CO2E/service population/year. The service population is defined as the number of residents plus employees for a given project.*

The Lead Agency may choose the threshold that is most applicable to the proposed project. Because the City of Motto Bay does not have an adopted GHG reduction strategy, and the project would not generate a service population, the threshold most appropriate for the proposed project is the bright-line threshold of 1,150 metric tons CO_2E per year.

Pollutant emissions quantification for the project was conducted using the California Emissions Estimator Model (CalEEMod) version 2013.2.1. For CalEEMod results, refer to Appendix B.

a) The use of construction vehicles and equipment during project construction would generate short-term GHG emissions. Potential GHG emissions from the project construction phase were estimated using the URBEMIS 2007 v9.2.4 model and an estimated based on an assumed maximum area of disturbance of 4.8 acres. Short-term GHG emissions are shown in Table 3-2 (see Appendix B for full CalEEMod results).

Table 3-2. GHG Emissions

	CO_2	CH_4	N_2O	CO_2E
Project Construction Phase	21.83 metric tons	<0.01 metric tons	<0.01 metric tons	21.96 metric tons
Amortized Construction Emissions [1]				0.73 metric tons/year

1. Project construction emissions are amortized over the estimated lifetime of the project (30 years), consistent with SLOAPCD recommended methodology for short-term GHG emissions.

Operation of the proposed project would not result in substantial GHG emissions. The project does not involve new land uses that would result in long-term on-site GHG emissions. The proposed pedestrian and bicycle facilities, in combination with the proposed interpretive educational facilities, would attract new users, but would not result in a substantial increase in vehicle trips that would generate new GHG emissions. In addition, by encouraging bicycle and pedestrian travel, the project may reduce motor vehicle trips to the area, and associated GHG emissions.

As shown in Table 3-2, project GHG emissions would be below the applicable SLOAPCD emissions threshold of 1,150 metric tons CO_2E. **Therefore, the proposed project would have a less than significant impact associated with GHG emissions.**

b) Assembly Bill (AB) 32, signed in September 2006, requires the State's global warming emissions to be reduced to 1990 levels by 2020. After completing a comprehensive review and update process, the ARB has approved a 1990 statewide GHG level and 2020 limit of 427 MMT

CO_2E (ARB, October 2007). Furthermore, AB 32 requires ARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline.

Senate Bill (SB) 375, signed in August 2008, enhances the State's ability to reach AB 32 goals by directing ARB to develop regional greenhouse gas emission reduction targets to be achieved from vehicles for 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPO) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP).

CalEPA's Climate Action Team (CAT) published the 2006 CAT Report which includes GHG emissions reduction strategies intended for projects emitting less than 10,000 tons CO_2E/year. In addition, the California Attorney General's Office has developed Global Warming Measures (2010) and OPR's CEQA and Climate Change (California Air Pollution Control Officers Association, 2008) document includes GHG reduction measures intended to reduce GHG emissions in order to achieve statewide emissions reduction goals. All of these measures aim to curb the GHG emissions through suggestions pertaining to land use, transportation, renewable energy, and energy efficiency. Several of these actions are already required by California regulations, such as:

- AB 1493 (Pavley) requires the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks.
- In 2004, ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.
- The Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989) established a 50% waste diversion mandate for California.
- Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).
- California's Renewable Portfolio Standard (RPS), established in 2002, requires that all load serving entities achieve a goal of 33 percent of retail electricity sales from renewable energy sources by 2020, within certain cost constraints.
- Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels.

The proposed project would be required to comply with State and local regulations intended to reduce GHG emissions from new development. Consistency with applicable State regulations and goals illustrates that the project would not conflict with the State's GHG-related legislation and would not contribute to the inability to meet reduction goals. In addition, the City of Morro Bay is currently in the process of developing a Climate Action Plan; however, this plan has not yet been adopted. **Therefore, the project would not conflict with any applicable plan, policy or regulation intended to reduce GHG emissions, and impacts would be less than significant.**

Mitigation

No mitigation measures are required.

Findings

Impacts would be less than significant without mitigation.

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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 accident conditions involving the release of hazardous materials 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 Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project 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, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

Setting

Natural hazards, such as earthquakes, landslides, and flooding, have played an essential role in shaping the topography and landscape of Morro Bay, and become "hazards" when they disrupt or otherwise affect the lives and property of people. Human-caused hazards often occur as a result of modern activities and technologies. These potential hazards can include the use of hazardous materials and buildings that may be unsafe during a strong earthquake.

A number of federal and state agencies are responsible for the regulation of hazardous materials. The County of San Luis Obispo is responsible for enforcing state regulations, both in the City of Morro Bay and the County, governing hazardous substance generators, hazardous substance storage, and underground storage tanks (including inspections, enforcement, and removals). The San Luis Obispo County Environmental Health Department regulates the use, storage, and disposal of hazardous substances in the County by issuing permits, monitoring regulatory compliance, investigating complaints, and other enforcement activities.

a) The proposed project includes a pedestrian boardwalk and separate bike path with a span over Morro Creek, bicycle parking, educational interpretive facilities, a paved crosswalk at the intersection of Embarcadero Road and Coleman Drive, and non-irrigated planting areas. These uses would not create a significant hazard to the public/environment involving hazardous materials. Construction materials, including fuels and oils, may be transported during construction, in compliance with existing regulations. **Therefore, impacts would be less than significant.**

b) The proposed project does not involves any uses that would create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Although a limited amount of hazardous materials would be present at the project site (namely oil and gas for construction equipment and vehicles) during normal construction conditions, hazardous materials would not pose a substantial risk. However, there is the potential for spills to occur at the project site, which would potentially

affect sensitive areas, such as Morro Creek. **Therefore, impacts would be potentially significant. Mitigation Measure HAZ-1 would reduce the potential for incidental exposure to a less than significant level.**

c) The proposed project would be located within approximately 0.3 mile of Morro Bay High School. However, the project uses and activities would not generate hazardous materials, substances, or waste. Proposed uses include a pedestrian boardwalk and separate bike path with a span over Morro Creek, bicycle parking, educational interpretive facilities, a paved crosswalk at the intersection of Embarcadero Road and Coleman Drive, and non-irrigated planting areas. **Therefore, impacts would be less than significant.**

d) The project site has been used historically for open space, paved and dirt parking, and roadway (Embarcadero Road). These historic uses would not result in residual contamination at the project site. The project site is not included on or eligible for Department of Toxic Substances Control (DTSC) listing pursuant to 65962.5, and proposed uses on the project site would not create a significant hazard to the public or the environment. **Project impacts related to hazardous materials would be less than significant.**

e, f) The proposed project is not located within the vicinity of an airport, airport land use plan, or private airstrip. Therefore, the project would not result in exposure of project occupants to hazards from such facilities. **No impacts would occur.**

g) Construction of the project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. **No impacts would occur.**

h) The fire hazard potential of an area is determined by the relative amount of fuel loading, fire weather, and slope. The project site is not located within a high fire hazard area, as the project site is relatively flat, and consists of sandy, unvegetated near-shore areas, and lightly vegetated dunes. **Impacts would be less than significant.**

Mitigation

HAZ-1 **Spill Prevention and Countermeasure Plan**. Prior to issuance of a grading permit, the contractor shall prepare a Spill Prevention and Countermeasure Plan (SPCP) for the project. The SPCP will include information on the nature of all hazardous materials, such as oil and gas, solvents, cleaning agents, etc., that will be used on-site, and identify proper handling, storage, collection, and disposal measures for such materials. The SPCP will also identify clean-up procedures in the event of an accidental release. The phone number of the agency overseeing hazardous materials and toxic cleanup will be provided in the SPCP.

Findings

Implementation of Mitigation Measure HAZ-1 would reduce impacts to a less than significant level.

IX. HYDROLOGY AND WATER QUALITY: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 which 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 the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the 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 flooding on- or off-site?	☐	☐	☒	☐
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) Otherwise substantially degrade water quality?	☐	☐	☒	☐

IX. HYDROLOGY AND WATER QUALITY: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Setting

Morro Bay contains approximately 2,100 acres of water surface at low tide and approximately 6,500 acres at high tide, resulting in approximately 980 acres of tidal mud flat and approximately 470 acres of salt marsh. At low tide, most of the water in the Bay is found in the Main, Navy, and Morro channels, three relatively contiguous channels that extend approximately two nautical miles into the Bay from the terminal ends of the breakwaters, which form the entrance to Morro Bay Harbor (Morro Bay State Park Marina Renovation and Enhancement Project EIR, 2008).

The water quality of Morro Bay is affected by presence of nutrients, toxic substances, hydrocarbons, bacteria, heavy metals, suspended sediment, and turbidity. Elevated levels of bacteria present a potential health threat to those who utilize the Bay for recreational purposes, can impact commercially-harvested oyster beds, and may affect groundwater wells in the upper and lower aquifers beneath Los Osos. Nutrient enrichment, primarily nitrogen and occasionally phosphorus, is of concern in the estuary and the watershed. Resulting algal blooms, which are often the result of excessive nutrients in the water body, have been a problem in Morro Bay. Reduction in freshwater flows during dry seasons disrupts the balance of salt water and freshwater, and decreases in summer flow reduces the flushing (increases flushing time), thereby contributing to the build-up of pollutants. Increased temperatures and reduced dissolved oxygen also may be associated with the loss of freshwater flow (Morro Bay State Park Marina Renovation and Enhancement Project EIR, 2008).

Studies by various authors over the past 25 years suggest that Morro Bay is subjected to a relatively rapid increase in sedimentation. These studies provide estimates of sediment loadings and accumulations to the bay. One of these studies estimated that Morro Bay has lost more than one quarter of its tidal volume in the last 100 years. In that study, it was estimated that under "normal" circumstances, the Bay would naturally fill in with sediment in several thousand years but, if the recent accelerated rates continue, that period would be reduced to 300 years. Other studies have reached similar conclusions regarding sediment yields, and it is likely that structural changes to the mouth of the estuary in addition to the dynamics of outgoing tidal velocity and incoming sediment transport are factors resulting in this phenomenon. Morro Bay, Los Osos and Chorro Creek are listed as "impaired waters" under the federal Clean Water Act, Section 303(d). These water areas, and the Morro Bay Estuary, are also listed as waters impaired by sedimentation/siltation, and are the subject of a Total Maximum Daily Load (TMDL), which is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. The maximum annual input allowed under the TDML for Morro Bay is 34,885 tons per year (Morro Bay State Park Marina Renovation and Enhancement Project EIR, 2008).

The majority of the project site is designated by the Federal Emergency Management Agency (FEMA) as a "Zone X" flood zone. This zone has a 2% annual chance of flooding and a 1% chance of annual flooding to depths less than one foot. The Morro Creek section of the project site is designated by FEMA as "Zone AE." This zone has a 1% annual chance of flooding (100-year flood) in a given year, and is contained within the banks of Morro Creek.

a) The project would not violate water quality standards or waste discharge requirements. To meet water quality and habitat protection goals for the City of Morro Bay and the Morro Bay Estuary, the proposed facilities would be designed to allow for percolation alongside the expanded bicycle and pedestrian facilities, reducing surface runoff and minimizing stormwater runoff into Morro Bay. In addition, the project would be subject to the requirements of the City's Stormwater Management Plan, which would further reduce potential impacts to water quality. The project would not generate wastewater. **Therefore, potential impacts would be less than significant.**

b) The proposed project includes a pedestrian boardwalk and separate bike path with a span over Morro Creek, bicycle parking, educational interpretive facilities, a paved crosswalk at the intersection of Embarcadero Road and Coleman Drive, and non-irrigated planting areas. None of these proposed uses would consume water or increase water demand. **Therefore, no impact would occur.**

c, d) To meet water quality and habitat protection goals for the City of Morro Bay and the Morro Bay Estuary, the proposed facilities would be designed to allow for percolation alongside the expanded bicycle and pedestrian facilities, reducing surface runoff and minimizing stormwater runoff into Morro Bay. The small amount of surface area of the paved pathways, and available permeable ground surface adjacent to the multi-use pathways, would maintain the pre-project hydrological runoff patterns of the project site. Therefore, the project would not significantly alter the drainage patterns of the site or result in substantial erosion or flooding. In addition, the project features a clear span bridge and would not alter the course of an existing stream or river. The proposed bridge would reduce unauthorized crossings of the creek,

reducing erosion and sedimentation associated with unauthorized crossings. **Therefore, potential impacts would be less than significant.**

e) The proposed project would not result in an increase in stormwater runoff or a substantial change in stormwater flow; therefore, the project would not over-capacitate existing stormwater infrastructure. The small amount of surface area of the paved pathways, and available ground surface adjacent to the pathways, would maintain the pre-project hydrological runoff patterns of the project site. In addition, the project would be subject to the requirements of the City's Stormwater Management Plan, which would further reduce potential impacts to water quality.

Development of the proposed project site would cumulatively disturb more than one acre. This would trigger the need for completion of a Stormwater Pollution Prevention Plan (SWPPP), in conformance with the National Pollutant Discharge Elimination System (NPDES), as part of standard regulatory compliance. **Implementation of this requirement, and the low impact development standards, would ensure that impacts remain less than significant.**

f) The proposed project would not provide new motor vehicle parking or other uses that could potentially deposit toxic substances that would be washed into Morro Creek, the bay or ocean, during a rain event. The project would connect with existing unpaved parking areas along Embarcadero Road on the north and south sides of Morro Cree, facilitating the use of those parking areas for users of the proposed trail; however, the project would not result in a substantial increase in existing traffic volumes in the local street system, nor would the project attract new unique vehicle trips to the project area, as compared to the existing trail system. In addition, by encouraging bicycle and pedestrian travel, the project may reduce motor vehicle trips to the area. The proposed project also does not have any in-water activities. **Therefore, potential impacts would be less than significant.**

g) The proposed project does not include the development of new housing; therefore, the project would not place housing within a 100-year flood zone. **No impacts would result.**

h) The majority of the project site is designated by the Federal Emergency Management Agency (FEMA) as a "Zone X" flood zone. This zone has a 2% annual chance of flooding and a 1% chance of annual flooding to depths less than one foot. The proposed project would place a clear span bridge across Morro Creek, which is designated by FEMA as Zone AE, a 100-year flood zone. The proposed bridge would provide 10.4 feet of clearance from the creek bed, and would not involve the construction of any support structures within the creek bed. The 100-year flood elevation at the bridge is 15.8 feet, and up to 16.1 feet, accounting for predicted sea level rise. As such, the proposed bridge, with a lower chord of 17.5 feet (refer to Appendix A), would not impede the flow of water during a 100-year flood event. The width of the flood path for a 100-year flood with sea level rise is approximately 101 feet. The bridge span would be approximately 130 feet, which would allow its footing to remain in un-submerged areas. The rest of the proposed project would place interpretative educational structures and bicycle/pedestrian facilities within a designated Zone X, which has a 2% annual chance of flooding and a 1% chance of annual flooding to depths less than one foot. Due to the small size of the educational structures, their potential to redirect flood flows would be negligible. **Impacts from development of the project would be less than significant.**

i) According to the San Luis Obispo County Dam Inundation Map, the City of Morro Bay is not at inundation risk in the event of dam failure (San Luis Obispo County, Dam Inundation Map, 1999). In addition, there are no levees within the project area. **Therefore, no impacts would occur.**

j) According to the City's Safety Element, the City is at risk in the event of a tsunami due to its direct proximity to the ocean and bay. As discussed therein, the most feasible protection in the event of a tsunami is a warning system and evacuation plan. Warning is handled by the United States Weather Service, while the Safety Element outlines safety preparedness measures. Additionally, the proposed bridge will be designed to support a 40,000 pound vehicle and will provide additional emergency access between North and South Morro Bay. The proposed project is not subject to a seiche, as it is not within close proximity to a fully, or semi-enclosed body of water, that is distinct from the Morro Bay ocean front or bay. **Therefore, impacts are less than significant.**

Mitigation

No mitigation measures are required.

Findings

Impacts would be less than significant without mitigation.

X. LAND USE AND PLANNING: Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the 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?	☐	☐	☐	☒

Setting

The proposed project is located within the City of Morro Bay. The project site is designated by the City of Morro Bay General Plan as Open-Space. The site is adjacent to the existing MBPP to the east, Morro Creek to the north, Morro Bay to the south, and a dune restoration area designated as open space to the west.

a) The proposed project would function as a recreational and educational area, and would provide pedestrian and bicycle connectivity from north Morro Bay to the existing boardwalk along Embarcadero Road and Coleman Drive. The project would not physically divide an established community. **Therefore, no impact would occur.**

b) The proposed project is a multi-use trail and bridge that would consist of a multi-use paved path, pedestrian boardwalk, an approximately 130 foot long clear span pre-engineered/pre-fabricated bike and pedestrian bridge, interpretive educational facilities, bicycle parking and non-irrigated native planning areas. As such, the project development is consistent with the City of Morro Bay land use designations for the parcel of Open-Space, Commercial/ Recreational Fishing and Planned Development (QA-2/CF/ PD).

This area is also designated by in the City of Morro Bay Coastal Land Use Plan as mixed use area H (Local Coastal Plan [LCP], Chapter II). The mixed use area H designation supports current City zoning designations as it states, "Within this area, uses allowable under any of the applicable land use and zoning designations are encouraged as primary uses of the area. Open space uses or commercial fishing support facilities may be proposed either singly or in a mixed use pattern." Therefore, the proposed development is also consistent with the City Coastal Land Use Plan. In addition, the project would require a Coastal Development Permit (CDP), which would ensure that the project is consistent with the California Coastal Act (Public Resources Code Division 21).

LCP in Section XII of the Morro Bay Coastal Land Use Plan. And specifically Policies 11.14 and 11.15 require buffers surrounding wetlands and non-urban streams to be a minimum of 100 feet, and buffers surrounding urban streams to be 50 feet, and prohibit structures within the stream corridor and environmentally sensitive habitat, with an exception for bridges when support structures are located outside the critical habitat areas and no alternative route/location is feasible. In addition, the City of Morro Bay Municipal Zoning Ordinance, Section 17.40.040, requires a Conditional Use Permit (CUP) for bridge projects within a stream corridor where no alternative route/location is feasible and support structures are sited outside of the environmentally sensitive habitat.

The project would include a CUP for the proposed bridge, and is not in conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. The project is designed to improve connectivity between existing recreational resources, and encourage users to stay in designated areas and discourage unauthorized crossings of Morro Creek that adversely affect stream and wetlands resources. Accordingly, the project is less environmentally damaging to these resources when compared to the existing condition without the bridge, and

no less damaging alternative creek crossing location is available. **Therefore, potential impacts would be less than significant.**

c) The proposed project is not located within an area subject to a Habitat Conservation Plan or Natural Community Conservation Plan. The project site is not within any environmentally sensitive habitat area, as defined by the Land Use Element of the City's General Plan (1993). **No related impacts would occur.**

Mitigation

Impacts to land use would be less than significant. No mitigation is required.

Findings

Impacts would be less than significant without mitigation.

XI. MINERAL RESOURCES -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Result in the loss of availability of a known mineral resource that 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?	☐	☐	☐	☒

Setting

The landscape of San Luis Obispo County contains a variety of mineral resources. Mining of copper and coal has occurred in the County since the mid-1800's, and chromite, manganese and mercury were mined in the early 1900's. Quarrying on Morro Rock provided the materials for construction of a jetty closing the north entrance of the harbor and a breakwater protecting the south entrance. In recent years, the principal developed mineral resources of San Luis Obispo County have been gypsum, clay, natural gas, petroleum, mercury, construction stone, sand, and gravel. Of these resources, sand and gravel remains a principal mineral resource in the county to this day. In addition to providing necessary raw materials, mineral extraction significantly contributes to the regional economy.

a) Mineral or petroleum extraction does not occur, and is not proposed to occur, on the project site. Furthermore, the State geologist has not designated a mineral resource area of statewide or regional significance pursuant to Sections 2710 et seq. of the Public Resources Code (the Surface Mining and Reclamation Act) in the vicinity of the proposed project. **No impacts would result.**

b) Based on a review of San Luis Obispo County GIS data and the Mineral Land Classification Map prepared by the State of California Division of Mines and Geology, there are no existing or historical mineral extraction operations in or adjacent to the project site. **Therefore, no impacts would result.**

Mitigation

No mitigation measures are required.

Findings

No impacts to mineral resources would occur as a result of the proposed project.

XII. NOISE: Would the project result in:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity due to construction activities above levels existing without the project?	☐	☒	☐	☐
e) For a project 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, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

XII. NOISE: Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Setting

Community noise levels are typically measured in terms of A-weighted decibel (dBA). A-weighting is a frequency correction that correlates overall sound pressure levels with the frequency response of the human ear. Equivalent noise level (Leq) is the average noise level on an energy basis for a specific time period. The duration of noise and the time of day at which it occurs are important factors in determining the impact of noise on communities. The Community Noise Equivalent Level (CNEL) and Day-Night Average Level (Ldn) account for the time of day and duration of noise generation. These indices are time-weighted average values equal to the amount of acoustic energy equivalent to a time-varying sound over a 24-hour period.

The City of Morro Bay General Plan Noise Element contains noise thresholds for land use compatibility near transportation noise sources. According to the Noise Element, the maximum acceptable noise exposure from transportation noise sources is 60 dB at most uses, and 70 dB at playgrounds and parks. In addition, the City of Morro Bay's Zoning Ordinance contains noise requirements with general noise limitations in Chapter 17.52, Performance Standards. The noise ordinance also covers operational hours, criteria for review of development projects, noise mitigation, and requirements for noise reduction measures and acoustical analyses.

Noise-sensitive land uses located near the project site include Morro Dune RV Park north of the project site and recreational uses associated with the nearby seashore areas. According to the City's General Plan, the existing noise environments in the City of Morro Bay are composed of sounds from many sources. The most substantial sources of noise within Morro Bay are related to traffic and transportation.

a) Noise generated by proposed uses on the project site would be minimal. The multi-use pedestrian and bicycle trail would generate low-level sounds such as people talking or dogs barking. **Therefore, impacts would be less than significant.**

b, d) Construction activity at the project site would temporarily increase noise levels beyond the current ambient noise levels in the surrounding area. Construction activity would entail minimal finish grading and clearing, paving, installation of a pre-fabricated/pre-engineered clear span bridge and landscaping. The main sources of noise during construction activities would be the heavy machinery used in grading. There would be no pile driving necessary to complete project construction. Maximum noise levels associated with the use of heavy equipment at construction sites can range from about 74 to 85 dBA at 50 feet from the source,

depending upon the types of equipment in operation at any given time and phase of construction (FHWA, 2006). The Morro Dunes RV Park, located north of the proposed site across Morro Creek, as well as existing residences located approximately 1,400 feet east of the project site, are noise-sensitive uses that may experience a short-term ambient noise increase during construction.

In addition, graders and compactors used during project construction could generate groundborne vibration or groundborne noise levels that may affect nearby residents to the east of the project site, or the existing RV Park located north of the project site across Morro Creek. **Construction-related noise and vibration impacts would be temporary, but are potentially significant. Mitigation Measures NOI-1 through NOI-3 would reduce construction-related noise and vibration impacts to a less than significant level.**

Required pre-construction nesting bird surveys (Mitigation Measure BIO-5(a) through BIO-5(c)) would ensure that temporary noise related to construction activities would not result in an impact to these biological resources.

c) The area presently generates low amounts of noise due to traffic. The primary noise source affecting the project site is traffic on Coleman Drive and Embarcadero Road. As a result of increased bike and pedestrian trail connectivity, there is a possibility that more vehicles trips will be attracted to the area. However, since the proposed project would not add new parking or roadway facilities, an increase in vehicle trips would be minimal and any additional vehicles would continue to be dispersed amongst existing parking facilities in the area, and would not collect in a new centralized area. The additional trail connection and bridge would attract additional pedestrians and bicyclists, which would not result in a substantial increase in existing area noise levels. The proposed project would not significantly expose people to severe noise levels during project operations. **Impacts would be less than significant.**

e, f) The proposed project is not located within the vicinity of an airport, airport land use plan, or private airstrip. Therefore, the project would not result in exposure of project occupants to noise from such facilities. **No impacts would occur.**

Mitigation

NOI-1 **Construction Timing**. Construction activities at the site shall be limited to the daytime hours between 7:00 a.m. to 6:00 p.m. Monday through Friday, with no construction on State recognized holidays.

NOI-2 **Construction Equipment Maintenance/New Construction Equipment**. Newer construction equipment shall be used whenever possible. All construction equipment shall be maintained per manufacturer's specifications.

NOI-3 **Acoustical Shelters/Sound Blankets**. Power-generating and other noise-generating machinery used for construction shall be partially or completely surrounded by temporary acoustical shelters or covered with a sound blanket if within 300 feet of an existing residential unit or recreational vehicle.

Findings

Implementation of Mitigation Measures NOI-1 through NOI-3 would reduce impacts to a less than significant level.

XIII. POPULATION AND HOUSING: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	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?	☐	☐	☐	☒

Setting

As of the 2010 census, Morro Bay had a population of 10,234 residents. This figure is down from 10,350 residents at the 2000 census.

a) The proposed project does not involve residential development, and would not induce population growth. **Therefore, no impacts would result.**

b, c) The project site is currently undeveloped and would not displace existing housing or people. **Therefore, no impacts would result.**

Mitigation

No mitigation measures are required.

Findings

Impacts would be less than significant without mitigation.

XIV. PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☐
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☒	☐

Setting

Police protection is provided by the Morro Bay Police Department. Police officers operate out of the police headquarters located at 870 Morro Bay Boulevard. Patrol officers work on a 3/12 work shift, which allows the Department to maximize patrol staffing on any given shift. Each patrol shift is supervised by a sergeant who acts as the Watch Commander.

Fire protection services are provided by the Morro Bay Fire Department. Fire personnel operate from one fully staffed fire station located at 715 Harbor Street and one non-staffed station located at 460 Bonita Street. The City operates two fire engines, one 75' ladder truck, one rescue vehicle, one command vehicle, two utility vehicles, a USAR trailer, and a mass casualty trailer.

a,i-iii, v) The proposed project would not result in a population increase such that new or expanded fire and police protection facilities would be needed. Additionally, the proposed bridge will be designed to support a 40,000 pound vehicle and will provide additional emergency access between North and South Morro Bay. Similarly, the project would not generate additional students; therefore, it would not create the need for new or expanded school facilities. Finally, the project would not impact demand on library services. **Therefore, the project would result in no impacts on schools, and less than significant impacts to fire and police protection.**

a, iv) The project would attract new users, consistent with the project objectives, and would improve access to beach recreational areas, including Coleman Park, Moro Bay State Park, and Morro Beach. However, the proposed pedestrian and bicycle path would be designed to accommodate anticipated recreational uses, and the proposed improvements would not result in substantial adverse physical impacts to existing parks or other recreational facilities. The project is designed to improve connectivity between existing recreational resources, and encourage users to stay in designated areas and discourage unauthorized crossings of Morro Creek. Overall, impacts to existing parks and recreational facilities would be **less than significant.**

Mitigation

No mitigation measures are required.

Findings

Impacts would be less than significant without mitigation.

XV. RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project 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) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☒	☐	☐

Setting

The City of Morro Bay offers a wide variety of recreational opportunities to both residents and tourists. Planning of the Marina is guided by the Morro Bay State Park General Plan, City of Morro Bay General Plan and the Local Coastal Plan. Morro Bay also has extensive outdoor recreation facilities including sports fields, a roller hockey rink, a skate park, bicycle riding and basketball courts. Morro Bay, Morro Strand and Montana de Oro State Parks offer camping facilities, passive recreational opportunities, and active recreational facilities. In addition, San Luis Obispo County operates the Morro Bay Golf Course in Morro Bay State Park. The project site is adjacent to Coleman Park, Morro Bay State Park, and Morro Beach, but the site does not currently provide recreational opportunities for the public.

a) The project would attract new users, consistent with the project objectives, and would improve access to beach recreational areas, including Coleman Park, Morro Bay State Park, and Morro Beach; however, the proposed pedestrian and bicycle path would be designed to accommodate anticipated recreational uses, and the proposed improvements would not result in an increase in use that would cause a substantial physical deterioration of existing neighborhood or regional parks or other regional recreational facilities. The project is designed to improve connectivity between existing recreational resources, and encourage users to stay in designated areas and discourage unauthorized crossings of Morro Creek. Overall, impacts to existing recreational facilities would be **less than significant.**

b) The project would include a pedestrian boardwalk and separated bike path that would extend the existing Morro Bay Harborwalk across the existing parking area and crossing on Embarcadero Road northward by 1,200 feet. This would include an approximately 130 foot long, clear span, pedestrian and bicycle bridge, which would extend the pedestrian boardwalk and bike path across Morro Creek to connect to north Morro Bay on Atascadero Road (State Route 41). The recreational path would include interpretive educational areas. The pathway would provide recreational amenities for nearby residents, as well as improve access to existing shoreline recreation areas, which is consistent with the Morro Bay General Plan's Access and Recreation Element Policies AR-1 and AR-3.

Construction of the recreational path and proposed span may have an adverse physical effect on the environment; however, physical impacts from the construction of these recreational facilities are discussed elsewhere in this document and mitigation measures are recommended to minimize potential impacts.

Mitigation

Mitigation measures that apply to the proposed project are described throughout this IS-MND. No additional mitigation measures are required.

Findings

With implementation of mitigation measures described through this IS-MND, no significant impacts related to recreational resources would occur.

XVI. TRANSPORTATION/TRAFFIC: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in 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) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

Setting

The City of Morro Bay is primarily a residential and commercial community that is bisected by Highway 1, a major regional roadway. Another major regional roadway, Highway 41, carries travelers from east of the city and terminates in Morro Bay. The two roadways that carry the highest levels of traffic in the community are Highway 1 and Main Street. In general, the traffic flow on these roads operates well during most periods. The majority of traffic generated in the City is on the local residential street level, which then flows to the arterials connecting to adjacent highways. Access to the project area would primarily be via Coleman Drive and Embarcadero Road, which are the only two roadways to the site. These roads currently carry moderate traffic volumes, with slower vehicular traffic speeds.

a,b) The project would not result in an increase in existing traffic volumes in the local street system. The proposed project is an extension of the existing multi-use bike and pedestrian trail system that is currently in place along Embarcadero Road and Coleman Drive. The existing unpaved portion of Embarcadero Road and the unpaved informal parking lot, near Morro Creek, would remain unchanged by the project. The proposed pedestrian and bicycle facilities, in combination with the proposed interpretive educational facilities, would attract new users, but would not result in a substantial increase in unique vehicle trips to the project area, as compared to the existing trail system. In addition, by encouraging bicycle and pedestrian travel, the project may reduce motor vehicle trips to the area. As a result, the project would not either individually or cumulatively reduce the level of service on Coleman Drive, Embarcadero Road, or any other area roadway. **Therefore, potential impacts would be less than significant.**

c) The project site is not located in the vicinity of an airport. **The project would result in no impacts to air traffic patterns.**

d) The proposed project includes an expanded, separated, Class I bike path and dedicated pedestrian walkway for visitors and residents that would reduce the interface between vehicles, pedestrians, and bikes. The multi-use trail would cross the vehicle roadway at four points; the informal parking lot adjacent to Morro Creek, across Embarcadero Road at the intersection of Embarcadero Road and Coleman Drive, across Coleman Drive at the intersection of Embarcadero Road and Coleman Drive, and across the parking entrance in front of MBPP. The placement of these crosswalks will be in compliance with the City municipal code 10.36.010, which states "…no crosswalk shall be established in any block which is less than four hundred feet in length and such crosswalk shall be located as nearly as practicable at midblock." The design of the crosswalks will be in compliance with the City General Plan Circulation Element Policy C-5 which states, "Pedestrian crossings of streets shall be designed to minimize hazards to the pedestrian." It will also be in compliance with Program C-5.1 which states, "the City should provide crosswalk stripes at intersections where pedestrian traffic is heavy." **Therefore, the project does not include design features that would result in new hazards. Potential impacts would be less than significant.**

e) The proposed project would not diminish existing emergency access to Coleman Drive or Embarcadero Road, and will be designed in accordance with City of Morro Bay and Morro Bay Fire Department requirements, and according to California Fire Code. Additionally, the bridge will be designed to support a 40,000 pound vehicle and will provide additional emergency

access between North and South Morro Bay. **Compliance with these City and State requirements would ensure that no impacts would result.**

f) The proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. This multi-use trail project will be designed in compliance with bicycle safety policy as outlined in the City General Plan, Programs C-12.3, C-9.6, and C-9.7, which suggest that pedestrian and bike paths should be separate facilities, bikeway markings and signage should be clear, visible and easy to understand, and efforts be made during the design process to reduce conflicts between bicycles, pedestrians, and motor vehicles. Trail design for the proposed project is in compliance with the Americans with Disabilities Act, as well as Morro Bay General Plan Policy C-3, which states that "handicap access should be provided where feasible pursuant to State Disabled Access Regulations." In addition, no public bus routes or stops would be affected by the project. **Therefore, potential impacts would be less than significant.**

Mitigation

No mitigation measures are required.

Findings

Impacts would be less than significant without mitigation.

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Exceed wastewater treatment requirements 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, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 which serves or may serve the project that it has adequate capacity to serve the project's projected 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 related to solid waste?	☐	☐	☒	☐

Setting

a, b, e) The proposed project would not include any facilities that would generate wastewater. **Therefore, no impact to existing wastewater treatment facilities would occur.**

c) The proposed project would not result in an increase in stormwater runoff or a substantial change in stormwater flow. The small amount of surface area of the paved multi-use pathways, and available permeable ground surface adjacent to the pathways, would maintain similar pre-project hydrological runoff patterns. The project would not require the construction of additional drainage facilities or expansion of existing facilities. **Therefore, potential impacts would be less than significant.**

d) The proposed project is a multi-use trail and bridge that would consist of a multi-use paved path, pedestrian boardwalk, an approximately 130 foot long clear-span pre-engineered/pre-fabricated bike and pedestrian bridge, two interpretive stations, and non-irrigated native planning areas. The project does not include new uses that would consume additional water supplies. **Therefore, there would be no impact to those water supplies.**

f,g) The proposed project would be served by the Cold Canyon Landfill. This landfill has adequate capacity to serve the project as it is currently being expanded to provide service through the year 2040 (Cold Canyon Landfill Expansion EIR, 2012). Given the size and nature of

the proposed project, would not generate substantial amounts of solid waste. In addition, the project would comply with applicable federal, state and local regulations regarding solid waste. **Therefore, potential impacts would be less than significant.**

Mitigation

No mitigation measures are required.

Findings

Impacts would be less than significant without mitigation.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) The project is consistent with the Local Coastal Program (which includes the General Plan, Local Coastal Plan and zoning regulations). With incorporation of the mitigation measures in this report, the project does not have the potential to significantly 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 or eliminate important examples of the major periods of California history or prehistory, as evidenced in the preceding discussions. **This impact would be less than significant.**

b) As described throughout this report, the project is not expected to result in any significant loss or fragmentation of habitat, or other significant long-term environmental impacts. Instead the project would provide improved pedestrian and bicycle connectivity between the Embarcadero and north Morro Bay, provide new recreational opportunities for residents and visitors, and enhance the existing habitat by reducing the amount of human disturbance within the stream channel because once installed, the proposed bridge would enable pedestrians to cross over the creek without actually entering it. Trash and debris within the channel are also likely to be reduced with project implementation. Short-term impacts associated with project development would be reduced to a less than significant level through implementation of mitigation measures for biological resources, cultural resources, and noise described throughout this report. **Therefore, implementation of mitigation measures described throughout this report would ensure that the project would not have significant cumulatively considerable impacts.**

c) The project does not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly, as evidenced in the preceding discussions. **This impact would be less than significant.**

Mitigation

No additional mitigation measures are required.

Findings

Implementation of mitigation measures described elsewhere in this report would reduce project impacts to a less than significant level. No significant impacts would result.

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EXHIBIT C

Appendix A

Project Design Specifications and Visual Simulations

EMBARCADERO RD.

EXISTING UNPAVED PARKING AREA

BIKE & SURREY PARKING

EXISTING EMERGENCY VEHICLE ACCESS

INTERPRETIVE OVERLOOK

EXISTING UNPAVED PARKING AREA

INTERPRETIVE OVERLOOK ILLUSTRATIVE PERSPECTIVE

BOARDWALK & BIKE PATH LAYOUT LOOKING NORTH

MORRO CREEK

EXISTING RV PARK EMERGENCY ACCESS ROAD

BRIDGE

BIRDSEYE VIEW OF BEACH ACCESS & PARKING ILLUSTRATIVE PERSPECTIVE

BIKE PATH - CLASS 1

DIRT EMBARCADERO RD.

NEW PAVING AT CROSSWALK

BIKE PATH - CLASS 1

EXISTING UNPAVED PARKING AREA

EXISTING BIKE PATH - CLASS 1

EXISTING BOARDWALK

EMBARCADERO RD.

MORRO BAY HARBOR

MORRO CREEK MULTI-USE TRAIL | ILLUSTRATIVE PLAN

0 30 60 120

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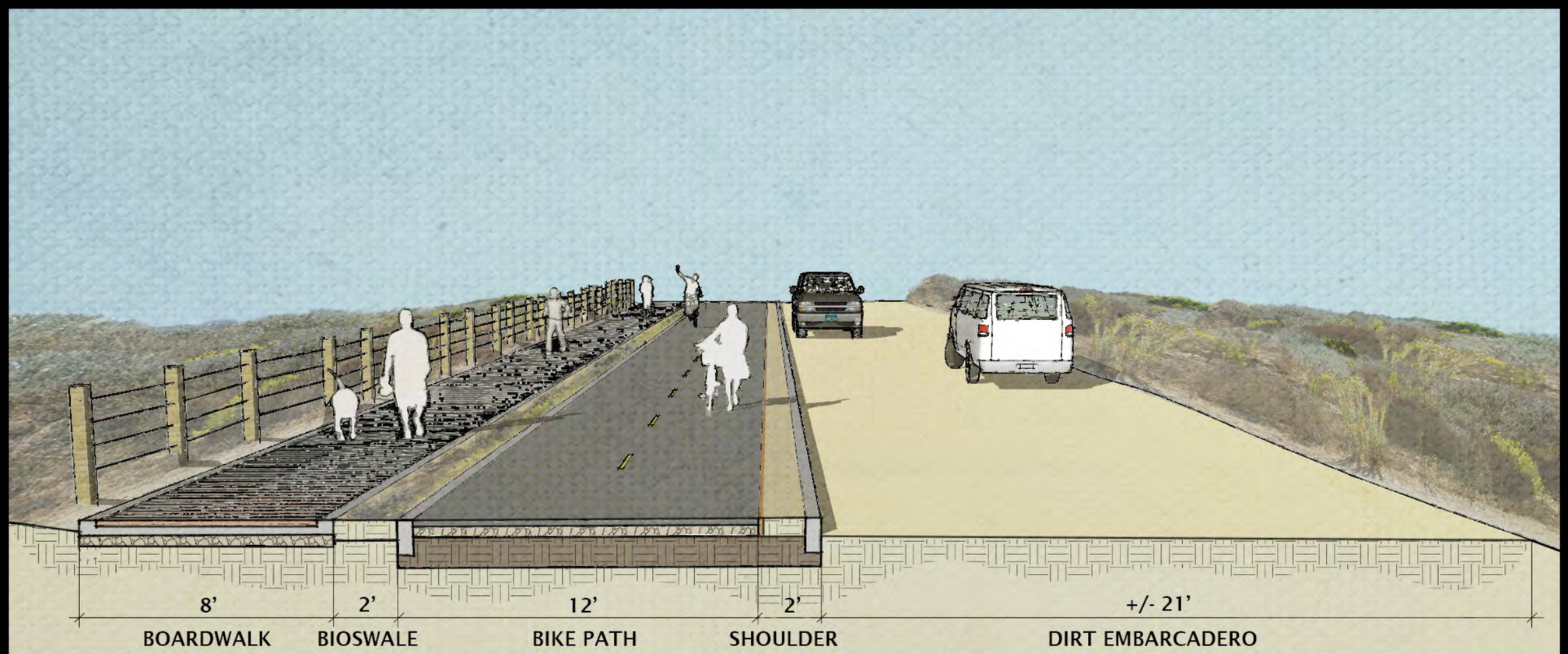

BOARDWALK & BIKE PATH LAYOUT LOOKING NORTH

INTERPRETIVE OVERLOOK

BIRDSEYE VIEW OF BEACH ACCESS & PARKING

MORRO CREEK MULTI-USE TRAIL | ILLUSTRATIVE PERSPECTIVES

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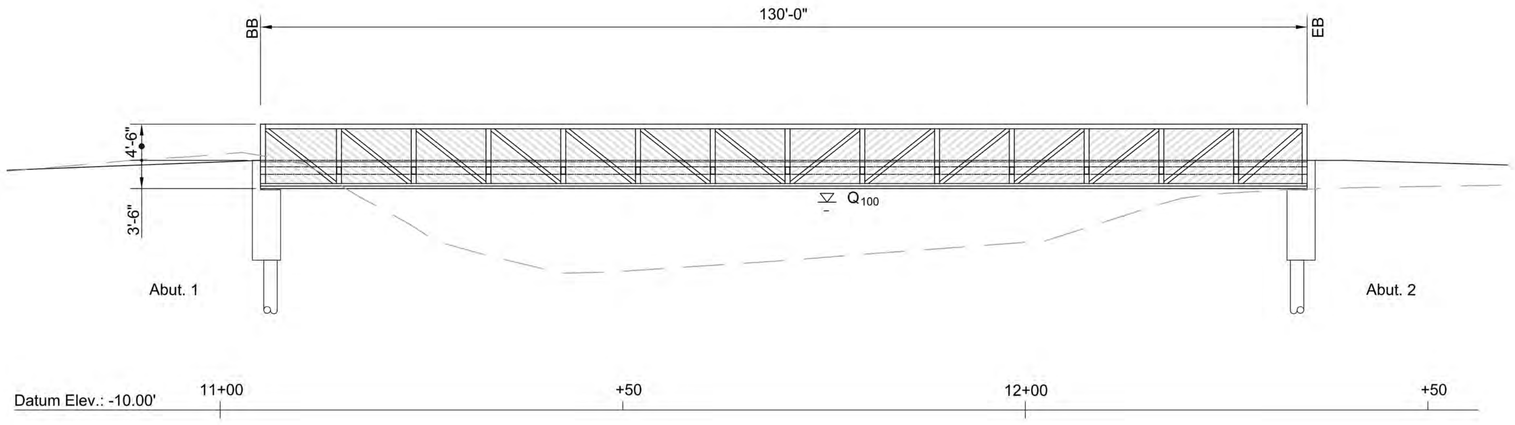
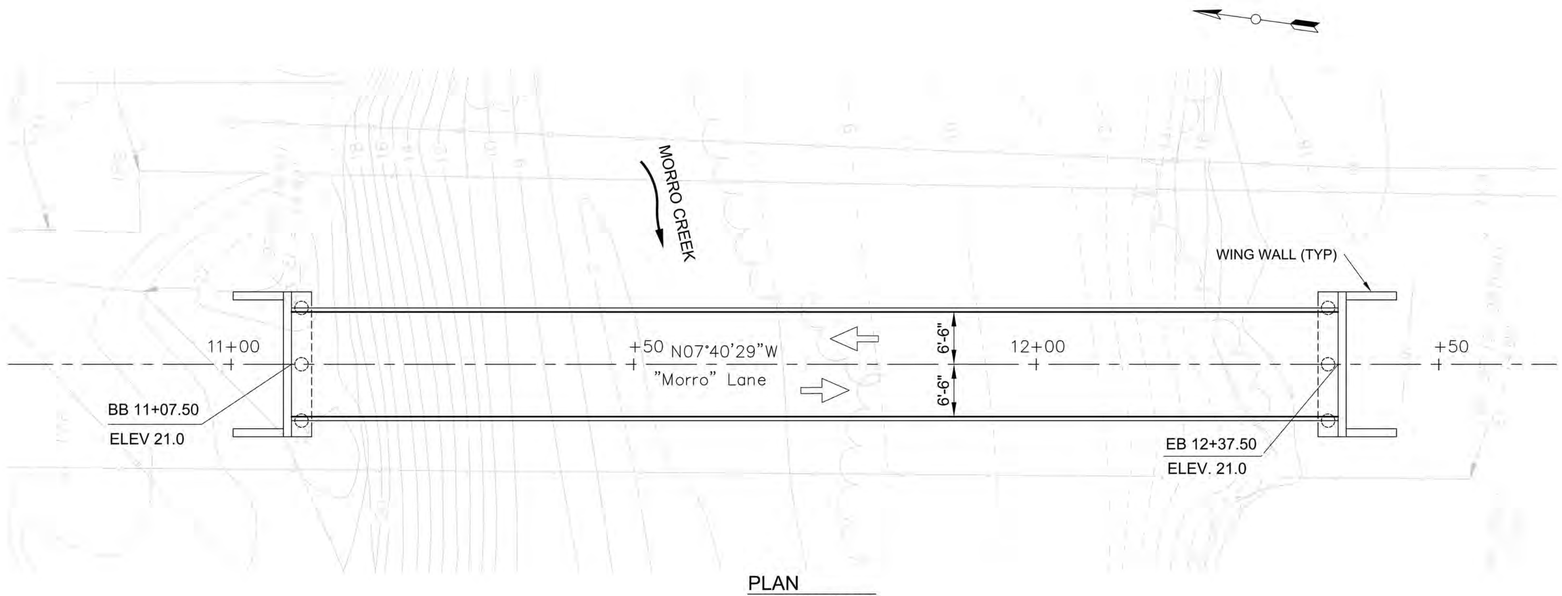
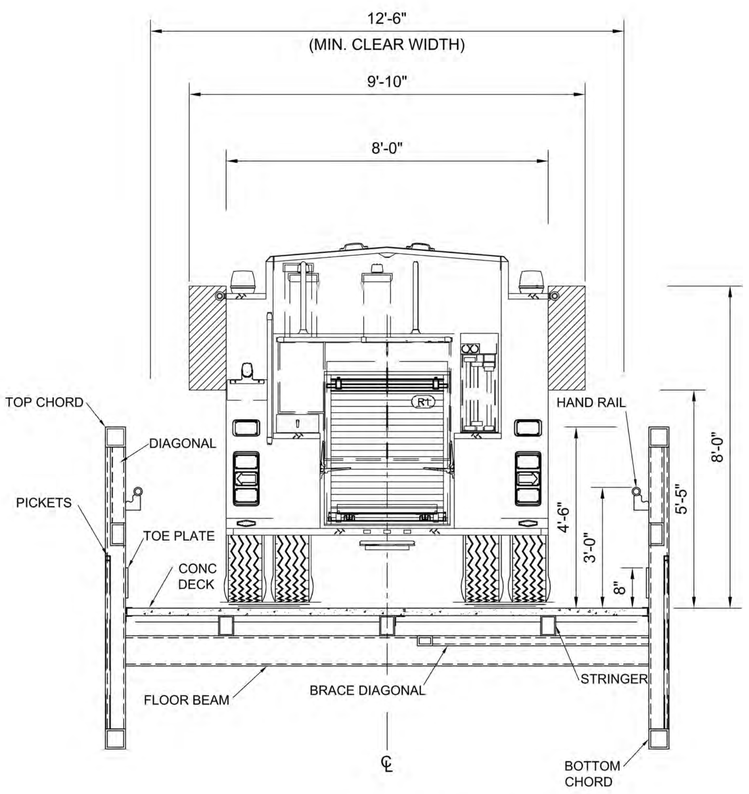


ELEVATION
SCALE: 1" = 10'-0"



PLAN
SCALE: 1"= 10'-0"



TYPICAL SECTION
No Scale

LIVE LOAD:

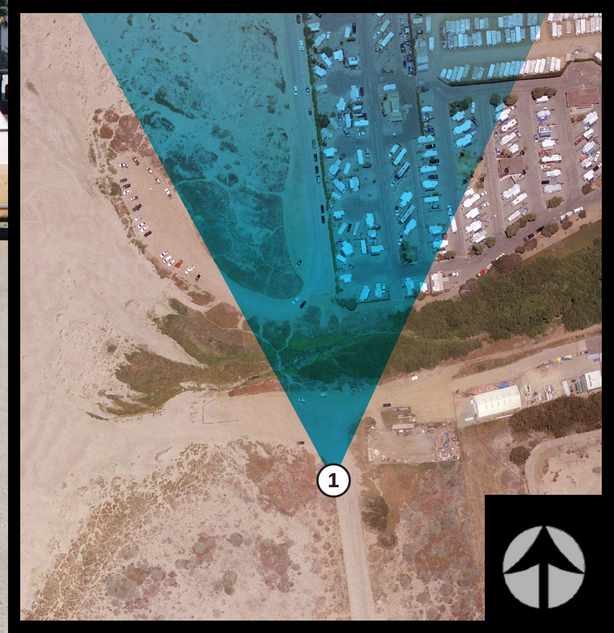
1. H20 VEHICULAR LOAD
2. 90 PSF PEDESTRIAN LOAD

HYDRAULICS DATA:

Condition	Elevation (ft. NAVD)	Top Width (ft.)
Q50 = 5,000 cfs	15.20	97.3
Q100 = 5,760 cfs	15.81	99.7
Q100 + Sea Level Rise	16.14	101.1

CALTRANS STANDARD PLANS, 2010

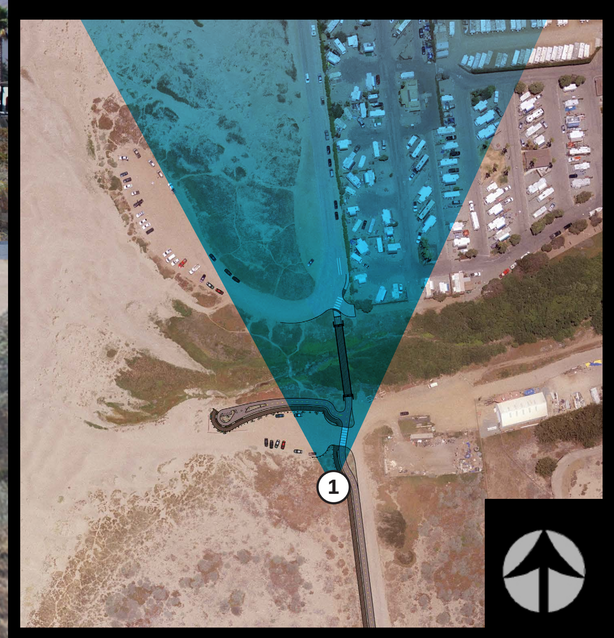
A10-A,B	ACRONYMS AND ABBREVIATIONS
A10 - C,D	SYMBOLS
A62-A	EXCAVATION AND BACKFILL - MISCELANEOUS DETAILS
A62-C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
B0-1	BRIDGE DETAILS
B2-3	16" AND 24" CAST-IN-DRILLED-HOLE CONCRETE PILE
B2-5	PILE DETAILS CLASS 90 AND CLASS 140
B3-6	RETAINING WALL DETAILS NO. 2



KEY MAP
(EXISTING CONDITIONS)

IMAGE VIEWING ANGLE

1 PHOTO LOCATION



KEY MAP
(PROPOSED CONDITIONS)

IMAGE VIEWING ANGLE

1 PHOTO LOCATION

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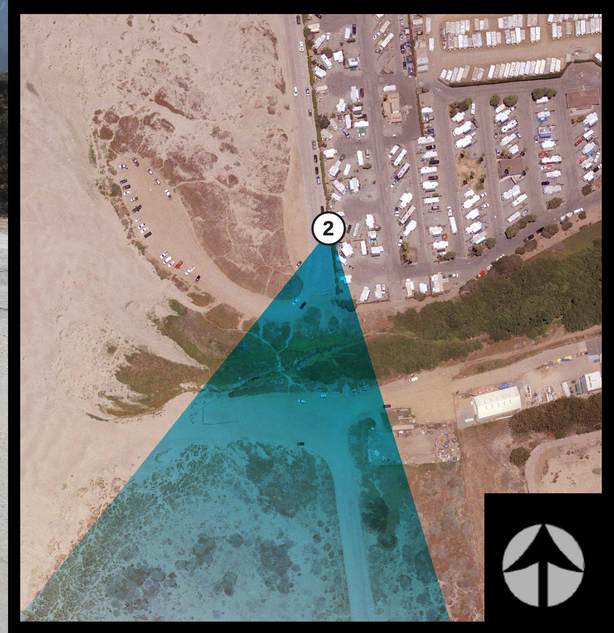
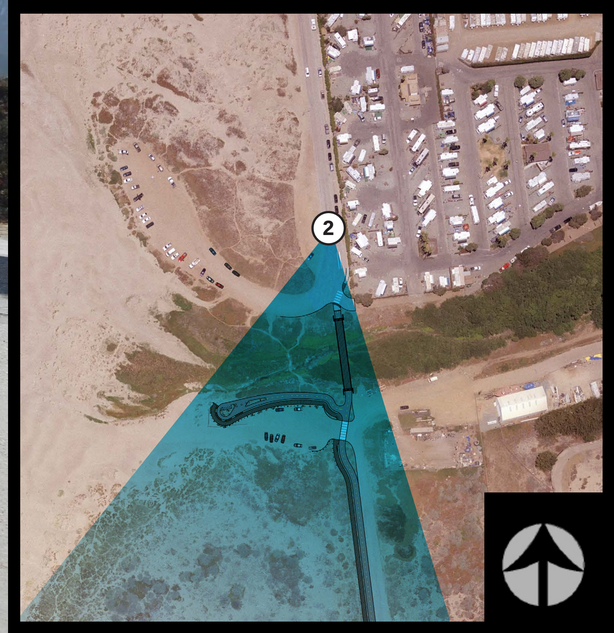


KEY MAP
(EXISTING CONDITIONS)

IMAGE VIEWING ANGLE

2 PHOTO LOCATION



KEY MAP
(PROPOSED CONDITIONS)

IMAGE VIEWING ANGLE

2 PHOTO LOCATION

MORRO CREEK MULTI-USE TRAIL | VIEW LOOKING SOUTH

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KEY MAP
(EXISTING CONDITIONS)

IMAGE VIEWING ANGLE

3 PHOTO LOCATION

KEY MAP
(PROPOSED CONDITIONS)

IMAGE VIEWING ANGLE

3 PHOTO LOCATION

MORRO CREEK MULTI-USE TRAIL | VIEW LOOKING EAST

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EXHIBIT C

Appendix B

Air Quality and Greenhouse Gas Emissions
CalEEMod Estimates

Morro Creek Multi-Use Trail and Bridge

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	4.80	Acre	4.80	209,088.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2015
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 4.8 acres included in the BSA - actual disturbance/graded area would be smaller.

Construction Phase - Site Prep and Grading phases adequately characterize proposed construction actvities.

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.0313	0.3094	0.2235	2.3000e-004	0.0724	0.0173	0.0897	0.0386	0.0160	0.0545	0.0000	21.8270	21.8270	6.2400e-003	0.0000	21.9581
Total	**0.0313**	**0.3094**	**0.2235**	**2.3000e-004**	**0.0724**	**0.0173**	**0.0897**	**0.0386**	**0.0160**	**0.0545**	**0.0000**	**21.8270**	**21.8270**	**6.2400e-003**	**0.0000**	**21.9581**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.0313	0.3094	0.2235	2.3000e-004	0.0724	0.0173	0.0897	0.0386	0.0160	0.0545	0.0000	21.8270	21.8270	6.2400e-003	0.0000	21.9581
Total	**0.0313**	**0.3094**	**0.2235**	**2.3000e-004**	**0.0724**	**0.0173**	**0.0897**	**0.0386**	**0.0160**	**0.0545**	**0.0000**	**21.8270**	**21.8270**	**6.2400e-003**	**0.0000**	**21.9581**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0589	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0589**	**0.0000**	**8.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.0000**	**1.7000e-004**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0589	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0589**	**0.0000**	**8.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.0000**	**1.7000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2014	2/4/2014	5	5	
2	Grading	Grading	2/5/2014	2/14/2014	5	8	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0132	0.1441	0.1074	1.0000e-004		7.8400e-003	7.8400e-003		7.2200e-003	7.2200e-003	0.0000	9.4254	9.4254	2.7900e-003	0.0000	9.4839
Total	**0.0132**	**0.1441**	**0.1074**	**1.0000e-004**	**0.0452**	**7.8400e-003**	**0.0530**	**0.0248**	**7.2200e-003**	**0.0321**	**0.0000**	**9.4254**	**9.4254**	**2.7900e-003**	**0.0000**	**9.4839**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-003	4.2000e-004	3.8800e-003	0.0000	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3968	0.3968	3.0000e-005	0.0000	0.3974
Total	**1.1000e-003**	**4.2000e-004**	**3.8800e-003**	**0.0000**	**4.3000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3968**	**0.3968**	**3.0000e-005**	**0.0000**	**0.3974**

3.2 Site Preparation - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0132	0.1441	0.1074	1.0000e-004		7.8400e-003	7.8400e-003		7.2200e-003	7.2200e-003	0.0000	9.4254	9.4254	2.7900e-003	0.0000	9.4839
Total	**0.0132**	**0.1441**	**0.1074**	**1.0000e-004**	**0.0452**	**7.8400e-003**	**0.0530**	**0.0248**	**7.2200e-003**	**0.0321**	**0.0000**	**9.4254**	**9.4254**	**2.7900e-003**	**0.0000**	**9.4839**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-003	4.2000e-004	3.8800e-003	0.0000	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3968	0.3968	3.0000e-005	0.0000	0.3974
Total	**1.1000e-003**	**4.2000e-004**	**3.8800e-003**	**0.0000**	**4.3000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3968**	**0.3968**	**3.0000e-005**	**0.0000**	**0.3974**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0155	0.1644	0.1070	1.2000e-004		9.4900e-003	9.4900e-003		8.7300e-003	8.7300e-003	0.0000	11.4756	11.4756	3.3900e-003	0.0000	11.5468
Total	**0.0155**	**0.1644**	**0.1070**	**1.2000e-004**	**0.0262**	**9.4900e-003**	**0.0357**	**0.0135**	**8.7300e-003**	**0.0222**	**0.0000**	**11.4756**	**11.4756**	**3.3900e-003**	**0.0000**	**11.5468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4600e-003	5.6000e-004	5.1800e-003	1.0000e-005	5.8000e-004	1.0000e-005	5.8000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.5291	0.5291	4.0000e-005	0.0000	0.5299
Total	**1.4600e-003**	**5.6000e-004**	**5.1800e-003**	**1.0000e-005**	**5.8000e-004**	**1.0000e-005**	**5.8000e-004**	**1.5000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.5291**	**0.5291**	**4.0000e-005**	**0.0000**	**0.5299**

3.3 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0155	0.1644	0.1070	1.2000e-004		9.4900e-003	9.4900e-003		8.7300e-003	8.7300e-003	0.0000	11.4756	11.4756	3.3900e-003	0.0000	11.5468
Total	**0.0155**	**0.1644**	**0.1070**	**1.2000e-004**	**0.0262**	**9.4900e-003**	**0.0357**	**0.0135**	**8.7300e-003**	**0.0222**	**0.0000**	**11.4756**	**11.4756**	**3.3900e-003**	**0.0000**	**11.5468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4600e-003	5.6000e-004	5.1800e-003	1.0000e-005	5.8000e-004	1.0000e-005	5.8000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.5291	0.5291	4.0000e-005	0.0000	0.5299
Total	**1.4600e-003**	**5.6000e-004**	**5.1800e-003**	**1.0000e-005**	**5.8000e-004**	**1.0000e-005**	**5.8000e-004**	**1.5000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.5291**	**0.5291**	**4.0000e-005**	**0.0000**	**0.5299**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455853	0.042424	0.214936	0.151343	0.068369	0.010021	0.017172	0.021892	0.002320	0.001408	0.008721	0.000858	0.004683

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0589	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Unmitigated	1.0589	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2423					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8166					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Total	**1.0589**	**0.0000**	**8.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.0000**	**1.7000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2423					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8166					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Total	**1.0589**	**0.0000**	**8.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6000e-004**	**1.6000e-004**	**0.0000**	**0.0000**	**1.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Morro Creek Multi-Use Trail and Bridge

San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	4.80	Acre	4.80	209,088.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2015
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 4.8 acres included in the BSA - actual disturbance/graded area would be smaller.

Construction Phase - Site Prep and Grading phases adequately characterize proposed construction actvities.

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.6986	57.7719	44.5053	0.0412	18.2442	3.1394	21.3836	9.9779	2.8882	12.8661	0.0000	4,337.8559	4,337.8559	1.2406	0.0000	4,363.9078
Total	**5.6986**	**57.7719**	**44.5053**	**0.0412**	**18.2442**	**3.1394**	**21.3836**	**9.9779**	**2.8882**	**12.8661**	**0.0000**	**4,337.8559**	**4,337.8559**	**1.2406**	**0.0000**	**4,363.9078**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.6986	57.7719	44.5053	0.0412	18.2442	3.1394	21.3836	9.9779	2.8882	12.8661	0.0000	4,337.8559	4,337.8559	1.2406	0.0000	4,363.9078
Total	**5.6986**	**57.7719**	**44.5053**	**0.0412**	**18.2442**	**3.1394**	**21.3836**	**9.9779**	**2.8882**	**12.8661**	**0.0000**	**4,337.8559**	**4,337.8559**	**1.2406**	**0.0000**	**4,363.9078**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.8021	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**5.8021**	**0.0000**	**5.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**0.0000**	**1.1100e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.8021	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**5.8021**	**0.0000**	**5.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**0.0000**	**1.1100e-003**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2014	2/4/2014	5	5	
2	Grading	Grading	2/5/2014	2/14/2014	5	8	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2910	57.6198	42.9609	0.0391		3.1377	3.1377		2.8867	2.8867		4,155.8914	4,155.8914	1.2281		4,181.6817
Total	**5.2910**	**57.6198**	**42.9609**	**0.0391**	**18.0663**	**3.1377**	**21.2040**	**9.9307**	**2.8867**	**12.8174**		**4,155.8914**	**4,155.8914**	**1.2281**		**4,181.6817**

3.2 Site Preparation - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4076	0.1521	1.5444	2.0400e-003	0.1780	1.6900e-003	0.1796	0.0472	1.5100e-003	0.0487		181.9645	181.9645	0.0125		182.2261
Total	**0.4076**	**0.1521**	**1.5444**	**2.0400e-003**	**0.1780**	**1.6900e-003**	**0.1796**	**0.0472**	**1.5100e-003**	**0.0487**		**181.9645**	**181.9645**	**0.0125**		**182.2261**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2910	57.6198	42.9609	0.0391		3.1377	3.1377		2.8867	2.8867	0.0000	4,155.8914	4,155.8914	1.2281		4,181.6817
Total	**5.2910**	**57.6198**	**42.9609**	**0.0391**	**18.0663**	**3.1377**	**21.2040**	**9.9307**	**2.8867**	**12.8174**	**0.0000**	**4,155.8914**	**4,155.8914**	**1.2281**		**4,181.6817**

3.2 Site Preparation - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4076	0.1521	1.5444	2.0400e-003	0.1780	1.6900e-003	0.1796	0.0472	1.5100e-003	0.0487		181.9645	181.9645	0.0125		182.2261
Total	**0.4076**	**0.1521**	**1.5444**	**2.0400e-003**	**0.1780**	**1.6900e-003**	**0.1796**	**0.0472**	**1.5100e-003**	**0.0487**		**181.9645**	**181.9645**	**0.0125**		**182.2261**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.8669	41.0997	26.7538	0.0298		2.3714	2.3714		2.1817	2.1817		3,162.4266	3,162.4266	0.9345		3,182.0518
Total	**3.8669**	**41.0997**	**26.7538**	**0.0298**	**6.5523**	**2.3714**	**8.9238**	**3.3675**	**2.1817**	**5.5492**		**3,162.4266**	**3,162.4266**	**0.9345**		**3,182.0518**

3.3 Grading - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3397	0.1268	1.2870	1.7000e-003	0.1483	1.4100e-003	0.1497	0.0393	1.2600e-003	0.0406		151.6371	151.6371	0.0104		151.8551
Total	**0.3397**	**0.1268**	**1.2870**	**1.7000e-003**	**0.1483**	**1.4100e-003**	**0.1497**	**0.0393**	**1.2600e-003**	**0.0406**		**151.6371**	**151.6371**	**0.0104**		**151.8551**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.8669	41.0997	26.7538	0.0298		2.3714	2.3714		2.1817	2.1817	0.0000	3,162.4266	3,162.4266	0.9345		3,182.0518
Total	**3.8669**	**41.0997**	**26.7538**	**0.0298**	**6.5523**	**2.3714**	**8.9238**	**3.3675**	**2.1817**	**5.5492**	**0.0000**	**3,162.4266**	**3,162.4266**	**0.9345**		**3,182.0518**

3.3 Grading - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3397	0.1268	1.2870	1.7000e-003	0.1483	1.4100e-003	0.1497	0.0393	1.2600e-003	0.0406		151.6371	151.6371	0.0104		151.8551
Total	**0.3397**	**0.1268**	**1.2870**	**1.7000e-003**	**0.1483**	**1.4100e-003**	**0.1497**	**0.0393**	**1.2600e-003**	**0.0406**		**151.6371**	**151.6371**	**0.0104**		**151.8551**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455853	0.042424	0.214936	0.151343	0.068369	0.010021	0.017172	0.021892	0.002320	0.001408	0.008721	0.000858	0.004683

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.8021	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003
Unmitigated	5.8021	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3276					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4745					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003
Total	**5.8021**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0500e-003**	**1.0500e-003**	**0.0000**		**1.1100e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3276					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4745					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003
Total	**5.8021**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0500e-003**	**1.0500e-003**	**0.0000**		**1.1100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Morro Creek Multi-Use Trail and Bridge

San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	4.80	Acre	4.80	209,088.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2015
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 4.8 acres included in the BSA - actual disturbance/graded area would be smaller.

Construction Phase - Site Prep and Grading phases adequately characterize proposed construction actvities.

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.7951	57.7919	44.5497	0.0411	18.2442	3.1394	21.3836	9.9779	2.8882	12.8661	0.0000	4,329.4789	4,329.4789	1.2406	0.0000	4,355.5308
Total	**5.7951**	**57.7919**	**44.5497**	**0.0411**	**18.2442**	**3.1394**	**21.3836**	**9.9779**	**2.8882**	**12.8661**	**0.0000**	**4,329.4789**	**4,329.4789**	**1.2406**	**0.0000**	**4,355.5308**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.7951	57.7919	44.5497	0.0411	18.2442	3.1394	21.3836	9.9779	2.8882	12.8661	0.0000	4,329.4789	4,329.4789	1.2406	0.0000	4,355.5308
Total	**5.7951**	**57.7919**	**44.5497**	**0.0411**	**18.2442**	**3.1394**	**21.3836**	**9.9779**	**2.8882**	**12.8661**	**0.0000**	**4,329.4789**	**4,329.4789**	**1.2406**	**0.0000**	**4,355.5308**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.8021	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**5.8021**	**0.0000**	**5.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**0.0000**	**1.1100e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.8021	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**5.8021**	**0.0000**	**5.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.0500e-003**	**1.0500e-003**	**0.0000**	**0.0000**	**1.1100e-003**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2014	2/4/2014	5	5	
2	Grading	Grading	2/5/2014	2/14/2014	5	8	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	162	0.38
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2910	57.6198	42.9609	0.0391		3.1377	3.1377		2.8867	2.8867		4,155.8914	4,155.8914	1.2281		4,181.6817
Total	**5.2910**	**57.6198**	**42.9609**	**0.0391**	**18.0663**	**3.1377**	**21.2040**	**9.9307**	**2.8867**	**12.8174**		**4,155.8914**	**4,155.8914**	**1.2281**		**4,181.6817**

3.2 Site Preparation - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5042	0.1722	1.5888	1.9500e-003	0.1780	1.6900e-003	0.1796	0.0472	1.5100e-003	0.0487		173.5875	173.5875	0.0125		173.8491
Total	**0.5042**	**0.1722**	**1.5888**	**1.9500e-003**	**0.1780**	**1.6900e-003**	**0.1796**	**0.0472**	**1.5100e-003**	**0.0487**		**173.5875**	**173.5875**	**0.0125**		**173.8491**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2910	57.6198	42.9609	0.0391		3.1377	3.1377		2.8867	2.8867	0.0000	4,155.8914	4,155.8914	1.2281		4,181.6817
Total	**5.2910**	**57.6198**	**42.9609**	**0.0391**	**18.0663**	**3.1377**	**21.2040**	**9.9307**	**2.8867**	**12.8174**	**0.0000**	**4,155.8914**	**4,155.8914**	**1.2281**		**4,181.6817**

3.2 Site Preparation - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5042	0.1722	1.5888	1.9500e-003	0.1780	1.6900e-003	0.1796	0.0472	1.5100e-003	0.0487		173.5875	173.5875	0.0125		173.8491
Total	**0.5042**	**0.1722**	**1.5888**	**1.9500e-003**	**0.1780**	**1.6900e-003**	**0.1796**	**0.0472**	**1.5100e-003**	**0.0487**		**173.5875**	**173.5875**	**0.0125**		**173.8491**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.8669	41.0997	26.7538	0.0298		2.3714	2.3714		2.1817	2.1817		3,162.4266	3,162.4266	0.9345		3,182.0518
Total	**3.8669**	**41.0997**	**26.7538**	**0.0298**	**6.5523**	**2.3714**	**8.9238**	**3.3675**	**2.1817**	**5.5492**		**3,162.4266**	**3,162.4266**	**0.9345**		**3,182.0518**

3.3 Grading - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4201	0.1435	1.3240	1.6200e-003	0.1483	1.4100e-003	0.1497	0.0393	1.2600e-003	0.0406		144.6562	144.6562	0.0104		144.8743
Total	**0.4201**	**0.1435**	**1.3240**	**1.6200e-003**	**0.1483**	**1.4100e-003**	**0.1497**	**0.0393**	**1.2600e-003**	**0.0406**		**144.6562**	**144.6562**	**0.0104**		**144.8743**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.8669	41.0997	26.7538	0.0298		2.3714	2.3714		2.1817	2.1817	0.0000	3,162.4266	3,162.4266	0.9345		3,182.0518
Total	**3.8669**	**41.0997**	**26.7538**	**0.0298**	**6.5523**	**2.3714**	**8.9238**	**3.3675**	**2.1817**	**5.5492**	**0.0000**	**3,162.4266**	**3,162.4266**	**0.9345**		**3,182.0518**

3.3 Grading - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4201	0.1435	1.3240	1.6200e-003	0.1483	1.4100e-003	0.1497	0.0393	1.2600e-003	0.0406		144.6562	144.6562	0.0104		144.8743
Total	**0.4201**	**0.1435**	**1.3240**	**1.6200e-003**	**0.1483**	**1.4100e-003**	**0.1497**	**0.0393**	**1.2600e-003**	**0.0406**		**144.6562**	**144.6562**	**0.0104**		**144.8743**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	13.00	5.00	5.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455853	0.042424	0.214936	0.151343	0.068369	0.010021	0.017172	0.021892	0.002320	0.001408	0.008721	0.000858	0.004683

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.8021	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003
Unmitigated	5.8021	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3276					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4745					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003
Total	**5.8021**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0500e-003**	**1.0500e-003**	**0.0000**		**1.1100e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.3276					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4745					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0500e-003	1.0500e-003	0.0000		1.1100e-003
Total	**5.8021**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0500e-003**	**1.0500e-003**	**0.0000**		**1.1100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

EXHIBIT C

Appendix C

Responses to Comments

RESPONSES to COMMENTS on the DRAFT IS-MND

This section includes the comments received during circulation of the Draft Initial Study and Mitigated Negative Declaration (IS-MND) prepared for the Morro Creek Multi-Use Trail and Bridge Project and responses to those comments. No changes to the Draft IS-MND were necessary to address the comments received.

The IS-MND was circulated for a 30-day public review period that began on October 28, 2013, and concluded on November 26, 2013. The City received two comment letters on the Draft IS-MND. The commenter and the page number on which each commenter's letter appears are listed below.

Letter No. and Commenter	Page No.
1. Meghan Field, Air Quality Specialist, San Luis Obispo County Air Pollution Control District	A-2
2. Daniel Robinson, Coastal Planner, Central Coast District Office, California Coastal Commission	A-8

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EXHIBIT C
Letter 1

RECEIVED
NOV 2 1 2013
City of Morro Bay
Public Services Department

SLO COUNTY apcd | Air Pollution Control District
San Luis Obispo County

November 18, 2013

Kathleen Wold
City of Morro Bay Public Services Department
955 Shasta Ave
Morro Bay CA 93442

SUBJECT: APCD Comments Regarding the Morro Bay Multi Use Trail & Bridge Project Referral

Dear Ms. Wold,

Thank you for including the San Luis Obispo County Air Pollution Control District (APCD) in the environmental review process. We have completed our review of the proposed project located at 1500 Embarcadero Road in Morro Bay. The proposed project would extend the existing Morro Bay Harborwalk with a pedestrian boardwalk and separated Class I bike path to provide a connection between the Morro Bay waterfront and north Morro Bay. *The following are APCD comments that are pertinent to this project.*

Support for alternative transportation project component

APCD staff commends the City of Morro Bay Public Services Department for the promotion of bicycle and pedestrian transportation. When people can walk or bicycle to nearby stores, parks and work, traffic is reduced and the potential for mass transit use increases which is consistent with several of the APCD's land use goals and policies in the Clean Air Plan. In addition, promotion of bicycle and pedestrian transportation helps meet the greenhouse gas emission targets set by California legislation. 1.1

The APCD supports the City of Morro Bay's proposed project to extend the existing Morro Bay Harborwalk and its efforts to implement measures to support alternative transportation options for locals and visitors to Morro Bay.

GENERAL COMMENTS

As a commenting agency in the California Environmental Quality Act (CEQA) review process for a project, the APCD assesses air pollution impacts from both the construction and operational phases of a project, with separate significant thresholds for each. **Please address the action items contained in this letter that are highlighted by bold and underlined text** 1.2

Asbestos / Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) has been identified by the state Air Resources Board as a toxic air contaminant. Serpentine and ultramafic rocks are very common throughout California and may contain naturally occurring asbestos. The SLO County APCD has identified areas

throughout the County where NOA may be present (see the APCD's 2009 CEQA Handbook, Technical Appendix 4.4). The proposed project is located in an area that has the potential to contain Naturally Occurring Asbestos (NOA), because of this, the following requirements apply. Under the ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, **prior to any construction activities at the site, the project proponent shall ensure that a geologic evaluation is conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the APCD.** If NOA is found at the site the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the APCD. If NOA is not present, an exemption request must be filed with the Air District. More information on NOA can be found at http://www.slocleanair.org/business/asbestos.php. 1.2

Demolition Activities

The project referral did not indicate whether there are existing structures on the proposed site that will be demolished. Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of asbestos containing material (ACM). Asbestos containing materials could be encountered during demolition or remodeling of existing buildings. Asbestos can also be found in utility pipes/pipelines (transite pipes or insulation on pipes). **If building(s) are removed or renovated; or utility pipelines are scheduled for removal or relocation, this project may be subject to various regulatory jurisdictions, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - asbestos NESHAP).** These requirements include, but are not limited to: 1) notification requirements to the APCD, 2) asbestos survey conducted by a Certified Asbestos Inspector, and, 3) applicable removal and disposal requirements of identified ACM. Please contact the APCD Enforcement Division at (805) 781-5912 for further information. 1.3

Developmental Burning

Effective February 25, 2000, **the APCD prohibited developmental burning of vegetative material within San Luis Obispo County.** If you have any questions regarding these requirements, contact the APCD Enforcement Division at 781-5912. 1.4

Dust Control Measures

The Initial Study-Mitigated Neg Dec, as described, will not likely exceed the APCD's CEQA significance threshold for construction phase emissions. **However, construction projects with grading areas that are greater than 4-acres or are within 1,000 feet of any sensitive receptor (Morro Dines R.V. Park) shall implement the following mitigation measures to manage fugitive dust emissions such that they do not exceed the APCD's 20% opacity limit (APCD Rule 401) or prompt nuisance violations (APCD Rule 402):**

a. Reduce the amount of the disturbed area where possible;
b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the APCD's limit of 20% opacity for greater than 3 minutes in any 60 minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible; 1.5
c. All dirt stock pile areas should be sprayed daily and covered with tarps or other dust barriers as needed;
d. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible, following completion of any soil disturbing

activities;

e. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive, grass seed and watered until vegetation is established;
f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
g. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
j. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers shall be used with reclaimed water should be used where feasible. Roads shall be pre-wetted prior to sweeping when feasible;
l. All PM_{10} mitigation measures required should be shown on grading and building plans; and,
m. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below the APCD's limit of 20% opacity for greater than 3 minutes in any 60 minute period. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.

1.5

Construction Phase Idling Limitations

This project is in close proximity to nearby sensitive receptors (Morro Dunes RV Park). Projects that will have diesel powered construction activity in close proximity to any sensitive receptor shall implement the following mitigation measures to ensure that public health benefits are realized by reducing toxic risk from diesel emissions:

To help reduce sensitive receptor emissions impact of diesel vehicles and equipment used to construct the project, the applicant shall implement the following idling control techniques:

1. California Diesel Idling Regulations
   a. ***On-road diesel vehicles*** shall comply with Section 2485 of Title 13 of the California Code of Regulations. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:
      1. Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and,
      2. Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 1,000 feet of a restricted area, except as noted in Subsection (d) of the regulation.

1.6

b. ***Off-road diesel equipment*** shall comply with the 5 minute idling restriction identified in Section 2449(d)(2) of the California Air Resources Board's In-Use off-Road Diesel regulation.

c. Signs must be posted in the designated queuing areas and job sites to remind drivers and operators of the state's 5 minute idling limit.

d. The specific requirements and exceptions in the regulations can be reviewed at the following web sites: www.arb.ca.gov/msprog/truck-idling/2485.pdf and www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf. 1.6

2. Diesel Idling Restrictions Near Sensitive Receptors (*Morro Dunes RV Park)*
In addition to the State required diesel idling requirements, the project applicant shall comply with these more restrictive requirements to minimize impacts to nearby sensitive receptors:
   a. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
   b. Diesel idling within 1,000 feet of sensitive receptors shall not be permitted;
   c. Use of alternative fueled equipment is recommended; and
   d. Signs that specify the no idling areas must be posted and enforced at the site.

Again, thank you for the opportunity to comment on this proposal. If you have any questions or comments, feel free to contact me at 781-5912.

Sincerely,

Meghan Field
Air Quality Specialist
MDF/arr
cc:
City Of Morro Bay Harbor Dept.
Tim Fuhs, Enforcement Division, APCD
Karen Brooks, Enforcement Division, APCD

Attachments: 1. Naturally Occurring Asbestos – Construction & Grading Project Exemption Request Form, Construction & Grading Project Form

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Letter 1

COMMENTER: Meghan Field, Air Quality Specialist, San Luis Obispo Air Pollution Control District

DATE: November 18, 2013

Response 1.1

The commenter states that SLOAPCD has reviewed the proposed project and commends the City of Morro Bay's Public Services Department for their promotion of bicycle and pedestrian transportation. The commenter notes that SLOAPCD supports the proposed project. The comment is noted.

Response 1.2

The commenter notes that the project is located in an area that has the potential to contain Naturally Occurring Asbestos (NOA), and is required to comply with the California Air Resources Board (ARB) Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations.

The state Air Resources Board has identified asbestos as a toxic air contaminant. Under the ARB's Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any grading activities at the site, a geologic analysis is required to determine if serpentine rock is present. The project would be required comply with federal, state, and local regulations, including ARB's ATCM for Construction, Grading, Quarrying, and Surface Mining Operations; therefore, with compliance with these regulations, and implementation of required dust control measures, the project would not result in potentially significant impacts with regard to NOA.

Response 1.3

The commenter states that the project referral did not indicate whether there are existing structures on the project site that would be demolished. The project site is undeveloped and primarily comprised of informal dirt/gravel roadways and parking areas, as well as coastal vegetation. No demolition would be required to construct the proposed project.

Response 1.4

The commenter notes that the SLOAPCD has prohibited developmental burning of vegetative material within San Luis Obispo County. The project does not propose developmental burning.

Response 1.5

The commenter states that the proposed project will not likely exceed the SLOAPCD's CEQA significance threshold for construction phase emissions, and that construction projects with grading areas greater than four acres or within 1,000 feet of a sensitive receptors (such as the Morro Dunes R.V. Park) should implement dust control measures to manage fugitive dust

emissions. Section III, *Air Quality*, of the IS-MND, describes the SLOAPCD's dust control measures, and notes that they would be required for the project, due to its proximity to the Morro Dunes R.V. Park.

Response 1.6

The commenter states that the proposed project should implement diesel idling control techniques and restrictions to ensure that toxic risk from diesel emissions is reduced to the extent feasible. Section III, *Air Quality*, of the IS-MND, describes State idling regulations and SLOAPCD idling restrictions, and notes that they would be required for the project, due to its proximity to the Morro Dunes R.V. Park.

STATE OF CALIFORNIA – NATURAL RESOURCES AGENCY
Edmund G. Brown, Jr., GOVERNOR

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
PHONE: (831) 427-4863
FAX: (831) 427-4877
WEB: WWW.COASTAL.CA.GOV

RECEIVED
DEC 05 2013
City of Morro Bay
Public Services Department

December 2, 2013

City of Morro Bay Public Services Department
Rob Livick, Public Services Director
955 Shasta Avenue
Morro Bay, CA 93442

Subject: IS/Mitigated Negative Declaration for the Morro Creek Multi-Use Trail and Bridge Project (SCH #2013101083)

Dear Mr. Livick:

Thank you for the opportunity to comment on the above referenced IS/MND document. As described in the IS/MND, the City of Morro Bay is proposing to extend the existing Morro Bay Harborwalk with a pedestrian boardwalk and separated bike path, including an approximately 130 foot long by 13 foot wide bridge across Morro Creek, to provide a public access connection between the Morro Bay waterfront and north Morro Bay, where there is currently a gap in the existing pedestrian and bicycle trail network.

Commission staff has been involved with earlier iterations of the project as it has evolved. Staff appreciates the City's initiative to provide improved access between north Morro Bay and the Embarcadero/Morro Rock/downtown area. The Coastal Act and the City's Local Coastal Program (LCP) encourage public access and protect the public's right of access to the sea. Despite its clear benefits to coastal access and recreation opportunities, the project raises potential issues regarding consistency with Coastal Act provisions protecting sensitive habitat areas. In addition, it will be important that the project includes measures to mitigate for water quality impacts, minimize impacts to marine and terrestrial resources from any lighting or bridge construction, and avoid/minimize construction-related impacts, including from any drainage, lighting, and construction-related impacts that may occur. Finally it will be important to ensure the success of the habitat restoration efforts, as proposed, over the long run. 2.1

At this time, staff has the following questions and comments regarding the potential coastal resource impacts of the proposed project:

- **Limits of Paving.** The proposed project includes additional paving in a coastal environment, including paving and other improvements on the north side of the proposed bridge, as well as paving for a crosswalk and bike trail on the south side of the bridge. Please ensure that these portions of the project are fully described, including clearly identifying the limits of any new paving, how much pavement will be covering existing pavement (e.g. north of Morro Creek Bridge), and how much will be new pavement (either on dirt or vegetated areas), etc. In addition, please identify all potential stormwater impacts due to the proposed project and proposed stormwater improvements which will be included as part of the project. Will pervious 2.2

pavement or other LID measures be incorporated into the project to minimize paving and runoff? 2.2

- **Bicycle Path along Coleman Drive:** As we understand it, the City is proposing a 12-foot wide paved separated Class 1 bike path from the Morro Bay Power Plant entry way to the intersection of Embarcadero Road and Coleman Drive. This stretch of the larger bike path, which extends all the way north to Morro Creek, appears to be located on existing dune habitat (especially near the northeast intersection of the unpaved portion of Embarcadero Road and Coleman Drive), as opposed to the rest of the path, which appears to be located on an existing dirt roadway. The project area should be evaluated for the presence of any sensitive habitat or species. Please ensure that the habitat and any associated sensitive species along this stretch are clearly identified. If this area constitutes dune habitat (degraded or intact), mitigation for potential impacts to this habitat need to be identified and described. Also, is this particular proposed stretch of bike path through the dunes a part of the City's bikeways plan or adopted planning document? If so, please provide us with a copy or link to such document. 2.3

- **Bicycle Path Connection from Embarcadero Road:** It will be important as well to clearly identify the bicycle connection between the existing paved portion of Embarcadero Road and the proposed stretch of bike path along Coleman Drive. As this stretch of bike path (from the Dynegy entrance way to the unpaved portion of Embarcadero Drive) could potentially impact dune habitat, please evaluate an alternative bicycle route path stretching between Embarcadero Road and the existing Harborwalk bike path. 2.4

- **Visual Resource Protection:** The proposed project is located in a highly scenic area and thus all development will need to be consistent with the visual protection policies of the Coastal Act and the LCP. The bridge would be located over Morro Creek, and thus the bridge and railings could be visible from Morro Bay State Park and other public viewsheds in the immediate area. This unique location provides a noticeable relief from the surrounding urban environment with a distinct open space character and scenic vista that is easily seen from Embarcadero Road and surrounding public viewpoints, near Morro Rock. Given the visually sensitive nature of the area, it is important that the design of the bridge blend with the natural landscape of the creek and the character of its setting, consistent with the visual protection policies of the Coastal Act and the LCP. 2.5

- **Morro Creek Bridge.** As the IS/MND states, the proposed bridge would be located over a stream and its associated riparian corridor. To protect environmentally sensitive habitat within the riparian corridor, please ensure that the bridge and all support structures (e.g. abutments or footings) are located outside of these habitat areas. 2.6

- **Flood Zone.** The IS/MND states that the majority of the proposed project site is designated by FEMA as a "Zone X" flood zone. This zone has a 2% annual chance of flooding and a 1% chance of annual flooding to depths less than one foot. In addition the proposed project would place a bridge across Morro Creek, which is designated by FEMA as "Zone AE," a 100 year flood zone. Please ensure that these differing areas are clearly identified on a map and all 2.7

proposals for removal or relocation/realignment of the proposed development over time due to coastal hazards, such as flooding or sea level rise, are included. As all new development is prohibited from using shoreline protection devices, please clearly identify that no shoreline protection for the life of the project is proposed. 2.7

- **Permit History:** Please ensure that the permit history of the project area (including the unpaved portion of Embarcadero Road from Coleman Drive to Morro Creek, the parking area at the edge of Morro Creek, and the bike path through Coleman Park, etc.), is provided. Or alternatively, please provide evidence that those portions of the project were existing prior to February 1, 1973 (the effective date of coastal permitting requirements pursuant to the passage of Proposition 20). This information will be critical in evaluating the biological impacts of the proposed project, potential project alternatives, and appropriate mitigation for the project. In addition, please provide a site plan that clearly identifies the edge of the unpaved portion of Embarcadero Road, and where the proposed pedestrian and bike trail along Embarcadero Road is proposed to be constructed. 2.8

- **Mitigation:** Please ensure that appropriate mitigation is clearly identified for any potential impacts from the proposed project. As we understand it, the City is preparing to propose mitigation pursuant to the Morro Bay Harborwalk Coastal Dune Scrub Restoration and Enhancement Plan. Please ensure that there is no overlap between the mitigation that was required for the Harborwalk project and the mitigation the City is proposing for this project, and that the area of mitigation is clearly identified in a visual depiction. 2.9

Again, thank you for the opportunity to comment on the IS/MND.

Please let us know if you have further questions.

Sincerely,

Daniel Robinson
Coastal Planner
Central Coast District Office

Letter 2

COMMENTER: Daniel Robinson, Coastal Planner, Central Coast District Office, California Coastal Commission

DATE: December 2, 2013

Response 2.1

The commenter describes the proposed project, and expresses support for the City's goal of improving access between north Morro Bay and the Morro Bay downtown area. The commenter also describes potential issues regarding consistency with Coastal Act provisions protecting sensitive habitat areas, and requests that the project include measures to mitigate for water quality impacts, impacts to marine and terrestrial resources from lighting and bridge construction, and construction-related impacts, including drainage lighting, or other construction-related impacts. The commenter describes specific issues of concern in subsequent comments. Please refer to Responses 2.2 through 2.9.

Response 2.2

The commenter requests that the IS-MND describe the limits of proposed paving, and identify potential stormwater impacts and proposed stormwater improvements that would result from the proposed project. Section 2.7, *Project Description*, of the IS-MND describes the proposed project, including all proposed paving. Figure 2-2 of the IS-MND shows the project site in its local context, and Appendix A of the IS-MND shows the project site plan, design specifications, and visual simulations of the proposed improvements, including areas proposed for paving. Potential impacts and improvements related to stormwater are described in Section XI, *Hydrology and Water Quality*, of the IS-MND.

Response 2.3

The commenter describes the proposed Class 1 bicycle path from the Morro Bay Power Plant entry way to the intersection of Embarcadero Road and Coleman Drive, and notes that this portion of the bicycle path would be within existing dune habitat. The commenter states that the project area should be evaluated for the presence of any sensitive habitat or species, and requests that the IS-MND should include mitigation for potential impacts to dune habitat. Section IV, *Biological Resources*, of the IS-MND, describes biological resources on the project site, based on the Natural Environment Study (NES) for the Morro Creek Multi-Use Trail and Bridge Project completed in October 2013, which described field surveys of the project site conducted on September 5, 2013 by Rincon Consultants staff, a field survey and a protocol-level botanical survey conducted within the Biological Study Area (BSA) for another non-related project on July 10, 2009 by Rincon Consultants staff, and field surveys for the wetland delineation efforts for the project conducted on May 22, May 29, July 3, and July 29, 2013 by Althouse and Meade, Inc. staff. Based on the analysis of biological resources in the IS-MND, the IS-MND includes mitigation for species and habitat with potential to occur in this area, including Morro shoulderband snail, legless lizard, central dune scrub habitat, invasive weeds, and sensitive plant species (Blochman's leafy daisy). Required mitigation includes preparation of a comprehensive Habitat Mitigation and Monitoring Plan (HMMP) that provides for a 3:1

mitigation ratio (3 acres of mitigation for every 1 acre of impacts) for all permanently impacted areas of central dune scrub habitat, unless otherwise approved by USFWS.

The commenter also requests clarification as to whether this portion of the proposed bicycle path is part of the City's bikeways plan or adopted planning document. The proposed bicycle path connection is not included in the City's Bicycle Master Plan (adopted February, 2012; however, the Bicycle Master Plan notes the existing gap in connectivity between north Morro Bay and downtown Morro Bay, and the proposed connection would help achieve the 2008 California Complete Streets Act (AB 1358) goal of providing a non-motorized tail system tied to existing roadways, as well as the City's adopted policy from the Bicycle Master Plan related to transportation improvements.

> *The City of Morro Bay requires that all planning, design and construction of new improvement and redevelopment projects with a transportation component shall provide appropriate accommodation for pedestrians, bicyclists, transit riders, and persons of all abilities, while promoting safe operation for all users.*

The City has designed the proposed trail alignment to minimize impacts on dune habitat, while providing adequate safety for trail users and acceptable traffic visibility at the intersection of Embarcadero Road and Coleman Drive. These design considerations necessitate a separated trail alignment between the Morro Bay Power Plant entrance and the intersection of Embarcadero Road and Coleman Drive. In addition, the proposed trail is an extension of the existing Morro Bay Harborwalk, which is one of the projects envisioned in the City's Waterfront Master Plan, adopted in 1996.

Response 2.4

The commenter states that the IS-MND should clearly identify the bicycle connection between the existing paved portion of Embarcadero Road and the proposed stretch of bicycle path along Coleman Drive. The commenter states that this portion of the bicycle path could potentially impact dune habitat, and requests that the IS-MND evaluate an alternative bicycle route path stretching between Embarcadero Road and the existing Harborwalk bicycle path. As described in Response 2.3, the City has designed the proposed trail alignment to minimize impacts on dune habitat, while providing adequate safety for trail users and acceptable traffic visibility at the intersection of Embarcadero Road and Coleman Drive. These design considerations necessitate a separated trail alignment between the Morro Bay Power Plant entrance and the intersection of Embarcadero Road and Coleman Drive. As described in Response 2.3, Section IV, *Biological Resources*, of the IS-MND, describes biological resources on the project site, including potential impacts to dune habitat and associated species. The IS-MND identified mitigation measures for all potentially significant impacts associated with the proposed bicycle path.

Response 2.5

The commenter states that the proposed project would need to be consistent with the visual protection policies of the Coastal Act and the Local Coastal Program (LCP). The commenter notes that the bridge and railings could be visible from Morro Bay State Park and other public viewsheds in the immediate area, and states that the design of the bridge should blend with the natural landscape of the creek and the character of its setting. Section I, *Aesthetics*, of the IS-

MND describes the existing visual resources on and around the project site, and the potential for the project to impact these resources. In addition, Appendix A of the IS-MND includes visual simulations of the proposed project in its local context. As described in the IS-MND, the project would be low-profile and would not interfere with the existing views of Morro Rock, Morro Rock City Beach, the Morro Bay sand spit, or the harbor and navigable ways, in compliance with the Embarcadero design criteria outlined in the Morro Bay General Plan Visual Resources Element. Visual simulations of the proposed project in its local context are provided in Appendix A of the IS-MND.

Response 2.6

The commenter notes that the proposed bridge would be located over a stream and its associated riparian corridor, and requests that the bridge and all support structures be located outside of these habitat areas. As described in Section 2.7, *Project Description*, of the IS-MND, the bridge would not include any support structures within the creek bed. In addition, Mitigation Measures BIO-1, BIO-6, and BIO-7 restrict specific construction activities within or near Morro Creek and associated riparian areas. All impacts associated with Morro Creek and associated riparian resources would be less than significant with required mitigation.

Response 2.7

The commenter requests that FEMA flood zones on the project site be identified on a map, and that the IS-MND include proposals for removal or relocation/realignment of the proposed development due to coastal hazards, such as flooding or sea level rise. The FEMA flood zone map would be provided as part of the Coastal Development Permit (CDP) application for the proposed project. The project has been designed to minimize infrastructure within areas that may be affected by sea level rise (e.g., the project does not include any new public parking areas). No shoreline protection is proposed for the project. The FEMA flood zones on the project site are described in Section IX, *Hydrology and Water Quality*, of the IS-MND. The IS-MND indicates that the proposed project would not result in the development of new housing within a flood zone, and would not result in structures with the potential to redirect flood flows; therefore, the IS-MND analysis determined that impacts associated with flooding would be less than significant, and would not require mitigation.

Response 2.8

The commenter requests that the IS-MND include the permit history of the project area, or evidence that portions of the project where existing prior to February 1, 1973. The commenter also requests that the IS-MND include a site plan that identifies the edge of the unpaved portion of Embarcadero Road, and where the proposed pedestrian and bicycle trail along Embarcadero road is proposed. Aerial imagery from the Coastal Records Resource show that the unpaved portion of Embarcadero Road from Coleman Drive to Morro Creek and the parking area at the edge of Morro Creek existed prior to February 1, 1973. The project permit history for the bicycle path through Coleman Park is available as part of the City record, and is not a required component of the project environmental impact analysis pursuant to CEQA, or otherwise pertinent to the physical environmental effects of the project. Appendix A of the IS-MND shows the project site plan, design specifications, and visual simulations of the proposed improvements, including areas proposed for paving.

Response 2.9

The commenter requests that mitigation for any potential impacts be clearly identified, and that the mitigation required in the IS-MND not overlap with mitigation required for the Morro Bay Harborwalk Coastal Dune Scrub Restoration and Enhancement Plan. The commenter also requests that the area of mitigation be identified in a visual depiction. The IS-MND includes mitigation measures to reduce potential impacts to biological resources, cultural resources, hazards and hazardous materials, and noise. These mitigation measures were developed for the proposed project, in order to address project-specific potential impacts identified in the IS-MND, and would reduce all potential impacts associated with the proposed project to a less than significant level. Off-site mitigation for central dune scrub habitat, described in Mitigation Measure BIO-7, would be required to occur in the immediate vicinity of the project site, as shown in Figure 4 of the NES for the Morro Creek Multi-Use Trail and Bridge Project completed in October 2013, and would be reflected in the Habitat Mitigation and Monitoring Plan (HMMP) required by this mitigation measure. Off-site mitigation pursuant to Mitigation Measure BIO-7 would occur in new mitigation areas, not overlapping with the mitigation required for the Morro Bay Harborwalk Coastal Dune Scrub Restoration and Enhancement Plan.

EXHIBIT D

Morro Creek Multi-Use Trail and Bridge Project

Natural Environment Study

San Luis Obispo County, California

Federal Project Number CASB12RP-5391(013)

MB-2013-S2

05-SLO-0-MOBY

December 2013

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CALIFORNIA DEPARTMENT OF TRANSPORTATION

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EXHIBIT D

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Natural Environment Study

Morro Creek Multi-Use Trail and Bridge Project

San Luis Obispo County

Federal Project Number CASB12RP-5391(013)

MB-2013-S2

05-SLO-0-CR

December 2013

STATE OF CALIFORNIA
Department of Transportation
City of Morro Bay

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EXHIBIT D

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Summary

The City of Morro Bay is extending the existing Harborwalk with continuation of a paved pedestrian boardwalk and separate Class I bike path from the existing parking area and crossing on Embarcadero Avenue northward. The City also proposes to install a clear-span pre-engineered/pre-fabricated bike and pedestrian bridge over Morro Creek to connect to north Morro Bay on Embarcadero Road/State Route 41. In addition, the project will include improvements to beach access from the trail, and two interpretive sign stations that will display educational and other information about the cultural and natural history of the region.

This project is receiving funding from the Federal Highway Administration (FHWA) and with assistance from Caltrans. As part of its NEPA assignment of federal responsibilities by the FHWA, effective October 1, 2012 and pursuant to 23 USC 326, Caltrans is acting as the lead federal agency for Section 7 of the federal Endangered Species Act. The project site contains suitable habitat for federally threatened California red-legged frog and south/central California coast distinct population segment of steelhead. It also contains habitat that is suitable for federally endangered Morro shoulderband snail. In addition, the habitats within the project site have potential to support black and silvery legless lizards, state species of special concern. All potential impacts to these species would be minimized and/or avoided with implementation of the recommended measures described in Chapter 4. The project satisfies the criteria for the U.S. Fish and Wildlife Service California Red-legged Frog Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (U.S. Fish and Wildlife Service, 2011). A Biological Assessment has been prepared for the project to facilitate the required formal consultation with the U.S. Fish and Wildlife Service to further offset the potential project-related impacts to these sensitive species. The project site is not within federally designated critical habitat for California red-legged frog or Morro shoulderband snail. However, it is within federally designated critical habitat for south/central California coast distinct population segment of steelhead.

The proposed project will require a Streambed Alteration Agreement from the California Department of Fish and Wildlife because installation of the bridge would occur within its jurisdiction on the northern side of the bank of Morro Creek. However, the project would not remove or otherwise impact any sensitive riparian vegetation. The project occurs within the designated Coastal Zone and would therefore require acquisition of a Coastal Development Permit.

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List of Abbreviated Terms

ADA	Americans with Disabilities Act
BA	Biological Assessment
BMP	Best Management Practices
BO	Biological Opinion
BSA	Biological Study Area
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
City	City of Morro Bay
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRLF	California red-legged frog
CRPR	California Rare Plant Rank
DPS	Distinct Population Segment
EFH	Essential Fish Habitat
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
GIS	Geographic Information Systems
IPAC	Information, Planning, and Conservation System
LID	Low Impact Development
MSBS	Morro Shoulderband Snail
MBTA	Migratory Bird Treaty Act
msl	mean sea level
NES	Natural Environment Study
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
NSBP	National Scenic Byways Program
OHWM	Ordinary High Water Mark

PCE	Primary Constituent Elements
ppt	parts per thousand
Project	Morro Bay Multi-Use Trail and Bridge Project
Rincon	Rincon Consultants, Inc.
RPW	Relatively Permanent Waters
RWQCB	Regional Water Quality Control Board
TNW	Traditional Navigable Waters
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

EXHIBIT D

Chapter 1. Introduction

The City of Morro Bay (City), in coordination with the California Department of Transportation (Caltrans), is proposing to continue improvements along the Waterfront within the City by implementation of the Morro Creek Multi-Use Trail and Bridge Project (project). The proposed project will consist of a multi-use paved path, pedestrian boardwalk, installation of a clear-span bike and pedestrian bridge over Morro Creek, and several other amenities.

1.1. Project History

In 2008, the City completed the first phase of Waterfront improvements; the Morro Bay Harborwalk. This phase consisted of a continuous off-roadway bike path and separate pedestrian boardwalk constructed along the shoreline with a terminus at the existing beach access located at the north end of the Morro Rock parking area. This required the realignment of Coleman Drive, a two-lane road that leads to the public parking area at Morro Rock, and dune scrub habitat restoration related to the realignment. This project is the second phase of Waterfront improvements and is receiving funding from the Federal Highway Administration (FHWA) and with assistance from Caltrans. As part of its NEPA assignment of federal responsibilities by the FHWA, effective October 1, 2012 and pursuant to 23 USC 326, Caltrans is acting as the lead federal agency for Section 7 of the federal Endangered Species Act.

1.2. Project Description

The project site is generally located along the coast within north-central Morro Bay in San Luis Obispo County, California (Figure 1). Specifically, it is located approximately 0.21 mile inland from the Pacific Ocean and the project site occurs within both the *Morro Bay North* and *Morro Bay South, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangles.

The proposed project would extend the existing Morro Bay Harborwalk with a pedestrian boardwalk and separated Class I bike path to provide a connection between Morro Bay's waterfront and north Morro Bay. A separated Class I bike path would extend from the Morro Bay Power Plant entry way to the intersection of Embarcadero Road and Coleman Drive. The pedestrian boardwalk and separated Class I bike path would extend from the existing Morro Bay Harborwalk, south of the parking area at Embarcadero Road and Coleman Drive, and continue northward adjacent to the

Figure 1 – Project Location Map

unpaved portion of Embarcadero Road (along the west side of the road), to Morro Creek and south, adjacent to Morro Creek. Bike parking would be located toward the end of this southward pathway extension along Morro Creek. The total extension of pedestrian boardwalk and separated Class I bike path for the proposed project would be 1,533 and 2,170 linear feet, respectively. The pedestrian boardwalk would be eight feet wide and the proposed bike path would be 12 feet wide. An approximately 130-foot long by 15-foot wide, clear-span, pedestrian and bicycle bridge would extend the pedestrian boardwalk and bike path across Morro Creek to connect to north Morro Bay on Embarcadero Road (State Route 41). The span would be pre-fabricated and pre-engineered and would not include any support structures within the creek bed. The northern bridge abutment will require excavation within the top of Morro Creek bank. Pile driving would not be required. The proposed bridge, pedestrian boardwalk, and bike path will not have lighting.

The project would also include two educational interpretive facilities. One located along the pedestrian path overlooking the dune scrub habitat and Morro Rock and beach vistas, and the second, at the terminus of the southward pedestrian path along Morro Creek overlooking Morro Creek and the beach. The interpretive materials would be consistent with the Route 1, SLO North Coast Scenic Byway, interpretive plan and implementation strategies (National Scenic Byways Program grant 2006). In addition, Embarcadero Road at Coleman Drive would be upgraded to paved roadway for approximately 100 feet to allow for the installation of a new crosswalk.

The project will utilize an existing parking lot that appears to be currently used for overflow parking by Dynegy Energy Inc., employees for a staging area. This parking lot is located approximately 1.4 miles northwest of the intersection of Embarcadero Road and Beach Street. The parking lot is not a natural habitat and does not contain any vegetation except for a few non-native weeds around the perimeter. It consists of road base, which is an aggregate, compact mixture of sand and stone. Project activities that will occur in the staging area will be restricted to the limits of the parking area only and shall not extend beyond the limits of the road base surface onto adjacent vegetated areas. This staging area will accommodate the needs of the project and others are not anticipated to be necessary.

To meet water quality and habitat protection goals for the City and the Morro Bay Estuary, new waterfront facilities would be designed to reduce and/or eliminate surface runoff and pollution. The project would utilize low impact development (LID) to minimize potential impacts to hydrology and water quality and allow for

percolation alongside the expanded bicycle and pedestrian facilities, and include Americans with Disabilities Act (ADA) approved access throughout the project features. Non-irrigated native and drought-tolerant shrubs and groundcover landscaping would be provided adjacent to the multi-use bicycle and pedestrian pathways.

Construction of the proposed project would require grading and excavation. Based on the design of the project, excavated material would be balanced onsite and importation of fill would not be required. No underground utilities would be required. The following is a list of the equipment that is anticipated to be used onsite during project implementation:

- Drilling equipment,
- Dump trucks,
- Concrete trucks,
- Water trucks,
- Paving equipment,
- Compacting equipment,
- Crane,
- Fence post installation equipment,
- Loader,
- Grader, and
- Scraper.

No equipment will enter and/or be used within the Morro Creek channel.

Detailed project plans that illustrate the locations of the proposed bridge and abutments, that includes a cross section of Morro Creek are included as Appendix A. Construction is anticipated to be conducted between the months of August through February and is expected to take approximately six months to complete or one construction season.

Chapter 2. Study Methods

For the purposes of this Natural Environment Study (NES), the biological study area (BSA) includes the entire project site and all of the project components as outlined in the project description. In addition, the BSA also includes a rectangular-shaped area located directly west of the unpaved portion of Embarcadero Road that will eventually be used for central dune scrub sensitive habitat mitigation. The BSA for the proposed project (including the sensitive habitat mitigation area) is presented in Figure 2. The BSA was determined by the extent of potential project-related impacts to biological resources. This chapter describes the methodology used for the NES and includes discussions of the pertinent regulatory requirements, preliminary background research and study requirements, personnel that conducted the biological analyses, agency coordination and contacts, and potential limitations that may influence the study results.

2.1. Regulatory Requirements

Implementation of the proposed project is anticipated to require Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) to meet compliance with the FESA. Accordingly, a Biological Assessment (BA) has been prepared for the project to assist with the consultations for California red-legged frog, south/central California coast distinct population segment of steelhead, and Morro shoulderband snail. Upon its review, USFWS shall issue a Biological Opinion (BO) for the project. The Section 7 consultation is required for the proposed project to verify that its implementation will not result in jeopardy of federally listed species and/or adversely affect their habitats, including federally designated critical habitat. This project meets the criteria for the USFWS California red-legged frog Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (USFWS, 2011a).

This project is not anticipated to require a Section 404 Permit pursuant to the Clean Water Act from the U.S. Army Corps of Engineers (USACE) because all work associated with the proposed bridge would be conducted well outside the Morro Creek channel limits. Likewise, a Section 401 Water Quality Certification from the Central Coast Regional Water Quality Control Board (RWQCB) is not anticipated to be required. The proposed project is expected to require a Streambed Alteration Agreement, which is issued from the California Department of Fish and Wildlife (CDFW) because a portion of work associated with installation of the proposed

Figure 1 – Biological Study Area

bridge would be conducted within the top of the creek bank on the northern side. The BSA does occur within the Coastal Zone and would therefore require a Coastal Development Permit, which is issued from the Central Coast District of the California Coastal Commission.

2.2. Studies Required

Queries of the USFWS Information, Planning, and Conservation System (IPAC), CDFW California Natural Diversity Database (CNDDB), and California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants were conducted for the BSA to obtain comprehensive information regarding state and federally listed and other special status species considered to have potential to occur within the *Morro Bay North, California* USGS 7.5-minute topographic quadrangle and the surrounding quadrangles. The results of these scientific database queries were compiled and summarized into a table that is presented as Appendix A. Then analysis to determine which of these special status species have the potential to occur within the BSA and general vicinity was conducted. The habitat requirements of each regionally occurring species were assessed and compared to the type and quality of habitats observed onsite during the field survey. Several species were eliminated from being considered to have potential to occur within the BSA due to lack of suitable habitat, range of elevation, lack of suitable soil type or substrate, or current known distribution. Similarly, suitable habitat for a species may be present onsite and indicated in Appendix A; but there are no previous CNDDB records of that species within the five-mi radius of the BSA and the site may not actually occur within the established range of that species. Special status species are addressed in Chapter 4. In addition the following resources were reviewed:

- Aerial photographs of the BSA and immediate vicinity;
- *Morro Bay North, California* USGS 7.5-minute topographic quadrangle;
- US Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Web Soil Survey of San Luis Obispo County California, Coastal Part (USDA-NRCS, 2013);
- USFWS, IPAC list of federally listed species with potential to occur within the BSA and vicinity, included as Appendix B (USFWS, 2013b);
- USFWS Critical Habitat Portal (USFWS, 2013a);

- CDFW, CNDDB list of state and federally listed species within potential to occur within the *Morro Bay North, California* USGS 7.5-minute topographic quadrangle and surrounding quadrangles (CDFW, 2003);
- A CNDDB map of state and federally listed species that have been previously documented within a 5-mi (8 km) radius of the BSA (CDFW, 2003);
- CNPS, California Rare Plant Rank (CRPR) list of sensitive plant species with potential to occur within the *Morro Bay North, California* USGS 7.5-minute topographic quadrangle and surrounding quadrangles (CNPS, 2013);
- USFWS National Wetlands Inventory Online Mapping Application query for the BSA (USFWS, 2013c); and
- CDFW Biogeographic Information and Observation System Viewer Application for the BSA (CDFW, 2013).

A reconnaissance-level field survey of the BSA and immediate vicinity was conducted to document the baseline conditions, existing biological resources onsite, and to further evaluate the potential for presence of special status species and/or their habitats. A visual scan of the area that will be utilized for the sensitive habitat mitigation was conducted; however a pedestrian survey of this area did not occur during this reconnaissance field survey effort. Other investigators covered the majority of this area, which is approximately 40 feet wide and further details regarding the survey efforts are provided below. Implementation of the avoidance and minimization measures for special status plants provided in Section 4.2 would ensure that all potential project-related impacts to sensitive plant species will be avoided and/or minimized. All plant and wildlife species observed within the BSA were identified to the lowest possible taxonomic level, which is required for accurate identification and reporting. Further details regarding the survey efforts that have been conducted in support of this NES are provided below.

2.3. Personnel and Survey Dates

Rincon Associate Biologist/Botanist, Kristie Haydu conducted the reconnaissance field survey within the BSA on September 5, 2013 to document the existing or baseline biological conditions onsite. Ms. Haydu has a Master of Science degree in Biology from the California Polytechnic State University, a Bachelor of Science degree in Biology from Sonoma State University, and more than nine years of professional experience conducting biological field surveys and producing the required documentation in support of environmental regulatory compliance.

Rincon Principal/Senior Ecologist, Colby Boggs conducted a field survey and a protocol-level botanical survey within the BSA for another non-related project on July 10, 2009. Mr. Boggs has a Master of Science degree in Botany from the California State University at Chico, a Bachelor of Science degree in Biology from the University of California at Santa Barbara, and more than 15 years of professional experience conducting biological field surveys, managing projects, and generating the associated documentation for achieving environmental regulatory compliance.

Althouse and Meade, Inc., staff conducted the field surveys for the wetland delineation efforts for the project on May 22, May 29, July 3, and July 29, 2013 (Althouse and Meade, Inc., 2013a). Likewise, Althouse and Meade, Inc. Senior Biologist/Botanist Meg Perry conducted the protocol-level botanical surveys for the project during the months of May, June, and July of 2013 (Althouse and Meade, Inc., 2013b). The sensitive habitat mitigation area was not included in these survey efforts. The BSA contains a relatively small linear area that is adjacent to the north side of Embarcadero Road, and east of the intersection of Embarcadero and Coleman Drive. This portion of the BSA was also not included in the Althouse and Meade, Inc., survey efforts.

2.4. Agency Coordination and Professional Contacts

Rincon contacted USFWS Senior Biologist, Julie Vanderwier by phone on September 18, 2013 to obtain additional information regarding the potential for presence of Morro shoulderband snail within the BSA. Ms. Vanderwier agreed that this species should be included in the Section 7 Consultation and then provided Rincon with several recommended avoidance and minimization measures that could be used for the project through email on the same day. Rincon also contacted a local Morro shoulderband snail expert, Michael Walgren from the California Department of Parks and Recreation on September 11, 2013 by phone to try to obtain additional information regarding known past occurrences of this species within the vicinity of the BSA. Mr. Walgren did not provide Rincon with any pertinent information that could be used for this analysis.

2.5. Limitations That May Influence Results

Sensitive plant species with the potential to occur within the BSA may be annual species that can be difficult to detect following seasons of below average rainfall, or during those times of the year when particular species are not specifically flowering. Similarly, the population sizes and locations of sensitive plant species may vary

annually and at different times throughout the year. Climatic conditions during the field survey were generally mild and favorable for the identification of most plant species. The botanical component of the field survey conducted in support of this NES was timed, to the maximum extent feasible, to accommodate the flowering period for most of the species considered to have potential to occur onsite and addressed in this document.

Sensitive wildlife species with the potential to occur in the BSA may be generally difficult to detect or may be transient or migratory species. The population sizes and locations of sensitive wildlife species may fluctuate throughout the year. As a result of these factors, the data collected for this NES represents a "snap shot" in time and may not comprehensively reflect the actual site conditions. Climatic conditions during the field survey were generally mild and favorable for the identification of most wildlife species that are active during the daytime.

The various trees within the BSA and immediate vicinity were inspected for nesting birds, nests, and nesting behaviors; however, these surveys were conducted almost a year prior to start of construction. Therefore, the nesting bird survey should not be considered determinant-level for these resources.

Chapter 3. Results: Environmental Setting

3.1. Description of the Existing Biological and Physical Conditions

3.1.1 Study Area

The BSA is located in north-central Morro Bay, in San Luis Obispo County California (Figure 1). It is depicted on the *Morro Bay North, California* USGS 7.5-minute topographic quadrangle. The BSA begins at the driveway entrance for the Dynegy Electric Utility Morro Bay Power Plant along Embarcadero and extends west along Embarcadero to Coleman City Park. The BSA includes a small portion of Coleman Park, located east of the public restroom facilities, on the south side of Embarcadero. It extends north along the unpaved portion of Embarcadero Road and widens where it meets Morro Creek to include the existing unpaved parking area for coastal access to the west and a small portion of the driveway into an existing industrial storage yard to the east. The proposed bridge would cross over to span Morro Creek and the BSA continues along Embarcadero Road for a short distance to the north. It widens slightly on this side of Morro Creek to include a second existing unpaved parking area for coastal access to the west and a small peripheral area behind the Morro Dunes Mobile Home and RV Park. The BSA is approximately 2,194 feet long and encompasses approximately 2.57 acres. It consists of the minimum area needed in order to complete the proposed project and includes the locations of the proposed pedestrian boardwalk and bike path, the bridge over Morro Creek, two interpretive areas, road alignment and improvements, potential staging areas, and non-irrigated native landscape areas. The BSA includes the banks and channel of Morro Creek and road shoulders. It also includes the area west of Embarcadero Road that would be used for central dune scrub sensitive habitat mitigation activities.

3.1.2 Physical Conditions

Elevations within the BSA range from approximately 11 to 25 feet (three to seven meters) above mean sea level (msl). The BSA occurs at the northwestern limits of the Chorro Valley right along the coastline. The Chorro Valley is located in between the Santa Lucia Mountain Range and the Seven Sisters, which consists of a chain of seven extinct volcanoes with Morro Rock at its western terminus. The BSA occurs within Open Space/Recreational – Park land use zoning and the areas immediately surrounding the BSA are zoned for the following land uses: Visitor Serving –

Commercial, Coastal Development – Industrial, Coastal Development – General Industrial, and Commercial – Recreational Fishing Harbor/Navigational Ways. The City identifies Morro Creek as an Environmentally Sensitive Habitat (City, 1988). While the BSA is predominantly open space, it supports a high level of recreational use.

The USDA-NRCS has mapped one soil unit within the BSA: (134) Dune land. Soils within the Dune land soil unit are typically composed of approximately 90 percent dune land and nine percent of the following other minor components: three percent Capistrano soils, three percent Baywood soils, and three percent beaches. Dune land soils are considered to be excessively well drained and the parent materials are unclassified. This soil unit does not meet the national hydric criteria (USDA-NRCS, 2013).

Morro Creek appears to be an intermittent stream with water largely absent for at least some portion of the year, except in unusually wet years. It is the main-stem within the watershed, which is located in northwestern San Luis Obispo County. The headwaters begin in the Santa Lucia Mountain Range within the Los Padres National Forest near the summit of the State Route 41 corridor and flow approximately 10.2 miles southwest to the ocean just slightly north of Morro Rock. Morro Creek meets the open beach strand immediately west of the BSA where it outlets directly into the Estero Bay within the Pacific Ocean. The reach of Morro Creek associated with the project spans approximately 0.7 linear m. At the eastern end this reach forks into two branches: Morro Creek and Little Morro Creek. Approximately 28 linear feet of Morro Creek occur within the BSA. Morro Creek is within the Central Coastal Watershed (Hydrologic Unit Code No. 18060006) and flows in a general northwesterly direction outside the BSA (USGS, 2013). This feature is mapped as a solid-blue line stream on the *Morro Bay North, California* USGS 7.5-minute topographic quadrangle.

Delineation of Potentially Jurisdictional Wetlands and Waters for Morro Bay Pedestrian Bridge was prepared by Althouse and Meade, Inc. (2013a). Rincon obtained the shape files from Althouse and Meade, Inc. developed as part of this delineation report for use in Geographic Information Systems (GIS) analyses. In addition, Rincon conducted a subsequent evaluation of the general nature and extent of potentially jurisdictional features onsite. The anticipated extents of both the USACE/RWQCB and CDFW jurisdictions are illustrated in Figure 3.

Figure 2 – Jurisdictional Areas

The estimated width between the top of the banks (i.e., measurement across the stream from bank-top to bank-top) on either side of the proposed bridge location is 109 feet (33 meters). Only a small, isolated portion of Morro Creek was inundated during the field survey and the water depth observed within this isolated pool was approximately two feet deep. At this specific location the substrates observed within the stream channel varied and include gravel, sand, and silt. Emergent vegetation was observed within the lowest portions of the stream channel and the higher portions of the channel support a variety of other hydrophytic species.

3.1.3 Biological Conditions in the Biological Study Area

Five vegetation communities were identified within the BSA during the field survey including: central dune scrub, ice plant, arroyo willow woodland/riparian, bulrush/cattail wetland, and ruderal/developed. The habitat characterization for this project was based on the classification systems presented in Sawyer et al., 2009 and Holland, 1986; but, the habitat nomenclature has been modified slightly to most accurately reflect the existing site conditions. Figure 4 illustrates the extents of the vegetation communities observed onsite and each are discussed in greater detail below. Representative photographs of the BSA are included as Appendix C and a complete list of plant species observed during the field survey is presented as Appendix D. Plant species nomenclature and taxonomy used for this NES follows the treatments within the second edition of the *Jepson Manual* (Baldwin et al., 2012).

3.1.3.1 CENTRAL DUNE SCRUB

Central dune scrub habitat occurs along the western side of Embarcadero and on both sides of the intersection where Embarcadero extends north and becomes Coleman Drive to the west. Approximately 1.10 acres of the BSA are composed of central dune scrub habitat and the project is anticipated to impact approximately 0.19 acre of this habitat (0.14 acre would be permanently impacted and 0.05 acre would be temporarily impacted). The proposed limits of disturbance are the basis for these impact calculations. Trees are absent within this community and it is mostly dominated by shrubs and forbs. The dominant plant species observed within this vegetation community include: ice plant (*Carpobrotus* spp.), beach bur (*Ambrosia chamissonis*), California sagebrush (*Artemisia californica*), California aster (*Corethrogyne filaginifolia*), stephanomeria (*Stephanomeria virgata*), dune lupine (*Lupinus chamissonis*), beach evening primrose (*Camissoniopsis cheiranthifolia*), and seacliff wild buckwheat (*Eriogonum parvifolium*). The central dune scrub vegetation community onsite most closely corresponds to the *Abronia latifolia-Ambrosia*

Figure 3 – Vegetation Communities within the BSA

chamissonis Dune Mat Herbaceous Alliance in the Sawyer classification system (Sawyer et al., 2009) and to Element #21320 Central Dune Scrub in the Holland classification system (Holland, 1986). However, the exact plant species composition within the BSA varies somewhat from the descriptions presented in these standard classification schemes. The central dune scrub habitat within the BSA is considered a sensitive natural community type by CDFW (CDFW, 2003). Numerous common wildlife species utilize central dune scrub as habitat including (but not limited to) the following: western fence lizard, horned lizard, rattlesnake, kangaroo rat, ground squirrel, cotton tail, turkey vulture, California towhee, wrentit, and warbler. Western fence lizard, turkey vulture, western scrub jay, dark-eyed junco, and ground squirrel were observed within the central dune scrub habitat onsite during the field survey.

3.1.3.2 ICE PLANT

Ice plant habitat occurs in several locations within the BSA. This vegetation community type was observed within the curbed median in front of the Dynegy Electric Utility Morro Bay Power Plant administrative building, along the north side of Embarcadero, within Coleman City Park, and along the upper limits of the banks of Morro Creek. Approximately 0.29 acre of the BSA is composed of ice plant habitat and the project is anticipated to impact approximately 0.27 acre of this habitat (0.19 acre would be permanently impacted and 0.08 acre would be temporarily impacted). The proposed limits of disturbance are the basis for these impact calculations. Trees and shrubs are absent within this community and ice plant (*Carpobrotus chilensis* and *C. edulis*) is the dominant species. Only a few other species were observed within the ice plant vegetation community including: telegraph weed (*Heterotheca grandiflora*), perennial mustard (*Hirschfeldia incana*), false brome (*Brachypodium distachyon*), ripgut grass (*Bromus diandrus*), and wall barley (*Hordeum murinum*). The ice plant vegetation community onsite most closely corresponds to the *Carpobrotus edulis* or Other Ice Plants, Ice Plant Mats Semi-Natural Herbaceous Stands in the Sawyer classification system (Sawyer et al., 2009); but does not have a corresponding element in the Holland classification system (Holland, 1986). Common wildlife species may utilize ice plant stands as habitat including (but not limited to) the following: Sierra tree frog, western toad, western scrub jay, American crow, deer mouse, snail, and a variety of insects. No wildlife species were observed within the ice plant habitat onsite during the field survey.

3.1.3.3 ARROYO WILLOW WOODLAND/RIPARIAN

Only a small portion of the BSA supports the arroyo willow woodland/riparian vegetation community type. This habitat occurs along relatively narrow margins

along both the northern and southern banks of Morro Creek. Approximately 0.04 acre of the BSA is composed of arroyo willow woodland/riparian habitat and the project will avoid impacts to this habitat. It is dominated by moderately sized, thick arroyo willow (*Salix lasiolepis*) trees. Due to the density of the canopy within this community few other species were observed; these include annual beard grass (*Polypogon monspeliensis*), white sweetclover (*Melilotus albus*), and stinging nettle (*Urtica dioica*). These species were observed in the ecotonal regions along the outmost edges of the arroyo willows and in breaks within the canopy and understory spaces. The arroyo willow woodland/riparian vegetation community onsite most closely corresponds to the *Salix lasiolepis* Arroyo Willow Thickets Shrubland Alliance in the Sawyer classification system (Sawyer et al., 2009) and to Element #63200 Central Coast Riparian Scrub in the Holland classification system (Holland, 1986). Several common wildlife species utilize arroyo willow woodland/riparian communities as habitat including (but not limited to) the following: Sierra tree frog, Coast Range newt, western toad, common red-sided garter snake, California legless lizard, dusky-footed woodrat, California quail, swallow, flycatcher, vireo, warbler, grosbeak, and sparrow. House finch and western scrub-jay were observed within the arroyo willow woodland/riparian habitat onsite during the field survey.

3.1.3.4 BULRUSH/CATTAIL WETLAND

Bulrush/cattail wetland habitat is restricted to the channel of Morro Creek within the BSA. Approximately 0.02 acre of the BSA is composed of bulrush/cattail wetland habitat and the project will avoid impacts to this habitat. Trees and shrubs are absent within this community and it is dominated by emergent and other hydrophytic species. The dominant plant species observed within this community include: saltmarsh bulrush (*Bolboschoenus maritimus* ssp. *paludosus*), common three-square bulrush (*Schoenoplectus pungens* var. *longispicatus*), broad-leaved cattail (*Typha latifolia*), silverweed (*Potentilla anserina*), annual beard grass, fat-hen (*Atriplex prostrata*), water speedwell (*Veronica anagallis-aquatica*), salt grass (*Distichlis spicata*), and monkeyflower (*Mimulus guttatus*). The bulrush/cattail wetland habitat onsite most closely corresponds to the *Bolboschoenus maritimus* Saltmarsh Bulrush Marshes Herbaceous Alliance in the Sawyer classification system (Sawyer et al., 2009) and to Element #52200 Coastal Brackish Marsh in the Holland classification system (Holland, 1986). However the plant species composition within the bulrush/cattail wetland habitat within the BSA varies substantially from the description presented in the standard Holland description of this community type. The bulrush/cattail wetland habitat within the BSA is considered a sensitive natural community type by CDFW (CDFW, 2003). Many common wildlife species utilize

bulrush/cattail wetland communities as habitat including (but not limited to): fish, Sierra tree frog, bullfrog, Pacific pond turtle, common red-sided garter snake, sparrow, gnatcatcher, great blue heron, red-wing blackbird, deer mouse, and bat. House finch and threespine stickleback were observed within the bulrush/cattail wetland habitat onsite during the field survey.

3.1.3.5 RUDERAL/DEVELOPED

The last vegetation community type identified within the BSA is ruderal/developed, which is the most abundant habitat observed onsite. Approximately 1.12 acres of the BSA are composed of ruderal/developed habitat and the project is anticipated to impact approximately 1.14 acres of it (0.98 acre of permanent impacts and 0.16 acre of temporary impact). This vegetation community includes all of the existing paved and unpaved roadways, parking areas, regularly maintained areas, and otherwise disturbed regions within the BSA. As such, this habitat type is dominated by non-native weedy species including: false brome, ripgut grass, soft chess brome (*Bromus hordeaceus*), wild oat (*Avena fatua*), cut-leaf plantain (*Plantago coronopus*), bristly ox-tongue (*Helminthotheca echioides*), radish (*Raphanus sativus*), perennial mustard, California bur-clover (*Medicago polymorpha*), telegraph weed, and cheeseweed (*Malva parviflora*). Most of the area within the BSA that was mapped as this type is unvegetated. The weedy species mentioned were observed along the roadway margins and in the areas that surround Coleman City Park and the parking areas onsite. These areas where vegetation was documented within the ruderal/developed habitat type most closely correspond to *Bromus* (*diandrus*, *hordeaceus*)-*Brachypodium distachyon* Annual Brome Grasslands Semi-Natural Stands in the Sawyer classification system (Sawyer et al., 2009) and to Element #42200 Non-native Grassland in the Holland classification system (Holland, 1986). Wildlife species do not typically utilize ruderal/developed areas as habitat. However if these areas are adjacent to undeveloped natural areas, wildlife species may pass through them. American crow and European starling were observed foraging within the ruderal/developed areas onsite during the field survey.

3.2. Regional Species and Habitats of Concern

Regional species of concern include taxa that are afforded protection by the FESA, or the California Endangered Species Act (CESA), those that are considered to be species of special concern by other resource agencies, and additional taxa that are provided protections or otherwise considered sensitive under various laws (e.g., California Environmental Quality Act [CEQA]). Regional habitats of concern

include those that are regulated or considered sensitive by federal, state, and/or other regional agencies, or meet these criteria under CEQA. Species that are simply tracked by resource agencies (such as CDFW) or those that do not meet criteria for formal listing status (e.g., CRPR List 3 and List 4 plant species) were reported if observed onsite during the field survey, but are not otherwise included in this analysis.

This section discusses the potential for regional species of concern to occur within the BSA. 'Potential to occur' is based on the presence or absence of suitable habitat for each regional species of concern reported in the scientific database queries and background literature research that were conducted for the project. All occurrences of regional species and habitats of concern that have been reported by the resource agencies within a five-mile radius of the BSA were plotted on a map using GIS software (Figure 5). Likewise, all federally designated critical habitats for listed species within a five-mile radius of the BSA were also plotted on a map using GIS software (Figure 6). As discussed in Chapter 2, an analysis was conducted to determine which of the regional species of concern have potential to occur within the BSA based on the presence of suitable habitat (i.e., habitat present or absent). Habitat for a particular sensitive species may be noted as present within the BSA (refer to Appendix A); however, the known geographic distribution and previously documented occurrences of the species may have ultimately resulted in it not being considered to have potential to occur onsite.

Rincon staff determined that the BSA contains suitable habitat for 12 regional species of concern, including seven special status plant species and five special status wildlife species. These species have all been previously documented by the CNDDB within a five-mile radius of the BSA. The names, status, general ecological requirements, and type of habitat deemed suitable within the BSA for each regional species of concern with potential to occur onsite is summarized in Table 1 below.

Figure 5 – CNDDB Occurrences of Regional Species and Habitats of Concern Within Five Miles of the Project Site

Figure 6 – Known Occurrences of USFWS Designated Critical Habitats Within Five Miles of the Project Site

Table 1: Listed and Other Special Status Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/ Absent	Rationale
AMPHIBIANS					
California red-legged frog	*Rana draytonii*	FT/SSSC/--	Occurs near ponds and streams with plant cover. Breeding habitat is in permanent or ephemeral slow moving or ponded water. Require burrows or other moist refuges for estivation during the dry season.	HP	Morro Creek is suitable habitat for this species. It was not observed onsite during field survey.
FISH					
steelhead – south/central California coast DPS	*Oncorhynchus mykiss irideus*	FT/SSSC/--	Streams with pool and riffle complexes and cold gravelly streambeds for spawning. From the Pajaro River to, but not including the Santa Maria River in Santa Barbara County.	HP	Morro Creek considered suitable habitat for this species and it may occur in the open waters in the vicinity. However no observations were made during the field survey.
INVERTEBRATES					
Morro shoulderband snail	*Helminthoglypta walkeriana*	FE/--/--	Coastal scrub and coastal dune scrub. Will also use non-native stands dominated by ice plant, marginal stands, and landscaped areas.	HP	The central dune scrub and ice plant habitats within the BSA are considered suitable for this species. However no observations were made during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/ Absent	Rationale
NATURAL COMMUNITIES					
central dune scrub	None	--/--/--	A dense coastal scrub community of scattered shrubs, subshrubs, and herbs generally less than 1m tall. Diagnostic species include *Ericameria ericoides*, *Lupinus chamissonis*, and *Artemisia pycnocephala*.	HP	This sensitive natural community was observed within the BSA and vicinity.
coastal brackish marsh	None	--/--/--	Dominated by perennial, emergent, herbaceous monocots up to 2m tall. Similar to salt marshes and to freshwater marshes with some plants characteristic of each.	HP	This sensitive natural community was observed within the BSA and vicinity; referred to as bulrush/cattail wetland.
PLANTS					
Morro manzanita	*Arctostaphylos morroensis*	FT/--/1B.2	Baywood fine sands within maritime chaparral, cismontane woodland, pre-Flandrian dunes, and coastal scrub. Bloom period: December-March. Elevations: 5-205 meters.	HP	The central dune scrub habitat within the BSA is considered suitable for this species. No observations were made during the field survey of this or any other manzanita species or during protocol-level botanical surveys.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/ Absent	Rationale
marsh sandwort	*Arenaria paludicola*	FE/SE/1B.1	Sandy openings within freshwater or brackish marshes and swamps. Bloom period: May-August. Elevations: 3-170 meters.	HP	The bulrush/cattail wetland habitat within the BSA is considered suitable for this species; however, it was not detected during the field survey or protocol-level botanical surveys.
salt marsh bird's-beak	*Chloropyron maritimum* ssp. *maritimum*	FE/SE/1B.2	Coastal dunes and coastal salt marshes and swamps. Bloom period: May-October. Elevations: 0-30 meters.	HP	The bulrush/cattail wetland habitat within the BSA is considered suitable for this species. However, it was not observed onsite during the field survey or protocol-level botanical surveys.
beach spectaclepod	*Dithyrea maritima*	--/ST/1B.1	Coastal dunes and sandy substrates within coastal scrub. Bloom period: March-May. Elevations: 3-50 meters.	HP	The central dune scrub habitat within the BSA is considered suitable for this species. It was not observed onsite during the field survey or protocol-level botanical surveys.
Blochman's leafy daisy	*Erigeron blochmaniae*	--/--/1B.2	Coastal dunes and coastal scrub. Bloom period: June-August. Elevations: 3-45 meters.	HP	The central dune scrub habitat within the BSA is considered suitable for this species. It was not observed onsite during the field survey or protocol-level botanical surveys.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/ Absent	Rationale
coast woolly-heads	*Nemacaulis denudata* var. *denudata*	--/--/1B.2	Coastal dunes. Bloom period: April-September. Elevations: 0-100 meters.	HP	The central dune scrub habitat within the BSA is considered suitable for this species. It was not observed onsite during the field survey or protocol-level botanical surveys.
California seablite	*Suaeda californica*	FE/--/1B.1	Coastal salt marshes and swamps. Bloom period: July-October. Elevations: 0-15 meters.	HP	The bulrush/cattail wetland habitat within the BSA is considered suitable for this species. It was not observed onsite during the field survey or protocol-level botanical surveys.
REPTILES					
black legless lizard	*Anniella pulchra nigra*	--/SSSC/--	Requires moist warm loose soils and adequate cover within beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces. Requires cover from leaf litter, rocks, boards, driftwood, or downed logs.	HP	The central dune scrub habitat within the BSA is considered suitable for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/ Absent	Rationale
silvery legless lizard	*Anniella pulchra pulchra*	--/SSSC/--	Requires moist warm loose soils and adequate cover within beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces. Requires cover from leaf litter, rocks, boards, driftwood, or downed logs. Occasionally found in suburban gardens.	HP	The central dune scrub habitat within the BSA is considered suitable for this species.

STATUS CODES

Federal: United States Fish and Wildlife Service
FE Federally Endangered
FT Federally Threatened

State: California Department of Fish and Wildlife
SE State Endangered
ST State Threatened
SSSC State Species of Special Concern
SFP State Fully Protected

CRPR: California Rare Plant Rank
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
Threat Ranks
0.1-Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
0.2-Fairly threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
Sources: USFWS, 2013; CDFW, 2013; and CNPS, 2013.

In addition to the regional species of concern found to have potential to occur within the BSA, sensitive habitat types are also considered biological resources of regional concern that are afforded protections. Two of the regional habitats of concern that

have been previously documented within a five-mile radius of the project site were observed within the BSA. These include central dune scrub and coastal brackish marsh. The bulrush/cattail wetland habitat within the BSA meets the criteria of coastal brackish marsh and is treated as such in several vegetation classification systems (see section 3.1.3.4).

The arroyo willow woodland/riparian is also considered a sensitive habitat type by CDFW because it is a riparian vegetation community that is associated with a perennial or intermittent stream course. Streams, including Morro Creek and its surrounding riparian vegetation, fall under CDFW jurisdiction. Similarly, Morro Creek is also considered a sensitive habitat resource because it is afforded protections by the USACE and is assumed to be within this agency's jurisdiction as "other waters" of the United States.

In addition, the BSA was reviewed for its potential to contain federally designated critical habitats for plant and wildlife species. The BSA does contain federally designated critical habitat for two wildlife species; the south/central California Coast distinct population segment (DPS) of steelhead and western snowy plover. Morro Creek has been designated as federal critical habitat for steelhead – south/central California Coast DPS and almost the entire area west of Embarcadero (including the parking areas) has been federally designated as critical habitat for western snowy plover (USFWS, 2013a). However, aside from the parking areas within the BSA, the project area does not fall within the critical habitat designation for western snowy plover. Similarly, the BSA does not have suitable habitat for this species. Beach strand habitat that is suitable for western snowy plover does occur within the vicinity of the BSA, but it does not occur within it. Therefore, impacts to western snowy plover and/or its habitat are not anticipated to occur with implementation of the project.

Chapter 4. Results: Biological Resources, Discussion of Impacts and Mitigation

4.1. Natural Communities of Special Concern

4.1.1 Jurisdictional Waters

The *Delineation of Potentially Jurisdictional Wetlands and Waters for Morro Bay Pedestrian Bridge* report was prepared by Althouse and Meade, Inc., (2013a). The delineation was performed in order to determine the location, type, and aerial extent of waters, including wetlands, within the BSA that would likely be subject to USACE and RWQCB jurisdiction. Jurisdictional riparian habitats are discussed below in Chapter 4.1.2. However, the final jurisdictional determinations of the boundaries of waters and riparian habitats are made by each agency, which typically occurs at the time the authorizations to impact such features is requested.

4.1.1.1 SURVEY RESULTS

Althouse and Meade, Inc. delineated the wetlands and other waters within the Ordinary High Water Mark (OHWM) of Morro Creek (Althouse and Meade, Inc., 2013a). The area below the OHWM of Morro Creek is considered an "other waters" feature and is subject to USACE and RWQCB jurisdiction. It is a Relatively Permanent Water (RPW) and is hydrologically connected to a Traditional Navigable Waterway (TNW), the Pacific Ocean. Approximately 0.05 acre of jurisdictional wetlands and waters were delineated below the OHWM of Morro Creek within the BSA. Morro Creek also falls under the jurisdiction of CDFW, as it has a clear bed and bank, and provides habitat for various aquatic, semi-aquatic, and terrestrial wildlife species. Rincon mapped the approximate area that was determined to be within CDFW jurisdiction, which is approximately 0.07 acre.

4.1.1.2 AVOIDANCE AND MINIMIZATION EFFORTS

The project design has been amended and modified to the maximum extent feasible in order to achieve complete and total avoidance of jurisdictional waters. Without these design elements, the project has a limited potential to result in impacts to state and federal jurisdictional waters. However, as designed no impacts would occur. The following Avoidance and Minimization Efforts are recommended to ensure that impacts to jurisdictional waters would not result from this project:

1. The abutments of the proposed bridge would be located outside the limits of the OHWM of Morro Creek and beyond the top of the bank of Morro Creek to the south; however, an abutment would be installed within the top of the bank on the northern side. Installation of the bridge abutment would occur outside of the limits of the arroyo willow woodland riparian vegetation. Installation of the bridge would not require removal of any vegetation within the arroyo willow woodland riparian habitat.

2. Prior to the initiation of construction activities, high-visibility orange construction fencing will be installed outside of the tops of the banks of Morro Creek (and outside of the arroyo willow woodland riparian vegetation) along the limits of the existing development to ensure avoidance of these sensitive resources. Specifically, the fencing would be installed within the limits of the existing ruderal/developed areas. These avoidance setbacks are suitable and appropriate because of this portion of the BSA is already developed (i.e., roadways and parking areas) and subject to high levels of traffic, pedestrians, and passive recreational use. A qualified biological monitor will facilitate installation of the avoidance fencing and will conduct periodic site visits to ensure that the fencing remains intact for the duration of project development.

3. Access routes, staging, and construction areas will be limited to the minimum area necessary to achieve the project goal and minimize impacts to jurisdictional wetlands/waters including locating access routes and construction areas outside of jurisdictional areas to the maximum extent feasible.

4. To control sedimentation during and after project implementation, appropriate best management practices (BMP) will be implemented to minimize adverse effects on jurisdictional areas in the vicinity of the project.

5. Project activities within the vicinity of jurisdictional areas will occur during the dry season (e.g., between June 1 and November 1) in any given year, or as otherwise directed by the regulatory agencies if feasible. Deviations from this work window can be made with permission from the relevant regulatory agencies.

6. During construction, the City will not dump and/or permit any litter or construction debris to enter the limits of Morro Creek. All such debris and waste will be disposed of in closed, secure containers and will picked up daily and properly disposed of at an appropriate refuse site.

7. All project-generated debris, building materials, and rubbish shall be removed from Morro Creek and from areas where such materials could be washed into the creek.

8. Raw cement, concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish or wildlife resulting from project-related activities, will be prevented from contaminating the soil and/or entering Morro Creek.

9. All refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from riparian habitat or bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). The biological monitor and/or construction foreman shall ensure that contamination of these habitats does not occur during such operations. Prior to the onset of work activities, an acceptable plan must be in place for prompt and effective response to any accidental spills. All project workers and other project personnel shall be informed of the importance of preventing spills and of the appropriate measures to take should an accidental spill occur.

10. Areas within CDFW jurisdiction that were temporarily disturbed from implementation of the project shall be re-vegetated with a native seed mix that is suitable for use at this location after the bridge is installed.

4.1.1.3 PROJECT IMPACTS

Utilization and implementation of the avoidance and minimization efforts outlined above would ensure that no impacts to USACE jurisdictional waters would occur. However, installation of one of the proposed bridge abutment would occur within a small area that is in CDFW jurisdiction on the northern bank of Morro Creek. This portion of the BSA supports ice plant vegetation and ruderal/developed areas, but does not contain any riparian vegetation. Installation of the abutment would not result in any impacts to riparian vegetation whatsoever. Along the northern bank of Morro Creek implementation of the project would temporarily impact a small area that is within CDFW jurisdiction; approximately 0.008 acre of ice plant would require removal and 0.001 acre of ruderal/developed area would be disturbed. These impacts are minimal and relatively insignificant.

4.1.1.4 COMPENSATORY MITIGATION

The temporarily impacted areas within CDFW jurisdiction shall be revegetated with a native seed mix that is suitable for use at this location (Avoidance and Minimization Measure #10). No other compensatory mitigation is required with utilization and implementation of this specific measure and the other measures described above.

4.1.1.5 CUMULATIVE IMPACTS

No other projects are known or projected to occur within the vicinity of the proposed project within the foreseeable future. As such, no cumulative impacts to jurisdictional waters are anticipated.

4.1.2 Arroyo Willow Woodland/Riparian Habitat

The arroyo willow woodland/riparian habitat (described in Section 3.1.3.3) is considered a sensitive natural community by the CDFW and is typically afforded protection pursuant to CEQA. It occurs in the northern portion of the BSA and is adjacent to and associated with Morro Creek.

4.1.2.1 SURVEY RESULTS

Approximately 0.10 acre of arroyo willow woodland/riparian habitat was mapped within the BSA. It is considered a sensitive natural community type by CDFW and also falls under this agency's jurisdiction because of its association with Morro Creek.

4.1.2.2 AVOIDANCE AND MINIMIZATION EFFORTS

The project design has been amended and modified to the maximum extent feasible in order to achieve complete and total avoidance of the arroyo willow woodland/riparian habitat within the BSA. Without these design elements, the project has a limited potential to result in impacts to this sensitive community. However, as designed no impacts would occur. The Avoidance and Minimization Efforts presented in Section 4.1.1.2 above for jurisdictional waters is suitable and appropriate to ensure that impacts to arroyo willow woodland/riparian habitat would not result from implementation of this project.

4.1.2.3 PROJECT IMPACTS

Utilization and implementation of the avoidance and minimization efforts outlined in Section 4.1.1.2 above (for jurisdictional waters) would ensure that no impacts to arroyo willow woodland/riparian habitat would occur.

4.1.2.4 COMPENSATORY MITIGATION

No compensatory mitigation is required with utilization and implementation of the avoidance and minimization efforts described above in Section 4.1.1.2.

4.1.2.5 CUMULATIVE IMPACTS

No other projects are known or projected to occur within the vicinity of the proposed project for the foreseeable future. As such, no cumulative impacts to arroyo willow woodland/riparian habitat are anticipated.

4.1.3 Central Dune Scrub Habitat

The central dune scrub habitat (described in Section 3.1.3.1) is also considered a sensitive natural community by the CDFW and is typically afforded protection pursuant to CEQA. It occurs in the central portion of the BSA along Embarcadero to the west.

4.1.3.1 SURVEY RESULTS

Approximately 1.10 acres of central dune scrub habitat was mapped within the BSA. This type of habitat is considered a sensitive natural community by CDFW.

4.1.3.2 AVOIDANCE AND MINIMIZATION EFFORTS

The project design has been amended and modified to the maximum extent feasible in order to achieve complete and total avoidance of the central dune scrub habitat within the BSA. Without these design elements, the project would have a greater potential to result in impacts to this sensitive community. The City should implement the following Avoidance and Minimization Efforts to minimize potential project-related impacts to central dune scrub habitat:

1. To minimize impacts to central dune scrub habitat, any and all removal of this vegetation community type should be limited to the minimum amount necessary to complete construction of the project.

2. Prior to the onset of construction, a comprehensive Habitat Mitigation and Monitoring Plan (HMMP) will be prepared that provides for a 3:1 mitigation ratio (three acres of mitigation for every one acre of impacts) for all permanent impacts and a 1:1 mitigation ratio for all temporary impacts to central dune scrub habitat (unless otherwise approved by USFWS). All mitigation activities associated with the replacement requirements for permanent impacts to central dune scrub habitat shall occur within the designated sensitive habitat mitigation area within the BSA. Anticipated activities that are associated with implementation of the HMMP

include pedestrian traffic, hydroseeding, and removal of non-native weedy species (including ice plant) within the habitat mitigation area.

3. Fulfillment of the mitigation requirements within the designated sensitive habitat mitigation area of the BSA shall not inadvertently result in additional impacts to sensitive plant and/or wildlife species. In order to avoid potential inadvertent impacts to sensitive plant species, a qualified botanist shall conduct seasonally timed floristic surveys within the sensitive habitat mitigation area before restoration activities are initiated within this location. If no sensitive plant species are present, no further measures are required. If sensitive plant species are present within the habitat mitigation area, the project botanist shall flag the locations of any and all sensitive plant species within the habitat mitigation area so that these individuals would not be trampled during implementation of the mitigation program. In addition, the project botanist will be present when these activities occur to ensure avoidance of any and all sensitive plant species, should they be present within the habitat mitigation area of the BSA. Activities associated with implementation of the HMMP are further subject to the mitigation measures presented in Section 4.3.3 and Section 4.3.4. Compliance with these measures would avoid and minimize potential inadvertent impacts to sensitive wildlife species.

4. Access routes, staging, and all construction areas should be limited to the minimum amount necessary to achieve the project goals and should minimize impacts to this sensitive community including locating all access routes and construction areas outside of and offset from the central dune scrub habitat to the maximum extent feasible.

5. The City will ensure that the introduction, spread, and/or perpetuation of extant invasive plant species will be avoided to the maximum extent feasible. When practicable, invasive and exotic plant species in the BSA will be removed and properly disposed of in an acceptable refuse site.

4.1.3.3 PROJECT IMPACTS

As designed, implementation of the project would result in permanent impacts to 0.19 acre of central dune scrub habitat (0.14 acre would be permanently impacted and 0.05 acre would be temporarily impacted). These impacts will be minimized by implementation of the measures described above.

4.1.3.4 COMPENSATORY MITIGATION

All impacted areas of central dune scrub habitat will be replaced at a 3:1 mitigation ratio (3 acres of mitigation for every 1 acre of permanent impacts) and a 1:1 mitigation ratio for temporary impacts, unless otherwise approved by pertinent regulatory agencies. Mitigation activities associated with replacement of this resource should occur in the designated sensitive habitat mitigation area of the BSA. As described above in the Avoidance and Minimization Measures, a comprehensive HMMP will be prepared for the project prior to construction, which shall be implemented immediately after project completion.

4.1.3.5 CUMULATIVE IMPACTS

No other projects are known or projected to occur within the vicinity of the proposed project for the foreseeable future. As such, no cumulative impacts to central dune scrub habitat are anticipated.

4.1.4 Invasive Plant Species

The California Invasive Plant Council (Cal-IPC) maintains an Inventory of invasive plant species that have been documented to occur within the state and provides information on the distributions and overall status of invasive plants that threaten to displace native plant species (Cal-IPC, 2013).

4.1.4.1 SURVEY RESULTS

Several plant species that are listed within the Cal-IPC Inventory were observed within the BSA during the field reconnaissance survey. These include: sea fig, ice plant, New Zealand spinach (*Tetragonia tetragonioides*), fennel (*Foeniculum vulgare*), snakeroot (*Ageratina adenophora*), brass buttons, bristly ox-tongue, perennial mustard, radish, California burclover, loosestrife (*Lythrum hyssopifolia*), blue gum (*Eucalyptus globulus*), European beachgrass (*Ammophila arenaria*), wild oat, false brome, ripgut grass, soft chess brome, pampas grass (*Cortaderia jubata*), wall barley, kikuyu grass (*Pennisetum clandestinum*), annual beardgrass, curly dock (*Rumex cripsus*), and myoporum (*Myoporum laetum*).

4.1.4.2 AVOIDANCE AND MINIMIZATION EFFORTS

The City should implement the following measures in order to avoid the spread of and otherwise eliminate invasive weeds:

1) Any and all invasive plant species that have been identified within the project footprint shall be removed during construction activities and will not be replanted.

2) Appropriate BMPs that are intended and designed to curtail the spread of invasive plant species will also be implemented throughout the construction phase of the project and will include the following:

    a. During construction, the project will make all reasonable efforts to limit the use of imported soils for fill. Soils currently existing on-site should be used for fill material. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species; or the material must consist of purchased clean material such as crushed aggregate, sorted rock, or other similar substances.

    b. To avoid the spread of invasive species, the contractor shall:

        - Stockpile topsoil and redeposit the stockpiled soil on the slopes after construction of the new bridge is complete; or

        - Transport the topsoil to a certified landfill for disposal.

    c. The HMMP must emphasize the use of native species that are expected to occur in the area.

    d. All erosion control materials including straw bales, straw wattles, or mulch used on-site must be free of invasive species seed.

3) Exotic and invasive plant species will be excluded from any erosion control seed mixes and/or landscaping plant palettes associated with the proposed project.

4.1.4.3 PROJECT IMPACTS

Implementation of the proposed project has the potential to result in the spread of invasive plant species through soil displacement and disturbance and by the inadvertent transport of propagules (e.g., seeds, pieces of invasive plants that have broken off) by vehicles, construction equipment, people, and animals. Potential project-related impacts due to invasive plant species resulting from implementation of the project would be minimized and/or completely avoided with execution of the measures outlined in Section 4.1.4.2 above.

4.1.4.4 COMPENSATORY MITIGATION

No compensatory mitigation is required with utilization and implementation of the avoidance and minimization efforts described above in Section 4.1.4.2.

4.1.4.5 CUMULATIVE IMPACTS

No other projects are known or projected to occur within the vicinity of the proposed project within the foreseeable future. As such, no cumulative impacts resulting from invasive plant species are anticipated.

4.2. Special Status Plant Species

No state or federally listed, proposed, or candidate plant species were observed within the BSA during the field survey. However, two special status plant species were observed onsite; Blochman's ragwort (*Senecio blochmaniae* – CRPR List 4.2) and red sand-verbena (*Abronia maritima* – CRPR List 4.2). Two individual Blochman's ragwort shrubs were observed in two separate locations along the west side of Embarcadero in the central dune scrub sensitive habitat mitigation area within the BSA. One individual red sand-verbena plant was observed near the southwestern corner of the existing trailer park, within ruderal/developed habitat, within the BSA. CRPR List 4 species are considered plants of limited distribution and this rank is regarded as a watch list. Both of these species have been assigned a 0.2 threat rank, which means that they are considered to be moderately threatened in California with approximately 20 to 80 percent of the existing occurrences facing threats and they are thought to have a moderate degree and immediacy of threat. Generally, CRPR lists 3 and 4 species are not regarded as rare or endangered pursuant to CEQA.

The central dune scrub and/or bulrush/cattail wetland habitats within the BSA are considered to be suitable for the following sensitive plant species and these species have been previously documented within a five-mile radius of the project site by the CNDDB (refer to Figure 5 and Table 1):

- Morro manzanita (*Arctostaphylos morroensis*),
- marsh sandwort (*Arenaria paludicola*),
- salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*),
- beach spectaclepod (*Dithyrea maritima*),
- Blochman's leafy daisy (*Erigeron blochmaniae*),
- coast woolly-heads (*Nemacaulis denudata* var. *denudata*), and
- California seablite (*Suaeda californica*).

None of these sensitive plant species were observed within the BSA during the field survey. The reconnaissance field survey Rincon performed was conducted within the appropriate blooming period for salt marsh bird's-beak, coast woolly-heads, and California seablite. This field survey effort was not conducted within the appropriate blooming periods for Morro manzanita, marsh sandwort, beach spectaclepod, or Blochman's leafy daisy. Althouse and Meade, Inc., conducted determinant-level botanical surveys within the BSA (exclusive of a portion of the sensitive habitat mitigation area and the small, linear portion of the site that is adjacent to the north side of Embarcadero Road, and east of the intersection of Embarcadero and Coleman Drive) during May, June, and July of 2013 (Althouse and Meade, Inc., 2013b). The biologists/botanists that conducted these surveys also encountered red-sand verbena and Blochman's ragwort within the BSA. No other sensitive plant species were observed within the BSA during the botanical surveys that Althouse and Meade, Inc. conducted. The botanical surveys Althouse and Meade, Inc., performed were conducted within the appropriate blooming periods for marsh sandwort, beach spectaclepod, and Blochman's leafy daisy. Regardless, Althouse and Meade, Inc. recommended that an additional survey be conducted for beach spectaclepod because it was a below average rainfall year and the surveys were conducted towards the end of the beach spectaclepod bloom period.

The portion of the BSA adjacent to the north side of Embarcadero Road, and east of the intersection of Embarcadero and Coleman Drive (that was not included in the Althouse and Meade, Inc., botanical survey efforts) is composed of central dune scrub, ice plant, and ruderal/developed habitats. Central dune scrub is generally considered suitable habitat for beach spectaclepod and Blochman's leafy daisy. However, the central dune scrub habitat within this portion of the BSA is not likely to support beach spectaclepod. All of the previously documented occurrences of this species within the CNDDB in the vicinity of the project site are located on the Morro Bay sandspit, south of the project site, across the mouth of Morro Bay. The sandspit is a more pristine area that does not support nearly the levels of human activities that the BSA is subject to. The closest previously documented CNDDB occurrence of beach spectaclepod is located approximately two miles south of the project site (CDFW, 2003). There are no documented occurrences of this species on the north side of the mouth of Morro Bay. In addition, the central dune scrub habitat in this region of the BSA is heavily invaded by non-native and invasive plant species that frequently occur in proximity to roads and roadside corridors and has high levels of human activities. Beach spectaclepod is considered highly unlikely to occur in this portion of the BSA. However, Blochman's leafy daisy does have potential to occur

within the central dune scrub habitat within this portion of the BSA (located northeast of the corner of Embarcadero Road and Coleman Drive).

All manzanita species are readily identified to the genus level of taxonomy regardless of the time of year surveys are conducted because these species are evergreen shrubs that have distinctive bark and growth habits. No manzanitas were observed within the BSA or immediate vicinity during any of the field survey efforts.

Therefore, implementation of the proposed project has potential to result in impacts to Blochman's leafy daisy should it occur in the northeast of the corner of Embarcadero Road and Coleman Drive. The potential project-related impacts to sensitive plant species and measures that are recommended to avoid, minimize, or mitigate these impacts are presented below.

4.1.5 Sensitive Plant Species

Most of the BSA has been comprehensively surveyed for sensitive plant species. However as previously discussed, two portions of the BSA still are considered to have the potential to support sensitive plant species because they were not surveyed. The portion of the BSA that was not surveyed by Althouse and Meade, Inc., (located northeast of the corner of Embarcadero Road and Coleman Drive) and the designated sensitive habitat mitigation area could support Blochman's leafy daisy.

4.1.5.1 SURVEY RESULTS

No sensitive plant species were observed within the BSA other than the two CRPR List 4 species (Blochman's ragwort and red sand-verbena) previously discussed. Blochman's leafy daisy has potential to occur in the small portion of central dune scrub habitat located northeast of the corner of Embarcadero Road and Coleman Drive, as well as the designated sensitive habitat mitigation area.

4.1.5.2 AVOIDANCE AND MINIMIZATION EFFORTS

To the maximum extent feasible, the project has been designed, modified, and amended to avoid and minimize potential project-related impacts to Blochman's leafy daisy. The following Avoidance and Minimization Efforts are recommended to ensure that potential impacts to Blochman's leafy daisy from implementation of the project are reduced as much as practicable and include the following:

1. Prior to initiation of construction activities (any vegetation removal, grubbing, or grading) a pre-construction botanical survey shall be conducted within the central dune scrub habitat onsite that was not surveyed by Althouse and Meade, Inc. This

survey shall be conducted within the appropriate bloom period for Blochman's leafy daisy; June through August. The botanical survey shall be conducted by a qualified botanist. The purpose of the survey is to document the presence or absence, and number of individuals (if any), of sensitive plant species within this portion of the construction footprint. All sensitive plant species identified onsite shall be mapped onto a site-specific aerial photograph at a scale no less than 1"= 200'.

2. If Blochman's leafy daisy or any other sensitive plant species are observed during the botanical survey required above, the applicant shall reconfigure and redesign the proposed development footprint to avoid impacts to sensitive plants to the maximum extent feasible. Avoidance shall be accomplished by installation of high-visibility fencing around areas that are occupied by sensitive plant species. A qualified botanist shall oversee, direct, and generally facilitate fence installation and he or she will monitor the fencing periodically to ensure that it remains intact and is effective for the intended avoidance throughout the duration of construction activities within this location. After construction within this area is complete, the fencing may be removed by construction personnel under the supervision of the qualified botanist.

3. If Blochman's leafy daisy or any other sensitive plant species cannot be avoided, a qualified botanist shall oversee, direct, and generally facilitate transplantation of these individuals into an area of suitable and equivalent habitat within the central dune scrub mitigation area onsite. If transplantation of sensitive plant species is necessary, these activities shall be completed prior to initiation of any construction activities.

4. Avoidance and Minimization Measures presented in Section 4.1.3 would reduce any potential impacts to sensitive plant species should they occur within the designated sensitive habitat mitigation area of the BSA.

4.1.5.3 PROJECT IMPACTS

Implementation of the project is not expected to result in any significant loss or fragmentation of sensitive plant species habitat. Direct impacts to sensitive plant species could occur if they are present within the unsurveyed portion of the BSA at the northeast corner of Embarcadero Road and Coleman Drive or if they are present within the sensitive habitat mitigation area during construction or implementation of the HMMP through trampling. Indirect impacts to sensitive plant species (if present) are not likely to occur. However, all potential direct and indirect project-related

impacts to sensitive plant species will be avoided and/or minimized through implementation of the measures previously described above.

4.1.5.4 COMPENSATORY MITIGATION

No compensatory mitigation is required with implementation of the measures described above.

4.1.5.5 CUMULATIVE EFFECTS

No other projects are known or projected to occur within the vicinity of the proposed project within the foreseeable future. As such, no cumulative impacts resulting from the proposed project to sensitive plant species are anticipated.

4.3. Special Status Animal Species

No state or federally listed or otherwise sensitive animal species were observed within the BSA during the field survey. However, several of the habitat types within the BSA are suitable for the following sensitive animal species and these species have been previously documented within a five-mile radius of the project site by the CNDDB (refer to Figure 5 and Table 1): California red-legged frog (*Rana draytonii*), south/central California coast DPS steelhead (*Oncorhynchus mykiss irideus*), Morro shoulderband snail (*Helminthoglypta walkeriana*), black legless lizard (*Anniella pulchra nigra*), and silvery legless lizard (*Anniella pulchra pulchra*). The potential project-related impacts to these sensitive wildlife species and measures that are recommended to avoid, minimize, or mitigate these impacts are presented below.

In addition to the sensitive wildlife species discussed above, the BSA has suitable habitat for a variety of more common nesting bird species that are afforded protection under the California Fish and Game Code and the Migratory Bird Treaty Act (MBTA). As such, measures are also provided to avoid, minimize, or mitigate potential project-related impacts to nesting birds.

4.3.1 California Red-Legged Frog

California red-legged frog (CRLF) is a federally threatened and CDFW species of special concern that requires ponds and streams with adequate plant cover that occur within forest, woodland, grassland, and coastal scrub communities. It typically breeds in permanent or ephemeral aquatic features. If breeding within ephemeral habitats, this species also requires small mammal burrows or other moist refuges for estivation during the dry season. CRLF breeding season typically occurs during

November through May. The portion of Morro Creek within the BSA is considered suitable habitat for this species.

4.3.1.1 SURVEY RESULTS

No CRLF were observed within the BSA during the reconnaissance field survey; however, protocol-level surveys were not conducted. The BSA was assessed for the potential to support this species in accordance with the most recent USFWS Guidance (USFWS, 2005). Suitable habitats for CRLF that were observed within the BSA consist of the Morro Creek stream channel (although brackish) and any of the multiple small mammal burrows that were observed along the banks of this feature, which could be utilized by this species during the dry season. Adjacent habitats that are within approximately one mi of the BSA include ruderal/developed, agriculture, grassland, coastal dune scrub, chaparral, ephemeral and intermittent drainages, riparian woodland, beach strand, and ocean open water. A similar review of aerial imagery of areas that surround the BSA was conducted and reveals a single agricultural pond that is located approximately 1.15 mi north of the BSA.

According to the guidance provided in the USFWS Revised Designated Critical Habitat for this species, the BSA does contain several of the Primary Constituent Elements (PCEs) for CRLF that have been identified (Federal Register Volume 75, No. 51-12816). Specifically, Morro Creek is considered suitable breeding habitat for CRLF because it supports emergent vegetation (e.g., cattail) and is presumed to remain inundated for a minimum of 20 weeks in all but the driest of years. Most of the area surveyed within the stream channel was dry, except for a single remaining pool within the BSA that was inundated and contained several threespine stickleback (*Gasterosteus aculeatus*). The salinity within Morro Creek was not evaluated for this analysis; but CRLF require salinities less than 4.5 parts per thousand (ppt). Salinities within Morro Creek are presumed appropriate for use by this species due to hydrologic connectivity, the overall downslope location of the BSA to obvious freshwater upper reaches of the watershed, and the proximity of other documented locations of CRLF in the CNDDB to the coast. The ice plant and arroyo willow woodland/riparian habitats adjacent to the Morro Creek channel are considered suitable upland habitat for this species. The BSA is not within the designated critical habitat for CRLF. However, the BSA is approximately 0.9 mi west of the nearest CRLF designated critical habitat unit.

4.3.1.2 AVOIDANCE AND MINIMIZATION EFFORTS

To the maximum extent feasible, the project has been designed, modified, and amended to avoid and minimize potential project-related impacts to CRLF. However, if CRLF are present within the BSA during implementation of the project this species and its habitat could be impacted. Therefore, formal consultation with USFWS under Section 7 of the FESA will be required to obtain incidental take authorization for CRLF.

The following Avoidance and Minimization Efforts are recommended to ensure that impacts to CRLF from this project are reduced as much as practicable. The following measures have been approved by the FHWA in a Programmatic BO that was created to address projects that are FHWA funded and approved (USFWS, 2011a):

1. Only Service/USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs. Biologists authorized under this biological opinion do not need to re-submit their qualifications for subsequent projects conducted pursuant to this biological opinion, unless we have revoked their approval at any time during the life of this biological opinion.

2. Ground disturbance will not begin until written approval is received from the Service that the biologist is qualified to conduct the work, unless the individual(s) has/have been approved previously and the Service has not revoked that approval.

3. A Service-approved biologist will survey the project site no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the work site before work begins. The Service-approved biologist will relocated the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and that will not be affected by activities associated with the proposed project. The relocation site should be in the same drainage to the extent practicable. Caltrans will coordinate with the Service on the relocation site prior to the capture of any California red-legged frogs.

4. Before any activities begin on a project, a Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog

for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

5. A Service-approved biologist will be present at the work site until all California red-legged frogs have been relocated out of harm's way, workers have been instructed, and disturbance of habitat has been completed. After this time, the State or local sponsoring agency will designate a person to monitor on-site compliance with all minimization measures. The Service-approved biologist will ensure that this monitor receives the training outlined in measure 4 above and in the identification of California red-legged frogs. If the monitor or the Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the Service during the review of the proposed action, they will notify the resident engineer (the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the adverse effect immediately or require that all actions causing these effects be halted. If work is stopped, the Service will be notified as soon as possible.

6. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

7. All refueling, maintenance, and staging equipment and vehicles will occur at least 60 ft from riparian habitat or water bodies and in a location from where a spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water). The monitor will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

8. Habitat contours will be returned to their original configuration at the end of project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the Service and Caltrans determine that it is not feasible or modification of original contours would benefit the California red-legged frog.

9. The number of access routes, size of staging areas, and the total area of activity will be limited to the minimum necessary to achieve the project goals. Environmentally Sensitive Areas will be delineated to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

10. Caltrans will attempt to schedule work activities for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and coordination between Caltrans and the Service during project planning will be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.

11. To control sedimentation during and after project implementation, Caltrans, and the sponsoring agency will implement best management practices outlined in any authorizations or permits issued under the authorities of the Clean Water Act that it receives for the specific project. If best management practices are ineffective, Caltrans will attempt to remedy the situation immediately, in coordination with the Service.

12. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh no larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the stream bed will be minimized to the maximum extent possible; any imported material will be removed from the stream bed upon completion of the project.

13. Unless approved by the Service, water will not be impounded in a manner that may attract California red-legged frogs.

14. A Service-approved biologist will permanently remove any individuals of non-native species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus; Procambarus clarkii*), and centrarchid fishes from the project area, to the maximum extent possible. The Service-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

15. If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

16. To ensure that diseases are not conveyed between work sites by the Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times. A copy of the code of practice is enclosed.

17. Project sites will be re-vegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the maximum extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the Service and Caltrans determine that it is not feasible or practicable.

18. Caltrans will not use herbicides as the primary method used to control invasive, exotic plants. However, if Caltrans determines the use of herbicides is the only feasible method for controlling invasive plants at a specific site, it will implement the following additional protective measures for the California red-legged frog:

    a. Caltrans will not use herbicides during the breeding season for the California red-legged frog;

    b. Caltrans will conduct surveys for the California red-legged frog immediately prior to the start of any herbicide use. If found, California red-legged frogs will be relocated to suitable habitat far enough from the project area that no direct contact with herbicides would occur;

    c. Giant reed or other invasive plants will be cut and hauled out by hand and painted with glyphosate or glyphosate-based products, such as Aquamaster® or Rodeo®;

d. Licensed and experienced Caltrans staff or a licensed and experienced contractor will use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site;

e. All precautions will be taken to ensure that no herbicide is applied to native vegetation.

f. Herbicides will not be applied on or near open water surfaces (no closer than 60 ft from open water).

g. Foliar applications of herbicide will not occur when wind speeds are in excess of 3 miles per hour.

h. No herbicides will be applied within 24 hours of forecasted rain.

i. Application of all herbicides will be done by a qualified Caltrans staff or contractors to ensure that overspray is minimized, that all application is made in accordance with label recommendations, and with implementation of all required and reasonable safety measures. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins.

j. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from the riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Caltrans will ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a spill plan is in place for prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

19. Upon completion of any project for which this programmatic consultation is used, Caltrans will ensure that a Project Completion Report is completed and provided to the Ventura Fish and Wildlife Office. A copy of the form is enclosed. Caltrans should include recommended modifications of the protective measures if alternative measures would facilitate compliance with the provisions of this

consultation. In addition, Caltrans will reinitiate formal consultation in the event of any of the following thresholds are reached as a result of projects conducted under the provisions of this consultation:

a. 10 California red-legged frog adults or juveniles have been killed or injured in any given year. (For this and all other standards, an egg mass is considered to be one California red-legged frog);

b. 50 California red-legged frogs have been killed or injured in total;

c. 20 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic habitat and upland and dispersal habitat have been permanently lost in any given year;

d. 100 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic habitat and upland dispersal habitat have been permanently lost in total;

e. 100 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic habitat and upland and dispersal habitat have been temporarily disturbed in any given year; or

f. 500 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic habitat and upland and dispersal habitat have been temporarily disturbed in total.

4.3.1.3 PROJECT IMPACTS

Implementation of the project is not expected to result in any significant loss or fragmentation of CRLF habitat. Instead this project would enhance the existing habitat by reducing the amount of human disturbance within the stream channel because once installed, the proposed bridge would enable pedestrians to cross over the creek without actually entering it. Trash and debris within the channel are also likely to be reduced with project implementation. Direct impacts to this species could occur if it is present within the BSA during construction through injury/death and through harassment if captured and relocated by a USFWS-approved biologist.

Construction within the stream channel itself would not occur. Minimal direct permanent impacts to CRLF upland habitat would occur as a result of bridge abutment installation along the northern portion of the bank. Indirect impacts to CRLF could result from general project-related disturbance and noise if it is present within the BSA during implementation. However, all potential direct and indirect project-related impacts to this species will be avoided and/or minimized through implementation of the measures previously described above.

4.3.1.4 COMPENSATORY MITIGATION

No compensatory mitigation is required with implementation of the measures described above.

4.3.1.5 CUMULATIVE EFFECTS

No other projects are known or projected to occur within the vicinity of the proposed project within the foreseeable future. As such, no cumulative impacts resulting from the proposed project to this species are anticipated.

4.3.2 South/Central California Coast Steelhead DPS

The south/central California Coast DPS of steelhead (steelhead) is a federally threatened and CDFW species of special concern that requires shaded pools within cool low-flow streams and warm water habitats below some dams or pipeline outfalls where summer releases provide high flows and fast-waters. This species requires gravel substrates with sufficient flow velocities to clean and oxygenate the substrates for spawning. Juveniles typically frequent streams that provide cover from overhanging banks within willow and/or cottonwood riparian forests, woodlands, and scrubs. Steelhead tend to spawn when winter rains have been substantial enough to raise stream flows and breach any sandbars that formed in the dry season. Migration and spawning occur during the months of December through May. The portion of Morro Creek within the BSA is considered suitable habitat for this species.

4.3.2.1 SURVEY RESULTS

No steelhead were observed within the BSA during the reconnaissance field survey; however, determinant-level surveys were not conducted. The BSA was assessed for the potential to support this species in accordance with the most recent guidance provided by the National Marine Fisheries Service (NMFS). Suitable habitat for steelhead within the BSA includes the Morro Creek stream channel.

According to the guidance provided in the NMFS Endangered and Threatened Species; Designation of Critical Habitat for Seven Evolutionarily Significant Units of

Pacific Salmon and Steelhead in California, the BSA does contain several of the PCEs for steelhead that have been identified (Federal Register Volume 70, No. 170-52488). Specifically, Morro Creek is considered suitable spawning habitat for steelhead because it supports overhanging vegetation in certain regions, has a suitable gravel substrate, and sufficient water quality. As previously mentioned, most of the area surveyed within the stream channel was dry, except for a single remaining pool within the BSA that was inundated and contained several threespine stickleback. The BSA does fall within the designated critical habitat for steelhead.

4.3.2.2 AVOIDANCE AND MINIMIZATION EFFORTS

To the maximum extent feasible, the project has been designed, modified, and amended to avoid and minimize potential project-related impacts to steelhead. As mentioned in Section 1.2, no equipment will enter and/or be used within the Morro Creek channel. Dewatering within the creek and/or water diversion activities are not necessary and are not a component of the proposed project.

The following Avoidance and Minimization Efforts are recommended to ensure that potential indirect impacts to steelhead from this project are reduced as much as practicable. These measures are adapted from measures that have been approved by NMFS in a recent BO that was created to address a streambank stabilization project in San Luis Obispo County (NMFS, 2012) and include the following:

1. Before any activities begin on a project, a qualified biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the steelhead and its habitat, the specific measures that are being implemented to conserve this species for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

2. During the duration of project activities, all trash that may attract predators will be properly contained and secured, promptly removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from the work areas.

3. All refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from riparian habitat or bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). The monitor shall ensure that contamination

of suitable habitat does not occur during such operations. Prior to the onset of work activities, a plan must be in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should an accidental spill occur.

4. The number of access routes, size of staging areas, and the total area used for construction activities shall be limited to the minimum area necessary to achieve the project goals.

5. The City will attempt to schedule work within the immediate vicinity of Morro Creek for times of the year when potential impacts to steelhead would be minimal. To the maximum extent feasible, work should be restricted during the wet season (October 15 through April 30) and should ideally occur during the late summer and early fall. Habitat assessments, surveys, and coordination between Caltrans and the USFWS during project planning will also be used to assist in the scheduling of work activities in order to ensure avoidance of sensitive habitats during significant times of the year.

6. To control sedimentation during and after project implementation, the City shall implement any and all BMPs outlined in all authorizations or permits issued under the authorities of the Clean Water Act that it obtains for this specific project. If the BMPs are somehow ineffective, the City will attempt to remedy the situation immediately. The following BMPs have already been integrated into the Erosion Control Plan that has been prepared for the project:

    - It shall be the owner's/contractor's responsibility to maintain control of the entire construction operations and to keep the entire site in compliance with the soil erosion control plan.

    - The owner/contractor shall be responsible for monitoring erosion and sediment control measures (including but not limited to fiber rolls, inlet protections, silt fences, and gravel bags) prior, during and afeeter storm events, monitoring includes maintaining a file documenting onsite inspections, problems encountered, corrective actions, and notes and a map of remedial implementation measures.

    - Reasonable care shall be taken when hauling any earth, sand, gravel, stone, debris, or any hazardous substance over any public street, alley, or other

public place. Should any blow, spill, or track over and upon said public or adjacent private property, immediate clean-up shall occur.

- Construction entrances shall be installed prior to commencement of grading. All construction traffic entering onto the paved roads must cross the stabilized construction entranceway.

- Sanitary facilities shall be maintained onsite as appropriate and away from the street in the case of a spill.

- During the rainy season, all paved areas shall be kept clear of earth material and debris. All earth stockpiles over 2.0 cubic yards shall be covered with a tarp and ringed with straw bales or silt fencing. The site shall be maintained so as to minimize sediment-laden runoff to any storm drainage system including existing drainage swales and/or sand watercourses.

- Construction operations shall be carried out in such a manner that erosion and water pollution will be minimized. State and local laws concerning pollution abatement shall be complied with.

- Facilities illustrated in the erosion control plan for the project are designed to control erosion and sediment during the rainy season (October 15 through April 30). Such facilities are to be operable prior to October 15 of any year. Grading operations during the rainy season which leave denuded slopes shall be protected with erosion control measures immediately following grading on the slopes.

- Specifically, in order to prevent sedimentation and debris from entering Morro Creek during construction, silt fencing shall be installed along the top of the banks on both the north and south sides of the channel prior to the onset of construction activities as illustrated in the erosion control plan for the project.

7. No pets shall be allowed at the project site.

8. The project biologist will monitor construction activities, instream habitat, and overall performance of BMPs and sediment controls for the purpose of identifying and reconciling any condition that could adversely affect steelhead or their habitat. The biologist will halt work if necessary and will recommend site-specific measures to avoid adverse effects to steelhead and their habitat.

9. Equipment will be checked daily for leaks prior to the initiation of construction activities. A spill kit will be placed near the creek and will remain readily available during construction in the event that any contaminant is accidentally released.

In addition to these avoidance and minimization measures, the measures presented in Section 4.1.1.2 for Jurisdictional Waters would also ensure that potential indirect impacts to steelhead from this project are reduced as much as practicable.

4.3.2.3 PROJECT IMPACTS

Implementation of the project is not expected to result in any significant loss or fragmentation of steelhead habitat. Instead this project would enhance the existing habitat by reducing the amount of human disturbance within the stream channel because once installed, the proposed bridge would enable pedestrians to cross over the creek without actually entering it. Trash and debris within the channel are also likely to be reduced with project implementation. Direct impacts to this species would not occur. Construction within the stream channel itself is not a component of the proposed project. Indirect impacts to steelhead could result from general project-related disturbance and noise if it is present within the BSA during implementation or if an accidental spill occurs. However, all potential indirect project-related impacts to this species will be avoided and/or minimized through implementation of the measures previously described above.

4.3.2.4 COMPENSATORY MITIGATION

No compensatory mitigation is required with implementation of the measures described above.

4.3.2.5 CUMULATIVE EFFECTS

No other projects are known or projected to occur within the vicinity of the proposed project within the foreseeable future. As such, no cumulative impacts resulting from the proposed project to this species are anticipated.

4.3.3 Morro Shoulderband Snail

Morro shoulderband snail (MSS) is a federally endangered species that occurs in a variety of native and non-native habitat types. It requires coastal scrub, coastal dune scrub, and maritime chaparral communities that are typically underlain by Baywood fine sands substrates. It will also utilize non-native stands that are dominated by ice plant and/or perennial veldt grass (*Ehrharta calycina*) within its range. Adequate moisture regime, plant species physiognomy, and appropriate microclimate all appear

to be important elements of suitable habitat for this species; as opposed to the mere presence of any particular plant species. This species typically inhabits dense, shrubby, or prostrate vegetation that has contact with the ground and will occur in shaded, moist areas where leaf litter has accumulated or on the undersides of low shrub branches. Breeding is thought to occur during the wet season and this species is presumed to be most active during the morning and evening hours. The central dune scrub and ice plant communities within the BSA are considered suitable habitat for this species.

4.3.3.1 SURVEY RESULTS

No MSS were observed within the BSA during the reconnaissance field survey; however, determinant-level surveys were not conducted. The BSA was assessed for the potential to support this species in accordance with guidance provided by USFWS. Suitable habitat for MSS within the BSA includes the central dune scrub and ice plant communities.

According to the guidance provided in the USFWS Final Determination of Critical Habitat for the MSS, the BSA does contain several PCEs for this species that have been identified (Federal Register Volume 66, No. 26-9233). Specifically, the central dune scrub habitat within the BSA is considered suitable because it contains sandy soils, occurs on slopes that are less than 10 percent, and is comprised of several of the characteristic plant species associated with central dune scrub vegetation. Notions of suitable habitat for this species have expanded since the critical habitat designation and now include non-native communities, as mentioned above. The BSA does not occur within the designated critical habitat for MSS. However, the BSA is approximately 0.25 mi north, across the mouth of Morro Bay, from the nearest MSS designated critical habitat unit.

4.3.3.2 AVOIDANCE AND MINIMIZATION EFFORTS

To the maximum extent feasible, the project has been designed, modified, and amended to avoid and minimize potential project-related impacts to MSS. However, if MSS are present within the BSA during implementation of the project this species and its habitat could be impacted. Therefore, formal consultation with USFWS under Section 7 of the FESA will be required to obtain incidental take authorization for MSS.

The following Avoidance and Minimization Efforts are recommended to ensure that impacts to MSS from this project are reduced as much as practicable. These

measures have been developed in coordination with USFWS and include the following:

1. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of MSS.

2. Environmental training sessions for all project-related personnel will be conducted by a USFWS-authorized biologist prior to the start of vegetation removal, grading, and ground-disturbing construction-related activities. These trainings will continue for the duration the project and be initiated whenever new personnel come on-board.

3. Construction areas will be clearly marked with high visibility flagging or barrier fencing. Construction equipment and personnel will be restricted to the identified work areas only. The delineation of construction areas is ongoing and will continue for the duration of project implementation.

4. Pre-construction MSS surveys will be conducted in the central dune scrub and ice plant habitat to be removed in association with site preparation and construction activities will be conducted by a Service-approved biologist (including the central dune scrub habitat located in the sensitive habitat mitigation area). Surveys will include the cutting coastal dune scrub shrubs off at ground-level and careful examination of the lower branches and litter beneath each shrub for the presence of this species. Shrubs will not be cut in the sensitive habitat mitigation area, but shall be thoroughly examined prior to implementation of the HMMP described in Section 4.1.3. Care should be taken not to trample patches of ice plant (or veldt grass) during these processes. All ice plant will be carefully examined for MSS individuals and egg masses. Once coastal dune scrub and ice plant areas have been cleared and all surveys have been completed, vegetation removal (and/or mitigation activities) may commence and can be removed by mechanical means. As vegetation is removed, it will not be stockpiled onsite but rather moved to a location offsite where it there is no chance of re-occupation by MSS.

5. The USFWS-approved biologist will be retained to monitor all vegetation removal, grading, and ground-disturbing construction-related activities that will take place within habitat suitable for MSS. Monitoring activities will be required daily until completion of initial disturbance at each location and to ensure appropriate minimization measures are implemented during construction. The monitoring biologist will be granted full authority to stop work at his or her

discretion and will stop work if project-related activities occur outside the demarcated boundaries of the construction footprint. The monitoring biologist will stop work if MSS is detected within the proposed construction footprint and will capture and relocate them to suitable habitat out of harm's way prior to construction activities resuming. If no suitable habitat opportunities are available in the immediate vicinity of the construction footprint, captured individuals may be transported to an off-site location in accordance with a capture and relocation methodology approved by USFWS prior to the initiation of any surveys for the species.

6. A summary report will be provided to Caltrans that documents the results of all monitoring activities throughout the duration of the project. The report will document the number of MSS captured and relocated from the project area, the locations of all MSS relocations, and the number of MSS known to have been be killed or injured. The report will contain a brief discussion of any problems encountered in implementing minimization measures, results of biological surveys, observations, and any other pertinent information. A comprehensive final report that summarizes the information provided in the annual reports will be provided to the Service/USFWS by Caltrans within 90 days following the completion of the proposed project.

4.3.3.3 PROJECT IMPACTS

Implementation of the project is not expected to result in any significant loss or fragmentation of MSS habitat. Direct impacts to this species could occur if it is present within the BSA during construction through injury/death and through harassment if captured and relocated by an USFWS-approved biologist. Minimal direct permanent impacts to MSS habitat would occur as a result of project development within the central dune scrub habitat along the west side of Embarcadero and in several areas that are occupied by ice plant. Indirect impacts to MSS could result from general project-related disturbance and noise if it is present within the BSA during implementation. However, all potential direct and indirect project-related impacts to this species will be avoided and/or minimized through implementation of the measures previously described above.

4.3.3.4 COMPENSATORY MITIGATION

Compensatory mitigation for impacts to the central dune scrub vegetation that is being removed would be provided through the regulatory agency permitting process and will be mitigated for at a 3:1 replacement ratio. No additional mitigation is

required with implementation of this component of the project and the measures described above.

4.3.3.5 CUMULATIVE EFFECTS

No other projects are known or projected to occur within the vicinity of the proposed project within the foreseeable future. As such, no cumulative impacts resulting from the proposed project to this species are anticipated.

4.3.4 Legless Lizard

Both black and silvery legless lizard are CDFW species of special concern that require moist, warm, loose soils and adequate cover within beach dune, chaparral, pine and oak woodland, desert scrub, sandy wash, and stream terrace habitats. These species will utilize leaf litter, rocks, cover boards, driftwood, and downed logs for cover and refugia. However, the two subspecies are no longer recognized as genetically distinct and are now referred to as a single species (*Anniella pulchra*) in more modern taxonomic treatments (Papenfuss and Parham, 2013). It is occasionally found in suburban garden settings. Legless lizard lives mostly underground and burrow in loose sandy soils. It is most active during the morning and evening hours, but will not bask in direct sunlight. Legless lizard is thought to breed during the early summer months and live young are born typically between the months of September through November. The central dune scrub habitat within the BSA is considered suitable for this species.

4.3.4.1 SURVEY RESULTS

No legless lizards were observed within the BSA during the reconnaissance field survey; however, determinant-level surveys were not conducted. The BSA was assessed for the potential to support this species in a precursory manner. Suitable habitat for legless lizard within the BSA includes the central dune scrub habitat.

4.3.4.2 AVOIDANCE AND MINIMIZATION EFFORTS

To the maximum extent feasible, the project has been designed, modified, and amended to avoid and minimize potential project-related impacts to legless lizard. However, if legless lizards are present within the BSA during implementation of the project this species and its habitat could be impacted.

The following Avoidance and Minimization Efforts are recommended to ensure that potential impacts to this species from this project are reduced as much as practicable and include the following:

1. Prior to the onset of construction activities, a qualified biologist shall conduct focused surveys for legless lizard within all potentially suitable habitat onsite during the appropriate active periods for these species. If no legless lizards are observed, no further efforts are required.

2. If legless lizard is observed onsite, the wildlife biologist shall map the locations on an aerial photograph of the project site at a scale no less than 1"=200'. A legless lizard technical report (or memorandum) shall be submitted to the City that documents the survey results prior to the onset of construction activities. Mapped locations of sensitive reptile species shall be integrated into the grading plans.

3. To avoid potential indirect impacts to legless lizard, identified locations that are not within the immediate disturbance footprint, but are located within 50 feet of disturbance limits shall have highly visible orange protective fencing and drift fencing installed at least 30 feet beyond their extent to protect them from harm during the construction phase.

4. If it is determined that complete avoidance of an identified legless lizard population(s) is not feasible, then a qualified biologist shall carefully rake or use an equivalent method to scarify the ground surface within the reptile habitat to encourage the reptiles to vacate the area prior to construction initiation. This should occur at least 48 hours prior to the construction activities and shall be repeated if construction is halted for more than 48 hours. Alternatively, the qualified biologist can facilitate the installation of drift fencing around the occupied habitat, before construction begins, to exclude the reptiles from the work areas.

5. A qualified biologist shall physically relocate any legless lizard to equivalent suitable habitat adjacent to the BSA or on other areas within its vicinity that occur beyond the limits of construction activities. If this method is utilized, the reptiles shall be hand-captured and relocated to a designated location of suitable habitat as described above.

6. A qualified biologist shall monitor construction activities onsite if they occur within legless lizard habitat that is determined to be occupied during all vegetation clearing and immediately after vegetation clearing. The qualified biologist shall relocate the reptiles out of harm's way and into an equivalent habitat within the project site or immediate vicinity. The qualified biologist shall

monitor the area(s) on a weekly basis after initial sufficient clearing of legless lizard has occurred throughout the duration of construction activities in order to inspect exclusionary fencing if it is used and to physically relocate legless lizard that have re-entered the construction zones during subsequent brush clearing or vegetation removal.

4.3.4.3 PROJECT IMPACTS

Implementation of the project is not expected to result in any significant loss or fragmentation of legless lizard habitat. Direct impacts to this species could occur if it is present within the BSA during construction through injury/death and through harassment if captured and relocated by the project biologist. Minimal direct permanent impacts to legless lizard habitat would occur as a result of project development along the western side of the BSA within central dune scrub habitat. Indirect impacts to legless lizard could result from general project-related disturbance and noise if it is present within the BSA during implementation. However, all potential direct and indirect project-related impacts to this species will be avoided and/or minimized through implementation of the measures previously described above.

4.3.4.4 COMPENSATORY MITIGATION

Compensatory mitigation for impacts to the central dune scrub vegetation that is being removed would be provided through the regulatory agency permitting process and will be mitigated for at a 3:1 replacement ratio. No additional mitigation is required with implementation of this component of the project and the measures described above.

4.3.4.5 CUMULATIVE EFFECTS

No other projects are known or projected to occur within the vicinity of the proposed project within the foreseeable future. As such, no cumulative impacts resulting from the proposed project to this species are anticipated.

4.3.5 Migratory Birds

Nesting and migratory birds are protected by the California Fish and Game Code provisions and under the MBTA as mentioned in the beginning of this section (Section 4.3) and further below in Section 5.6.

4.3.5.1 SURVEY RESULTS

No nesting birds or other evidence of nesting activities were observed within the BSA or immediate vicinity during the field survey; however, comprehensive nesting bird

surveys were not conducted. The arroyo willow woodland/riparian, central dune scrub, and bulrush/cattail wetland habitats within the BSA have potential to support nesting bird species. In addition, other trees within the immediate vicinity of the BSA could have birds nesting within them.

4.3.5.2 AVOIDANCE AND MINIMIZATION EFFORTS

To the maximum extent feasible, the project has been designed, modified, and amended to avoid and minimize potential project-related impacts to nesting birds. However, if nesting bird species are present within the BSA during implementation of the project these species and the habitats they are utilizing could be impacted.

The following Avoidance and Minimization Efforts are recommended to ensure that potential impacts to nesting bird species from implementation of this project are reduced as much as practicable and include the following:

1. If feasible, removal of vegetation within suitable nesting bird habitats will be scheduled to occur in the fall and winter (between September 1 and February 14), after fledging and before the initiation of the nesting season.

2. If construction activities are scheduled to occur during the nesting season (February 15 through August 31), a pre-construction nesting bird survey shall be conducted by a qualified biologist throughout all areas of potentially suitable and accessible habitats within 200 feet of any proposed construction activities. The pre-construction nesting bird survey will be performed no more than two weeks prior to construction to determine the presence/absence of nesting birds within the project area.

3. The City and Caltrans shall be immediately notified if any nesting bird species protected under federal law (including the MBTA) are observed during surveys. Caltrans shall coordinate with USFWS regarding appropriate avoidance measures and the City shall coordinate with CDFW regarding appropriate avoidance measures as necessary, depending on the type of species observed and its listing status. Work activities shall be avoided within 100 feet of active passerine nests and 200 feet of active raptor nests until young birds have fledged and left the nest(s). This buffer may be reduced if determined appropriate by a qualified biologist. Readily visible exclusion zones shall be established in areas where nests must be avoided. Nests, eggs, or young of birds covered by the MBTA and California Fish and Game Code would not be moved or disturbed until the end of

the nesting season or until young fledge, whichever is later, nor would adult birds be killed, injured, or harassed at any time.

4.3.5.3 PROJECT IMPACTS

Implementation of the project is not expected to result in any significant loss or fragmentation of nesting bird habitat. Direct impacts to these species could occur if nests are present within the BSA during construction through injury/death and through harassment if disturbed by the project. Minimal direct permanent impacts to nesting bird habitat would occur as a result of project development along the western side of the BSA within central dune scrub habitat. Indirect impacts to nesting birds could result from general project-related disturbance and noise if it is present within the BSA during implementation. However, all potential direct and indirect project-related impacts to nesting bird species will be avoided and/or minimized through implementation of the measures previously described above.

4.3.5.4 COMPENSATORY MITIGATION

Compensatory mitigation for impacts to the central dune scrub vegetation that is being removed would be provided through the regulatory agency permitting process and will be mitigated for at a 3:1 replacement ratio. No additional mitigation is required with implementation of this component of the project and the measures described above.

4.3.5.5 CUMULATIVE EFFECTS

No other projects are known or projected to occur within the vicinity of the proposed project within the foreseeable future. As such, no cumulative impacts resulting from the proposed project to this species are anticipated.

Chapter 5. Results: Permits and Technical Studies for Special Laws or Conditions

5.1. Federal Endangered Species Act Consultation Summary

Implementation of the proposed project is likely going to require formal consultation pursuant to Section 7 of the FESA with USFWS. A Biological Assessment has been prepared for the project to initiate such consultation. Upon review, USFWS will issue a BO for the project. The Section 7 consultation is required for the proposed project to verify and ensure that it will not jeopardize the continued existence of federally listed species and their habitats. With its delegated FHWA authority, Caltrans will act as the lead federal agency for the Section 7 consultation.

5.2. Federal Fisheries and Essential Fish Habitat Consultation Summary

According to the Essential Fish Habitat (EFH) online mapping application, the BSA is located within designated EFH for salmon and groundfish that are managed pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (National Oceanic and Atmospheric Administration [NOAA], 2013). However, the proposed project would not result in adverse impacts to the designated EFH within the BSA because no work is being conducted within the stream channel of Morro Creek. As such, no adverse impacts to EFH would occur with implementation of the project.

5.3. California Endangered Species Act Consultation Summary

Implementation of the proposed project is not anticipated to require consultation with CDFW to address potential effects to listed species pursuant to the CESA. As such, an Incidental Take Permit issued from CDFW is not expected to be required for implementation of the project.

5.4. Wetlands and Other Waters Coordination Summary

Implementation of the proposed project would require that a Streambed Alteration Agreement be issued by CDFW as a result of alterations to the northern bank of

Morro Creek. Impacts to this side of the bank are necessary to accommodate the proposed bridge abutment. The vegetation within this portion of the BSA is ice plant. No impacts to the arroyo willow woodland/riparian vegetation within the BSA would occur.

5.5. Invasive Species

Executive Order 13112 was issued in 1999 to enhance federal coordination and response to the complex and accelerating problem of invasive species. This Executive Order requires Federal agencies to work cooperatively to prevent and control the spread of invasive plants and animals. On August 10, 1999, FHWA issued implementing guidance on Executive Order 13112. On October 22, 1999, Caltrans issued a memo to implement the FHWA guidance. Avoidance and Minimization Measures are proposed for maintaining compliance with Executive Order 13112. Due to the presence of several invasive plant species within or adjacent to the BSA, minimization and avoidance measures discussed in Section 4.1.4 will be implemented.

5.6. Migratory Bird Treaty Act

The MBTA with Canada, Mexico, and Japan makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of any and all nests that are occupied by migratory birds during the nesting season. California Fish and Game Code Section 3500 also prohibits the destruction of any nest, egg, or nestling. Due to the potential for nesting birds to occur within or adjacent to the BSA, minimization and avoidance measures discussed in Section 4.3.5 will be implemented.

Chapter 6. References

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Appendix A Project Plans

Appendix B USFWS-IPAC, CNDDB, and CNPS 9-Quad Search for Sensitive Species

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Amphibians					
foothill yellow-legged frog	*Rana boylii*	--/SSSC/--	Streams and rivers with rocky substrates and open, sunny banks. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools.	A	No suitable habitat present within the project limits or vicinity. Morro Creek does not have suitable rocky substrates or hydrology. No observations were made during field survey and it has not been documented within 5 miles of BSA by CNDDB.
California red-legged frog	*Rana draytonii*	FT/SSSC/--	Occurs near ponds and streams with plant cover. Breeding habitat is in permanent or ephemeral slow moving or ponded water. Ephemeral sources require burrows or other moist refuges for estivation during the dry season.	HP	Morro Creek is suitable habitat for this species. It was not observed onsite during field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
western spadefoot	*Spea hammondii*	--/SSSC/--	Open areas with sandy or gravelly soils, including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains.	HP	Morro Creek is likely suitable habitat for this species. However no observations were made during the field survey and it has not been documented within 5 miles of BSA by CNDDB.
Coast Range newt	*Taricha torosa*	--/SSSC/--	Occurs in wet forests, oak forests, chaparral, and rolling grasslands. In southern California, drier chaparral, oak woodland, and grasslands are used. Requires aquatic habitats for breeding.	HP	Morro Creek is likely suitable habitat for this species. However no observations were made during the field survey and it has not been documented within 5 miles of the BSA by CNDDB.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Birds					
tricolored blackbird	*Agelaius tricolor*	--/SSSC/--	Freshwater marshes and swamps, riparian scrub, and riparian forest. Forages in valley and foothill grassland and agricultural fields.	A	Morro Creek contains riparian habitat, however it is not considered suitable habitat due to high levels of human activity within the BSA and vicinity and because tricolored blackbirds typically require larger habitat stands that are conducive to its colonial behaviors. No observations were made during the field survey.
grasshopper sparrow	*Ammodramus savannarum*	--/SSSC/--	Pastures, grasslands, and decommissioned agricultural fields. Nests on the ground.	A	No suitable habitat present within the project limits or vicinity. No observations were made during field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
burrowing owl	*Athene cunicularia*	--/SSSC/--	Valley and foothill grasslands and other agricultural communities. Nests in small mammal burrows and other structures such as culverts, canals, and ditches.	A	No suitable habitat present within the project limits or vicinity. No observations were made during field survey.
marbled murrelet	*Brachyramphus marmoratus*	FT/SE/--	Nearshore estuaries, sounds, and other inundated coastal areas. Nests in old growth redwood forests.	A	Occurs offshore; there is no suitable habitat present within the project limits.
western snowy plover	*Charadrius alexandrinus nivosus*	FT/SSSC/--	Barren sandy beaches and flats around alkaline lakes. Nests on the ground.	A	No suitable habitat present within the BSA. Levels of disturbance within the BSA from humans are likely too high for this species to occur. No observations were made during field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	FC/SE/--	Riparian scrub, woodland, and forest communities. Forages in orchards that are adjacent to stream courses.	HP	The arroyo willow woodland habitat within the BSA is considered suitable for this species. No observations were made during the field survey. It is considered extirpated from most of coastal California.
southwestern willow flycatcher	*Empidonax traillii extimus*	FE/SE/--	Nests in dense thickets of riparian habitats along streams, lakesides, and other wetlands.	HP	The project site is within the known range of this species and fall migrants have been documented within the vicinity; however, the arroyo willow woodland habitat within the BSA lacks the dense understory and overall size and structural complexity typically associated with southwestern willow flycatcher nesting habitat; therefore, no individuals are expected to be present during project implementation. No observations were made during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
white-tailed kite	*Elanus leucurus*	--/ SFP/--	Rolling foothills and valley margins scatted with oak trees, river bottomlands or marshes that are adjacent to deciduous woodland. Forages in open grasslands, meadows, or marshes. Nests in isolated dense-topped trees.	A	No suitable habitat present within the project limits or vicinity. No observations were made during field survey.
California condor	*Gymnogyps californianus*	FE/SE-SFP/--	Arid foothills and mountains including chaparral, coniferous forest, and oak savanna habitats. Nests in cliff cavities rock outcrops and ledges, and large trees.	A	Rare transient in San Luis Obispo County. No suitable nesting habitat present within the project limits or vicinity. No observations were made during field survey.
loggerhead shrike	*Lanius ludovicianus*	--/SSSC/--	Shrub and woodlands, and edges of riparian communities throughout a variety of habitats. Forages in grasslands, agricultural fields, and other barren communities.	HP	May forage within the project limits and vicinity as a winter migrant. Project site is outside the known breeding range. No observations were made during field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
California black rail	*Laterallus jamaicensis coturniculus*	--/ST-SFP/--	Fresh and saltwater marshes with intermittent inundation and adequate cover.	HP	The bulrush/cattail wetland is considered marginally suitable habitat for this species. However it is considered highly unlikely to occur due to high levels of human activity within the BSA and vicinity and because it typically requires more expansive habitats that are conducive to its cryptic behaviors. No observations were made during the field survey.
purple martin	*Progne subis*	--/SSSC/--	Nests in tree cavities, or on abandon buildings, bridges, utility poles, and lava tubes in mountainous, hilly terrain near lakes and other water bodies.	HP	May forage within the project limits and vicinity as a winter migrant. No observations were made during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
California clapper rail	*Rallus longirostris obsoletus*	FE/SE-SFP/--	Tidally influenced brackish marshes and salt marsh habitats.	HP	Bulrush/cattail wetland is marginally considered suitable habitat for this species. However it is highly unlikely to occur due to current distribution, high levels of human activity within the BSA and because it typically requires more expansive habitats. No observations were made during the field survey.
California least tern	*Sterna antillarum browni*	FE/SE-SFP/--	Nests on sand dunes, beach strand, and sparsely vegetated coastal scrub communities that are relatively free of human or predatory disturbance. Forages in shallow estuaries, lagoons, bay mouths, and near shore open waters.	HP	The central dune scrub within the BSA is considered suitable breeding habitat for this species. However it is considered highly unlikely to occur due to high levels of human activity within the BSA and vicinity and because it typically requires estuarine areas. No observations were made during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
least Bell's vireo	*Vireo bellii pusillus*	FE/SE/--	Low dense brushy riparian vegetation in vicinity of water or in dry river bottoms; below 2000 feet.	HP	The project site is within the known range of this species and fall migrants have been documented within the vicinity; however, the arroyo willow woodland habitat within the BSA lacks the dense understory and overall size and structural complexity typically associated with least Bell's vireo habitat; therefore, no individuals are expected to be present during project implementation. No observations were made during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Fish					
tidewater goby	*Eucyclogobius newberryi*	FE/SSSC/--	Coastal lagoons and brackish bays at mouths of freshwater streams and marsh habitats with persistent, shallow flows and adequate space.	HP	Morro Creek is considered marginally suitable habitat for this species. However it is unlikely to occur due to recent negative surveys. No observations were made during the field survey or previous surveys conducted in 2011 by SWCA Environmental Consultants (SWCA, 2011). The 2011 SWCA surveys including sampling (dip and seine nets) and no tidewater goby were identified. Further this project will not include disturbance within Morro Creek, therefore the project would not impact tidewater goby even if individuals were present during construction.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
steelhead – south/central California coast DPS	*Oncorhynchus mykiss irideus*	FT/SSSC/--	Streams with pool and riffle complexes and cold gravelly streambeds for spawning. From the Pajaro River to, but not including the Santa Maria River in Santa Barbara County.	HP	Morro Creek considered suitable habitat for this species and it may occur in the open waters in the vicinity. However no observations were made during the field survey.
steelhead – southern California coast DPS	*Oncorhynchus mykiss irideus*	FE/SSSC/--	Streams with pool and riffle complexes and cold gravelly streambeds for spawning from the Santa Maria River, San Luis Obispo County, (inclusive) to the U.S.-Mexico Border.	A	The BSA is located outside the known range for this species.
Invertebrates					
vernal pool fairy shrimp	*Branchinecta lynchi*	FT/--/--	Vernal pools and other seasonally inundated, closed or non-linear wetland features. Requires cold temperatures. Forms a cyst during the dry season.	A	No suitable habitat is present within the project limits or vicinity. No observations were made during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Morro shoulderband snail	*Helminthoglypta walkeriana*	FE/--/--	Coastal scrub, coastal dune scrub, and openings in maritime chaparral. Will also use non-native stands dominated by ice plant, marginal stands, and landscaped areas.	HP	The central dune scrub and ice plant habitats within the BSA are considered suitable for this species. However no observations were made during the field survey.
Mammals					
pallid bat	*Antrozous pallidus*	--/SSSC/--	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting. Will also roost in caves, mines, old buildings, hollow trees, and bridges.	A	No suitable habitat is present within the project limits for this species. It may forage within the BSA. However no observations were made during the field survey.
Townsend's big-eared bat	*Corynorhinus townsendii*	--/SSSC/--	Roosts in caves, mines, tunnels, buildings, or other human-made structures. May use multiple roosts to meet various temperature requirements.	A	No suitable habitat is present within the project limits or vicinity. No observations were made during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Morro Bay kangaroo rat	*Dipodomys heermanni morroensis*	FE/SE-SFP/--	Coastal sage scrub throughout the southern side of Morro Bay. Requires sandy soils and early successional plant communities on recently stabilized dunes.	A	No suitable habitat is present within the project limits or vicinity. No observations were made during the field survey.
southern sea otter	*Enhydra lutris nereis*	FT/SFP/--	Nearshore marine habitats with dense kelp beds and rocky substrates for rafting and feeding.	A	The project site is within the known range of this species and it has been documented within the vicinity; however no suitable habitat is present within the project limits. No observations were made during the field survey.
western mastiff bat	*Eumops perotis californicus*	--/SSSC/--	Occurs in a variety of semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, valley and foothill grassland, and chaparral. Roosts in crevices on cliff faces, high buildings, and in trees and tunnels.	A	No suitable habitat is present within the project limits or vicinity. No observations were made during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
San Diego desert woodrat	*Neotoma lepida intermedia*	--/SSSC/--	Coastal scrub communities. Requires moderate to dense canopy cover and rock outcrops, or rocky cliffs and slopes.	A	No suitable habitat is present within the project limits or vicinity. No observations were made during the field survey.
big free-tailed bat	*Nyctinomops macrotis*	--/SSSC/--	Roosts on high cliffs or rock outcrops within a variety of arid habitats throughout southern California.	A	No suitable habitat is present within the project limits or vicinity. No observations were made during the field survey.
American badger	*Taxidea taxus*	--/SSSC/--	Requires open, arid habitats, but are most commonly associated with grasslands, savannahs, mountain meadows, and open areas of desert scrub. Soils must be friable for burrow excavation.	A	No suitable habitat is present within the project limits or vicinity. No observations were made during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
San Joaquin kit fox	*Vulpes macrotis mutica*	FE/ST/--	Loose textured soils within grasslands and chenopod or desert scrub communities. Will also use altered habitats including oil fields, wind farms, agricultural row crops, irrigated pastures, orchards, vineyards, and pastures.	A	No suitable habitat is present within the project limits or vicinity. No observations were made during the field survey.
Natural Communities					
central dune scrub	None	--/--/--	A dense coastal scrub community of scattered shrubs, subshrubs, and herbs generally less than 1m tall and often developing considerable cover. Diagnostic species include *Ericameria ericoides*, *Lupinus chamissonis*, and *Artemisia pycnocephala*.	HP	This sensitive natural community was observed within the BSA and vicinity.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
central maritime chaparral	None	--/--/--	A variable sclerophyll scrub of moderate to high cover (50-100%) dominated by forms of *Arctostaphylos tomentosa* (or *A. crustacea*) plus one or more other narrowly distributed manzanita.	A	This sensitive natural community was not observed within the BSA or vicinity.
coastal brackish marsh	None	--/--/--	Dominated by perennial, emergent, herbaceous monocots up to 2m tall. Cover is often complete and dense. Similar to salt marshes and to freshwater marshes with some plants characteristic of each.	HP	This sensitive natural community was observed within the BSA and vicinity; referred to as bulrush/cattail wetland.
coastal and valley freshwater marsh	None	--/--/--	Dominated by perennial, emergent monocots up to 4-5m tall. Often forming completely closed canopies. *Scirpus* spp. and *Typha* spp. dominate most types.	A	This sensitive natural community was not observed within the BSA or vicinity.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Monterey pine forest	None	--/--/--	Forest dominated by Monterey pine. Canopies may reach 30 meters and be composed of 80% Monterey pine. Coast live oak may also occur in co-dominance. Understories are variable in both composition and density.	A	This sensitive natural community was not observed within the BSA or vicinity.
northern coastal salt marsh	None	--/--/--	Highly productive, herbaceous and suffructescent, salt-tolerant hydrophytes forming moderate to dense cover and up to 1m tall. Most species are active in summer, dormant in winter. Usually segregated horizontally with *Spartina* nearer to the open water, *Salicornia* at mid-littoral elevations, and a richer species composition closer to high ground.	A	This sensitive natural community was not observed within the BSA or vicinity.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
northern interior cypress forest	None	--/--/--	An open, fire-maintained scrubby forest similar to knobcone pine forest but dominated by one of several *Cupressus* spp. These stands may be as much as 15m tall, but usually are lower.	A	This sensitive natural community was not observed within the BSA or vicinity.
valley needlegrass grassland	None	--/--/--	A midheight (up to 2 feet) grassland dominated by perennial, tussock-forming *Stipa pulchra*. Native and introduced annuals occur between the perennials, often actually exceeding the bunchgrasses in cover.	A	This sensitive natural community was not observed within the BSA or vicinity.
valley oak woodland	None	--/--/--	Woodland dominated by valley oak. Most stands have an open canopy with absolute tree cover seldom over 30-40%. Occurs on deep, well-drained alluvial soils on valley bottoms.	A	This sensitive natural community was not observed within the BSA or vicinity.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Plants					
Arroyo de la Cruz manzanita	*Arctostaphylos cruzensis*	--/--/1B.2	Sandy substrates within broadleaf upland forest, coastal bluff scrub, closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland. Bloom period: December-March. Elevations: 60-310 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Santa Lucia manzanita	*Arctostaphylos luciana*	--/--/1B.2	Shale substrates within chaparral and cismontane woodland. Bloom period: December-March. Elevations: 350-580 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Morro manzanita	*Arctostaphylos morroensis*	FT/--/1B.2	Baywood fine sands within maritime chaparral, cismontane woodland, pre-Flandrian dunes, and coastal scrub. Bloom period: December-March. Elevations: 5-205 meters.	HP	The central dune scrub habitat within the BSA is considered suitable for this species. No observations were made during the field survey of this or any other manzanita species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Oso manzanita	*Arctostaphylos osoensis*	--/--/1B.2	Dacite porphyry buttes within chaparral and cismontane woodland. Bloom period: February-March. Elevations: 95-500 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Pecho manzanita	*Arctostaphylos pechoensis*	--/--/1B.2	Siliceous shale substrates within closed-cone coniferous forest, chaparral, and coastal scrub. Bloom period: November-March. Elevations: 125-850 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Santa Margarita manzanita	*Arctostaphylos pilosula*	--/--/1B.2	Occasionally sandstone substrates within broadleaf upland forest, closed-cone coniferous forest, chaparral, and cismontane woodland. Bloom period: December-May. Elevations: 170-1100 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
dacite manzanita	*Arctostaphylos tomentosa* ssp. *daciticola*	--/--/1B.1	Dacite porphyry buttes within chaparral and cismontane woodland. Bloom period: March-May. Elevations: 100-300 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
marsh sandwort	*Arenaria paludicola*	FE/SE/1B.1	Sandy openings within freshwater or brackish marshes and swamps. Bloom period: May-August. Elevations: 3-170 meters.	HP	The bulrush/cattail wetland habitat within the BSA is considered suitable for this species.
Miles' milk-vetch	*Astragalus didymocarpus* var. *milesianus*	--/--/1B.2	Clay substrates within coastal scrub. Bloom period: March-June. Elevations: 20-90 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
San Joaquin spearscale	*Atriplex joaquinana*	--/--/1B.2	Alkaline regions within chenopod scrub, meadows and seeps, playas, and valley and foothill grassland. Bloom period: April-October. Elevations: 1-835 meters.	A	No suitable habitat is present within the project limits or vicinity.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
round-leaved filaree	*California macrophylla*	--/--/1B.1	Clay substrates within cismontane woodland and valley and foothill grassland. Bloom period: March-May. Elevations: 15-1200 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Arroyo de la Cruz mariposa-lily	*Calochortus clavatus* var. *recurvifolius*	--/--/1B.2	Coastal bluff scrub, maritime chaparral, coastal prairie, and lower montane coniferous forest. Bloom period: June-July. Elevations: 10-120 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
San Luis mariposa-lily	*Calochortus obispoensis*	--/--/1B.2	Often serpentinite substrates within chaparral, coastal scrub, and valley and foothill grassland. Bloom period: May-July. Elevations: 50-730 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
La Panza mariposa-lily	*Calochortus simulans*	--/--/1B.3	Sandy, often granitic, sometimes serpentinite substrates within chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland. Bloom period: April-June. Elevations: 395-1100 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
dwarf calycadenia	*Calycadenia villosa*	--/--/1B.1	Rocky, fine soils within chaparral, cismontane woodland, meadows and seeps, and valley and foothill grassland. Bloom period: May-October. Elevations: 240-1350 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Hardham's evening-primrose	*Camissoniopsis hardhamiae*	--/--/1B.2	Sandy, decomposed carbonate, and disturbed or burned areas within chaparral and cismontane woodland. Bloom period: March-May. Elevations: 140-945 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
San Luis Obispo sedge	*Carex obispoensis*	--/--/1B.2	Often serpentinite seeps or clay soils, occasionally gabbro soils within closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland. Bloom period: April-June. Elevations: 10-820 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
San Luis Obispo owl's-clover	*Castilleja densiflora* ssp. *obispoensis*	--/--/1B.2	Occasionally serpentine substrates within meadows and seeps and valley and foothill grassland. Bloom period: March-May. Elevations: 10-400 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Lemmon's jewel-flower	*Caulanthus lemmonii*	--/--/1B.2	Pinyon and juniper woodland and valley and foothill grassland. Bloom period: March-May. Elevations: 80-1220 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Congdon's tarplant	*Centromadia parryi* ssp. *congdonii*	--/--/1B.1	Alkaline valley and foothill grassland. Bloom period: May-November. Elevations: 0-230 meters.	A	No suitable habitat is present within the project limits or vicinity.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
coastal goosefoot	*Chenopodium littoreum*	--/--/1B.2	Coastal dunes. Bloom period: April-August. Elevations: 10-30 meters.	A	The coastal dune scrub habitat within the BSA is considered suitable for this species; however, the BSA is outside the known range of elevation for this species and it was not observed onsite during the field survey.
dwarf soaproot	*Chlorogalum pomeridianum* var. *minus*	--/--/1B.2	Serpentinite chaparral. Bloom period: May-August. Elevations: 305-1000 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
salt marsh bird's-beak	*Chloropyron maritimum* ssp. *maritimum*	FE/SE/1B.2	Coastal dunes and coastal salt marshes and swamps. Bloom period: May-October. Elevations: 0-30 meters.	HP	The bulrush/cattail wetland habitat within the BSA is considered suitable for this species. However it was not observed onsite during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Brewer's spineflower	*Chorizanthe breweri*	--/--/1B.3	Serpentine, rocky, or gravelly substrates within closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub. Bloom period: April-August. Elevations: 75-800 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
straight-awned spineflower	*Chorizanthe rectispina*	--/--/1B.3	Chaparral, cismontane woodland, and coastal scrub. Bloom period: April-July. Elevations: 85-1035 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Chorro Creek bog thistle	*Cirsium fontinale* var. *obispoense*	FE/SE/1B.2	Serpentinite seeps and drainages within chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Bloom period: February-September. Elevations: 35-380 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
compact cobwebby thistle	*Cirsium occidentale* var. *compactum*	--/--/1B.2	Chaparral, coastal dunes, coastal prairie, and coastal scrub. Bloom period: April-June. Elevations: 5-150 meters.	A	The central dune scrub habitat within the BSA is considered suitable for this species. However the BSA is out of its known range. It was not observed onsite during the field survey.
Cuesta Ridge thistle	*Cirsium occidentale* var. *lucianum*	--/--/1B.2	Serpentine substrates, often steep rocky slopes and disturbed roadsides within openings in chaparral. Bloom period: April-June. Elevations: 500-750 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
surf thistle	*Cirsium rhothophilum*	--/ST/1B.2	Coastal bluff scrub and coastal dunes. Bloom period: April-June. Elevations: 3-60 meters.	A	The central dune scrub habitat within the BSA is considered suitable for this species. However the BSA is out of its known range. It was not observed onsite during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
La Graciosa thistle	*Cirsium scariosum* var. *loncholepis*	FT/ST/1B.1	Mesic and sandy substrates within cismontane woodland, coastal dunes, coastal scrub, brackish marshes and swamps, and valley and foothill grassland. Bloom period: May-August. Elevations: 4-220 meters.	A	The central dune scrub habitat within the BSA is considered suitable for this species. However the BSA is out of its known range. It was not observed onsite during the field survey.
Eastwood's larkspur	*Delphinium parryi* ssp. *eastwoodiae*	--/--/1B.2	Serpentine substrates and coastal areas within openings in chaparral and valley and foothill grassland. Bloom period: February-March. Elevations: 75-500 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
umbrella larkspur	*Delphinium umbraculorum*	--/--/1B.3	Cismontane woodland. Bloom period: April-June. Elevations: 400-1600 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
beach spectaclepod	*Dithyrea maritima*	--/ST/1B.1	Coastal dunes and sandy substrates within coastal scrub. Bloom period: March-May. Elevations: 3-50 meters.	HP	The central dune scrub habitat within the BSA is considered suitable for this species. It was not observed onsite during the field survey.
Betty's dudleya	*Dudleya abramsii* ssp. *bettinae*	--/--/1B.2	Serpentinite or rocky substrates within chaparral, coastal scrub, and valley and foothill grassland. Bloom period: May-July. Elevations: 20-180 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
mouse-gray dudleya	*Dudleya abramsii* ssp. *murina*	--/--/1B.3	Serpentinite substrates within chaparral, cismontane woodland, and valley and foothill grassland. Bloom period: May-June. Elevations: 90-440 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Blochman's dudleya	*Dudleya blochmaniae* ssp. *blochmaniae*	--/--/1B.1	Rocky, often clay or serpentine substrates within coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland. Bloom period: April-June. Elevations: 5-450 meters.	A	No suitable habitat is present within the project limits or vicinity.
yellow-flowered eriastrum	*Eriastrum luteum*	--/--/1B.2	Sandy or gravelly substrates within broadleaf upland forest, chaparral, and cismontane woodland. Bloom period: May-June. Elevations: 290-1000 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Blochman's leafy daisy	*Erigeron blochmaniae*	--/--/1B.2	Coastal dunes and coastal scrub. Bloom period: June-August. Elevations: 3-45 meters.	HP	The central dune scrub habitat within the BSA is considered suitable for this species. It was not observed onsite during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Indian Knob mountainbalm	*Eriodictyon altissimum*	FE/SE/1B.1	Sandstone substrates within maritime chaparral, cismontane woodland, and coastal scrub. Bloom period: March-June. Elevations: 80-270 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Hoover's button-celery	*Eryngium aristulatum* var. *hooveri*	--/--/1B.1	Vernal pools. Bloom period: July-August. Elevations: 3-45 meters.	A	No suitable habitat is present within the project limits or vicinity.
Ojai fritillary	*Fritillaria ojaiensis*	--/--/1B.2	Rocky substrates within mesic broadleafed upland forest, chaparral, and lower montane coniferous forest. Bloom period: February-May. Elevations: 300-998 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
San Benito fritillary	*Fritillaria viridea*	--/--/1B.2	Serpentine substrates within chaparral. Bloom period: March-May. Elevations: 200-1525 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Cone Peak bedstraw	*Galium californicum* ssp. *luciense*	--/--/1B.3	Broadleaf upland forest, chaparral, cismontane woodland, and lower montane coniferous forest. Bloom period: March-September. Elevations: 400-1525 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Hardham's bedstraw	*Galium hardhamiae*	--/--/1B.3	Serpentine substrates within closed-cone coniferous forest and chaparral. Bloom period: April-October. Elevations: 395-975 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
mesa horkelia	*Horkelia cuneata* var. *puberula*	--/--/1B.1	Sandy or gravelly substrates within maritime chaparral, cismontane woodland, and coastal scrub. Bloom period: February-September. Elevations: 70-810 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Kellogg's horkelia	*Horkelia cuneata* ssp. *sericea*	--/--/1B.1	Sandy or gravelly substrates with openings within closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub. Bloom period: April-September. Elevations: 10-200 meters.	A	The central dune scrub habitat within the BSA is considered suitable for this species. However the BSA is outside the known range in elevation for this species. It was not observed onsite during field survey.
Santa Lucia dwarf rush	*Juncus luciensis*	--/--/1B.2	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools. Bloom period: April-July. Elevations: 300-2040 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Coulter's goldfields	*Lasthenia glabrata* ssp. *coulteri*	--/--/1B.1	Coastal salt marshes and swamps, playas, and vernal pools. Bloom period: February-June. Elevations: 1-1220 meters. E	A	No suitable habitat present within project limits or vicinity.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Jones' layia	*Layia jonesii*	--/--/1B.2	Clay or serpentine substrates within chaparral and valley and foothill grassland. Bloom period: March-May. Elevations: 5-400 meters.	A	No suitable habitat is present within the project limits or vicinity.
Carmel Valley bush-mallow	*Malacothamnus palmeri* var. *involucratus*	--/--/1B.2	Chaparral, cismontane woodland, and coastal scrub. Bloom period: May-October. Elevations: 30-1100 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Santa Lucia bush-mallow	*Malacothamnus palmeri* var. *palmeri*	--/--/1B.2	Chaparral, often rocky substrates. Bloom period: May-July. Elevations: 60-360 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Palmer's monardella	*Monardella palmeri*	--/--/1B.2	Serpentine substrates within chaparral and cismontane woodland. Bloom period: June-August. Elevations: 200-800 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
San Luis Obispo monardella	*Mondardella undulata* ssp. *undulata*	--/--/1B.2	Coastal dunes and sandy substrates within coastal scrub. Bloom period: May-September. Elevations: 10-200 metes.	A	The central dune scrub habitat within the BSA is considered suitable for this species. However the BSA is outside the known range in elevation for this species. It was not observed onsite during field survey.
woodland woollythreads	*Monolopia gracilens*	--/--/1B.2	Serpentine substrates within broadleaf upland forest openings, openings in chaparral and north coast coniferous forest, and valley and foothill grassland. Bloom period: February-July. Elevations: 100-1200 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
spreading navarretia	*Navarretia fossalis*	FT/--/1B.1	Chenopod scrub, assorted shallow freshwater marshes and swamps, playas, and vernal pools. Bloom period: April-June. Elevations: 30-655 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
shining navarretia	*Navarretia nigelliformis* ssp. *radians*	--/--/1B.2	Occasionally clay substrates within cismontane woodland, valley foothill grassland, and vernal pools. Bloom period: April-July. Elevations: 76-1000 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
coast woolly-heads	*Nemacaulis denudata* var. *denudata*	--/--/1B.2	Coastal dunes. Bloom period: April-September. Elevations: 0-100 meters.	HP	The central dune scrub habitat within the BSA is considered suitable for this species. It was not observed onsite during the field survey.
Monterey pine	*Pinus radiata*	--/--/1B.1	Closed-cone coniferous forest and cismontane woodland. Bloom period: year round. Elevations: 25-185 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
hooked popcorn-flower	*Plagiobothrys uncinatus*	--/--/1B.2	Sandy soils within chaparral, and cismontane woodland and valley and foothill grassland. Bloom period: April-May. Elevations: 300-760 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
Diablo Canyon blue grass	*Poa diaboli*	--/--/1B.2	Shale substrates and sometimes on recently burned areas within closed-cone coniferous forest, mesic chaparral, cismontane woodland, and coastal scrub. Bloom period: March-April. Elevations: 120-400 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
white rabbit-tobacco	*Pseudognaphalium leucocephalum*	--/--/2B.2	Sandy and gravelly substrates within chaparral, cismontane woodland, coastal scrub, and riparian scrub. Bloom period: July-December. Elevations: 0-2100 meters.	A	The arroyo willow woodland habitat within the BSA is suitable for this species. However it the BSA is out of its known range. It was not observed onsite during the field survey.
adobe sanicle	*Sanicula maritima*	--/SR/1B.1	Clay or serpentine substrates within chaparral, coastal prairie, meadows and seeps, and valley and foothill grassland. Bloom period: February-May. Elevations: 30-240 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
chaparral ragwort	*Senecio aphanactis*	--/--/2B.2	Sometimes alkaline substrates within chaparral, cismontane woodland, and coastal scrub. Bloom period: January-April. Elevations: 15-800 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Cuesta Pass checkerbloom	*Sidalcea hickmanii* ssp. *anomala*	--/SR/1B.2	Rocky, serpentinite substrates within closed-cone coniferous forest and chaparral. Bloom period: May-June. Elevations: 600-800 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
most beautiful jewel-flower	*Streptanthus albidus* ssp. *peramoenus*	--/--/1B.2	Serpentine substrates within chaparral, cismontane woodland, and valley and foothill grassland. Bloom period: March-October. Elevations: 94-1000 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
California seablite	*Suaeda californica*	FE/--/1B.1	Coastal salt marshes and swamps. Bloom period: July-October. Elevations: 0-15 meters.	HP	The bulrush/cattail wetland habitat within the BSA is considered suitable for this species. It was not observed onsite during the field survey.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
saline clover	*Trifolium hydrophilum*	--/--/1B.2	Marshes and swamps, mesic and alkaline substrates within valley and foothill grassland, and vernal pools. Bloom period: April-June. Elevations: 0-300 meters.	A	The bulrush/cattail wetland habitat within the BSA is considered suitable for this species. However the BSA is out of its known range. It was not observed onsite during the field survey.
Cook's triteleia	*Triteleia ixioides* ssp. *cookii*	--/--/1B.3	Serpentine seeps within closed-cone coniferous forest and cismontane woodland. Bloom period: May-June. Elevations: 150-700 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Reptiles					
black legless lizard	*Anniella pulchra nigra*	--/SSSC/--	Requires moist warm soils and adequate cover within beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces.	HP	The central dune scrub habitat within the BSA is considered suitable for this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
silvery legless lizard	*Anniella pulchra pulchra*	--/SSSC/--	Requires moist warm loose soils and adequate cover within beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces. Requires cover from leaf litter, rocks, boards, driftwood, or downed logs. Occasionally found in suburban gardens.	HP	The central dune scrub habitat within the BSA is considered suitable for this species.
western pond turtle	*Emys marmorata*	--/SSSC/--	Requires permanent water within ponds, marshes, rivers, streams, and irrigation ditches with adequate vegetation, open banks or rocks for basking, and upland areas with friable soils for egg-laying. Upland habitat must be within 0.5 kilometers from water.	A	No suitable habitat is present within the project limits or vicinity. Morro Creek is not a perennial stream, so it is considered unlikely to support this species.

Common Name	Scientific Name	Status Federal/State/ CRPR	General Habitat Description	Habitat Present/Absent	Rationale
coast horned lizard	*Phrynosoma blainvillii*	--/SSSC/--	Open areas with sandy soils in grasslands, coniferous forests, woodlands, and chaparral. Requires friable soils. Found in sandy washes with scattered shrubs, along dirt roads, and frequently found near ant hills.	HP	The central dune scrub habitat within the BSA is considered suitable for this species.
two-striped garter snake	*Thamnophis hammondii*	--/SSSC/--	Occurs near pools, creeks, cattle tanks, and other water sources, often in rocky areas, within oak woodland, chaparral, scrub communities, and coniferous forest.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range for this species.

STATUS CODES
Federal: United States Fish and Wildlife Service
FE Federally Endangered
FT Federally Threatened
FC Candidate for Federally Listing
State: California Department of Fish and Wildlife
SE State Endangered
ST State Threatened
SR State Rare
SSSC State Species of Special Concern
SFP State Fully Protected Species
CRPR: California Rare Plant Rank
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
Threat Ranks
0.1-Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
0.2-Fairly threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
0.3-Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)
Sources: USFWS, 2013; CDFW, 2013; and CNPS, 2013.

Appendix C U.S. Fish and Wildlife Service Species List

U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

VENTURA FISH AND WILDLIFE OFFICE
2493 PORTOLA ROAD, SUITE B
VENTURA, CA 93003
(805) 644-1766

Endangered Species Act species list information for your project is NOT available online for the following FWS Field Offices:

SACRAMENTO FISH AND WILDLIFE OFFICE
FEDERAL BUILDING
2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
(916) 414-6600

Project Name:
Morro Creek

U.S. Fish and Wildlife Service

Natural Resources of Concern

Project Location Map:

Project Counties:

San Luis Obispo, CA

Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-120.8633731 35.3775548, -120.8610117 35.3777473, -120.859574 35.372061, -120.8622358 35.371886, -120.8633731 35.3775548)))

Project Type:

Bridge Construction / Maintenance

U.S. Fish and Wildlife Service

Natural Resources of Concern

Endangered Species Act Species List (USFWS Endangered Species Program).

There are a total of **19** threatened, endangered, or candidate species, and/or designated critical habitat on your species list. Species on this list are the species that may be affected by your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Please contact the designated FWS office if you have questions.

Species that may be affected by your project: (View all critical habitat on one map)

Amphibians	Status	Species Profile		Contact
California red-legged frog (*Rana draytonii*) Population: Entire	Threatened	species info		Ventura Fish And Wildlife Office
Birds				
California Clapper rail (*Rallus longirostris obsoletus*) Population: Entire	Endangered	species info		Ventura Fish And Wildlife Office
California Least tern (*Sterna antillarum browni*)	Endangered	species info		Ventura Fish And Wildlife Office
California condor (*Gymnogyps californianus*) Population: Entire, except where listed as an experimental population below	Endangered	species info		Ventura Fish And Wildlife Office
Least Bell's vireo (*Vireo bellii pusillus*) Population: Entire	Endangered	species info		Ventura Fish And Wildlife Office
Marbled murrelet (*Brachyramphus marmoratus*) Population: CA, OR, WA	Threatened	species info		Ventura Fish And Wildlife Office

U.S. Fish and Wildlife Service

Natural Resources of Concern

Southwestern Willow flycatcher (*Empidonax traillii extimus*) Population: Entire	Endangered	species info		Ventura Fish And Wildlife Office
Western Snowy plover (*Charadrius alexandrinus nivosus*) Population: Pacific coastal pop.	Threatened	species info	Final designated critical habitat	Ventura Fish And Wildlife Office
Crustaceans				
Vernal Pool fairy shrimp (*Branchinecta lynchi*) Population: Entire	Threatened	species info		Ventura Fish And Wildlife Office
Flowering Plants				
California seablite (*Suaeda californica*)	Endangered	species info		Ventura Fish And Wildlife Office
Chorro Creek Bog thistle (*Cirsium fontinale var. obispoense*)	Endangered	species info		Ventura Fish And Wildlife Office
Indian Knob mountain balm (*Eriodictyon altissimum*)	Endangered	species info		Ventura Fish And Wildlife Office
Marsh Sandwort (*Arenaria paludicola*)	Endangered	species info		Ventura Fish And Wildlife Office
Morro manzanita (*Arctostaphylos morroensis*)	Threatened	species info		Ventura Fish And Wildlife Office

U.S. Fish and Wildlife Service

Natural Resources of Concern

Salt Marsh bird's-beak (*Cordylanthus maritimus ssp. maritimus*)	Endangered	species info		Ventura Fish And Wildlife Office
Spreading navarretia (*Navarretia fossalis*)	Threatened	species info		Ventura Fish And Wildlife Office
Mammals				
Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*) Population: Entire	Endangered	species info		Ventura Fish And Wildlife Office
Southern Sea otter (*Enhydra lutris nereis*) Population:	Threatened	species info		Ventura Fish And Wildlife Office
Snails				
Morro Shoulderband snail (*Helminthoglypta walkeriana*)	Endangered	species info		Ventura Fish And Wildlife Office

FWS National Wildlife Refuges (USFWS National Wildlife Refuges Program).

There are no refuges found within the vicinity of your project.

FWS Migratory Birds (USFWS Migratory Bird Program).

Most species of birds, including eagles and other raptors, are protected under the Migratory Bird Treaty Act (16 U.S.C. 703). Bald eagles and golden eagles receive additional protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668). The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional

U.S. Fish and Wildlife Service

Natural Resources of Concern

conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

NWI Wetlands (USFWS National Wetlands Inventory).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

The following wetlands intersect your project area:

Wetland Types	NWI Classification Code	Approximate Acres
Estuarine and Marine Wetland	E2USN	1.068323
Estuarine and Marine Wetland	E2USN	0.770288
Riverine	R2UBH	0.816857
Estuarine and Marine Wetland	E2RSNr	4.183258
Estuarine and Marine Wetland	M2UBP	11.841558
Estuarine and Marine Wetland	E2USN	2.147434
Estuarine and Marine Deepwater	E1UBL	1.781221
Estuarine and Marine Deepwater	E1UBL	655.19632
Estuarine and Marine Wetland	E2USN	0.042335
Freshwater Forested/Shrub Wetland	PFOA	2.105659

Appendix D Project Site Photographs

Photograph 1. View of the central dune scrub habitat located at the corner of Coleman Drive and Embarcadero.

Photograph 2. View of the ice plant habitat and ruderal/developed roadway located in the southeastern portion of the BSA.

Photograph 3. View of the ice plant habitat in the foreground and the arroyo willow woodland/riparian in habitat background along the southern bank of Morro Creek, facing north.

Photograph 4. View of bulrush/cattail wetland habitat within the Morro Creek channel, facing east.

Photograph 5. View of ruderal/developed roadway and median within the southeastern portion of the BSA, facing east.

Photograph 6. View of ice plant habitat ruderal/developed area within the portion of Coleman City Park that is in the BSA, facing west.

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Appendix E List of Plant and Wildlife Species Observed

Plant Species Observed Onsite
September 5, 2013

Family	Scientific Name	Common Name
Agavaceae	*Agave attenuata**	foxtail agave (ornamental)
Aizoaceae	*Carpobrotus chilensis***	sea fig
Aizoaceae	*Carpobrotus edulis***	ice plant
Aizoaceae	*Tetragonia tetragonioides***	New Zealand spinach
Apiaceae	*Foeniculum vulgare***	fennel
Araceae	*Lemna* sp.	duckweed
Asteraceae	*Ageratina adenophora***	snakeroot
Asteraceae	*Ambrosia chamissonis*	beach bur
Asteraceae	*Anthemis cotula**	mayweed
Asteraceae	*Artemisia californica*	California sagebrush
Asteraceae	*Artemisia douglasiana*	mugwort
Asteraceae	*Baccharis pilularis*	coyote brush
Asteraceae	*Corethrogyne filaginifolia*	California-aster
Asteraceae	*Cotula coronopifolia***	brass buttons
Asteraceae	*Erigeron bonariensis**	flax-leaved horseweed
Asteraceae	*Erigeron canadensis*	horseweed
Asteraceae	*Gnaphalium palustre*	cudweed
Asteraceae	*Helenium puberulum*	sneezeweed
Asteraceae	*Helminthotheca echioides***	bristly ox-tongue
Asteraceae	*Heterotheca grandiflora*	telegraph weed
Asteraceae	*Isocoma menziesii* var. *menziesii*	coastal goldenbush
Asteraceae	*Jaumea carnosa*	jaumea
Asteraceae	*Senecio blochmaniae*+*	Blochman's ragwort
Asteraceae	*Sonchus asper* ssp. *asper**	prickly sow thistle
Asteraceae	*Stephanomeria virgata*	stephanomeria
Asteraceae	*Tanacetum parthenium**	feverfew
Boraginaceae	*Heliotropium curassavicum* var. *oculatum*	seaside heliotrope
Brassicaceae	*Cakile maritima**	sea rocket
Brassicaceae	*Hirschfeldia incana***	perennial mustard
Brassicaceae	*Lobularia maritima***	sweet alyssum
Brassicaceae	*Nasturtium officinale*	water cress
Brassicaceae	*Raphanus sativus***	radish
Chenopodiaceae	*Atriplex prostrata**	fat-hen
Chenopodiaceae	*Dysphania ambrosioides**	Mexican tea
Cupressaceae	*Hesperocyparis macrocarpa*	Monterey cypress (ornamental)

Family	Scientific Name	Common Name
Cyperaceae	*Bolboschoenus maritimus* ssp. *paludosus*	saltmarsh bulrush
Cyperaceae	*Cyperus eragrostis*	tall flatsedge, umbrella sedge
Cyperaceae	*Isolepis cernua*	isolepis
Cyperaceae	*Schoenoplectus pungens* var. *longispicatus*	common three-square bulrush
Euphorbiaceae	*Ricinus communis***	castor bean
Fabaceae	*Acacia longifolia**	Sydney golden wattle
Fabaceae	*Lupinus chamissonis*	dune lupine
Fabaceae	*Medicago polymorpha***	California burclover
Fabaceae	*Melilotus albus**	white sweetclover
Fabaceae	*Melilotus officinalis**	yellow sweetclover
Lythraceae	*Lythrum hyssopifolia***	loosestrife
Malvaceae	*Malva parviflora**	cheeseweed
Myrtaceae	*Eucalyptus globulus***	blue gum
Myrtaceae	*Leptospermum laevigatum**	Australian tea tree (ornamental)
Nyctaginaceae	*Abronia maritima*+	red sand verbena
Onagraceae	*Camissoniopsis cheiranthifolia*	beach evening-primrose
Onagraceae	*Epilobium ciliatum* ssp. *ciliatum*	willowherb
Phrymaceae	*Mimulus guttatus*	monkeyflower
Pinaceae	*Pinus radiata*	Monterey pine (ornamental)
Plantaginaceae	*Plantago coronopus**	cut-leaf plantain
Plantaginaceae	*Plantago major**	common plantain
Plantaginaceae	*Veronica anagallis-aquatica**	water speedwell
Platanaceae	*Platanus racemosa*	western sycamore
Plumbbaginaceae	*Limonium californicum*	western marsh-rosemary
Poaceae	*Ammophila arenaria***	European beachgrass
Poaceae	*Avena fatua***	wild oat
Poaceae	*Brachypodium distachyon***	false brome
Poaceae	*Bromus diandrus***	ripgut grass
Poaceae	*Bromus hordeaceus***	soft chess brome
Poaceae	*Cortaderia jubata***	pampas grass
Poaceae	*Distichlis spicata*	salt grass
Poaceae	*Hordeum murinum***	wall barley
Poaceae	*Pennisetum clandestinum***	kikuyu grass
Poaceae	*Polypogon interruptus**	ditch beardgrass
Poaceae	*Polypogon monspeliensis***	annual beardgrass
Polygonaceae	*Eriogonum latifolium*	seaside wild buckwheat
Polygonaceae	*Eriogonum parvifolium*	seacliff wild buckwheat
Polygonaceae	*Polygonum aviculare**	knotweed
Polygonaceae	*Persicaria lapathifolia*	willow weed
Polygonaceae	*Persicaria punctata*	smartweed
Polygonaceae	*Rumex crispus***	curly dock
Polygonaceae	*Rumex salicifolius*	willow dock
Rosaceae	*Potentilla anserina*	silverweed
Rosaceae	*Rubus ursinus*	California blackberry
Salicaceae	*Salix lasiolepis*	arroyo willow

Family	Scientific Name	Common Name
Scrophulariaceae	*Myoporum laetum***	myoporum
Tropaeolaceae	*Tropaeolum majus**	garden nasturtium
Typhaceae	*Typha latifolia*	broad-leaved cattail
Urticaceae	*Urtica dioica*	stinging nettle

*Indicates a non-native species.
** Indicates a non-native species that is recognized and being tracked by the California Invasive Plant Council (Cal-IPC).
+Indicates a special status species.

Wildlife Species Observed Onsite
September 5, 2013

Scientific Name	Common Name
BIRDS	
Aphelocoma californica	western scrub-jay
Carpodacus mexicanus	house finch
Cathartes aura	turkey vulture
Corvus brachyrhynchos	American crow
Junco hyemalis	dark-eyed junco
Larus californicus	California gull
Pelecanus occidentalis	brown pelican
Phalacrocorax auritus	double-crested cormorant
Sturnus vulgaris	European starling
FISH	
Gasterosteus aculeatus	threespine stickleback
MAMMALS	
Spermophilus beecheyi	ground squirrel
REPTILES	
Sceloporus occidentalis	western fence lizard

EXHIBIT E

Morro Creek Multi-Use Trail and Bridge Project

Biological Assessment

San Luis Obispo County, California

Federal Project Number CASB12RP-5391(013)

MB-2013-S2

05-SLO-0-CR

December 2013

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

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EXHIBIT E

EXHIBIT E

Biological Assessment

Morro Creek Multi-Use Trail and Bridge Project

San Luis Obispo County

Federal Project Number CASB12RP-539(013)

MB-2013-S2

05-SLO-0-CR

December 2013

STATE OF CALIFORNIA
Department of Transportation
City of Morro Bay

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Summary of Findings, Conclusions and Determinations

The City of Morro Bay is proposing to extend the existing Harborwalk with continuation of a paved pedestrian boardwalk and separate Class I bike path from the existing parking area and crossing on Embarcadero Avenue northward. The city also proposes to install a clear-span pre-engineered/pre-fabricated bike and pedestrian bridge over Morro Creek to connect to north Morro Bay on Embarcadero Road/State Route 41. In addition, the project will include improvements to beach access from the trail, improved parking, and two interpretive sign stations that will display educational and other information about the cultural and natural history of the region.

This project is being funded funding from the Federal Highway Administration (FHWA) and with assistance from Caltrans. As part of its NEPA assignment of federal responsibilities by the FHWA, effective October 1, 2012 and pursuant to 23 USC 326, Caltrans is acting as the lead federal agency for Section 7 of the federal Endangered Species Act. The proposed project is not likely to affect the south/central California coast steelhead Distinct Population Segment and impacts to this species or its habitat are not expected to occur. Morro Creek is federally designated critical habitat for steelhead; however the project has been designed to avoid all impacts Morro Creek. The proposed project may affect California red-legged frogs during abutment installation as a result of direct impacts to upland habitat areas along the northern bank of Morro Creek. The project site is not within designated critical habitat for this species. The proposed project may also affect Morro shoulderband snail. The project may result in impacts if Morro shoulderband snails are present within the central dune scrub and/or ice plant habitats. Likewise, the proposed project could result in impacts to Morro shoulderband snail from ground disturbance activities and unintended harassment. The project site is not within designated critical habitat for the snail. All potential project-related impacts to these three federally listed species will be avoided and/or minimized to the maximum extent feasible through application of the efforts and measures outlined for each species in Chapter 4.

No other projects are known or projected to occur within the vicinity of the proposed project within the foreseeable future. As such, no cumulative project-related impacts to these three federally listed species would occur. This project meets the criteria for the *U. S. Fish and Wildlife Service California Red-legged Frog Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program* (USFWS, 2011).

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List of Abbreviated Terms

ADA	Americans with Disabilities Act
BA	Biological Assessment
BO	Biological Opinion
BSA	Biological Study Area
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
City	City of Morro Bay
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRFL	California red-legged frog
CRPR	California Rare Plant Rank
DPS	Distinct Population Segment
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
ft	foot/feet
IPAC	Information, Planning, and Conservation System
m	meter(s)
LID	Low Impact Development
mi	mile(s)
MSS	Morro shoulderband snail
msl	mean sea level
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
NSBP	National Scenic Byways Program
PCE	Primary Constituent Element
ppt	parts per thousand
Rincon	Rincon Consultants, Inc.
steelhead	south/central California coast steelhead distinct population segment
USDA	United States Department of Agriculture

USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Chapter 1. Introduction

The purpose of this biological assessment is to provide technical information and to review the proposed project in sufficient detail to determine to what extent the proposed project may affect threatened, endangered, or proposed species. This BA was prepared in accordance with the legal requirements outlined in Section 7(a)(2) of the federal Endangered Species Act ([FESA] 16 U.S.C. §1536(a)(2)) and with the U.S. Department of Transportation Federal Highway Administration (FHWA) delegated authority through the California Department of Transportation (Caltrans) regulations, policies, and guidance. The technical information provided within this document is intended to be the basis by which regulatory decisions can by made regarding project impacts.

1.1. Project History

In 2008, the City completed the first phase of Waterfront improvements; the Morro Bay Harborwalk. The initial phase consisted of a continuous off-roadway bike path and separate pedestrian boardwalk constructed along the shoreline with a terminus at the existing beach access located at the north end of the Morro Rock parking area. Realignment of Coleman Drive was required which included a two-lane road leading to the public parking area at Morro Rock and associated dune scrub habitat restoration. This project is the second phase of Waterfront improvements and is receiving funding from the Federal Highway Administration (FHWA) and with assistance from Caltrans. As part of its NEPA assignment of federal responsibilities by the FHWA, effective October 1, 2012 and pursuant to 23 USC 326, Caltrans is acting as the lead federal agency for Section 7 of the federal Endangered Species Act.

1.2. Project Description

The project site is generally located along the coast within north-central Morro Bay in San Luis Obispo County, California (Figure 1). Specifically, it is located approximately 0.21 mile inland from the Pacific Ocean and the project site occurs within both the *Morro Bay North* and *Morro Bay South, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangles.

Figure 1 – Project Location Map

The proposed project would extend the existing Morro Bay Harborwalk with a pedestrian boardwalk and separated Class I bike path to provide a connection between Morro Bay's waterfront and North Morro Bay. A separated Class I bike path would extend from the Morro Bay Power Plant entry way to the intersection of Embarcadero Road and Coleman Drive. The pedestrian boardwalk and separated Class I bike path would extend from the existing Morro Bay Harborwalk, south of the parking area at Embarcadero Road and Coleman Drive, and continue northward adjacent to the unpaved portion of Embarcadero Road (along the west side of the road), to Morro Creek and south, adjacent to Morro Creek. Bike parking would be located toward the end of this southward pathway extension along Morro Creek. The total extension of pedestrian boardwalk and separated Class I bike path for the proposed project would be 1,533 and 2,170 linear feet, respectively. The pedestrian boardwalk would be eight feet wide and the proposed bike path would be 12 feet wide. An approximately 130-foot long by 15-foot wide, clear-span, pedestrian and bicycle bridge would extend the pedestrian boardwalk and bike path across Morro Creek to connect to north Morro Bay on Embarcadero Road (State Route 41). The span would be pre-fabricated and pre-engineered and would not include any support structures within the creek bed. The northern bridge abutment will require excavation within the top of Morro Creek bank. Pile driving would not be required. The proposed bridge, pedestrian boardwalk, and bike path will not have lighting.

The project would also include two educational interpretive facilities. One located along the pedestrian path overlooking the dune scrub habitat and Morro Rock and beach vistas, and the second, at the terminus of the southward pedestrian path along Morro Creek overlooking Morro Creek and the beach. The interpretive materials would be consistent with the Route 1, SLO North Coast Scenic Byway, interpretive plan and implementation strategies (National Scenic Byways Program grant 2006). In addition, Embarcadero Road at Coleman Drive would be upgraded to paved roadway for approximately 100 feet to allow for the installation of a new crosswalk.

The project will utilize an existing parking lot that appears to be currently used for overflow parking by Dynegy Energy Inc., employees for a staging area. This parking lot is located approximately 1.4 miles northwest of the intersection of Embarcadero Road and Beach Street. The parking lot is not a natural habitat and does not contain any vegetation except for a few non-native weeds around the perimeter. It consists of road base, which is an aggregate, compact mixture of sand and stone. Project activities that will occur in the staging area will be restricted to the limits of the parking area only and shall not extend beyond the limits of the road base surface onto

adjacent vegetated areas. This staging area will accommodate the needs of the project and others are not anticipated to be necessary.

To meet water quality and habitat protection goals for the City and the Morro Bay Estuary, new waterfront facilities would be designed to reduce and/or eliminate surface runoff and pollution. The project would utilize low impact development (LID) to minimize potential impacts to hydrology and water quality and allow for percolation alongside the expanded bicycle and pedestrian facilities, and include Americans with Disabilities Act (ADA) approved access throughout the project features. Non-irrigated native and drought-tolerant shrubs and groundcover landscaping would be provided adjacent to the multi-use bicycle and pedestrian pathways.

Construction of the proposed project would require grading and excavation. Based on the design of the project, excavated material would be balanced onsite and importation of fill would not be required. No underground utilities would be required. The following is a list of the equipment that is anticipated to be used onsite during project implementation: The following is a list of the equipment that is anticipated to be used onsite during project implementation:

- Drilling equipment,
- Dump trucks,
- Concrete trucks,
- Water trucks,
- Paving equipment,
- Compacting equipment,
- Crane,
- Fence post installation equipment,
- Loader,
- Grader, and
- Scraper.

No equipment will enter and/or be used within the Morro Creek channel.

Detailed project plans that illustrate the locations of the proposed bridge and abutments, that includes a cross section of Morro Creek are included as Appendix A. Construction is anticipated to be conducted between the months of August through February and is expected to take approximately six months to complete or one construction season.

1.3. Summary of Consultation to Date

No formal agency consultation regarding potential project-related impacts to federally listed species and/or their habitats has occurred to date.

1.4. Document Preparation History

This document was prepared by Rincon Consultants, Inc. (Rincon) on behalf of the City. The key staff involved in the preparation of this report and the associated analyses includes John Dreher, Colby Boggs, Karen Holmes, and Kristie Haydu.

Chapter 2. Study Methods

For the purposes of this BA, the biological study area (BSA) includes the entire project site and all of the project components as outlined in the project description. The BSA for the proposed project is presented in Figure 2. The BSA was determined by the extent of potential project-related impacts to biological resources; including federally listed species and their designated critical habitats. In particular, the BSA is considered the 'action area' of the project and it encompasses the total area that would be affected by project implementation. The BSA is the area where potential physical, chemical, and biotic effects from the project would occur.

2.1. Listed and Proposed Species Potentially in the Biological Study Area

This section discusses the potential for regional federally listed species to occur within the BSA. 'Potential to occur' is based on the presence or absence of suitable habitat for each regional federally listed species reported in the scientific database queries and background literature research that were conducted for the project. Table 1 below summarizes the federally listed, candidate and proposed species evaluated for this project. The table includes a determination of the presence or absence of suitable habitat and a rationale behind the determination. The species included in this table were selected based on species list provided by the United States Fish and Wildlife Service (USFWS). Habitat for a particular sensitive species may be noted as present within the BSA (refer to Table 1); however the known geographic distribution and previously documented occurrences of the species may have ultimately resulted in it not being considered to have potential to occur onsite.

Rincon staff determined that habitat within the BSA has the potential to support seven regional federally listed species; including four federally listed plant species and three federally listed wildlife species. The following regional federally listed species are addressed in this BA:

- Morro manzanita (*Arctostaphylos morroensis*),
- marsh sandwort (*Arenaria paludicola*),
- salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*),

Figure 2 Biological Study Area

Figure 3 CNDDB Occurrences of Federally Listed Species Within Five Miles of the Project Site

- California seablite (*Suaeda californica*),
- California red-legged frog (*Rana draytonii*),
- south/central California steelhead Distinct Population Segment ([DPS] *Oncorhynchus mykiss irideus*), and
- Morro shoulderband snail (*Helminthoglypta walkeriana*).

Suitable habitat for these species is present within the BSA and each species has been previously documented by the CNDDB within a five-mile radius of the project site. The names, status, general ecological requirements, and type of habitat deemed suitable within the BSA for each species with potential to occur onsite is summarized in Table 1 and expanded discussions are provided in Chapter 4.

2.1.1. Designated Critical Habitat

All USFWS designated critical habitats for federally listed species within a five-mile radius of the BSA were plotted on a map using GIS software (Figure 4). Several designated critical habitats for federally listed species occur within a five-mile radius and include: Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*), Morro shoulderband snail, western snowy plover (*Charadrius alexandrinus nivosus*), California red-legged frog, tidewater goby (*Eucyclogobius newberryi*), and the south/central California coast steelhead DPS.

Of these, two designated critical habitats actually occur within the limits of the BSA; western snowy plover and south/central California coast steelhead DPS. Specifically, portions of the two existing parking areas in the BSA are within the western snowy plover critical habitat designation and the portion of Morro Creek onsite is within the south/central California coast DPS steelhead critical habitat designation. The BSA was assessed for the potential to support western snowy plover in accordance with the Primary Constituent Elements (PCEs), which are the elements of physical or biological features that provide for a species' life history processes and are essential to the conservation of the species:

(1) Sparsely vegetated areas above daily high tides (such as sandy beaches, dune systems immediately inland of an active beach face, salt flats, seasonally exposed gravel bars, dredge spoil sites, artificial salt ponds and adjoining levees) that are relatively undisturbed by the presence of humans, pets, vehicles or human-attracted

predators (essential for reproduction, food, shelter from predators, protection from disturbance, and space for growth and normal behavior).

(2) Sparsely vegetated sandy beach, mud flats, gravel bars or artificial salt ponds subject to daily tidal inundation but not currently under water, that support small invertebrates such as crabs, worms, flies, beetle, sand hopper, clams, and ostracods (essential for food).

(3) Surf or tide-cast organic debris such as seaweed or driftwood located on open substrates such as those mentioned above (essential to support small invertebrates for food, and to provide shelter from predators and weather for reproduction).

The existing parking areas within the BSA do not exhibit the PCEs necessary to be considered suitable habitat for western snowy plover. These areas are above the daily high tide but do not meet the first criteria because they are developed and have a high level of disturbance including humans, pets, and vehicles. These areas also do not meet the second and third criteria because they are not subject to periodic tidal inundation, and do not support essential food sources (e.g., crabs, ostracods), or surf-deposited organic debris (e.g., seaweed, driftwood). Morro Creek is considered suitable habitat for south/central California coast steelhead DPS.

Figure 4 Known Occurrences of USFWS Designated Critical Habitats Within Five Miles of the Project Site

2.2. Studies Required

Prior to conducting the field survey associated with this analysis, an extensive background literature review was conducted and several pertinent scientific databases were queried to obtain information regarding federally listed species considered to have potential to occur within the BSA. These include the following:

- Aerial photographs of the BSA and immediate vicinity;
- *Morro Bay North* and *Morro Bay South, California* USGS 7.5-minute topographic quadrangles;
- US Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Web Soil Survey of San Luis Obispo County California, Coastal Part (USDA-NRCS, 2013);
- USFWS, Information, Planning, and Conservation (IPAC) System list of federally listed species with potential to occur within the BSA and vicinity, included as Appendix B (USFWS, 2013b);
- USFWS Critical Habitat Portal (USFWS, 2013a);
- California Department of Fish and Wildlife (CDFW), CNDDB list of federally listed species within potential to occur within the *Morro Bay North, California* USGS 7.5-minute topographic quadrangle and surrounding quadrangles (CDFW, 2003);
- A CNDDB map of federally listed species that have been previously documented within a five-mile radius of the BSA (CDFW, 2003);
- California Native Plant Society (CNPS), California Rare Plant Rank (CRPR) list of sensitive plant species with potential to occur within the Morro Bay North, California USGS 7.5-minute topographic quadrangle and surrounding quadrangles (CNPS, 2013);
- USFWS National Wetlands Inventory Online Mapping Application query for the BSA (USFWS, 2013c); and
- CDFW Biogeographic Information and Observation System Viewer Application for the BSA (CDFW, 2013).

A complete account of all the federally listed species reported from the USFWS, IPAC query and those that have been previously documented by the CNDDB within a five-mile radius of the BSA was compiled for the project. Table 1 below summarizes the federally listed, candidate, and proposed species evaluated for the BSA. Then an analysis to determine which of these species have the potential to occur within the BSA was conducted. The habitat requirements of each federally listed species were assessed and compared to the type and quality of habitats observed onsite during the field survey.

Table 1 also includes a determination of the presence or absence of suitable habitat within the BSA and provides a rational for these determinations. Conclusions regarding which federally listed species have potential to occur onsite were based not only on the background research and literature review previously mentioned; but also on the data collected in the field. Several species were eliminated due to lack of suitable habitat within the BSA, range of elevations, and/or geographic distribution. Conversely, suitable habitat for a federally listed species may be present onsite and indicated as such in Table 1; but no previous CNDDB records of that species have been reported within a five-mile radius of the BSA and the site may not actually occur within the established range of that species. In other words, the BSA may not necessarily occur within the established range of a particular species even though suitable habitat for it is present onsite. As such, federally listed species reported by the resource agencies within a five-mile radius of the BSA provide the foundation of the analyses conducted for this BA. Given the linear characteristics of the BSA, predominantly developed nature of the site, type of project that is being proposed, and overall size of the BSA; the five-mile radius is an adequate and suitable scope for this evaluation.

Federally listed species determined to have the potential to occur within the BSA and the results of the field survey are discussed in Chapter 4. Federally listed species determined not to have potential to occur within the BSA are not discussed further in this BA, unless warranted.

Table 1: Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
AMPHIBIANS					
California red-legged frog	*Rana draytonii*	FT	Occurs near ponds and streams with plant cover. Breeding habitat is in permanent or ephemeral slow moving or ponded water. Requires burrows or other moist refuges for estivation during the dry season.	HP	Morro Creek is suitable habitat for this species. Not observed onsite during field survey.
BIRDS					
marbled murrelet	*Brachyramphus marmoratus*	FT	Nearshore estuaries, sounds, and other inundated coastal areas. Nests in old growth redwood forests.	A	Occurs offshore; there is no suitable habitat present within the project limits.
western snowy plover	*Charadrius alexandrinus nivosus*	FT	Barren sandy beaches and flats around alkaline lakes. Nests on the ground.	A	No suitable habitat present within the BSA. Levels of disturbance within the BSA from humans are likely too high for this species to occur. No observations were made during field survey.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
southwestern willow flycatcher	*Empidonax traillii extimus*	FE	Nests in dense thickets of riparian habitats along streams, lakesides, and other wetlands.	HP	The project site is within the known range of this species and fall migrants have been documented within the vicinity; however, the arroyo willow woodland habitat within the BSA lacks the dense understory and overall size and structural complexity typically associated with southwestern willow flycatcher nesting habitat; therefore, no individuals are expected to be present during project implementation. No observations were made during the field survey.
California condor	*Gymnogyps californianus*	FE	Arid foothills and mountains including chaparral, coniferous forest, and oak savanna habitats. Nests in cliff cavities rock outcrops and ledges, and large trees.	A	Rare transient in San Luis Obispo County. No suitable nesting habitat present within the project limits or vicinity. No observations were made during field survey.
California clapper rail	*Rallus longirostris obsoletus*	FE	Tidally influenced brackish marshes and salt marsh habitats.	HP	Bulrush/cattail wetland is marginally considered suitable habitat for this species. However it is highly unlikely to occur due to current distribution, high levels of human activity within the BSA and because it typically requires more expansive habitats. No observations were made during the field survey.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
California least tern	*Sterna antillarum browni*	FE	Nests on sand dunes, beach strand, and sparsely vegetated coastal scrub communities that are relatively free of human or predatory disturbance. Forages in shallow estuaries, lagoons, bay mouths, and near shore open waters.	HP	The central dune scrub within the BSA is considered suitable breeding habitat for this species. However it is highly unlikely to occur due to high levels of human activity within the BSA and lack of estuarine areas. No observations were made during the field survey.
least Bell's vireo	*Vireo bellii pusillus*	FE	Low dense brushy riparian vegetation in vicinity of water or in dry river bottoms; below 2000 feet.	HP	The project site is within the known range of this species and fall migrants have been documented within the vicinity; however, the arroyo willow woodland habitat within the BSA lacks the dense understory and overall size and structural complexity typically associated with least Bell's vireo habitat; therefore, no individuals are expected to be present during project implementation. No observations were made during the field survey.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
FISH					
tidewater goby	*Eucyclogobius newberryi*	FE	Coastal lagoons and brackish bays at mouths of freshwater streams and marsh habitats with persistent, shallow flows and adequate space.	HP	Morro Creek is considered marginally suitable habitat for this species. However it is unlikely to occur due to recent negative surveys. No observations were made during the field survey or previous surveys conducted in 2011 by SWCA Environmental Consultants (SWCA, 2011). The 2011 SWCA surveys including sampling (dip and seine nets) and no tidewater goby were identified. Further this project will not include disturbance within Morro Creek, therefore the project would not impact tidewater goby even if individuals were present during construction.
steelhead – south/central California coast DPS	*Oncorhynchus mykiss irideus*	FT	Streams with pool and riffle complexes and cold gravelly streambeds for spawning. From the Pajaro River to, but not including the Santa Maria River..	HP	Morro Creek is considered suitable habitat for this species and it may occur in the open waters in the vicinity. However no observations were made during the field survey.
INVERTEBRATES					
vernal pool fairy shrimp	*Branchinecta lynchi*	FT	Vernal pools and other seasonally inundated, closed or non-linear wetland features. Requires cold temperatures. Forms a cyst during the dry season.	A	No suitable habitat is present within the project limits or vicinity. No observations were made during the field survey.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Morro shoulderband snail	*Helminthoglypta walkeriana*	FE	Coastal scrub, coastal dune scrub, and openings in maritime chaparral. Will also use non-native stands dominated by ice plant, marginal stands, and landscaped areas.	HP	The central dune scrub and ice plant habitats within the BSA are considered suitable for this species. However no observations were made during the field survey.
MAMMALS					
Morro Bay kangaroo rat	*Dipodomys heermanni morroensis*	FE	Coastal sage scrub on the southern side of Morro Bay in sandy soils with early successional plant communities on recently stabilized dunes.	A	No suitable habitat is present within the project limits or vicinity. BSA is outside the known range. No observations were made during the field survey.
southern sea otter	*Enhydra lutris nereis*	FT	Nearshore marine habitats with dense kelp beds and rocky substrates for rafting and feeding.	A	The project site is within the known range of this species and it has been documented within the vicinity; however no suitable habitat is present within the project limits. No observations were made during the field survey.
PLANTS					
Morro manzanita	*Arctostaphylos morroensis*	FT	Baywood fine sands within maritime chaparral, cismontane woodland, pre-Flandrian dunes, and coastal scrub. Bloom period: December-March. Elevations: 5-205 meters.	HP	The central dune scrub habitat within the BSA is considered suitable for this species. No observations were made during the field survey or protocol-level botanical surveys of this or any other manzanita species.
marsh sandwort	*Arenaria paludicola*	FE	Sandy openings within freshwater or brackish marshes and swamps. Bloom period: May-August. Elevations: 3-170 meters.	HP	The bulrush/cattail wetland habitat within the BSA is considered suitable for this species; however, it was not detected during the field survey or protocol-level botanical surveys.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
salt marsh bird's-beak	*Chloropyron maritimum* ssp. *maritimum*	FE	Coastal dunes and coastal salt marshes and swamps. Bloom period: May-October. Elevations: 0-30 meters.	HP	The bulrush/cattail wetland habitat within the BSA is considered suitable for this species. However it was not observed onsite during the field survey or protocol-level botanical surveys.
Chorro Creek bog thistle	*Cirsium fontinale* var. *obispoense*	FE	Serpentinite seeps and drainages within chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Bloom period: February-September. Elevations: 35-380 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
Indian Knob mountainbalm	*Eriodictyon altissimum*	FE	Sandstone substrates within maritime chaparral, cismontane woodland, and coastal scrub. Bloom period: March-June. Elevations: 80-270 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
spreading navarretia	*Navarretia fossalis*	FT	Chenopod scrub, assorted shallow freshwater marshes and swamps, playas, and vernal pools. Bloom period: April-June. Elevations: 30-655 meters.	A	No suitable habitat is present within the project limits or vicinity. The BSA is outside the known range of elevation for this species.
California seablite	*Suaeda californica*	FE	Coastal salt marshes and swamps. Bloom period: July-October. Elevations: 0-15 meters.	HP	The bulrush/cattail wetland habitat within the BSA is considered suitable for this species. It was not observed onsite during the field survey; however, it was not detected during the field survey or protocol-level botanical surveys.

STATUS CODES:

Federal: United States Fish and Wildlife Service
FE Federally Endangered
FT Federally Threatened

A reconnaissance-level field survey of the BSA and immediate vicinity was conducted to document the baseline conditions, existing biological resources onsite, and to further evaluate the potential for presence of federally listed species and/or their habitats. All plant and wildlife species observed within the BSA during the field survey were identified to the lowest possible taxonomic level, which is required for accurate identification and reporting. Further details regarding this survey are provided below.

2.3. Personnel and Survey Dates

Associate Biologist/Botanist, Kristie Haydu conducted the reconnaissance field survey within the BSA on September 5, 2013 to document the existing or baseline biological conditions onsite. Ms. Haydu has a Master of Science degree in Biology from the California Polytechnic State University, a Bachelor of Science degree in Biology from Sonoma State University, and more than nine years of professional experience conducting biological field surveys and producing the required documentation in support of environmental regulatory compliance.

Rincon Principal/Senior Ecologist, Colby Boggs conducted a field survey and a protocol-level botanical survey within the BSA for another non-related project on July 10, 2009. Mr. Boggs has a Master of Science degree in Botany from the California State University at Chico, a Bachelor of Science degree in Biology from the University of California at Santa Barbara, and more than 15 years of professional experience conducting biological field surveys and generating the associated documentation for environmental regulatory compliance.

Althouse and Meade, Inc. staff conducted the field surveys for the wetland delineation efforts within the BSA on May 22, May 29, July 3, and July 29, 2013 (2013 a). Likewise, Althouse and Meade, Inc. Senior Biologist/Botanist Meg Perry conducted the protocol-level botanical surveys within the BSA during May, June, and July of 2013 (2013b).

2.4. Agency Coordination and Professional Contacts

Rincon contacted USFWS Senior Biologist Julie Vanderwier by phone on September 18, 2013 to obtain additional information regarding the potential for presence of Morro shoulderband snail within the BSA. Ms. Vanderwier agreed that this species should be consider for Section 7 Consultation and provided several recommended avoidance and minimization measures for the project (email dated September 18,

2013). Rincon also spoke with local Morro shoulderband snail expert, Michael Walgren from the California Department of Parks and Recreation on September 11, 2013 regarding known past occurrences of this species within the vicinity of the BSA.

2.5. Limitations That May Influence Results

Sensitive plant species with the potential to occur within the BSA may be annual species that can be difficult to detect following seasons of below average rainfall, or during those times of the year when particular species are not specifically flowering. Similarly, the population sizes and locations of sensitive plant species may vary annually and at different times throughout the year. Climatic conditions during the field survey were generally mild and favorable for the identification of most plant species. The botanical component of the field survey conducted in support of this BA was timed, to the maximum extent feasible, to accommodate the flowering period for most of the species considered to have potential to occur onsite and are addressed in this document.

Sensitive wildlife species with the potential to occur in the BSA may be generally difficult to detect or may be transient or migratory species. The population sizes and locations of sensitive wildlife species may fluctuate throughout the year. As a result of these factors, the data collected for this BA represents a "snap shot" in time and may not comprehensively reflect the actual site conditions. Climatic conditions during the field survey were generally mild and favorable for the identification of most wildlife species that are active during the daytime.

Chapter 3. Results: Environmental Setting

3.1. Description of Existing Biological and Physical Conditions

The BSA is located in north-central Morro Bay, in San Luis Obispo County California (Figure 1). It is depicted on both the *Morro Bay North* and *Morro Bay South, California* USGS 7.5-minute topographic quadrangles. The BSA begins at the driveway entrance for the Dynegy Electric Utility Morro Bay Power Plant along Embarcadero and extends west along Embarcadero to Coleman City Park. The BSA includes a small portion of Coleman Park, located east of the public restroom facilities, on the south side of Embarcadero. It extends north along the unpaved portion of Embarcadero Road and widens where it meets Morro Creek to include the existing unpaved parking area for coastal access to the west and a small portion of the driveway into an existing industrial storage yard to the east. The proposed bridge will cross over to span Morro Creek and the BSA continues along Embarcadero Road for a short distance to the north. It widens slightly on this side of Morro Creek to include a second existing unpaved parking area for coastal access to the west and a small peripheral area behind the Morro Dunes Mobile Home and RV Park. The BSA is approximately 2,195 feet long and encompasses approximately 4.79 acres. It consists of the minimum area needed in order to complete the proposed project and includes the locations of the proposed pedestrian boardwalk and bike path, the bridge over Morro Creek, two interpretive areas, road alignment and improvements, potential staging areas, and non-irrigated native landscape areas. The BSA includes the banks and channel of Morro Creek and road shoulders.

Elevations within the BSA range from approximately 11 to 25 feet (three to seven meters) above mean sea level (msl). The BSA occurs at the northwestern limits of the Chorro Valley right along the coastline. The Chorro Valley is located in between the Santa Lucia Mountain Range and the Seven Sisters, which consist of a chain of seven extinct volcanoes with Morro Rock at its western terminus. The BSA occurs within Open Space/Recreational – Park land use zoning and the areas immediately surrounding the BSA are zoned for the following land uses: Visitor Serving – Commercial, Coastal Development – Industrial, Coastal Development – General Industrial, Commercial – Recreational Fishing, and Harbor/Navigational Ways. The City identifies Morro Creek as an Environmentally Sensitive Habitat (City, 1988).

While the BSA is predominantly open space, it supports a high level of recreational use.

3.1.1. Soils

The USDA-NRCS has mapped one soil unit within the BSA: (134) Dune land. Soils within the Dune land soil unit are typically composed of approximately 90 percent dune land and nine percent of the following other minor components: three percent Capistrano soils, three percent Baywood soils, and three percent beaches. Dune land soils are considered to be excessively well drained and the parent materials are unclassified. This soil unit does not meet the national hydric criteria (USDA-NRCS, 2013).

3.1.2. Hydrology

Morro Creek appears to be an intermittent stream with water largely absent for at least some portion of the year, except in unusually wet years. It exhibits annual cyclic variations in water levels. It is the main-stem within the watershed, which is located in northwestern San Luis Obispo County. The headwaters begin in the Santa Lucia Mountain Range within the Los Padres National Forest near the summit of the State Route 41 corridor and flow approximately 10.2 miles southwest to the ocean just slightly north of Morro Rock. Morro Creek meets the open beach strand immediately west of the BSA where it outlets directly into the Estero Bay within the Pacific Ocean. The reach of Morro Creek associated with the project spans approximately 2.3 linear feet. At the eastern end this reach forks into two branches; Morro Creek and Little Morro Creek, respectively. Approximately 28 linear feet of Morro Creek occur within the BSA. Morro Creek is within the Central Coastal Watershed (Hydrologic Unit Code No. 18060006) and flows in a general northwesterly direction outside the BSA (USGS, 2013). This feature is mapped as a solid-blue line stream on the *Morro Bay North, California* USGS 7.5-minute topographic quadrangle.

3.1.3. Vegetation Communities

Five vegetation communities were identified within the BSA during the field survey including: central dune scrub, ice plant, arroyo willow woodland/ripairan, bulrush/cattail wetland, and ruderal/developed. The habitat characterization for this project was based on the classification systems presented in Sawyer et al., 2009 and Holland, 1986; but, the habitat nomenclature has been modified slightly to most accurately reflect the existing site conditions. Figure 3 illustrates the extents of the vegetation communities observed onsite and each are discussed in greater detail

Figure 5 Vegetation Communities Within the BSA

below. Representative photographs of the BSA are included as Appendix C and a complete list of plant species observed during the field survey is presented as Appendix D. Plant species nomenclature and taxonomy used for this NES follows the treatments within the second edition of the *Jepson Manual* (Baldwin et al., 2012).

3.1.3.1. CENTRAL DUNE SCRUB

The central dune scrub habitat occurs along the western side of Embarcadero and on both sides of the intersection where Embarcadero extends north and becomes Coleman Drive to the west. Approximately 1.10 acres of the BSA are composed of central dune scrub habitat and the project is anticipated to impact approximately 0.19 acre of this habitat (0.14 acre would be permanently impacted and 0.05 acre would be temporarily impacted). The proposed limits of disturbance are the basis for these impact calculations. Trees are absent within this community and it is mostly dominated by shrubs and forbs. The dominant plant species observed within this vegetation community include: ice plant (*Carpobrotus* spp.), beach bur (*Ambrosia chamissonis*), California sagebrush (*Artemisia californica*), California aster (*Corethrogyne filaginifolia*), stephanomeria (*Stephanomeria virgata*), dune lupine (*Lupinus chamissonis*), beach evening primrose (*Camissoniopsis cheiranthifolia*), and seacliff wild buckwheat (*Eriogonum parvifolium*). The central dune scrub vegetation community onsite most closely corresponds to the *Abronia latifolia-Ambrosia chamissonis* Dune Mat Herbaceous Alliance in the Sawyer classification system (Sawyer et al., 2009) and to Element #21320 Central Dune Scrub in the Holland classification system (Holland, 1986). However, the exact plant species composition within the BSA varies somewhat from the descriptions presented in these standard classifications. The central dune scrub habitat within the BSA is considered a sensitive natural community type by CDFW (CDFW, 2003).

3.1.3.2. ICE PLANT

Ice plant habitat occurs in several locations within the BSA. This vegetation community type was observed within the curbed median in front of the Dynegy Electric Utility Morro Bay Power Plant administrative building, along the north side of Embarcadero, within Coleman City Park, and along the upper limits of the banks of Morro Creek. Approximately 0.29 acre of the BSA is composed of ice plant habitat and the project is anticipated to impact approximately 0.27 acre of this habitat (0.19 acre would be permanently impacted and 0.08 acre would be temporarily impacted). The proposed limits of disturbance are the basis for these impact calculations. Trees and shrubs are absent within this community and ice plant (*Carpobrotus chilensis* and *C. edulis*) is the dominant species. Only a few other

species were observed within the ice plant vegetation community including: telegraph weed (*Heterotheca grandiflora*), perennial mustard (*Hirschfeldia incana*), false brome (*Brachypodium distachyon*), ripgut grass (*Bromus diandrus*), and wall barley (*Hordeum murinum*). The ice plant vegetation community onsite most closely corresponds to the *Carpobrotus edulis* or Other Ice Plants, Ice Plant Mats Semi-Natural Herbaceous Stands in the Sawyer classification system (Sawyer et al., 2009); but does not have a corresponding element in the Holland classification system (Holland, 1986).

3.1.3.3. ARROYO WILLOW WOODLAND/RIPARIAN

Only a small portion of the BSA supports the arroyo willow woodland/riparian vegetation community type. This habitat occurs along relatively narrow margins along both the northern and southern banks of Morro Creek. Approximately 0.04 acre of the BSA is composed of arroyo willow woodland/riparian habitat and the project will avoid impacts to this habitat. It is dominated by moderately sized, thick arroyo willow (*Salix lasiolepis*) trees. Due to the density of the canopy within this community few other species were observed; these include annual beard grass (*Polypogon monspeliensis*), white sweetclover (*Melilotus albus*), and stinging nettle (*Urtica dioica*). These species were observed in the ecotonal regions along the outmost edges of the arroyo willows and in breaks within the canopy and understory spaces. The arroyo willow woodland/riparian vegetation community onsite most closely corresponds to the *Salix lasiolepis* Arroyo Willow Thickets Shrubland Alliance in the Sawyer classification system (Sawyer et al., 2009) and to Element #63200 Central Coast Riparian Scrub in the Holland classification system (Holland, 1986).

3.1.3.4. BULRUSH/CATTAIL WETLAND

Bulrush/cattail wetland habitat is restricted to the channel of Morro Creek within the BSA. Approximately 0.02 acre of the BSA is composed of bulrush/cattail wetland habitat and the project will avoid impacts to this habitat. Trees and shrubs are absent within this community and it is dominated by emergent and other hydrophytic species. The dominant plant species observed within this community include: saltmarsh bulrush (*Bolboschoenus maritimus* ssp. *paludosus*), common three-square bulrush (*Schoenoplectus pungens* var. *longispicatus*), broad-leaved cattail (*Typha latifolia*), silverweed (*Potentilla anserina*), annual beard grass, fat-hen (*Atriplex prostrata*), water speedwell (*Veronica anagallis-aquatica*), salt grass (*Distichlis spicata*), and monkeyflower (*Mimulus guttatus*). The bulrush/cattail wetland habitat onsite most closely corresponds to the *Bolboschoenus maritimus* Saltmarsh Bulrush

Marshes Herbaceous Alliance in the Sawyer classification system (Sawyer et al., 2009) and to Element #52200 Coastal Brackish Marsh in the Holland classification system (Holland, 1986). However the plant species composition within the bulrush/cattail wetland habitat within the BSA varies substantially from the description presented in the standard Holland description of this community type. The bulrush/cattail wetland habitat within the BSA is considered a sensitive natural community type by CDFW (CDFW, 2003).

3.1.3.5. RUDERAL/DEVELOPED

The last vegetation community type identified within the BSA is ruderal/developed, which is the most abundant habitat observed onsite. Approximately 1.12 acres of the BSA are composed of ruderal/developed habitat and the project is anticipated to impact approximately 1.14 acres of it (0.98 acre of permanent impacts and 0.16 acre of temporary impact). This vegetation community includes all of the existing paved and unpaved roadways, parking areas, regularly maintained areas, and otherwise disturbed regions within the BSA. As such, this habitat type is dominated by non-native weedy species including: false brome, ripgut grass, soft chess brome (*Bromus hordeaceus*), wild oat (*Avena fatua*), cut-leaf plantain (*Plantago coronopus*), bristly ox-tongue (*Helminthotheca echioides*), radish (*Raphanus sativus*), perennial mustard, California bur-clover (*Medicago polymorpha*), telegraph weed, and cheeseweed (*Malva parviflora*). Most of the area within the BSA that was mapped as this type is unvegetated. The weedy species mentioned were observed along the roadway margins and in the areas that surround Coleman City Park and the parking areas onsite. These areas where vegetation was documented within the ruderal/developed habitat type most closely correspond to *Bromus* (*diandrus*, *hordeaceus*)-*Brachypodium distachyon* Annual Brome Grasslands Semi-Natural Stands in the Sawyer classification system (Sawyer et al., 2009) and to Element #42200 Non-native Grassland in the Holland classification system (Holland, 1986).

Chapter 4. Results: Biological Resources, Discussion of Impacts and Mitigation

4.1. Federally-Listed/Proposed Plant Species

Of the seven federally listed plant species evaluated in Table 1, four were determined to have the potential to occur within the BSA; Morro manzanita, marsh sandwort, salt marsh bird's-beak, and California seablite. The central dune scrub and/or bulrush/cattail wetland habitats within the BSA are considered to be suitable for these species and have been previously documented within a five-mile radius of the project site by the CNDDB (refer to Figure 3 and Table 1).

No federally listed, proposed, or candidate plant species were observed within the BSA during the field survey. None of the federally listed plant species determined to have potential to occur onsite were observed within the BSA during the field survey. The reconnaissance field survey Rincon performed was conducted within the appropriate blooming period for salt marsh bird's-beak and California seablite. This field survey effort was not conducted within the appropriate blooming periods for Morro manzanita and marsh sandwort. Another environmental consulting firm, Althouse and Meade, Inc., conducted determinant-level botanical surveys within the BSA during May, June, and July of 2013 (Althouse and Meade, Inc., 2013). The biologists/botanists that conducted these surveys also did not encounter any federally listed, proposed, or candidate plant species within the BSA. The botanical surveys Althouse and Meade, Inc., performed were conducted within the appropriate blooming periods for marsh sandwort, salt marsh bird's-beak, and California seablite. These field survey efforts were not conducted within the appropriate blooming period for Morro manzanita.

All manzanita species are readily identified to the genus level of taxonomy regardless of the time of year surveys are conducted because these species are evergreen shrubs that have a distinctive bark pattern and growth habit. No species of manzanita were observed within the BSA or immediate vicinity during any of the field survey efforts.

Therefore, implementation of the proposed project would not result in impacts to any federally listed plant species or their designated critical habitats. Critical has not yet been designated for Morro manzanita, marsh sandwort, salt marsh bird's-beak, or

California seablite. No additional surveys for sensitive plant species are required and no avoidance, minimization, or mitigation measures are necessary because the proposed project would not result in impacts to federally listed plant species and/or their designated critical habitats.

4.2. Federally-Listed/Proposed Animal Species

Of the 14 federally listed animal species evaluated in Table 1, three were determined to have the potential to occur within the BSA; California red-legged frog, south/central California coast steelhead DPS, and Morro shoulderband snail. The portion of Morro Creek onsite, the central dune scrub habitat, and/or the ice plant within the BSA are considered to be suitable habitat and these species have been previously documented within a five-mile radius of the project site by the CNDDB (refer to Figure 3 and Table 1).

No federally listed, proposed, or candidate wildlife species were observed within the BSA during the field survey. Similarly, no federally listed wildlife species were observed within the BSA during the field survey. However, protocol-level evaluations were not conducted.

4.2.1. California Red-Legged Frog

California red-legged frog (CRLF) was formally listed by USFWS as threatened in 1996. The historic range of this species has been dramatically reduced; but occurrence records are known from Riverside County to Mendocino County along the coast and from Calaveras County to Butte County in the Sierra Nevada. This species utilizes humid forests, woodlands, grasslands, stream-side corridors, and coastal scrub communities. It requires deep permanent or ephemeral aquatic habitats such as lakes, ponds, reservoirs, slow-moving streams, marshes, bogs, or swamps for breeding. If breeding occurs in ephemeral habitats, this species also requires small mammal burrows or other moist refuges (such as deep cracks in the mud of dry ponds) for estivation during the dry season. CRLF breeding season typically occurs during November through May.

The BSA was assessed for the potential to support CRLF in accordance with the USFWS *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (2005) and the Primary Constituent Elements (PCEs) for CRLF as defined in the *Revised Designation of Critical Habitat for the California Red-legged Frog (Rana aurora draytonii): Final Rule* (Federal Register Volume 75 No. 51-12834). The critical habitat rule for CRLF lists the following as the identified primary

PCEs, which are the elements of physical or biological features that provide for a species' life history processes and are essential to the conservation of the species:

> (1) *Aquatic Breeding Habitat.* Standing bodies of fresh water (with salinities less than 7.0 parts per thousand [ppt] for tadpoles and below 4.5 ppt for eggs), including natural and manmade (e.g., stock) ponds, slow moving streams or pools within streams, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in all but the driest of years.
>
> **(**2) *Non-Breeding Aquatic and Riparian Habitat*. Fresh water habitats as described above, which may or may not hold water long enough for the subspecies to hatch and complete its aquatic lifecycle; but that does provide for shelter, foraging, predator avoidance, and aquatic dispersal habitat for juvenile and adult CRLF. Riparian habitat is required nearby that usually extends from the bank of the feature to the margins of the associated floodplain.
>
> (3) *Upland Habitat.* Upland areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat up to a distance of one mile, including grassland, woodland, forest, wetland, or riparian areas that provide shelter, forage, and avoidance from predators are required. Suitable upland CRLF habitat must include structural features such as boulders and rocks, downed logs, small mammal burrows, or moist leaf litter.
>
> (4) *Dispersal Habitat.* Accessible upland or riparian habitat within and between occupied or previously occupied sites that is located within one mile of each other, and that support movement between such sites. Suitable dispersal habitat may include various natural habitats and altered habitats, such as agricultural fields that do not contain barriers.

4.2.1.1. SURVEY RESULTS

The bulrush/cattail wetland habitat within the Morro Creek channel onsite is considered suitable breeding habitat for CRLF because it supports emergent vegetation and is presumed to remain inundated for a minimum of 20 weeks in all but the driest years. The ice plant and arroyo willow woodland/riparian habitats adjacent to Morro Creek within the BSA are considered suitable upland and dispersal habitat for this species. No CRLF were observed within the BSA during the reconnaissance field survey. However, protocol-level surveys for CRLF were not conducted. Most of the area surveyed within the Morro Creek stream channel was dry, except for a single

remaining pool that was inundated and contained several threespine stickleback (*Gasterosteus aculeatus*). The salinity levels within Morro Creek were not evaluated for this analysis; but are presumed appropriate for use by this species due to hydrologic connectivity, the overall down-slope location of the BSA to obvious freshwater upper reaches of the watershed, and the proximity of other documented locations of CRLF in the CNDDB along the coast.

4.2.1.2. CRITICAL HABITAT

The BSA is not within CRLF designated critical habitat. However, the BSA is located approximately 0.9 mile west of the nearest CRLF designated critical habitat unit (Figure 4).

4.2.1.3. AVOIDANCE AND MINIMIZATION EFFORTS

To the maximum extent feasible, the proposed project has been designed, modified, and amended to avoid and minimize potential project-related impacts to CRLF. However, if CRLF are present within BSA during implementation of the project this species and its habitat could be impacted. Therefore, formal consultation with USFW under Section 7 of the FESA will be required to obtain incidental take authorization for CRLF.

The following Avoidance and Minimization Efforts are recommended to ensure that impacts to CRLF from this project are reduced as much as practicable. The following measures have been approved by the FHWA in a Programmatic Biological Opinion (BO) that was created to address projects that are FHWA funded and approved (USFWS, 2011a):

1. Only Service/USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs. Biologists authorized under this biological opinion do not need to re-submit their qualifications for subsequent projects conducted pursuant to this biological opinion, unless we have revoked their approval at any time during the life of this biological opinion.

2. Ground disturbance will not begin until written approval is received from the Service that the biologist is qualified to conduct the work, unless the individual(s) has/have been approved previously and the Service has not revoked that approval.

3. A Service-approved biologist will survey the project site no more than 48 hours before the onset of work activities. If any life stage of the California red-legged

frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the work site before work begins. The Service-approved biologist will relocated the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and that will not be affected by activities associated with the proposed project. The relocation site should be in the same drainage to the extent practicable. Caltrans will coordinate with the Service on the relocation site prior to the capture of any California red-legged frogs.

4. Before any activities begin on a project, a Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

5. A Service-approved biologist will be present at the work site until all California red-legged frogs have been relocated out of harm's way, workers have been instructed, and disturbance of habitat has been completed. After this time, the State or local sponsoring agency will designate a person to monitor on-site compliance with all minimization measures. The Service-approved biologist will ensure that this monitor receives the training outlined in measure 4 above and in the identification of California red-legged frogs. If the monitor or the Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the Service during the review of the proposed action, they will notify the resident engineer (the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the adverse effect immediately or require that all actions causing these effects be halted. If work is stopped, the Service will be notified as soon as possible.

6. During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

7. All refueling, maintenance, and staging equipment and vehicles will occur at least 60 feet from riparian habitat or water bodies and in a location from where a spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water). The monitor will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a plan is in place for prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

8. Habitat contours will be returned to their original configuration at the end of project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless the Service and Caltrans determine that it is not feasible or modification of original contours would benefit the California red-legged frog.

9. The number of access routes, size of staging areas, and the total area of activity will be limited to the minimum necessary to achieve the project goals. Environmentally Sensitive Areas will be delineated to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

10. Caltrans will attempt to schedule work activities for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and coordination between Caltrans and the Service during project planning will be used to assist in scheduling work activities to avoid sensitive habitats during key times of the year.

11. To control sedimentation during and after project implementation, Caltrans, and the sponsoring agency will implement best management practices outlined in any authorizations or permits issued under the authorities of the Clean Water Act that it receives for the specific project. If best management practices are ineffective,

Caltrans will attempt to remedy the situation immediately, in coordination with the Service.

12. If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh no larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow will be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the stream bed will be minimized to the maximum extent possible; any imported material will be removed from the stream bed upon completion of the project.

13. Unless approved by the Service, water will not be impounded in a manner that may attract California red-legged frogs.

14. A Service-approved biologist will permanently remove any individuals of non-native species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus; Procambarus clarkii*), and centrarchid fishes from the project area, to the maximum extent possible. The Service-approved biologist will be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

15. If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

16. To ensure that diseases are not conveyed between work sites by the Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times. A copy of the code of practice is enclosed.

17. Project sites will be re-vegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials will be used to the maximum extent practicable. Invasive, exotic plants will be controlled to the maximum extent practicable. This measure will be implemented in all areas disturbed by activities associated with the project, unless the Service and Caltrans determine that it is not feasible or practicable.

18. Caltrans will not use herbicides as the primary method used to control invasive, exotic plants. However, if Caltrans determines the use of herbicides is the only feasible method for controlling invasive plants at a specific site, it will implement the following additional protective measures for the California red-legged frog:

    a. Caltrans will not use herbicides during the breeding season for the California red-legged frog;

    b. Caltrans will conduct surveys for the California red-legged frog immediately prior to the start of any herbicide use. If found, California red-legged frogs will be relocated to suitable habitat far enough from the project area that no direct contact with herbicides would occur;

    c. Giant reed or other invasive plants will be cut and hauled out by hand and painted with glyphosate or glyphosate-based products, such as Aquamaster® or Rodeo®;

    d. Licensed and experienced Caltrans staff or a licensed and experienced contractor will use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site;

    e. All precautions will be taken to ensure that no herbicide is applied to native vegetation.

    f. Herbicides will not be applied on or near open water surfaces (no closer than 60 feet from open water).

    g. Foliar applications of herbicide will not occur when wind speeds are in excess of 3 miles per hour.

    h. No herbicides will be applied within 24 hours of forecasted rain.

    i. Application of all herbicides will be done by a qualified Caltrans staff or contractors to ensure that overspray is minimized, that all application is made in accordance with label recommendations, and with implementation of all required and reasonable safety measures. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental

Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins.

j. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from the riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Caltrans will ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans will ensure that a spill plan is in place for prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

19. Upon completion of any project for which this programmatic consultation is used, Caltrans will ensure that a Project Completion Report is completed and provided to the Ventura Fish and Wildlife Office. A copy of the form is enclosed. Caltrans should include recommended modifications of the protective measures if alternative measures would facilitate compliance with the provisions of this consultation. In addition, Caltrans will reinitiate formal consultation in the event of any of the following thresholds are reached as a result of projects conducted under the provisions of this consultation:

    a. 10 California red-legged frog adults or juveniles have been killed or injured in any given year. (For this and all other standards, an egg mass is considered to be one California red-legged frog);

    b. 50 California red-legged frogs have been killed or injured in total;

    c. 20 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic habitat and upland and dispersal habitat have been permanently lost in any given year;

    d. 100 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic habitat and upland dispersal habitat have been permanently lost in total;

    e. 100 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding

aquatic habitat and upland and dispersal habitat have been temporarily disturbed in any given year; or

f. 500 acres of critical habitat for the California red-legged frog that include the primary constituent elements of aquatic breeding and non-breeding aquatic habitat and upland and dispersal habitat have been temporarily disturbed in total.

4.2.1.4. PROJECT EFFECTS

Implementation of the project is not expected to result in any significant loss or fragmentation of CRLF habitat. Instead this project would enhance the existing habitat by reducing the amount of human disturbance within the stream channel. Once installed, the proposed bridge would enable pedestrians to cross over the creek without actually entering it. Trash and debris within the channel are also likely to be reduced with project implementation. A maximum of approximately 0.38 acres of impacts to iceplant upland CRLF habitat will occur as a result of bridge abutment installation along the northern portion of the bank. Construction within the stream channel itself would not occur and the project will avoid impacts to the bulrush/cattail wetland habitat and the arroyo willow woodland/riparian habitat. Impacts to this species could occur if it is present within the BSA during construction through injury/death if undetected during the preconstruction surveys and through harassment if captured and relocated by a USFWS-approved biologist. However, all potential project-related impacts to this species will be avoided and/or minimized through application of the measures previously described above.

4.2.1.5. MODIFICATIONS TO THE PROJECT TO MITIGATE EFFECTS

No compensatory mitigation is required at the bridge location for this proposed action.

4.2.1.6. CUMULATIVE EFFECTS (FESA)

Cumulative effects include the future state, tribal, local, or private actions not involving federal activities that are reasonably certain to occur in the vicinity of the action area considered in this biological assessment. No other actions within the vicinity of the proposed project are known or anticipated for the foreseeable future. Therefore no cumulative adverse effects to CRLF would occur.

4.2.2. South/Central California Coast Steelhead DPS

The south/central California coast steelhead DPS (steelhead) was first formally listed by NMFS as threatened in 1997. Its' status was substantiated and finalized in 2006. The historic range of this species has been drastically reduced; but occurrence records

are known from the Pajaro River in Santa Cruz, Monterey, San Benito, and Santa Clara counties, the San Benito River in San Benito County, the Salinas River in Monterey and San Luis Obispo counties, the Estrella River and San Juan Creek in San Luis Obispo County, the Carmel and San Antonio Rivers in Monterey County, the Nacimiento River in Monterey and San Luis Obispo counties, and numerous other coastal streams from Watsonville (Santa Cruz County) to the Santa Maria River (which is not included in the DPS). Steelhead utilize shaded pools within cool low-flow streams and warm water habitats below some dams or pipeline outfalls where summer releases provide high flows and fast-waters. This species requires gravel substrates with sufficient flow velocities to clean and oxygenate the substrate surface for spawning. Juveniles typically frequent steams that provide cover from overhanging banks within willow and/or cottonwood riparian forest, woodland, or scrub communities. Steelhead usually spawn when winter rains have been substantial enough to raise stream flows and breach any sandbars that may have formed during the dry season. Migration and spawning normally occur during the months of December through May.

The BSA was assessed for the potential to support steelhead according to the NMFS *Endangered and Threatened Species; Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California: Final Rule* (Federal Register Volume 70 No. 170-52488). The critical habitat rule for steelhead lists the following as the identified PCEs for this species:

> (1) *Freshwater Spawning Sites.* Freshwater spawning areas must have sufficient water quantity and water quality conditions with the necessary substrate to support spawning, incubation, and development.
>
> (2) *Freshwater Rearing Sites.* Freshwater rearing areas must have sufficient water quantity and floodplain connectivity to form and maintain suitable physical habitat conditions, juvenile growth and mobility, adequate water quality, and forage sites. Rearing sites must also contain natural cover and shade from submerged and overhanging logs, emergent vegetation, rocks, undercut banks, and side channels. These components are significant for behavioral development including competition and predator avoidance.
>
> (3) *Freshwater Migration Corridors.* Suitable freshwater corridors must be free from obstructions, have suitable water quantity and quality conditions, and must contain natural cover (see previous) to facilitate juvenile mobility and

survival. If absent crucial developmental stages may not be reached, physiological changes will not occur, predators may not be avoided, and upper stream reaches can not be accessed for spawning.

(4) *Estuarine Areas Free of Obstructions.* Suitable estuarine areas must be free from obstructions and must have water quantity, quality, and salinity that are suitable for juvenile and adult physiological transitions between fresh and saltwater environments. Estuarine areas must also contain sufficient natural cover (see number two) and adequate forage to support growth and maturation. In the absence of these attributes juveniles can not reach the ocean in a timely manner, avoid predators, compete successfully, or complete the necessary behavioral and physiological changes required for oceanic life. Similarly, adults must obtain sufficient nutrition and energy stores required for the physiological transition back to freshwater, upstream migration, predator avoidance, and maturation for spawning.

(5) *Nearshore Marine Areas.* Nearshore marine areas must be free of obstructions and must have suitable water quality and quantity, adequate forage, and suitable cover (see number two) to support growth and maturation. Without these attributes juveniles are unable to successfully transition from natal streams to offshore marine habitats.

(6) *Offshore Marine Areas.* Suitable offshore marine areas must have adequate water quality conditions and forage to support growth and maturation processes.

4.2.2.1. SURVEY RESULTS

The portion of Morro Creek within the BSA is considered suitable habitat for steelhead primarily because it is included in the critical habitat designation and this species has been previously documented within this stream by CNDDB. It is difficult to speculate whether flows within the creek breach to the ocean; however during extremely wet years breaching would occur. No steelhead were observed within the BSA during the reconnaissance field survey; however, determinant-level surveys were not conducted. Regardless, resident steelhead are likely to be present in this portion of the stream and appear to have access to the upper reaches of Morro Creek beyond where the stream crosses under State Highway 1.

4.2.2.2. CRITICAL HABITAT

The portion of Morro Creek within the BSA is designated critical habitat for steelhead. Although not illustrated in Figure 4, Morro Bay is also designated critical habitat for this species because it is used as rearing and migratory habitat for steelhead populations that spawn and rear within tributaries to the Bay.

4.2.2.3. AVOIDANCE AND MINIMIZATION EFFORTS

To the maximum extent feasible, the project has been designed, modified, and amended to avoid and minimize potential project-related impacts to steelhead. As mentioned in Section 1.2, no equipment will enter and/or be used within the Morro Creek channel. Dewatering within the creek and/or water diversion activities are not necessary and are not a component of the proposed project.

The following Avoidance and Minimization Efforts are recommended to ensure that potential impacts to steelhead from this project are avoided as much as practicable. These measures are adapted from measures that have been approved by NMFS in a recent BO that was created to address a streambank stabilization project in San Luis Obispo County (NMFS, 2012) and include the following:

1. Before any activities begin on a project, a qualified biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the steelhead and its habitat, the specific measures that are being implemented to conserve this species for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

2. During the duration of project activities, all trash that may attract predators will be properly contained and secured, promptly removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from the work areas.

3. All refueling, maintenance, and staging of equipment and vehicles will occur at least 60 feet from riparian habitat or bodies of water and in a location where a potential spill would not drain directly toward aquatic habitat (e.g., on a slope that drains away from the water source). The monitor shall ensure that contamination of suitable habitat does not occur during such operations. Prior to the onset of work activities, a plan must be in place for prompt and effective response to any

accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should an accidental spill occur.

4. The number of access routes, size of staging areas, and the total area used for construction activities shall be limited to the minimum area necessary to achieve the project goals.

5. The City will attempt to schedule work within the immediate vicinity of Morro Creek for times of the year when potential impacts to steelhead would be minimal. To the maximum extent feasible, work should be restricted during the wet season (October 15 through April 30) and should ideally occur during the late summer and early fall. Habitat assessments, surveys, and coordination between Caltrans and the USFWS during project planning will also be used to assist in the scheduling of work activities in order to ensure avoidance of sensitive habitats during significant times of the year.

6. To control sedimentation during and after project implementation, the City shall implement any and all best management practices outlined in all authorizations or permits issued under the authorities of the Clean Water Act that it obtains for this specific project. If the best management practices are somehow ineffective, the City will attempt to remedy the situation immediately. The following best management practices have already been integrated into the Erosion Control Plan that has been prepared for the project:

    - It shall be the owner's/contractor's responsibility to maintain control of the entire construction operations and to keep the entire site in compliance with the soil erosion control plan.

    - The owner/contractor shall be responsible for monitoring erosion and sediment control measures (including but not limited to fiber rolls, inlet protections, silt fences, and gravel bags) prior, during and after storm events, monitoring includes maintaining a file documenting onsite inspections, problems encountered, corrective actions, and notes and a map of remedial implementation measures.

    - Reasonable care shall be taken when hauling any earth, sand, gravel, stone, debris, or any hazardous substance over any public street, alley, or other public place. Should any blow, spill, or track over and upon said public or adjacent private property, immediate clean-up shall occur.

- Construction entrances shall be installed prior to commencement of grading. All construction traffic entering onto the paved roads must cross the stabilized construction entranceway.

- Sanitary facilities shall be maintained onsite as appropriate and away from the street in the case of a spill.

- During the rainy season, all paved areas shall be kept clear of earth material and debris. All earth stockpiles over 2.0 cubic yards shall be covered with a tarp and ringed with straw bales or silt fencing. The site shall be maintained so as to minimize sediment-laden runoff to any storm drainage system including existing drainage swales and/or sand watercourses.

- Construction operations shall be carried out in such a manner that erosion and water pollution will be minimized. State and local laws concerning pollution abatement shall be complied with.

- Facilities illustrated in the erosion control plan for the project are designed to control erosion and sediment during the rainy season (October 15 through April 30). Such facilities are to be operable prior to October 15 of any year. Grading operations during the rainy season which leave denuded slopes shall be protected with erosion control measures immediately following grading on the slopes.

- Specifically, in order to prevent sedimentation and debris from entering Morro Creek during construction, silt fencing shall be installed along the top of the banks on both the north and south sides of the channel prior to the onset of construction activities as illustrated in the erosion control plan for the project.

7. No pets shall be allowed at the project site.

8. The project biologist will monitor construction activities, instream habitat, and overall performance of best management practices and sediment controls for the purpose of identifying and reconciling any condition that could adversely affect steelhead or their habitat. The biologist will halt work if necessary and will recommend site-specific measures to avoid adverse effects to steelhead and their habitat.

9. Equipment will be checked daily for leaks prior to the initiation of construction activities. A spill kit will be placed near the creek and will remain readily available during construction in the event that any contaminant is accidentally released.

Several additional avoidance and minimization measures are required to ensure that impacts to state and federal jurisdictional waters would not result from project implementation. Avoidance of project-related impacts to jurisdictional aquatic resources also functions to inadvertently avoid impacts to steelhead.

4.2.2.4. PROJECT EFFECTS

Implementation of the project is not expected to result in any significant loss or fragmentation of steelhead habitat. Instead this project would enhance the existing habitat by reducing the amount of human disturbance within the stream channel because once installed, the proposed bridge would enable pedestrians to cross over the creek without actually entering it. Trash and debris within the channel are also likely to be reduced with project implementation. Construction within the stream channel itself is not a component of the proposed project. As such, impacts to habitat would not occur and impacts to individuals are not expected. Unanticipated temporary impacts could occur to steelhead from general project-related disturbance and noise if steelhead are present within the BSA during project implementation or if an accidental spill occurs. However, all potential project-related impacts to this species will be avoided and/or minimized through application of the measures previously described above.

No equipment will enter and/or be used within the Morro Creek channel. Dewatering within the creek and/or water diversion activities are not necessary and are therefore not a component of the proposed project.

4.2.2.5. MODIFICATIONS TO THE PROJECT TO MITIGATE EFFECTS

No compensatory mitigation is required with implementation of the measures described above.

4.2.2.6. CUMULATIVE EFFECTS (FESA)

Cumulative effects include the future state, tribal, local, or private actions not involving federal activities that are reasonably certain to occur in the vicinity of the action area considered in this biological assessment. No other actions within the vicinity of the proposed project are known or anticipated for the foreseeable future. Therefore no cumulative adverse effects to steelhead would occur.

4.2.3. Morro Shoulderband Snail

Morro shoulderband snail (MSS) was formally listed by USFWS as endangered in 1994. The historic range of this species is small, but has been further reduced. Occurrence records of this species are limited to western San Luis Obispo County within a small area that includes southern Morro Bay, regions west of Los Osos Creek and north of Hazard Canyon, the western outskirts of San Luis Obispo, and along portions of the coast south of Cayucos. This species occurs in a variety of native and non-native habitat types. It requires coastal scrub, coastal dune scrub, and maritime chaparral communities that are typically underlain by Baywood fine sands substrates. It will also utilize non-native stands that are dominated by ice plant and/or perennial veldt grass (*Ehrharta calycina*) within its range. Adequate moisture regime, plant species physiognomy, and appropriate microclimate all appear to be important elements of suitable habitat for this species; as opposed to the mere presence of any particular plant species. This species typically inhabits dense, shrubby, or prostrate vegetation that has contact with the ground and will occur in shaded, moist areas where leaf litter has accumulated or on the undersides of low shrub branches. Breeding is thought to occur during the wet season and this species is presumed to be most active during the morning and evening hours.

The BSA was assessed for the potential to support MSS according to the USFWS *Final Determination of Critical Habitat for the Morro shoulderband snail (Helminthoglypta walkeriana)*, (Federal Register Volume 66 No. 26-9233). The critical habitat rule for steelhead lists the following as the identified PCEs for this species:

> (1) *Substrate.* Sand or sandy soils are required for reproduction. Slopes considered suitable for MSS should not be greater than 10 percent because relatively flat terrain is required to facilitate the movement of individuals.
>
> (2) *Vegetation.* MSS requires the presence of native coastal dune scrub vegetation. Suitable habitat types are typically, but not exclusively, represented by mock heather (*Ericameria ericoides*), buckwheat (*Eriogonum* spp.), chamisso lupine (*Lupinus chamissonis*), dudleya (*Dudleya* spp.), and in more inland locaitons California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*), and black sage (*Salvia mellifera*).

Notions of suitable habitat for this species have expanded since the critical habitat designation was published and now includes several non-native plant communities within the MSS range, as previously described above.

4.2.3.1. SURVEY RESULTS

The central dune scrub and ice plant habitats within the BSA are considered to be suitable for MSS. No MSS were observed onsite during the field survey. However, protocol-level surveys for this species were not conducted.

4.2.3.2. CRITICAL HABITAT

The BSA is not within MSBN designated critical habitat. However, the BSA is located approximately 0.45 mile north of the nearest MSS designated critical habitat unit, which is situated just across the mouth of Morro Bay (Figure 4).

4.2.3.3. AVOIDANCE AND MINIMIZATION EFFORTS

To the maximum extent feasible, the proposed project has been designed, modified, and amended to avoid and minimize potential project-related impacts to MSS. However, if MSS are present within the BSA during implementation of the project this species and its habitat could be impacted. Therefore, formal consultation with USFW under Section 7 of the FESA will be required to obtain incidental take authorization for MSS.

The following Avoidance and Minimization Efforts are recommended to ensure that impacts to MSS from this project are reduced as much as practicable. These measures have been developed in coordination with USFWS and include the following:

1. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of MSS.

2. Environmental training sessions for all project-related personnel will be conducted by a USFWS-authorized biologist prior to the start of vegetation removal, grading, and ground-disturbing construction-related activities. These trainings will continue for the duration the project and be initiated whenever new personnel come on-board.

3. Construction areas will be clearly marked with high visibility flagging or barrier fencing. Construction equipment and personnel will be restricted to the identified work areas only. The delineation of construction areas is ongoing and will continue for the duration of project implementation.

4. Pre-construction MSS surveys will be conducted in the coastal dune scrub and ice plant habitat to be removed in association with site preparation and construction activities will be conducted by a Service-approved biologist. Surveys will include the cutting coastal dune scrub shrubs off at ground-level and careful examination of the lower branches and litter beneath each shrub for the presence of this species. Shrubs will not be cut in the sensitive habitat mitigation area, but shall be thoroughly examined prior to implementation of the HMMP described in Section 4.3. Care should be taken not to trample patches of ice plant (or veldt grass) during this process. All ice plant will be carefully examined for MSS individuals and egg masses. Once coastal dune scrub and ice plant areas have been cleared and all surveys have been completed, vegetation removal may commence and can be removed by mechanical means. As vegetation is removed, it will not be stockpiled onsite but rather moved to a location offsite where it there is no chance of re-occupation by MSS.

5. The USFWS-approved biologist will be retained to monitor all vegetation removal, grading, and ground-disturbing construction-related activities that will take place within habitat suitable for MSS. Monitoring activities will be required daily until completion of initial disturbance at each location and to ensure appropriate minimization measures are implemented during construction. The monitoring biologist will be granted full authority to stop work at his or her discretion and will stop work if project-related activities occur outside the demarcated boundaries of the construction footprint. The monitoring biologist will stop work if MSS is detected within the proposed construction footprint and will capture and relocate them to suitable habitat out of harm's way prior to construction activities resuming. If no suitable habitat opportunities are available in the immediate vicinity of the construction footprint, captured individuals may be transported to an off-site location in accordance with a capture and relocation methodology approved by USFWS prior to the initiation of any surveys for the species.

6. A summary report will be provided to Caltrans that documents the results of all monitoring activities throughout the duration of the project. The report will document the number of MSS captured and relocated from the project area, the locations of all MSS relocations, and the number of MSS known to have been be killed or injured. The report will contain a brief discussion of any problems encountered in implementing minimization measures, results of biological surveys, observations, and any other pertinent information. A comprehensive final report

that summarizes the information provided in the annual reports will be provided to the Service/USFWS by Caltrans within 90 days following the completion of the proposed project.

4.2.3.4. PROJECT EFFECTS

Implementation of the project is not expected to result in any significant loss or fragmentation of MSS habitat. Impacts to this species could occur if it is present within the BSA during construction activities through injury/death if undetected during the preconstruction surveys and through harassment if captured and relocated by an USFWS-approved biologist. MSS could also be inadvertently impacted during implementation of the HMMP. The project will impact a maximum of approximately 0.19 acre (0.14 acre would be permanently impacted and 0.05 acre would be temporarily impacted) of central dune scrub and 0.27 acre (0.19 acre would be permanently impacted and 0.08 acre would be temporarily impacted) of ice plant MSS habitat. The exact amount of ice plant to be removed from within the sensitive habitat mitigation area of the BSA for implementation of the HMMP is not yet known. Temporary impacts to MSS could result from general project-related disturbance and noise if it is present within the BSA during project implementation. However, all potential project-related impacts to this species will be avoided and/or minimized through application of the measures previously described above.

4.2.3.5. MODIFICATIONS TO THE PROJECT TO MITIGATE EFFECTS

Compensatory mitigation for impacts to the central dune scrub vegetation that is being removed would be provided through the regulatory agency permitting process and will be mitigated for at a 3:1 replacement ratio. No additional mitigation is required with implementation of this component of the project and the measures described above.

4.2.3.6. CUMULATIVE EFFECTS (FESA)

Cumulative effects include the future state, tribal, local, or private actions not involving federal activities that are reasonably certain to occur in the vicinity of the action area considered in this biological assessment. No other actions within the vicinity of the proposed project are known or anticipated for the foreseeable future. Therefore no cumulative adverse effects to MSS would occur.

4.3. Habitat Restoration and Construction Monitoring Plan

This section describes the conceptual habitat restoration and construction monitoring plans for the project, as required by the USFWS *Programmatic Biological Opinion for*

Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program (2011).

4.3.1. Habitat Restoration Plan

The project will impact approximately 0.19 acre (0.14 acre would be permanently impacted and 0.05 acre would be temporarily impacted) of central dune scrub habitat; 0.27 acre of (0.19 acre would be permanently impacted and 0.08 acre would be temporarily impacted) of ice plant habitat; and 1.14 acres of (0.98 acre of permanent impacts and 0.16 acre of temporary impact) ruderal/developed areas. All permanently impacted areas of central dune scrub habitat will be replaced at a 3:1 mitigation ratio (3 acres of mitigation for every 1 acre of impacts) and a 1:1 mitigation ratio for all temporary impacts, unless otherwise approved by pertinent regulatory agencies. Mitigation activities associated with replacement of this sensitive habitat resource should occur in the designated sensitive habitat mitigation portion of the BSA. In addition, all areas of temporary disturbance shall be stabilized and revegetated with an assemblage of native vegetation suitable for the area.

Prior to the onset of construction, a comprehensive Habitat Mitigation and Monitoring Plan (HMMP) will be prepared that provides for a 3:1 mitigation ratio for permanent impacts, unless otherwise approved by pertinent regulatory agencies. All mitigation activities will be conducted occur within the designated sensitive habitat mitigation area within the BSA and would not inadvertently result in additional impacts to sensitive plant or wildlife species. Anticipated activities that are associated with implementation of the HMMP include pedestrian traffic, application of native dune scrub hydro-seed mix, and removal of non-native weedy species (including ice plant) within the habitat mitigation area. The final HMMP will be implemented immediately after project completion.

4.3.2. Construction Monitoring Plan

As required by the avoidance and minimization measures listed in the USFWS *Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program* (2011) and Section 4.2.1.3, the project will include construction monitoring. Prior to the onset of construction, a comprehensive Construction Monitoring Plan will be prepared and will include, at a minimum the following measures:

- Only Service/USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

- A Service-approved biologist will survey the project site no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed sufficient time to move them from the work site before work begins. The Service-approved biologist will relocated the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and that will not be affected by activities associated with the proposed project. The relocation site should be in the same drainage to the extent practicable. Caltrans will coordinate with the Service on the relocation site prior to the capture of any California red-legged frogs.

- Before any activities begin on a project, a Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

- A Service-approved biologist will be present at the work site until all California red-legged frogs have been relocated out of harm's way, workers have been instructed, and disturbance of habitat has been completed. After this time, the State or local sponsoring agency will designate a person to monitor on-site compliance with all minimization measures. The Service-approved biologist will ensure that this monitor receives the training outlined above and in the identification of California red-legged frogs. If the monitor or the Service-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and the Service during the review of the proposed action, they will notify the resident engineer (the engineer that is directly overseeing and in command of construction activities) immediately. The resident engineer will either resolve the situation by eliminating the adverse effect immediately or require that all actions causing these effects be halted. If work is stopped, Caltrans must be notified and Caltrans will notify the Service as soon as possible.

Chapter 5. Conclusions and Determinations

5.1. Conclusions

Five vegetation communities were identified within the BSA including central dune scrub, ice plant, arroyo willow woodland/riparian, bulrush/cattail wetland, and ruderal/developed. Implementation of the proposed project would result in impacts to several portions of the central dune scrub and ice plant habitats. Impacts to the areas classified as ruderal/developed would also occur; however this is not a natural community. The arroyo willow woodland/riparian and bulrush/cattail wetland habitats would not be impacted with implementation of the proposed project.

Rincon determined that the vegetation communities identified within the BSA have potential to support eight federally listed species; four plants and four animals: Morro manzanita, marsh sandwort, salt marsh bird's-beak, California seablite, CRLF, steelhead, tidewater goby and MSS.

5.2. Determinations

Of the species determined to have the potential to occur, implementation of the proposed action will have no effect on Morro manzanita, marsh sandwort, salt marsh bird's-beak, California seablite and tidewater goby. Determinant-level surveys were conducted for all of the potentially occurring federally listed plant species with potential to occur onsite during the appropriate bloom periods for each of the species; except for Morro manzanita. However, all manzanita species are readily identified to the genus level of taxonomy regardless of the time of year surveys are conducted and no species of manzanita were observed within the BSA or immediate vicinity during any of the field survey efforts. None of the potentially occurring federally listed plant species were observed within the BSA during the surveys and no manzanitas whatsoever were detected. As such, implementation of the proposed project would have no effect to federally listed plant species or their habitats.

5.2.1. California Red-legged Frog

Implementation of the proposed project is likely to adversely affect CRLF and its habitat should this species be present in the section of Morro Creek and/or the identified upland habitat that is within the BSA during development. This determination is based on 1) the presence of suitable aquatic and upland habitat within

the BSA and 2) the presence of water within at least some portions of Morro Creek throughout the year during most years. Potential project-related impacts to CRLF would be minimized and avoided to the maximum extent feasible with application of the measures outlined in Section 4.2.1.3.

This project satisfies the four criteria identified in the USFWS *Programmatic Biological Opinion for Projects Funded or Approved under the Federal Highway Administration's Federal Aid Program* (2011):

Criterion 1: This project meets Criterion 1 because it is a bridge project that is likely to result in adverse effects to CRLF, but would not affect the long-term viability of the population in the action area.

Criterion 2: This project meets Criterion 2 because the measures to reduce or avoid potential adverse effects to CRLF and its habitat outlined in this BO are included in the project and would be implemented accordingly. These measures are outlined above in Section 4.2.1.3.

Criterion 3: This project meets Criterion 3 because it is a single and complete project, and is not part of larger actions or associated with any other development projects.

Criterion 4: This project meets Criterion 4 because it would not take place in an area where populations of CRLF are so isolated that even the small effects described in this BO could have substantial impacts.

5.2.2. South/Central California Coast Steelhead DPS

Implementation of the propose project would have no effect on steelhead or steelhead critical habitat. While Morro Creek does provide suitable habitat within the BSA and Morro Creek is USFWS designated critical habitat for this species, steelhead were not observed during the field survey or previous surveys conducted in 2011 (SWCA, 2011) and are not expected to be present during construction. Further this project will not include disturbance within Morro Creek. If steelhead are present during construction, effects would be minimized and avoided with application of the measures outlined in Section 4.2.2.3.

5.2.3. Morro Shoulderband Snail

Implementation of the proposed project is likely to adversely affect MSS and its habitat should this species be present in the central dune scrub and/or ice plant habitat identified within the BSA during development. This determination is based on 1) the

presence of suitable habitat within the BSA and 2) the locations of previously documented occurrences of MSS by CNDDB just north of the BSA. Potential project-related impacts to MSS would be minimized and avoided to the maximum extent feasible with application of the measures outlined in Section 4.2.3.3.

Chapter 6. References

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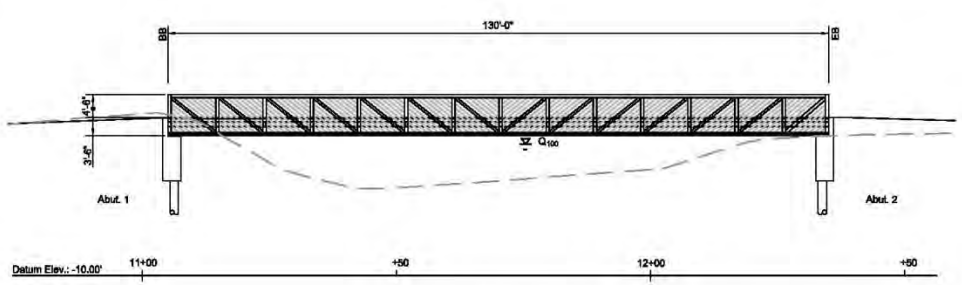
USFWS, 2013 (b). Information, Planning, and Conservation Online Tool. Available online at: http://ecos.fws.gov/ipac/.

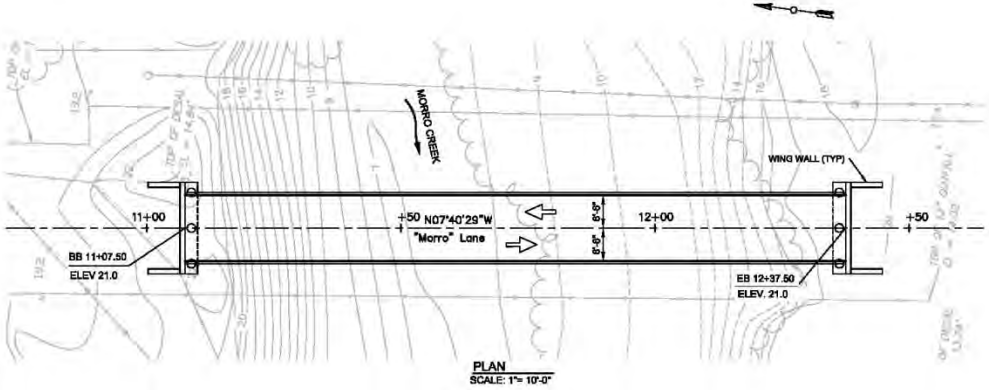
USFWS, 2013 (c). National Wetlands Inventory Online Application. Available online at: http://www.fws.gov/wetlands/Data/Mapper.html.

United States Geological Survey (USGS), 2013. National Wetlands Inventory Map and Surf Your Watershed Online Application. Available online at: http://cfpub.epa.gov/surf/locate/index.cfm.

Appendix A Project Plans



ELEVATION
SCALE: 1" = 10'-0"



PLAN
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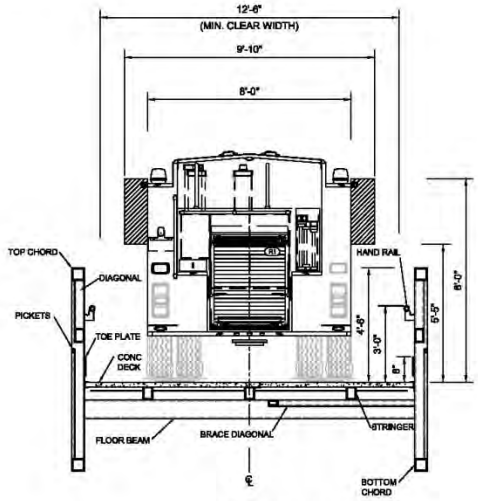

TYPICAL SECTION
No Scale

LIVE LOAD:

1. H20 VEHICULAR LOAD
2. 90 PSF PEDESTRIAN LOAD

HYDRAULICS DATA:

Condition	Elevation (ft. NAVD)	Top Width (ft.)
Q50 = 5,000 cfs	15.20	97.3
Q100 = 5,760 cfs	15.81	99.7
Q100 + Sea Level Rise	16.14	101.1

CALTRANS STANDARD PLANS, 2010

A10-A,B	ACRONYMS AND ABBREVIATIONS
A10 - C,D	SYMBOLS
A62-A	EXCAVATION AND BACKFILL - MISCELANEOUS DETAILS
A62-C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
B0-1	BRIDGE DETAILS
B2-3	16" AND 24" CAST-IN-DRILLED-HOLE CONCRETE PILE
B2-5	PILE DETAILS CLASS 90 AND CLASS 140
B3-6	RETAINING WALL DETAILS NO. 2

MORRO CREEK MULTI-USE TRAIL AND BRIDGE PROJECT
PEDESTRIAN/FIRE TRUCK BRIDGE: ALTERNATIVE 1A

Appendix B U.S. Fish and Wildlife Service Species List

U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

VENTURA FISH AND WILDLIFE OFFICE
2493 PORTOLA ROAD, SUITE B
VENTURA, CA 93003
(805) 644-1766

Endangered Species Act species list information for your project is NOT available online for the following FWS Field Offices:

SACRAMENTO FISH AND WILDLIFE OFFICE
FEDERAL BUILDING
2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
(916) 414-6600

Project Name:
Morro Creek

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Version 1.4

U.S. Fish and Wildlife Service

Natural Resources of Concern

Project Location Map:

Project Counties:

San Luis Obispo, CA

Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-120.8633731 35.3775548, -120.8610117 35.3777473, -120.859574 35.372061, -120.8622358 35.371886, -120.8633731 35.3775548)))

Project Type:

Bridge Construction / Maintenance

U.S. Fish and Wildlife Service

Natural Resources of Concern

Endangered Species Act Species List (USFWS Endangered Species Program).

There are a total of **19** threatened, endangered, or candidate species, and/or designated critical habitat on your species list. Species on this list are the species that may be affected by your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Please contact the designated FWS office if you have questions.

Species that may be affected by your project: (View all critical habitat on one map)

Amphibians	Status	Species Profile		Contact
California red-legged frog (*Rana draytonii*) Population: Entire	Threatened	species info		Ventura Fish And Wildlife Office
Birds				
California Clapper rail (*Rallus longirostris obsoletus*) Population: Entire	Endangered	species info		Ventura Fish And Wildlife Office
California Least tern (*Sterna antillarum browni*)	Endangered	species info		Ventura Fish And Wildlife Office
California condor (*Gymnogyps californianus*) Population: Entire, except where listed as an experimental population below	Endangered	species info		Ventura Fish And Wildlife Office
Least Bell's vireo (*Vireo bellii pusillus*) Population: Entire	Endangered	species info		Ventura Fish And Wildlife Office
Marbled murrelet (*Brachyramphus marmoratus*) Population: CA, OR, WA	Threatened	species info		Ventura Fish And Wildlife Office

U.S. Fish and Wildlife Service

Natural Resources of Concern

Southwestern Willow flycatcher (*Empidonax traillii extimus*) Population: Entire	Endangered	species info		Ventura Fish And Wildlife Office
Western Snowy plover (*Charadrius alexandrinus nivosus*) Population: Pacific coastal pop.	Threatened	species info	Final designated critical habitat	Ventura Fish And Wildlife Office
Crustaceans				
Vernal Pool fairy shrimp (*Branchinecta lynchi*) Population: Entire	Threatened	species info		Ventura Fish And Wildlife Office
Flowering Plants				
California seablite (*Suaeda californica*)	Endangered	species info		Ventura Fish And Wildlife Office
Chorro Creek Bog thistle (*Cirsium fontinale var. obispoense*)	Endangered	species info		Ventura Fish And Wildlife Office
Indian Knob mountain balm (*Eriodictyon altissimum*)	Endangered	species info		Ventura Fish And Wildlife Office
Marsh Sandwort (*Arenaria paludicola*)	Endangered	species info		Ventura Fish And Wildlife Office
Morro manzanita (*Arctostaphylos morroensis*)	Threatened	species info		Ventura Fish And Wildlife Office

U.S. Fish and Wildlife Service

Natural Resources of Concern

Salt Marsh bird's-beak (*Cordylanthus maritimus ssp. maritimus*)	Endangered	species info		Ventura Fish And Wildlife Office
Spreading navarretia (*Navarretia fossalis*)	Threatened	species info		Ventura Fish And Wildlife Office
Mammals				
Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*) Population: Entire	Endangered	species info		Ventura Fish And Wildlife Office
Southern Sea otter (*Enhydra lutris nereis*) Population:	Threatened	species info		Ventura Fish And Wildlife Office
Snails				
Morro Shoulderband snail (*Helminthoglypta walkeriana*)	Endangered	species info		Ventura Fish And Wildlife Office

FWS National Wildlife Refuges (USFWS National Wildlife Refuges Program).

There are no refuges found within the vicinity of your project.

FWS Migratory Birds (USFWS Migratory Bird Program).

Most species of birds, including eagles and other raptors, are protected under the Migratory Bird Treaty Act (16 U.S.C. 703). Bald eagles and golden eagles receive additional protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668). The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional

U.S. Fish and Wildlife Service

Natural Resources of Concern

conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

NWI Wetlands (USFWS National Wetlands Inventory).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

The following wetlands intersect your project area:

Wetland Types	NWI Classification Code	Approximate Acres
Estuarine and Marine Wetland	E2USN	1.068323
Estuarine and Marine Wetland	E2USN	0.770288
Riverine	R2UBH	0.816857
Estuarine and Marine Wetland	E2ESNr	4.183258
Estuarine and Marine Wetland	M2USP	11.841558
Estuarine and Marine Wetland	E2USN	2.147434
Estuarine and Marine Deepwater	E1UBL	1.781221
Estuarine and Marine Deepwater	E1UBL	655.19632
Estuarine and Marine Wetland	E2USN	0.042335
Freshwater Forested/Shrub Wetland	PFOA	2.105659

Appendix C Project Site Photographs

Photograph 1. View of the central dune scrub habitat located at the corner of Coleman Drive and Embarcadero.

Photograph 2. View of the ice plant habitat and ruderal/developed roadway located in the southeastern portion of the BSA.

Photograph 3. View of the ice plant habitat in the foreground and the arroyo willow woodland/riparian in habitat background along the southern bank of Morro Creek, facing north.

Photograph 4. View of bulrush/cattail wetland habitat within the Morro Creek channel, facing east.

Photograph 5. View of ruderal/developed roadway and median within the southeastern portion of the BSA, facing east.

Photograph 6. View of ice plant habitat ruderal/developed area within the portion of Coleman City Park that is in the BSA, facing west.

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Appendix D List of Plant and Wildlife Species Observed

Plant Species Observed Onsite
September 5, 2013

Family	Scientific Name	Common Name
Agavaceae	*Agave attenuata**	foxtail agave (ornamental)
Aizoaceae	*Carpobrotus chilensis***	sea fig
Aizoaceae	*Carpobrotus edulis***	ice plant
Aizoaceae	*Tetragonia tetragonioides***	New Zealand spinach
Apiaceae	*Foeniculum vulgare***	fennel
Araceae	*Lemna* sp.	duckweed
Asteraceae	*Ageratina adenophora***	snakeroot
Asteraceae	*Ambrosia chamissonis*	beach bur
Asteraceae	*Anthemis cotula**	mayweed
Asteraceae	*Artemisia californica*	California sagebrush
Asteraceae	*Artemisia douglasiana*	mugwort
Asteraceae	*Baccharis pilularis*	coyote brush
Asteraceae	*Corethrogyne filaginifolia*	California-aster
Asteraceae	*Cotula coronopifolia***	brass buttons
Asteraceae	*Erigeron bonariensis**	flax-leaved horseweed
Asteraceae	*Erigeron canadensis*	horseweed
Asteraceae	*Gnaphalium palustre*	cudweed
Asteraceae	*Helenium puberulum*	sneezeweed
Asteraceae	*Helminthotheca echioides***	bristly ox-tongue
Asteraceae	*Heterotheca grandiflora*	telegraph weed
Asteraceae	*Isocoma menziesii* var. *menziesii*	coastal goldenbush
Asteraceae	*Jaumea carnosa*	jaumea
Asteraceae	*Senecio blochmaniae*+	Blochman's ragwort
Asteraceae	*Sonchus asper* ssp. *asper**	prickly sow thistle
Asteraceae	*Stephanomeria virgata*	stephanomeria
Asteraceae	*Tanacetum parthenium**	feverfew
Boraginaceae	*Heliotropium curassavicum* var. *oculatum*	seaside heliotrope
Brassicaceae	*Cakile maritima**	sea rocket
Brassicaceae	*Hirschfeldia incana***	perennial mustard
Brassicaceae	*Lobularia maritima***	sweet alyssum
Brassicaceae	*Nasturtium officinale*	water cress
Brassicaceae	*Raphanus sativus***	radish
Chenopodiaceae	*Atriplex prostrata**	fat-hen
Chenopodiaceae	*Dysphania ambrosioides**	Mexican tea

Family	Scientific Name	Common Name
Cupressaceae	*Hesperocyparis macrocarpa*	Monterey cypress (ornamental)
Cyperaceae	*Bolboschoenus maritimus* ssp. *paludosus*	saltmarsh bulrush
Cyperaceae	*Cyperus eragrostis*	tall flatsedge, umbrella sedge
Cyperaceae	*Isolepis cernua*	isolepis
Cyperaceae	*Schoenoplectus pungens* var. *longispicatus*	common three-square bulrush
Euphorbiaceae	*Ricinus communis***	castor bean
Fabaceae	*Acacia longifolia**	Sydney golden wattle
Fabaceae	*Lupinus chamissonis*	dune lupine
Fabaceae	*Medicago polymorpha***	California burclover
Fabaceae	*Melilotus albus**	white sweetclover
Fabaceae	*Melilotus officinalis**	yellow sweetclover
Lythraceae	*Lythrum hyssopifolia***	loosestrife
Malvaceae	*Malva parviflora**	cheeseweed
Myrtaceae	*Eucalyptus globulus***	blue gum
Myrtaceae	*Leptospermum laevigatum**	Australian tea tree (ornamental)
Nyctaginaceae	*Abronia maritima*+	red sand verbena
Onagraceae	*Camissoniopsis cheiranthifolia*	beach evening-primrose
Onagraceae	*Epilobium ciliatum* ssp. *ciliatum*	willowherb
Phrymaceae	*Mimulus guttatus*	monkeyflower
Pinaceae	*Pinus radiata*	Monterey pine (ornamental)
Plantaginaceae	*Plantago coronopus**	cut-leaf plantain
Plantaginaceae	*Plantago major**	common plantain
Plantaginaceae	*Veronica anagallis-aquatica**	water speedwell
Platanaceae	*Platanus racemosa*	western sycamore
Plumbbaginaceae	*Limonium californicum*	western marsh-rosemary
Poaceae	*Ammophila arenaria***	European beachgrass
Poaceae	*Avena fatua***	wild oat
Poaceae	*Brachypodium distachyon***	false brome
Poaceae	*Bromus diandrus***	ripgut grass
Poaceae	*Bromus hordeaceus***	soft chess brome
Poaceae	*Cortaderia jubata***	pampas grass
Poaceae	*Distichlis spicata*	salt grass
Poaceae	*Hordeum murinum***	wall barley
Poaceae	*Pennisetum clandestinum***	kikuyu grass
Poaceae	*Polypogon interruptus**	ditch beardgrass
Poaceae	*Polypogon monspeliensis***	annual beardgrass
Polygonaceae	*Eriogonum latifolium*	seaside wild buckwheat
Polygonaceae	*Eriogonum parvifolium*	seacliff wild buckwheat
Polygonaceae	*Polygonum aviculare**	knotweed
Polygonaceae	*Persicaria lapathifolia*	willow weed
Polygonaceae	*Persicaria punctata*	smartweed
Polygonaceae	*Rumex crispus***	curly dock
Polygonaceae	*Rumex salicifolius*	willow dock
Rosaceae	*Potentilla anserina*	silverweed
Rosaceae	*Rubus ursinus*	California blackberry

Family	Scientific Name	Common Name
Salicaceae	*Salix lasiolepis*	arroyo willow
Scrophulariaceae	*Myoporum laetum***	myoporum
Tropaeolaceae	*Tropaeolum majus**	garden nasturtium
Typhaceae	*Typha latifolia*	broad-leaved cattail
Urticaceae	*Urtica dioica*	stinging nettle

*Indicates a non-native species.
** Indicates a non-native species that is recognized and being tracked by the California Invasive Plant Council (Cal-IPC).
+Indicates a special status species.

Wildlife Species Observed Onsite
September 5, 2013

Scientific Name	Common Name
BIRDS	
Aphelocoma californica	western scrub-jay
Carpodacus mexicanus	house finch
Cathartes aura	turkey vulture
Corvus brachyrhynchos	American crow
Junco hyemalis	dark-eyed junco
Larus californicus	California gull
Pelecanus occidentalis	brown pelican
Phalacrocorax auritus	double-crested cormorant
Sturnus vulgaris	European starling
FISH	
Gasterosteus aculeatus	threespine stickleback
MAMMALS	
Spermophilus beecheyi	ground squirrel
REPTILES	
Sceloporus occidentalis	western fence lizard

EXHIBIT F

Delineation of Potentially Jurisdictional Wetlands and Waters

for

Morro Bay Pedestrian Bridge

City of Morro Bay, California

Prepared for

City of Morro Bay
955 Shasta Ave.
Morro Bay, CA 93442
Attention: Kathy Wold and Barry Rands

by

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August 2013

823.02

EXHIBIT F

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List of Acronyms and Abbreviations

APN: Assessor's Parcel Number

CCA: California Coastal Act

CCR: California Code of Regulations

CDFG: California Department of Fish and Game, now California Department of Fish and Wildlife

CDFW: California Department of Fish and Wildlife, formerly California Department of Fish and Game

CFR: Code of Federal Regulations

Corps: U.S. Army Corps of Engineers

CWA: Clean Water Act

EPA: Environmental Protection Agency

FEMA-FIRM: Federal Emergency Management Agency Flood Insurance Rate Map

GIS: Geographic Information System

GPS: Global Positioning System

NRCS: Natural Resource Conservation Service

NTCHS: National Technical Committee for Hydric Soils

NWS: National Weather Service

OHWM: Ordinary High Water Mark

RWQCB: Regional Water Quality Control Board

SSURGO: Soil Survey Geographic Database

SWRCB: State Water Resources Control Board

TNW: Traditional Navigable Water

U.S.: United States

USACE: U.S. Army Corps of Engineers

USDA: U.S. Department of Agriculture

USFWS: U.S. Fish and Wildlife Service

USGS: U.S. Geological Survey

WETS: Climate Analysis Tables for Wetlands

EXHIBIT F

1.0 Introduction

1.1 Purpose

This report provides a delineation of potential jurisdictional wetlands and waters according to federal and state standards on portions of City-owned and private property on Embarcadero Road, Morro Bay, in San Luis Obispo County, California.

This wetland delineation was conducted as part of planning activities associated with a proposed pedestrian and bike trail with a pedestrian bridge over Morro Creek. The proposed bridge and path would provide safe, stabilized surfaces for pedestrian and bike access along Embarcadero Road. Public access is currently along road shoulders and heavily used informal foot paths through the creek. The proposed bridge would conduct pedestrian traffic over the creek with less direct impact and disturbance to creek bed and bank vegetation.

The principal purpose of this delineation is to describe jurisdictional waters and wetlands of the United States and the State of California according to the standards of each jurisdiction. This document presents a comprehensive inventory and mapping effort of wetland and aquatic resources within the Study Area.

This wetland delineation provides information for owners and agencies with jurisdiction including the United States Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW; formerly California Department of Fish and Game, CDFG), the California Regional Water Quality Control Board (RWQCB), the California Coastal Commission (CCC), and the Lead Agency in decisions regarding activities in the Study Area.

The report delineates wetlands and waters potentially under jurisdiction of the City of Morro Bay, State of California, and/or United States. Section 2.0 provides more detail on the regulatory framework and scope of this jurisdictional delineation.

1.2 Responsible Parties

TABLE 1. RESPONSIBLE PARTIES.

Primary Land Owner, Applicant, and Project Planner	***Biological Consultant***
City of Morro Bay **Planning and Engineering Divisions** 955 Shasta Ave. Morro Bay, CA 93442 (805) 772-6577 Contact: Kathy Wold, Planning Manager Barry Rands, Engineer	**Althouse and Meade, Inc.** 1602 Spring Street Paso Robles, CA 93446 (805) 237-9626 Contact: LynneDee Althouse, Principal Scientist Meg Perry, Senior Biologist
Cooperating Land Owner	
Dynegy Morro Bay Power Plant 1290 Embarcadero Morro Bay, California 93442 Contact: Steve Goschke, Plant Manager	

1.3 Study Area Location and Extent

The 8.69-acre Wetland Delineation Study Area ("Study Area") is entirely within the City of Morro Bay, California. It spans the border between Morro Bay South and Morro Bay North USGS 7.5-minute topographic quadrangles (Section 6.0). Elevation in the Study Area varies from approximately 5 to approximately 25 feet above mean sea level.

The Study Area includes portions of six parcels, APNs 066-331-035 and -028, and 066-461-002, -003, -013, and -015. The Study Area is primarily on land owned by the City of Morro Bay, and also extends onto privately owned property at the south end on either side of Embarcadero Road. Embarcadero Road does not connect across Morro Creek; the north portion is paved, and the south portion is gravel base. Both portions terminate at public parking areas for beach access.

Study Area shape and location were chosen to adequately survey areas potentially affected by a proposed pedestrian and bike trail and bridge crossing over Morro Creek, including potential staging, construction access areas, and alternate trail alignments. The proposed project would have a much smaller permanent footprint. The Study Area incorporates a 25-foot strip on either side of Embarcadero Road to allow room for the pedestrian trail, a strip around existing parking areas that may be needed for temporary construction access and staging, with the focal point centered on Morro Creek, extending 200 feet up and downstream from the existing ends of Embarcadero Road.

1.4 Land Use History and Current Conditions

1.4.1 Vegetation and habitats

The Study Area includes willow woodland, herbaceous wetland, ice plant ruderal, ice-plant/disturbed coastal scrub, and anthropogenic (roads and parking areas). A coastal stream flows through willow woodland and herbaceous wetland habitat types. The southern stream channel has been reinforced in some locations with concrete rubble and rock to prevent bank erosion.

Willow woodland and herbaceous wetland

Willow woodland forms partial canopy over Morro Creek within the Study Area. The dominant species is Arroyo willow (*Salix lasiolepis*), with occasional herbaceous wetland plants present beneath the willows. Morro Creek is a seasonal coastal stream with perennial pools that is known habitat or potential habitat for several special status wildlife species.

Herbaceous wetland occurs in the bed and on banks of Morro Creek adjoining willow canopy. The Study Site is close to the Pacific Ocean: wetlands are influenced by brackish water during high tides, especially during the rainy season. Salt spray also affects conditions in coastal wetlands. Dominant species range from larger perennials such as cattails (*Typha* sp.) and rushes (*Scirpus microcarpus; Schoenoplectus [=Scirpus] californicus*) to smaller annuals and perennials, particularly silverleaf (*Potentilla anserina*), three-square (*Schoenoplectus pungens*), rabbitsfoot grass (*Polypogon monspeliensis*), water speedwell (*Veronica Anagallis-aquatica*), and watercress (*Nasturtium officinale*). Smaller annuals are predominant in areas that receive high flows in the winter; larger perennials are more common along edges of the channel and extending onto low terraces and banks.

Upland habitats: Iceplant ruderal; Iceplant/Disturbed coastal scrub complex

Areas predominantly supporting ice plant (*Carpobrotus edulis*; *C. chilensis*) with low or no presence of native species were mapped as ice-plant dominant ruderal habitat. These areas were primarily adjacent to existing parking areas and roadsides where ice-plant has stabilized sand dune movement and crowded out native dune plants. A few areas support some coastal scrub species mixed with non-native grasses and ice plant. Recent restoration efforts in the vicinity have controlled some of the ice plant, but coastal dune and scrub species are not yet dominant.

Anthropogenic (existing roads and parking areas)

Existing roads are paved and gravel portions of Embarcadero Road north and south of the Creek. Unpaved gravel parking areas are present at both ends of the road, near the creek. These areas are largely devoid of vegetation.

A list of plants observed during delineation efforts is included in Section 4.0, Technical Findings.

1.4.2 Soils

One individual soil map unit from the NRCS SSURGO and Soil Surveys (USDA, NRCS 2008; USDA, NRCS 1984) overlaps the Study Area: Dune land (134).

Dune land (134) consists of hilly areas along the coast composed of sand-sized particles shifted by the wind. Dunes are common along coastal beaches just inland of the beach edge.

Vegetation is typically sparse on foredunes and more common on stabilized backdunes. Dunes typically have sand and fine sand particle size class, and are very rapidly permeable. Surface runoff is slow, and hazard of wind erosion is high. This soil map unit is in capability class VIIIe.

Soil map units on and near the Study Area according to the NRCS soil survey data are presented graphically in Section 6.0.

1.4.3 Climate

Rainfall data for the Morro Bay WETS data set and recent data from the Morro Bay Fire Station Coop Weather Station (Coop #045866), approximately 1 mile southeast of the Study Area were evaluated. The WETS Table for Morro Bay indicates average rainfall for a 30-year sample is 17.62 inches by calendar year. The Morro Bay Fire Station 43-year average is 16.74 inches per calendar year. The 2012-2013 water year (July 1 to June 30 of the following year) was below average to date, with above average fall rain and far less than typical rain during winter months.

TABLE 2. AVERAGE PRECIPITATION BY MONTH (INCHES).

	Average Monthly Rainfall – inches	
	Morro Bay WETS (1971-2000)	Morro Bay Fire Station (1960-2013)
January	3.49	3.29
February	3.69	3.43
March	3.66	2.95
April	1.12	1.21
May	0.34	0.34
June	0.07	0.07
July	0.03	0.03
August	0.09	0.06
September	0.37	0.28
October	0.70	0.72
November	1.54	1.69
December	2.51	2.66
Annual Average	**17.62**	**16.74**

Monthly rainfall records for the 2012–2013 Rain Year indicate that only 6.81 inches were reported from the Morro Bay Fire Station. Almost half of this rain fell in December 2012 (3.24 inches). In low rainfall years, annual plants that succeed best in mesic to wet environments may not be well expressed in ephemerally wet habitats. Although rainfall in 2013 was below average, we are confident sufficient vegetation was present in the study area to investigate potential for wetlands due to the abundance of perennial species in the Study Area. Low landscape positions within the Study Area are associated with the mouth and lowest reaches of Morro Creek, a large seasonal to perennial stream that flows even in dry years.

1.4.4 Watershed

Most of the Study Area is upland dune and coastal terrace with no indication of wetland hydrology. Evidence of surface flow is limited to the vicinity of Morro Creek.

Morro Creek is a coastal stream with seasonal flow, fed by a large watershed that begins in the coastal mountains east of Morro Bay. The Study Area is in the lower reach of Morro Creek. Perennial pools are present, including a large brackish pool where the stream encounters the beach just west of the Study Area. Exact location of this small lagoon and the flow path to Estero Bay (Pacific Ocean) vary annually due to shifting sand, variation in rainfall and variation in storm intensity from year to year. The changing locations of the mouth of Morro Creek and the small lagoon that forms in some years are visible on aerial photo sequences from the past 10 years.

2.0 Regulatory Framework

2.1 Federal Jurisdiction

Section 404 of the Clean Water Act (CWA) authorizes the U.S. Army Corps of Engineers (USACE or Corps) to regulate activities that discharge dredged or fill material to wetlands and other waters of the United States. As described by the Environmental Protection Agency (EPA) and the Corps regulations, 40 CFR § 230.3(s) and 33 CFR § 328.3(a), the term "waters of the United States" encompasses the following resources:

(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

  (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

  (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

  (iii) Which are used or could be used for industrial purpose by industries in interstate commerce.

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;

(6) The territorial seas;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.

2.1.1 Limits of federal jurisdiction

The following provides the regulatory definitions and criteria followed for this Report in determining the geographic extent of potential Section 404 jurisdiction.

The geographic limits of relevant federal jurisdiction for non-tidal waters of the U.S. are defined as follows at 33 CFR § 328.4(c):

> Non-Tidal Waters of the United States: The limits of jurisdiction in non-tidal waters:
>
> (1) In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or
>
> (2) When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands, or
>
> (3) When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

The terms "adjacent" and "ordinary high water mark," used in the above definition, are defined at 33 CFR § 328.3:

> The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands" (33 CFR § 328.3(c)).
>
> The term "ordinary high water mark" means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR § 328.3(e)).

2.1.2 Federal wetlands: definitions

The USACE 1987 Wetlands Delineation Manual (hereafter "1987 Manual"; USACE 1987) uses the following broad definition of wetlands (EPA regulations at 40 CFR § 230.3(t); Corps regulations at 33 CFR § 328.3(b)):

> Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetlands are considered "special aquatic sites" under the USACE definition. Special aquatic sites are afforded protection under the Clean Water Act (sections 401 and 404). Wetlands may occur within the channel of a jurisdictional drainage (federal wetland waters) or adjacent to jurisdictional features (adjacent wetlands). In both cases, the wetland in question must meet Corps criteria for wetlands.

To be classified as a wetland under USACE jurisdiction, a site must meet certain water, soil, and vegetation criteria. The Corps' 1987 Manual and various regional supplements describe the criteria that must be met to determine the presence of a wetland, the methods used to determine whether they are met, and the geographic extent of wetland areas identified in the field.

Key diagnostic criteria for determining the presence of wetlands include:

(1) Wetland Hydrology: Inundation or saturation to the surface during the growing season.

(2) Hydric Soils: Soils classified as hydric or that possess characteristics associated with reducing soil conditions.

(3) Predominance of Wetland Vegetation: Vegetation classified as facultative, facultative wet, or obligate according to its tolerance of saturated (i.e., anaerobic) soil conditions.

The 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0 (hereafter "2008 Arid West Supplement") provides region-specific standards for wetland indicators and delineations in the Arid West Region, which includes all of San Luis Obispo County, California (USACE 2008). The 2008 Arid West Supplement does not change the definition of wetlands; rather, it clarifies the standards by which the three parameters, hydric soils, hydrophytic vegetation, and hydrology, are measured under the specific conditions of arid portions of the western United States.

Specific criteria used to determine the presence or absence of wetland hydrology, soil, and vegetation conditions are described in the subsections below.

2.1.2.1 *Hydrophytic vegetation*

Plant Indicator Status

Hydrophytic vegetation is categorized based on the probability of a taxon to occur in a wetland. The 1988 National List of Plant Species that Occur in Wetlands (Reed 1988) has been superseded. Release of the 2012 National Wetland Plant List (NWPL) was published in the Code of Federal Regulations on May 9, 2012, with an ERDC/CCREL Technical Report released in October 2012 and Regional and State Lists published to the NWPL website in November 2012. The 2012 List was updated in July 2013 to reflect updated taxonomy and is the current approved plant list for determining probability of a plant to occur in a wetland.

Some of the taxonomy used in the National Wetland Plant List differs from current accepted taxonomy used in the Jepson Manual Second Edition, the authority for plant taxonomy in California. Plant names were checked against the NWPL and where taxonomy differs, both the NWPL and current Jepson names are provided.

Wetland indicator status (e.g., tolerance of anaerobic soil conditions) is determined by consulting the National Wetland Plant List (Lichvar 2012) relevant regional list. A National Panel of representatives from four agencies provided input and voted on indicator status for each species included on the NWPL. Additionally, public input was considered. Final indicator status was assigned according to algorithms described on the NWPL website: (http://wetland_plants.usace.army.mil/).

The resulting NWPL includes plants that grow in a range of soil conditions from permanently wet to dry. Species are divided into the following "indicator categories":

1. **"Obligate wetland" (OBL)** species almost always occur in wetlands. With few exceptions, these plants are found in standing water or soils seasonally saturated near the surface (14 or more consecutive days).

2. **"Facultative wetland" (FACW)** species usually occur in wetlands, but may occur in non-wetlands. These plants predominately occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.
3. **"Facultative" (FAC)** species occur in wetlands and non-wetlands. These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH, and elevation, and they have a wide tolerance of soil moisture conditions.
4. **"Facultative upland" (FACU)** species usually occur in non-wetlands, but may occur in wetlands. These plants predominately occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.
5. **"Obligate upland" (UPL)** species almost never occur in wetlands. These plants occupy mesic to xeric non-wetland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.

Several important differences exist between previous and current lists of wetland plant indicator status (Lichvar et al. 2012):

1. Wetland plant species were rated using five categories, based on percentages representing the frequency that a species occurs in a wetland. The updated list uses the same five categories but they are now defined based on qualitative ecological descriptions. Quantitative frequency categories are now used only for field-based studies designed to challenge a species' wetland rating.
2. Plants are rated only at the species level. **Infraspecific taxa are not treated separately.**
3. The NA (no agreement), NO (no occurrence), and NI (no indicator) ratings are no longer used because the update has resolved questions surrounding taxa and distribution previously rated this way.

Species for which a wetland indicator status has not been assigned in the National Wetland Plant List must be designated upland (UPL) according to the Arid West Supplement (USACE 2008), unless there is evidence that the unlisted species are functioning as hydrophytes on a particular site. Justification for treating unlisted species as FAC must be provided.

Species that have an indicator status of OBL, FACW, and FAC are typically considered to be adapted for life in anaerobic soil conditions and are used as evidence of hydrophytic vegetation when they dominate plant community composition or cover (Corps 1987). Despite widespread use of the lists for wetland delineations, it is important to note that wetland indicator species assignments are not based on the results of a statistical analysis of species occurrence. The indicator assignments are approximations of wetland affinity based on a synthesis of submitted review comments, published botanical literature, and the field experience of the members of the National and Regional Panels, with consideration of input from the public.

Individual plants of OBL, FACW, FAC, and FACU species on the NWPL have been observed at least occasionally growing as hydrophytes, and the wetland indicator status reflects the likelihood that a given individual of a species is a hydrophyte or a certain population of these plants is hydrophytic. While OBL and FACW species are the most reliable plant indicators of wetlands, FAC and FACU species may also contain populations of hydrophytes (Tiner 2006).

The 1987 Corps Manual does not solely rely on the presence of hydrophytic vegetation to make wetland determinations.

Hydrophytic Vegetation Determination

The Corps' 1987 Manual states that hydrophytic vegetation conditions are met when the prevalent vegetation (i.e., more than 50 percent of vegetation cover or tree basal area) consists of macrophytes (plants observable without magnification) that are typically adapted to sites having wetland hydrologic and soil conditions (e.g., periodic or continuous inundation or soil saturation). The 1987 Manual notes, "When the dominant species in a plant community are typically adapted for life in anaerobic soil conditions, hydrophytic vegetation is present." Hydrophytic vegetation is defined as "plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content" (Cowardin et al. 1979). Hydrophytic vegetative species, due to morphological, physiological, and/or reproductive adaptation(s), have the ability to grow, effectively compete, reproduce, and/or persist in anaerobic soil conditions. Because many plant species can occur in a range of habitats, including wetlands and non-wetlands, the presence of a wetland indicator species alone does not necessarily indicate wetland. An assemblage of plants can only be considered "hydrophytes" when they are growing in water or partly drained hydric soils (not effectively drained hydric soils) (USACE 1987). Positive indicators of the presence of hydrophytic vegetation include:

1. More than 50 percent of the dominant species are rated as Obligate ("OBL"), Facultative Wet ("FACW"), or Facultative ("FAC") on lists of plant species that occur in wetlands (Reed 1988);
2. Visual observations of plant species growing in sites of prolonged inundation or soil saturation; and
3. Reports in the technical literature indicating the prevalent vegetation is commonly found in saturated soils.

Hydrophytic vegetation indicators have been further defined and described in the 2008 Arid West Supplement. These indicators include:

1. Dominance Test: more than 50 percent of the dominant plant species across all strata are rated OBL, FACW, or FAC. When the dominance test does not clearly indicate hydrophytic vegetation, prevalence index is checked.
2. Prevalence Index: the prevalence index is 3.0 or less with indicators of hydric soils and wetland hydrology being present. Prevalence index is a weighted average for all plant species in a sampling plot by indicator status. Weighting is by abundance. Prevalence index provides a more complete analysis of species composition than dominance test, particularly for sites with only one or two dominants, highly diverse communities, and where strata vary substantially in percent cover.

Morphological adaptations are used to re-assign indicator status to FACU plants that exhibit adaptations atypical for that species when growing in an upland situation. To re-assign a FACU species to FAC indicator status, at least 50 percent of individuals of that species must exhibit adaptations for growth in wetland conditions. The plant community passes either the dominance test or the prevalence index after reconsideration of the indicator status of certain plant species that exhibit morphological adaptations for life in wetlands.

2.1.2.2 *Hydric soils*

The 1987 Manual states that the diagnostic environmental characteristics indicative of wetland soil conditions are met when "soils are present and have been classified as hydric, or they possess characteristics that are associated with reducing soil conditions."

The concept of hydric soils includes soils developed under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation. Soils that are sufficiently wet because of artificial measures are included in the concept of hydric soils. Also, soils in which the hydrology has been artificially modified are hydric if the soil in an unaltered state was hydric.

A February 20, 1992, Corps memorandum entitled Regional Interpretation of the 1987 Manual states that the most recent version of National Technical Committee for Hydric Soils (NTCHS) hydric soil criteria will be used (to make hydric soil determinations) (USACE 1992a). These soil criteria specify at least 15 consecutive days of saturation or 7 days of inundation (flooding or ponding) during the growing season in most years.

The NTCHS has developed criteria for identifying and mapping hydric soils throughout the United States and defines a hydric soil as "a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part [of the soil profile]". The most recent (2012) version of the NTCHS hydric soils criteria identifies those soils that are likely to meet this definition. These criteria, which are accepted by most state and federal agencies, are as follows (USDA-NRCS 2012):

1. All Histels except Folistels and Histosols except Folists, or
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, or Andic, Cumulic, Pachic or Vitrandic subgroups that are:
    a. Somewhat poorly drained with a water table equal to 0.0 foot (ft.) from the surface during the growing season, or
    b. poorly drained or very poorly drained and have either:
        (i.) water table equal to 0.0 ft. during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in),

        or for other soils

        (ii.) water table at less than or equal to 0.5 ft. from the surface during the growing season if permeability is equal to or greater than 6.0 in/hour (h) in all layers within 20 in, or

        (iii.) water table at less than or equal to 1.0 ft. from the surface during the growing season if permeability is less than 6.0 in/h in any layer within 20 in, or
3. Soils that are frequently ponded for long duration or very long duration[1] during the growing season, or

[1] *long duration*: a duration class in which inundation for a single event ranges from 7 days to 1 month.

very long duration: a duration class in which inundation for a single event is greater than 1 month.

4. Soils that are frequently flooded for long duration or very long duration during the growing season.

Field indicators of hydric soils are morphological properties known to be associated with soils that meet the definition of a hydric soil. Presence of one or more field indicators suggests that processes associated with hydric soil formation have taken place on the site being observed. The field indicators are essential for hydric soil identification because once formed, they persist in the soil during both wet and dry seasonal periods. However, not all hydric soil indicators indicate a site is currently hydric because some indicators persist during dry periods and may remain for decades and even centuries after changes in site conditions occur that inhibit subsequent wetland development, such as the elimination of wetland hydrology (NRC 1995). These indicators are useful in determining if soils at a site were historically formed under hydric soil conditions because the indicators persist. Some indicators, including aquic or peraquic moisture regime, reducing soil conditions, and sulfidic odor, indicate current hydric soil conditions.

Hydric soil indicators have also been further defined and described in the 2008 Arid West Supplement. It should also be noted for problematic areas that the Supplement specifies 14 days continuous ponding as an acceptable indicator of problematic hydric soils (USACE 2008, p. 101). The Regional Supplement also states that "if indicators of hydrophytic vegetation and wetland hydrology are present, then hydric soil indicators can be assumed to be contemporary." Therefore, oxidized rhizospheres indicate hydric soil conditions when this feature is combined with hydrophytic vegetation and wetland hydrology.

2.1.2.3 *Wetland hydrology*

The 1987 Corps Manual states that wetland hydrology conditions occur when a "site is inundated either permanently or periodically at mean water depths less than or equal to 6.6 feet, or the soil is saturated to the surface at some time during the growing season of the prevalent vegetation." Whether a site meets either of these criteria is determined by the presence of diagnostic indicators of wetland hydrology, which are presented on pages 28 through 34 of the 1987 Manual.

A March 8, 1992 Corps memorandum entitled Clarification and Interpretation of the 1987 Manual provides further clarification (USACE 1992b):

> Areas which are seasonally inundated and/or saturated to the surface for a consecutive number of days for more than 12.5 percent of the growing season are wetlands, provided the soil and vegetation parameters are met. Areas wet between 5 percent and 12.5 percent of the growing season in most years may or may not be wetlands. Sites saturated to the surface for less than 5 percent of the growing season are non-wetlands.

Wetland hydrology indicators have also been further defined and described in the 2008 Arid West Supplement. These indicators are listed on page 63 of the Supplement. In the Arid West region, wetland hydrology may be indicated when soils are inundated or saturated within 12 inches of the surface for at least two weeks during the growing season. Hydrology indicators included high water table, site topography, drift lines, drainage patterns, sediment deposits, inundation, and saturation of soils. However, extended dry seasons and drought years are part of normal variation in climate patterns of the arid west, and "lack of an indicator is not evidence for the absence of wetland hydrology" (USACE 2008). According to the 2008 Arid West Supplement, wetland hydrology is best indicated by presence of wetland plant communities, hydric soil morphology, and observation of wet conditions during the wet season. Thus in

drought years, plant community and soil morphology are considered carefully when determining if wetland hydrology may be present under normal conditions.

2.1.3 Federal jurisdictional other waters

Many aquatic habitats do not meet criteria for federal wetlands but are jurisdictional other waters of the U.S. All jurisdictional areas documented in the Study Area meet criteria for wetlands, thus extensive discussion of other waters is not warranted here.

2.1.4 Federal legal summary

Recent Supreme Court cases, particularly the SWANCC and Rapanos cases, have resulted in changes to interpretation of USACE jurisdiction over wetlands and waters that are not Traditional Navigable Waters (TNWs) in the strictest sense. The 2001 SWANCC decision vacated USACE authority to take jurisdiction over non-Traditional Navigable Water wetlands and waters solely on the presence of migratory birds. The 2006 Rapanos decision addressed USACE authority to take jurisdiction over wetlands and waters that are non-Traditional Navigable Waters under the Clean Water Act. Supreme Court decisions on these cases allow USACE jurisdiction over non-Traditional Navigable Water wetlands and waters if:

1. The feature in question is a Relatively Permanent Water body (RPW) or a wetland that directly abuts a Relatively Permanent Water, or
2. The feature in question, in combination with all wetlands adjacent to it, has a significant nexus with a Traditional Navigable Water.

The first criterion allows USACE jurisdiction over non-navigable but relatively permanent tributaries to a navigable water. The second criterion allows USACE jurisdiction over non-RPW, tributaries to and wetlands that abut RPW when a "significant nexus" can be established. A "significant nexus" exists if it can be demonstrated that the feature in question, "in combination with all its adjacent wetlands, has more than a speculative or an insubstantial effect on the chemical, physical, and/or biological integrity of a Traditional Navigable Water. …volume, duration, and frequency of flow of water in the tributary and the proximity of the tributary to a Traditional Navigable Water, plus the hydrologic, ecologic, and other functions performed by the tributary and all its adjacent wetlands" should be considered for evaluation of a significant nexus (USEPA and USACE 2007a).

As additional cases are heard by the Supreme Court, understanding of the limits of USACE jurisdiction are refined. The USACE and EPA periodically issue guidance to clarify how the agencies identify wetlands and other waters within their jurisdiction. The most recent approved guidance was issued in 2008; however, new draft guidance was issued in 2011 and is currently under interagency review (as of summer 2013). We do not anticipate that approval of this 2011 guidance would change understanding of jurisdictional areas in the Study Area.

2.2 State Jurisdiction

The State of California receives regulatory authority over wetlands and waters within the State as specified in section 401 of the Clean Water Act; the Porter-Cologne Water Quality Act (State Water Code); the California Coastal Act; and Fish and Game Code Section 1600. Limits of jurisdiction defined in these regulations are summarized below.

2.2.1 State jurisdictional wetlands definitions

The State of California uses a broader definition of wetlands. In conjunction with adopting a wetlands policy on March 9, 1987 the California Fish and Game Commission assigned the California Department of Fish and Game (CDFG; now California Department of Fish and Wildlife) the task of recommending a wetlands definition. The CDFG found the U.S. Fish and Wildlife Service (USFWS) wetland definition and classification system based on the Cowardin definition to be the most biologically valid. California Department of Fish and Wildlife (CDFW) staff uses this definition as a guide in identifying wetlands while conducting on-site inspections for the implementation of its Commission's wetlands policy. Like the USACE definition, the USFWS definition of a wetland incorporates the three key parameters of hydrophytic vegetation, hydric soils, and hydrology (Cowardin et al. 1979):

> Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For the purpose of this classification, wetlands must have one or more of the following attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; (3) the substrate is nonsoil and is saturated or covered with shallow water at some time during the growing season of each year.

The key difference in the federal and state definitions is that under some circumstances, only one of the three criteria must be present for state wetlands. For methodology used in this delineation, see section 3.3.2 below.

Areas within the California Coastal Commission's Coastal Zone are subject to a definition of wetlands that is stricter than the federal definition. Ninety-five percent of the Study Area falls within the Coastal Zone. Wetlands found in the Coastal Zone are regulated under the California Coastal Act of 1976 (CCA), and are within jurisdiction of the California Coastal Commission. Under the CCA, wetlands are defined as land within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens (California Public Resource Code § 30121).

Further precision in wetlands jurisdiction is provided to the Coastal Commission under the California Code of Regulations. Under these provisions wetlands are defined as:

> …land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentration of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetland or deep-water habitats…
>
> For the purposes of this section, the term "wetland" shall not include wetland habitat created by the presence of and associated with agricultural ponds and reservoirs where: (A) the pond or reservoir was in fact constructed by a farmer or rancher for agricultural purposes; and (B) there is no evidence (e.g., aerial photographs, historical survey, etc.) showing that wetland habitat pre-dated the existence of the pond or reservoir. Areas with drained hydric soils that are no longer capable of supporting hydrophytes shall not be considered wetlands (14 CCR 13577).

2.3 City of Morro Bay Wetlands Policy

The City of Morro Bay has prepared a Coastal Land Use Plan as part of its Local Coastal Program, in compliance with the California Coastal Act. The Local Coastal Program specifies how the local government will implement the policies and requirements of the California Coastal Act. Coastal Commission definitions of wetlands and waters are provided above in Section 2.2. Morro Creek is shown as environmentally sensitive habitat on Figure 28, Chapter 12 of the Morro Bay Coastal Land Use Plan, although it is not specifically called out as wetland on that figure.

The Coastal Land Use Plan defines coastal wetland as

> (a) "Wetland" means land within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens (p. 186).

Coastal streams and riparian habitats are defined as

> (a) A "Stream" or a "River" is a natural watercourse as designated by a solid line or dash and three dots symbol shown on the United States Geological Survey map most recently published, or any well-defined channel with distinguishable bed and bank that shows evidence of having contained flowing water as indicated by scour or deposit of rock, sand, gravel, soil or debris.
>
> (b) A "Riparian Habitat" is an area of riparian vegetation. This vegetation is an association of plant species which grows adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other bodies of fresh water (p. 186-187).

3.0 Delineation Methods

3.1 Federal Jurisdiction

3.1.1 Overview of sampling methodology

Potential jurisdictional wetlands and other waters were identified using techniques described in the 1987 Manual and the 2008 Arid West Supplement. The USACE routine onsite method of wetland delineation was used. This includes locating data points within different topographic zones and habitat types that are associated with wetlands and uplands, with the majority of the data points located within the potential wetland boundary.

The site was walked to determine boundaries of plant communities, to look for surface evidence of wetland hydrology, and look for surface evidence of changes in soil type. Sites were selected for intensive soil sampling based on visual observations. Soil pits were dug by hand at three intensively described data points, and field indicators for the three USACE parameters (hydrophytic vegetation, hydric soils, and wetland hydrology) were investigated and described in full. Data points were selected where presence of hydrophytic vegetation, wetland hydrology, and low relief indicated potential wetland, with adjacent pits in upland locations described to compare soil features in upland locations and upland vegetation with soil conditions in suspected wetlands. Locations of all three formally described soil sample sites are recorded on the Jurisdictional Delineation Map (Exhibit A). The Routine Wetland Determination Data Forms

used for each formal soil sample site are included as Exhibit C. Photos of representative sites are included as part of Photo Collections in Exhibit B.

Sufficient pits were dug to verify that specific assemblages of plant species associated with specific landforms and hydrology were also associated with wetland soil conditions. Each formal site evaluation was recorded on a 2008 USACE Routine Wetland Determination Data Form—Arid West Region. Field work was focused on determining extent of wetland conditions adjacent to a coastal salt marsh with tidal channels that connect to the Pacific Ocean.

Site visits were made on May 22, May 29, July 3, and July 29, 2013. Plant material was identifiable to species during delineation work.

3.1.2 Wetlands

3.1.2.1 *Wetland hydrology*

The presence or absence of wetland hydrology field indicators was assessed following methodology presented in the 1987 Manual and the 2008 Supplement. Wetland scientists looked for indicators as described in those documents, including but not limited to high water table, site topography, drift lines, drainage patterns, sediment deposits, inundation, observation of wet conditions during the growing season, and saturation of soils. Indicators observed in the Study Area include drainage patterns and topography, muck, reduced iron, inundation visible on aerial photos, visual observation of standing water, hydrogen sulfide odor, and high water table.

3.1.2.2 *Wetland soils*

Soils were examined according to methodology presented in the 2008 Arid West Supplement and 1987 Manual. Hydric soil indicators were recognized on the basis of soil characteristics verified in the USDA-NRCS publication, *Field Indicators of Hydric Soils in the United States* (version 7.0, USDA-NRCS 2010) and the NTCHS definition of hydric soils. Soil sampling points were located as described above in section 3.1.1, Overview of Sampling Methodology.

Soil profiles were described for selected soil morphological characteristics such as texture, Munsell color, moisture, horizonation, and presence/absence of redoximorphic features. Soil samples were examined in the field with a hand lens where appropriate. Testing for hydric soils was performed by looking for one or more of the field indicators, which include low chroma, mottling, gleying, concretions, iron masses, depletions, and sulfidic odor. Soil series and map units were noted from United States Department of Agriculture (USDA) soils maps; however, due to coarse scale and general nature of soil survey maps, these data were used only to understand the general character of soils on site. Observations and test pits were used to investigate site-specific soil conditions.

Additionally, IRIS tubes (Indicator of Iron Reduction in Soils tubes) were installed in two topographic sequences to verify redoximorphic processes are active in soils with hydric features, and to assess validity of the upland/wetland boundary lines.

3.1.2.3 *Wetland vegetation*

Vegetation in each stratum was identified to species and recorded. The indicator status of plants was confirmed by referring to the *National List of Plant Species that Occur in Wetlands: 1988 National Summary* (Reed). Indicator status is discussed in detail in Section 2.1.

Species dominance was noted for each stratum using the "50/20 Rule". Percent absolute cover was estimated by species for each stratum, and species were ranked in decreasing order of coverage. Dominant species were selected from the ranked list in descending order until their cumulative cover exceeded 50 percent of total cover for each stratum. Any species that alone formed 20 percent or more of the total cover for one stratum was also considered dominant. Dominance was determined for all samples; prevalence index was calculated for selected samples.

3.1.2.4 *Wetland connectivity/adjacency*

In response to decisions on SWANCC, Rapanos, and other recent Supreme Court cases, the EPA and USACE issued a joint Memorandum regarding *Clean Water Act Jurisdiction Following Rapanos v. United States* that requires additional documentation and new standards in determining jurisdiction. This wetland delineation report contains information sufficient to assist Corps project managers in performing jurisdictional determinations consistent with new guidance. Connectivity to Traditional Navigable Waters and their tributaries is established via field work where accessible, as well through analysis of aerial photographs, United States Geographic Service (USGS) topographic map, USGS National Hydrography Dataset, and site-specific topographic survey. Features in the Study Area are immediately adjacent to and share ground and/or surface connection with tidal waters of the Pacific Ocean. Section 6 shows the connection of major drainages in the Study Area to TNWs, specifically, the Pacific Ocean.

3.1.3 Other waters

Non-wetland waters do not occur in the Study Area. All waters mapped in the Study Area have wetland features.

3.2 State and City Jurisdiction

3.2.1 Overview

For federal wetlands that are also under jurisdiction of the State and City, jurisdictional wetlands followed procedures outlined above in Section 3.1, because wetlands that meet federal jurisdictional criteria also fall within State and City definitions of wetlands and waters. We considered the following guidance to determine if areas not under Federal jurisdiction are potentially under the jurisdiction of the State and the City of Morro Bay.

3.2.2 Wetlands

As mentioned in Section 2.2.1 above, sometimes only one indicator is necessary to indicate presence of wetlands under the jurisdiction of the State. Care must be taken when using only one factor to delineate wetlands because annual variations in site conditions can temporarily create circumstances that promote one wetland indicator where a true wetland habitat is not present. For instance:

- Unusually high annual rainfall or unusually intense storms can result in misleading indication of hydrology (events that are not "ordinary", such as floods).
- Soils high in shrinking/swelling clays can seal under prolonged wet conditions and form weak hydric indicators, such as occasional iron concentrations along pores, due to slow diffusion rates of air into soil peds.

- Deep-rooted hydrophytic species such as willows can become established in unusually wet years and persist when conditions return to normal.
- Furthermore, species rated FAC or FACW still have a moderate to high probability of occurring in uplands rather than wetlands.

Therefore, to classify a site as wetland on the basis of only one wetland indicator, all site characteristics are carefully considered. For instance, in a wet year, presence of an annual facultative species is unlikely to indicate wetland, while presence of the same facultative species in a dry year is much more compelling.

3.3 Mapping Methodology

Mapping efforts utilized Wide Area Augmentation System (WAAS)-enabled GeoXT Trimble Global Positioning System (GPS) units, which typically have submeter accuracy under recommended operating conditions. Existing datasets such as the National Hydrography Dataset and the USGS topographic maps were considered during mapping. Our results vary somewhat from these existing publications due to the finer scale and on-the-ground data collection techniques used in our work. GPS data, digitized notes, and photos were imported into ESRI ArcGIS, a Geographic Information Systems software suite, and interpreted into maps. Maps were produced at 1:800 scale (1 inch = approximately 67 feet) using field data, and presented over an NAIP aerial photo for San Luis Obispo County.

4.0 Technical Findings

4.1 Federal Jurisdictional Areas

Our 2013 field work resulted in delineation of 0.96 acre of federal jurisdictional wetlands within the Study Area. A discussion of typical findings for each wetland type is provided below.

4.1.1 Federal wetlands

Wetlands are considered "special aquatic sites" under the USACE definition. Special aquatic sites are afforded protection under the Clean Water Act Sections 401 and 404.

Two types of federal wetlands were mapped: wetland waters were mapped in Morro Creek within the Ordinary High Water Mark, and adjacent wetlands were mapped where hydric soils, vegetation, and hydrology extend outside the ordinary high water mark onto banks of the creek.

Where banks become steep, wetland vegetation vanishes, and upland species, particularly ice plant (*Carpobrotus edulis*), become abundant.

4.1.1.1 *Wetland plant communities*

Riparian trees, particularly arroyo willow (*Salix lasiolepis*) have their roots in the channel bed and lower banks where hydric soil features and evidence of hydrology is noted. Wind pruning affects size of willows at the west edge of the study area, while at the east edge, sheltered willows are much taller. Vegetation is patchy, ranging from willow canopy to short herbaceous annual vegetation. Dominant species range from larger perennials such as cattails (*Typha* sp.) and rushes (*Scirpus microcarpus; Schoenoplectus [=Scirpus] californicus*) to smaller annuals and perennials, particularly silverleaf (*Potentilla anserina*), three-square (*Schoenoplectus*

pungens), rabbitsfoot grass (*Polypogon monspeliensis*), water speedwell (*Veronica Anagallis-aquatica*), and watercress (*Nasturtium officinale*). Smaller annuals are predominant in areas that receive high flows in the winter; larger perennials are more common along edges of the channel and extending onto low terraces and banks.

Vegetation observed on the subject site was used to identify location and extent of wetlands on the subject site. A list of species observed during delineation work and used to determine boundaries of wetlands versus uplands is provided Table 3.

TABLE 3. PLANT LIST. Vegetative indicators recorded on site during wetland delineation work. Plant species not included in the 2013 NWPL are noted "NL" (not listed) and considered upland (UPL) for purposes of wetland delineation per the USACE manual and supplement. Jepson Manual Second Edition names are provided in brackets where they differ from current NWPL names and for species not included in NWPL.

NWPL Scientific Name [JM2 name]	**Common Name**	**Origin**	**Wetland Indicator Status (2013 NWPL)**
Trees			
Salix lasiolepis	Arroyo Willow	Native	FACW
Shrubs			
[Artemisia californica]	Coastal sagebrush	Native	NL (UPL)
[Eriogonum parvifolium]	Coastal buckwheat	Native	NL (UPL
[Leptospermum laevigatum]	Australian tea tree	Introduced	NL (UPL
[Lupinus chamissonis]	Silver bush lupine	Native	NL (UPL)
Rubus ursinus	California blackberry	Native	FAC
Salix exigua	Narrow-leaved willow	Native	FACW
[Senecio blochmaniae]	Blochman's ragwort	Native	NL (UPL)
Herbs			
[Ambrosia chamissonis]	Beach bursage	Native	NL (UPL)
Abronia maritima	Sand verbena	Native	FACU
Atriplex prostrata	Spearscale	Introduced	FACW
Baccharis glutinosa [Baccharis douglasii]	Marsh baccharis	Native	FACW
[Camissoniopsis cheiranthifolia]	Beach suncups	Native	NL (UPL)
Carpobrotus chilensis	Iceplant	Introduced	FACU
[Carpobrotus edulis]	Iceplant	Introduced	NL (UPL)
[Corethrogyne filaginifolia]	California aster	Native	NL (UPL)
Cotula coronopifolia	California aster	Native	OBL
*Epilobium ciliatum [*ssp. *ciliatum]*	Willow-herb	Native	FACW
Helminthotheca echioides	Bristly ox-tongue	Introduced	FACU

NWPL Scientific Name [JM2 name]	Common Name	Origin	Wetland Indicator Status (2013 NWPL)
Helenium puberulum	Sneeze weed	Native	FACW
[Heterotheca grandiflora]	Telegraph weed	Native	NL (UPL)
Isolepis cernua	Miniature tule	Native	OBL
Juncus bufonius	Toad rush	Native	FACW
Juncus patens	Spreading rush	Native	FACW
Juncus phaeocephalus	Brown-headed rush	Native	FACW
Limonium californicum	Sea statice	Native	FACW
[Lobularia maritima]	Sweet alyssum	Introduced	NL (UPL)
Lythrum hyssopifolia	Loosestrife	Introduced	OBL
Melilotus officinalis	Yellow sweetclover	Introduced	FACU
Mimulus guttatus	Stream monkeyflower	Native	OBL
Nasturtium officinale	Common watercress	Origin uncertain	OBL
Plantago major	Common plantain	Introduced	FAC
*Potentilla anserina [*ssp. *pacifica]*	Coastal silverleaf	Native	OBL
Persicaria hydropiper	Water pepper	Introduced	OBL
[Raphanus sativus]	Wild radish	Introduced	NL (UPL)
Ricinus communis	Castor bean	Introduced	FACU
Rorippa curvisiliqua	Curve-pod yellowcress	Native	OBL
Rumex crispus	Curly dock	Introduced	FAC
Rumex salicifolius	Willow dock	Native	FACW
Schoenoplectus maritimus [Bolboschoenus maritimus]	Salt marsh club rush	Native	OBL
Schoenoplectus californicus	California tule	Native	OBL
*Schoenoplectus pungens [*var. *longispicatus]*	Common threesquare	Native	OBL
Scirpus microcarpus	Panicled rush	Native	OBL
Typha latifolia	Broad-leaved cattail	Native	OBL
Urtica dioica ssp. *holosericea*	Stinging nettle	Native	FAC
Veronica anagallis-aquatica	Water speedwell	Native	OBL
Grasses			
Ammophila arenaria	European beach grass	Introduced	FACU
[Avena barbata]	Slender wild oat	Introduced	NL (UPL)
[Brachypodium distachyon]	False brome	Introduced	NL (UPL)
[Bromus diandrus]	Ripgut brome	Introduced	NL (UPL)

NWPL Scientific Name [JM2 name]	Common Name	Origin	Wetland Indicator Status (2013 NWPL)
Cortaderia selloana	Pampas grass	Introduced	FACU
Festuca perennis	Rye grass	Introduced	FAC
*Hordeum murinum [*ssp. *leporinum]*	Foxtail barley	Introduced	FACU
Cenchrus clandestinus [Pennisetum clandestinum]	Kikuyu grass	Introduced	FACU
Polypogon interruptus	Ditch grass	Introduced	FACW
Polypogon monspeliensis	Rabbit's-foot grass	Introduced	FACW

4.1.1.2 *Wetland hydrology*

Within the study area, base flow is within a defined creek channel. In two locations, gravel and sand bars divide the base flow channel into two parts. Clear topographic features define the bed and bank of the channel with benches evident at the edge of the base flow channel.

Drift lines, saturation, ponded water, dominance of obligate wetland species, depth to water table, and a review of aerial imagery were used to assist in determining limits of wetland hydrology within the Study Area. Additionally, oxidized rhizospheres and contemporary stripping of iron from IRIS tubes indicate current wetland hydrology in adjacent wetlands.

Several pools of water were observed during the May site visits, and some of these pools persisted into July, though they were very shallow by that time. Hydrology was verified during a late spring 2013 site visit when conditions had been dry, so observations of saturation can safely be determined to have occurred during the growing season.

4.1.1.3 *Wetland soils*

Three sample sites were identified and evaluated using the 2008 Arid West Supplement Determination form. Soil sampling pits were distributed in different potentially hydrophytic vegetation assemblages, topographically concave areas, and disturbed areas in order to accurately delineate the boundaries of wetlands.

The upland pit (Site 1) consisted of fine sand textures throughout, with colors ranging between 10YR 3/2, 10YR 4/2, and 10YR 4/3 moist, with no redox features. Horizons were fairly uniform in appearance. Moist clay was encountered at 19 inches depth.

Two wetland pits were also described. These pits had more variation in color, texture, and abundance of redoximorphic features. The second sample site (Site 2) had clay loam with fine sandy loam filling cracks to a depth of 5 inches. Presence of the finer texture soil indicates dune material was thin at this sample site. Below this soil was primarily clay loam, with 4 percent redox features as concentrations in the matrix. At 11 inches depth, a sandy clay loam is present with poorly decomposed organic matter, reduced zones, and concentrations up to 10 percent in the matrix, and saturation at 15 inches. At 17 inches depth, we encountered a gravel layer.

The third sample site (Site 3) had similar horizon depths but sandier textures ranging from loamy sand to sandy loam, indicating thicker dune material at this location. Concentrations and zones

of reduction were observed in the second and third horizons. At 15 inches, a layer of very coarse sand was observed.

IRIS tube installations indicated similar patterns. The tubes installed outside the wetland boundary did not exhibit any iron stripping over 5 weeks in the field. The tubes installed partway down slope into the wetland exhibited some zones of iron reduction, and complete removal at the lower depths. The tubes installed in the lowest topographic position had complete iron removal from the tube tips, and gleyed soil was observed clinging to portions of the tubes upon removal. Redoximorphic processes documented by the IRIS tubes were mostly more than 12 inches below soil surface, because tubes were installed very late in spring during a dry year. Because iron removal did occur within the upper 18 inches of the soil profile after the wettest part of the growing season had ended, it is reasonable to conclude that redox features observed in the upper 12 inches are also contemporary.

4.1.2 Federal other waters

No non-wetland waters are present in the Study Area.

4.2 State Jurisdictional Areas: Wetlands

Wetlands are considered "special aquatic sites". Special aquatic sites are afforded protection by the California Department of Fish and Wildlife Code (Section 1603).

State wetlands include all areas that are federal jurisdictional wetlands, and also include additional features that lack one or more indicators necessary to meet federal standards, or that meet all three federal criteria but lack connectivity to a traditional navigable water or relatively permanent water. No additional state wetlands were mapped. No other locations in the Study Area had sufficient evidence of hydric soil, wetland hydrology, or hydrophytic vegetation to be deemed state wetland. See Section 4.1 for discussion of wetlands that are federal jurisdictional wetlands.

5.0 Jurisdictional Delineation

Jurisdictional areas (Table 4) are based on the mapped location of wetlands mapped as described in Section 3 for the Jurisdictional Delineation Study Area. On this site, all wetlands are under the jurisdiction of USACE, CDFW, RWQCB, and California Coastal Commission. There are no features that are jurisdictional under just one agency's regulations.

5.1 Jurisdictional Areas

In the Study Area, 0.96 acre of wetlands, including approximately 0.31 acres of wetland waters, meet Corps wetland criteria under CWA section 404, based on collective presence of hydric soil, wetland hydrology, and hydrophytic vegetation as well as established connection to Traditional Navigable Waters and/or Relatively Permanent Waters of the U.S. Areas for each individual wetland are included as Tables in Exhibit A.

A summary of all jurisdictional areas within the Study Area is provided in Table 4.

TABLE 4. JURISDICTIONAL WETLAND AND OTHER WATERS. Calculated federal jurisdictional wetland area and length of other waters are given for the Study Area.

Wetland Type	Area (Acre)	Length (Linear feet)	Agency with Jurisdiction
Adjacent Wetland	0.65	n/a	USACE; CDFW; RWQCB; CCC
Wetland Waters	0.31	480 feet	USACE; CDFW; RWQCB; CCC

The Study Area is in the Coastal Zone and subject to regulation by the Coastal Commission.

This report is subject to verification by the United States Army Corps of Engineers, the State of California, and the City of Morro Bay.

6.0 Figures

- Figure 1. General Location Map
- Figure 2. Aerial Photograph
- Figure 3. USDA Soil Map Units
- Figure 4. FEMA FIRM Flood Zones

EXHIBIT F

EXHIBIT F

General Location

Morro Creek Pedestrian Bridge

2012 San Luis Obispo County
NAIP Aerial Photography
Map Updated: August 16, 2013, 01:16 PM

Althouse and Meade, Inc.
1602 Spring Street
Paso Robles, CA 93446

EXHIBIT F

Study Area for the Wetland Delineation and Botanical Survey

Legend

Study Area

0 100 200 400 600 800 1,000 Feet

Morro Creek Pedestrian Bridge

2012 San Luis Obispo County
NAIP Aerial Photography
Map Updated: August 16, 2013, 01:10 PM

Althouse and Meade, Inc.
1602 Spring Street
Paso Robles, CA 93446

EXHIBIT F
USDA Soils Map

Soil Map Units
Study Area

107: Beaches
134: Dune land
192: Psamments and Fluvents, occasionally flooded

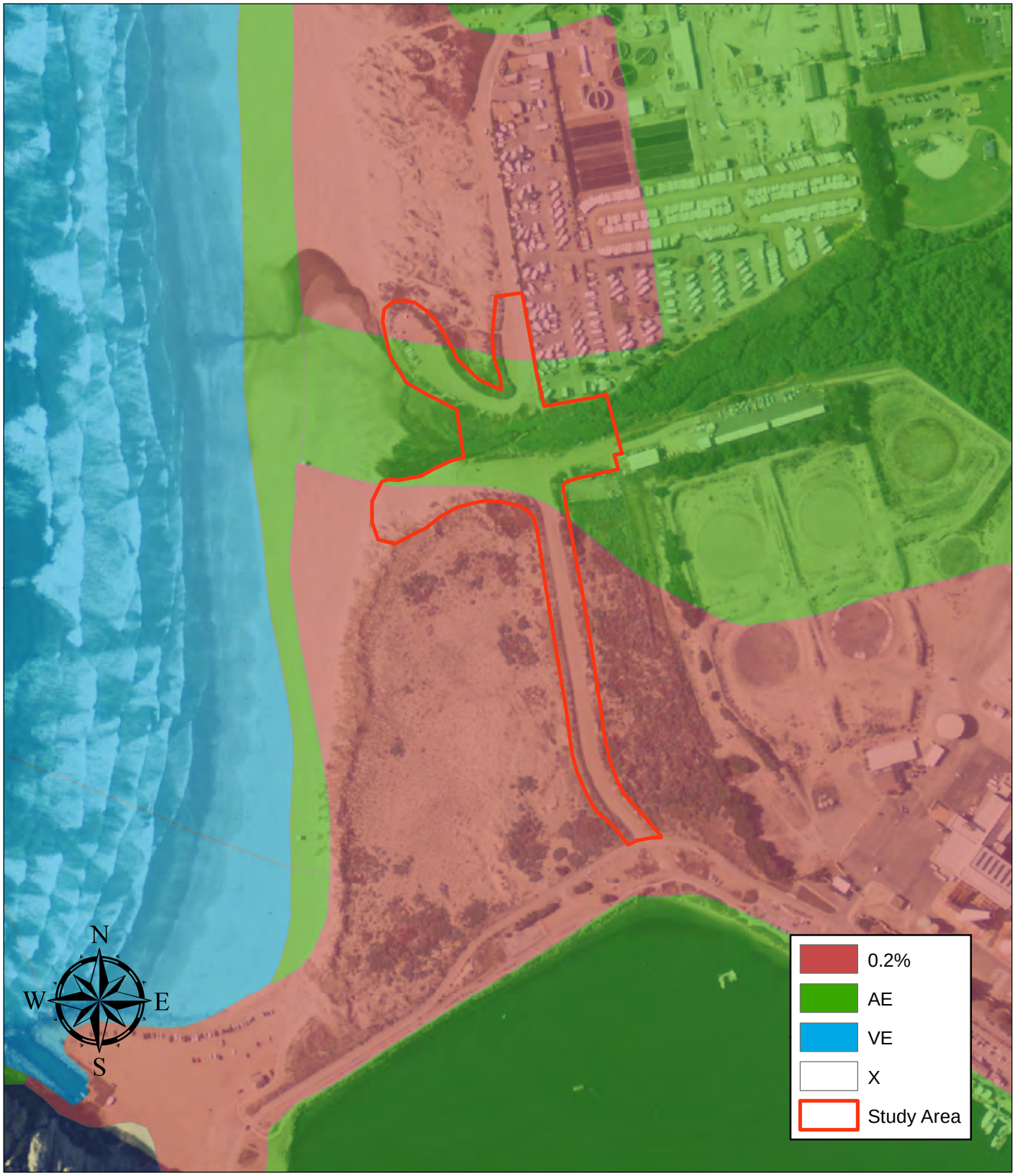
0 250 500 1,000 Feet

Morro Creek Pedestrian Bridge

Soil Survey of San Luis Obispo County
Coastal Soils
2012 San Luis Obispo County
NAIP Aerial Photography
Map Updated: August 16, 2013, 01:19 PM

Althouse and Meade, Inc.
1602 Spring Street
Paso Robles, CA 93446

EXHIBIT F
FIRM Map



Morro Creek Pedestrian Bridge

FEMA/FIRM Data
2012 San Luis Obispo County
NAIP Aerial Photography
Map Updated: August 16, 2013, 01:14 PM

Althouse and Meade, Inc.
1602 Spring Street
Paso Robles, CA 93446

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Exhibit A – Delineation of Jurisdictional Wetland

- Wetland Delineation: 2 sheets:
  - Wetlands in the Study Area
  - Fine-scale mapping in the Study Area where wetlands occur
- IRIS Tube installation locations

EXHIBIT F

EXHIBIT F

Morro Bay Pedestrian Bridge Wetland Delineation

Morro Creek Pedestrian Bridge

2012 San Luis Obispo County
NAIP Aerial Photography
Map Updated: August 21, 2013, 02:42 PM

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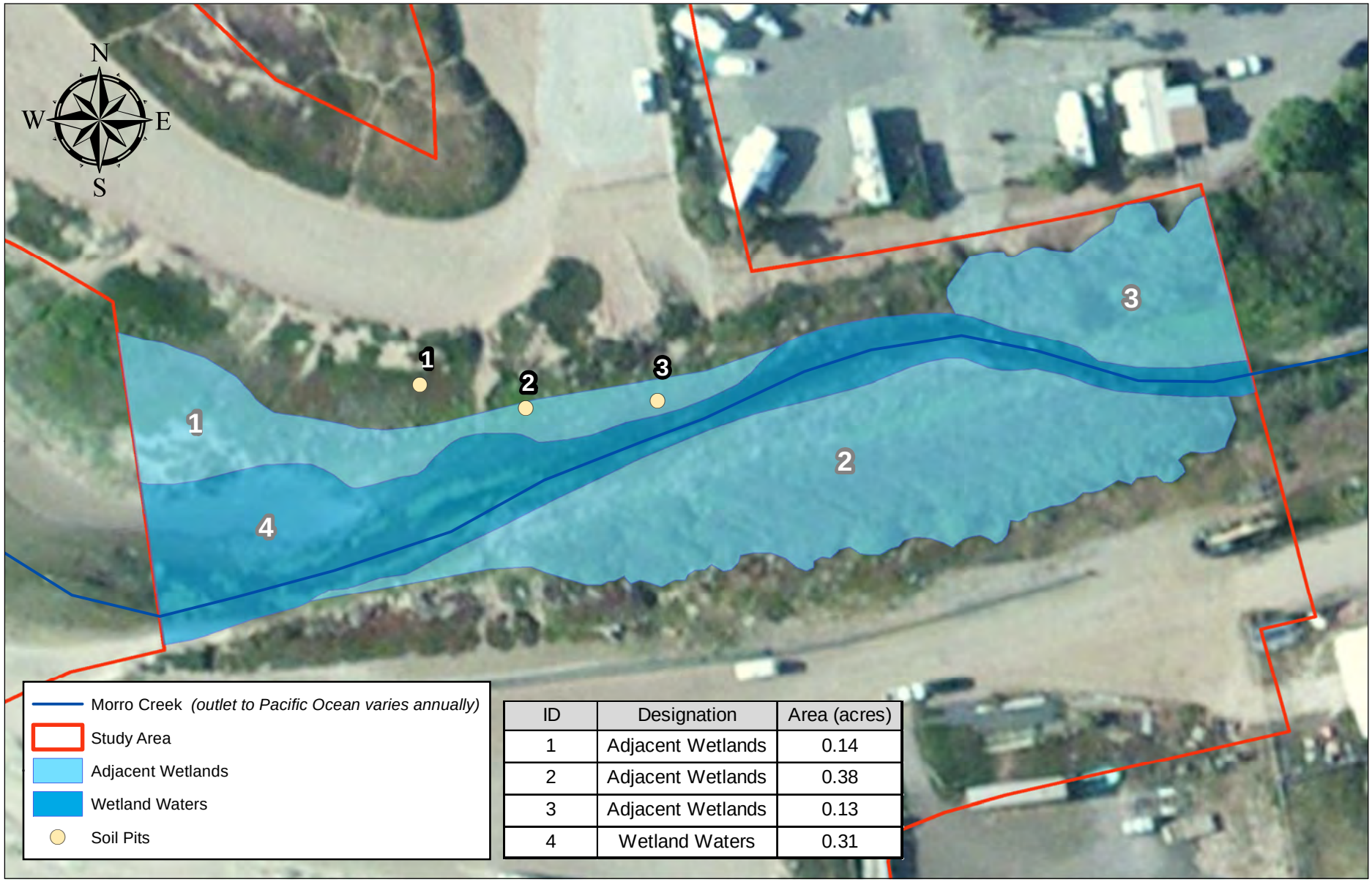
1602 Spring Street
Paso Robles, CA 93446

EXHIBIT F

EXHIBIT F

Morro Bay Pedestrian Bridge Wetland Delineation



ID	Designation	Area (acres)
1	Adjacent Wetlands	0.14
2	Adjacent Wetlands	0.38
3	Adjacent Wetlands	0.13
4	Wetland Waters	0.31

0 100 200 400 Feet

Morro Creek Pedestrian Bridge

2012 San Luis Obispo County
NAIP Aerial Photography
Map Updated: August 21, 2013, 02:41 PM

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EXHIBIT F

EXHIBIT F

Morro Bay Pedestrian Bridge IRIS Tube Sequence Locations

Morro Creek Pedestrian Bridge

2012 San Luis Obispo County
NAIP Aerial Photography
Map Updated: August 21, 2013, 02:42 PM

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Paso Robles, CA 93446

EXHIBIT F

Exhibit B – Photo Collections

1. Morro Creek near proposed bridge. Photo May 22, 2013.

2. Morro Creek wetlands viewed from channel facing east. May 2013.

3. Eastern wetland and willow woodland, freshwater species dominant. May 2013.

4. Western herbacoues wetland with increasing abundance of salt-tolerant species. May 2013.

5. Wind-pruned willows at western end of willow woodland. May 2013.

6. Redoximorphic features in soil pit 2, May 2013.

7. IRIS tube condition prior to deployment, May 2013. Upper end of tube (left end of photo) is above ground, and lower end is installed in soil.

8. IRIS tubes with zones of iron removal (right edge of photo) from wetland locations after 6 weeks of deployment. July 2013.

EXHIBIT F

Exhibit C – Routine Wetland Determination Forms

A United States Army Corps of Engineers, Routine Wetland Determination data form (2008 Arid West Supplement Version) was completed in the field for 3 sampling sites. The forms included here are copies of forms written in the field. The original forms are on file in our office.

EXHIBIT F

EXHIBIT F

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Morro Pedestrian Bridge City/County: Morro Bay Sampling Date: 5-29-13
Applicant/Owner: City of Morro Bay State: CA Sampling Point: #1
Investigator(s): M.P. and J.T. Section, Township, Range:
Landform (hillslope, terrace, etc.): Stream terrace Local relief (concave, convex, none): flat Slope (%): 0
Subregion (LRR): Lat: 35.37624 Long: -120.86198 Datum:
Soil Map Unit Name: NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes	No X	
Wetland Hydrology Present?	Yes	No X	

Remarks: Low rainfall years

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5'x5')			
1. carpobrotus chilenses	80	X	FACU
2. distichlis spicata	15		FAC
3. scirpus pungens	5		OBL
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species		x 2 =	
FAC species	15	x 3 =	45
FACU species	80	x 4 =	320
UPL species		x 5 =	
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

EXHIBIT F

SOIL

Sampling Point: #1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					FS	hydrophobic
3-10	10YR 4/2	100					FS	
10-19	10YR 4/3	100					FS	moist when sampled
19+	10YR 4/3	100					FS	moist when sampled

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks: moist clay at bottom of pit

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: pit on high terrace above channel and below adjacent coastal bluff

EXHIBIT F

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Morro Pedestrian Bridge City/County: Morro Bay Sampling Date: 5-29
Applicant/Owner: City of Morro Bay State: CA Sampling Point: 2
Investigator(s): MP & JT Section, Township, Range:
Landform (hillslope, terrace, etc.): stream terrace Local relief (concave, convex, none): none Slope (%): 2
Subregion (LRR): Lat: 35.376203 Long: -120.861834 Datum:
Soil Map Unit Name: NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No	**Is the Sampled Area within a Wetland?** Yes X No
Hydric Soil Present?	Yes X No	
Wetland Hydrology Present?	Yes X No	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5'x5')	Dom	% Cover	
1. Scirpus pungens		2	OBL
2. Argentina anserina	X	95	OBL
3. Festuca perennis		1	FAC
4. Polypogon interruptus		2	FACW
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 95 97	x 1 = 97
FACW species 2	x 2 = 4
FAC species 1	x 3 = 3
FACU species	x 4 =
UPL species	x 5 =
Column Totals: 100 (A)	104 (B)

Prevalence Index = B/A = 1.04

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks:

EXHIBIT F

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/2	80	10YR 6/8	3-4	C,CS	M	CL	earthworms
	10YR 3/2	20					FSL	
5-11	10YR 2/2	75					CL	veins of sand
	10YR 3/3	21						
11-17	10YR 3/2	86	10YR 2/1	4	organic	M	SCL	conc in matrix &
			10YR 4/2	10	RM	M		10YR 5/8, 10%, C, M
17+	Gravel						VCS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: moist to surface; redox not evident in gravel layer

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- X Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): _____

Water Table Present? Yes ___ No ___ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 15

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

EXHIBIT F

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Morro Pedestrian Bridge City/County: Morro Bay Sampling Date: 5/29/13
Applicant/Owner: Morro Bay City State: CA Sampling Point: 3
Investigator(s): MEP / JETJ Section, Township, Range:
Landform (hillslope, terrace, etc.): lowest stream terrace Local relief (concave, convex, none): none Slope (%): 0-2
Subregion (LRR): Lat: 35.37622 Long: -120.86640 Datum:
Soil Map Unit Name: NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____

Remarks:
below average rainfall year

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 5x5')			
1. Argentina anserina	55	Y	OBL
2. Schoenoplectus pungens	43	Y	OBL
3. Polygonon interruptus	2	N	FACW
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	98	x 1 = 98
FACW species	2	x 2 = 4
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	100 (A)	102 (B)

Prevalence Index = B/A = 1.02

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

EXHIBIT F

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100	—	—	—	—	LS	wet
6-12	2.5Y 4/1	~78	10YR 3/1	15	RM	M	SL	wet
			10YR 5/6	7	C	PL, M		
12-15	2.5 N	98	10YR 4/4	10	C	PL, M	SL	Saturated
15+	10YR 7/1	100	gravelly - not obvious redox				VGS	10% soil 90% sm. gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes X No ___ Depth (inches): 16"

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 12"

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix A – Climate Data

WETS data for Morro Bay and Morro Bay Fire Station precipitation records are attached.

EXHIBIT F

EXHIBIT F

WETS Station : MORRO BAY FIRE DEPT, CA5866 Creation Date: 08/29/2002
Latitude: 3522 Longitude: 12051 Elevation: 00120
State FIPS/County(FIPS): 06079 County Name: San Luis Obispo
Start yr. - 1971 End yr. - 2000

Month	Temperature (Degrees F.) avg daily max	avg daily min	avg	Precipitation (Inches) avg	30% chance will have less than	more than	avg # of days w/.1 or more	avg total snow fall
January	62.2	42.1	52.2	3.49	1.34	4.23	6	0
February	62.9	43.8	53.4	3.69	1.4	4.47	6	0
March	62.9	44.4	53.7	3.66	1.24	4.45	5	0
April	63.8	45	54.4	1.12	0.4	1.34	2	0
May	63	47.5	55.3	0.34	0	0.36	0	0
June	64.4	50.1	57.3	0.07	0	0.04	0	0
July	65.5	52.1	58.8	0.03	0	0.02	0	0
August	66.4	53.1	59.7	0.09	0	0.02	0	0
September	68.2	52.4	60.3	0.37	0	0.38	0	0
October	68.9	50	59.4	0.7	0.19	0.85	1	0
November	66.5	45.7	56.1	1.54	0.48	1.86	3	0
December	62.8	41.7	52.2	2.51	1.02	3.1	4	0
Annual	-----	-----	-----	------	13.05	20.67	--	----
Average	64.8	47.3	56.1	------	------	------	--	----
Total	-----	-----	-----	17.62	------	------	27	0

GROWING SEASON DATES

Probability	Temperature 24 F or higher	28 F or higher	32 F or higher
	Beginning and Ending Dates Growing Season Length		
50 percent *	----------	> 365 days	> 365 days
	> 365 days	> 365 days	> 365 days
70 percent *	----------	> 365 days	> 365 days
	> 365 days	> 365 days	> 365 days

* Percent chance of the growing season occurring between the Beginning and Ending dates.

EXHIBIT F

total 1959-2002 prcp

Station : CA5866, MORRO BAY FIRE DEPT

------ Unit = inches

yr	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	annl	Month Flag
59		4.22	0	0.2	0.1	0	0	0	0.98	0	0	0.37	5.87	may m
60	2.64	5.13	1.1	1.19	0.05	0	0	0	0	0.17	3.4	1.38	15.06	
61	1.78	0.32	0.85	0.35	0.34	0	0	0	0.01	0	1.67	1.28	6.6	
62	2.51	9.75	1.8	0.14	0.01	0	0	0.06	0	0.48	0.12	3.12	17.99	
63	1.6	4.05	4.45	3.54	0.61	0.14	0	0	0.41	1.73	3.41	0.14	20.08	
64	1.84	0.11	2.11	1.07	0.58	0.18	0	0	0.09	1.69	3.1	3.87	14.64	
65	1.28	0.6	1.85	3.43	0.04	0.02	0	0.1	0.1	0.03	4.97	2.45	14.87	
66	1.58	0.67	0.19	0.06	0.07	0.07	0.52	0.02	0.61	0	3.45	3.56	10.8	
67	2.43	0.42	3.99	5.11	0.13	0.13	0	0	0.87	0.13	1.7	1.56	16.47	
68	1.14	1.75	2	1.24	0.06	0	0	0	0.06	2.64	2.02	2.71	13.62	
69	10.6	6.6	0.87	2.59	0	0.01	0.26	0	0.44	0.8	0.59	1.36	24.12	
70	3.68	0.91	2.36	0.06	0	0.08	0	0	0	0.21	4.57	4.95	16.82	
71	1.45	0.25	0.8	0.99	0.83	0	0	0	0.15	0.3	1.08	3.77	9.62	
72	1.02	0.4	0.03	0.62	0.13	0.01	0.05	0	0	1.94	4.42	2.39	11.01	April m
73	7.61	7.16	3.64	0.03	0.25	0	0	0	0.07	1.01	2.8	3.8	26.37	
74	5.66	0.44	6.3	2.25	0.01	0	0.05	0.03	0	1.15	0.36	3.46	19.71	
75	0.16	3.81	3.87	1.43	0.04	0.01	0.04	0	0.1	1.14	0.24	0.13	10.97	
76	0.02	3.44	1.29	0.78	0	0.02	0	1.6	2.72	0.2	1.05	1.58	12.7	
77	1.82	0.17	1.82	0.04	1.61	0	0	0	0.06	0.13	0.58	5.54	11.77	
78	6.47	6.68	5.35	3.77	0	0.05	0	0	1.11	0	2.93	1.35	27.71	
79	4.38	3.99	3.91	0.38	0.03	0	0.02	0.04	0.03	0.73	0.75	4.03	18.29	
80	6.35	5.83	2.32	0.8	0.36	0	0.4	0.02	0.05	0.07	0.01	0.5	16.71	
81	3.91	1.66	5.22	0.43	0.02	0	0	0.03	0	1.76	2.05	1.28	16.36	
82	2.62	2.19	6.53	3.26	0	0.29	0	0.01	1.02	1.17	4.39	1.5	22.98	
83	8.94	7.86	6.35	3.56	0.22	0	0	0.69	1.07	0.88	2.12	2.94	34.63	
84	0.21	0.6	0.92	0.63	0	0.01	0.1	0.02	0.16	0.64	2.43	2.05	7.77	
85	0.58	1.6	2.1	0.34	0	0	0	0.02	0.09	0.56	3.01	0.8	9.1	
86	2.15	4.86	5.31	0.18	0	0	0.01	0	0.68	0.03	0.26	1.25	14.73	
87	2.5	3.21	3.86	0.36	0.09	0.04	0	0.03	0	1.97	1.21	4.64	17.91	nov m
88	2.17	1.79	0.06	2.83	0	0.22	0.03	0	0	0.06	1.34	5.4	13.9	may m
89	0.92	1.21	1.26	0.3	0.31	0	0	0	1.5	1.37	0.39	0	7.26	
90	2.08	1.67	0.44	0.38	0.95	0	0	0	0.44	0.02	0.28	0.57	6.83	
91	0.7	2.39	11.09	0.36	0	0.15	0	0.11	0.03	0.34	0.23	4.92	20.32	dec m
92	2.16	8.15	2.55	0.28	0	0.11	0.14	0.01	0.01	0.87	0	5.89	20.17	March m
93	6.41	5.73	4.61	0.1	0.32	0.02	0	0	0	0.2	1.3	2	20.69	june m
94	2.3	2.61	1.11	0.97	0.56	0	0	0	0.95	0.28	2.12	1.42	12.32	
95	11.78	1.45	18.29	1.34	1.38	0.77	0	0	0	0	0.31	1.69	37.01	
96	2.62	8.45	1.01	0.93	0.46	0	0.03	0	0	2.01	2.18	6.98	24.67	april m
97	7.06	0.1	0	0.2	0	0	0.02	0.02	0.01	0.03	5.31	4.67	17.42	dec m
98	4.62	11.28	4.6	1.72	2.46	0	0	0	0.12	0.49	1.65	0.56	27.5	
99	2.51	1.86	3.92	1.96	0	0	0	0	0.74	0.07	1.29	0.09	12.44	
0	3.65	9.92	1.32	2.23	0.28	0.38	0	0	0.1	1.68	0.02	0.19	19.77	
1	4.08	5.03	2.92	1.17	0	0	0	0	0	0.4	3.07	2.82	19.49	
2														

EXHIBIT F

MORRO BAY FIRE DEPT, CALIFORNIA (045866)

Period of Record Monthly Climate Summary

Period of Record : 2/ 1/1959 to 2/28/2013

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	62.3	62.9	63.2	64.1	63.6	64.6	66.0	66.8	68.2	69.2	66.6	62.4	65.0
Average Min. Temperature (F)	42.9	44.1	44.7	45.4	47.8	50.3	52.5	53.2	52.6	50.4	46.7	42.6	47.8
Average Total Precipitation (in.)	3.29	3.43	2.95	1.21	0.34	0.07	0.03	0.06	0.28	0.72	1.69	2.66	16.74
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 99.9% Min. Temp.: 99.9% Precipitation: 99.9% Snowfall: 100% Snow Depth: 100%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

Morro Bay Pedestrian Bridge Wetland Delineation:
Classified by City Wetland Definitions

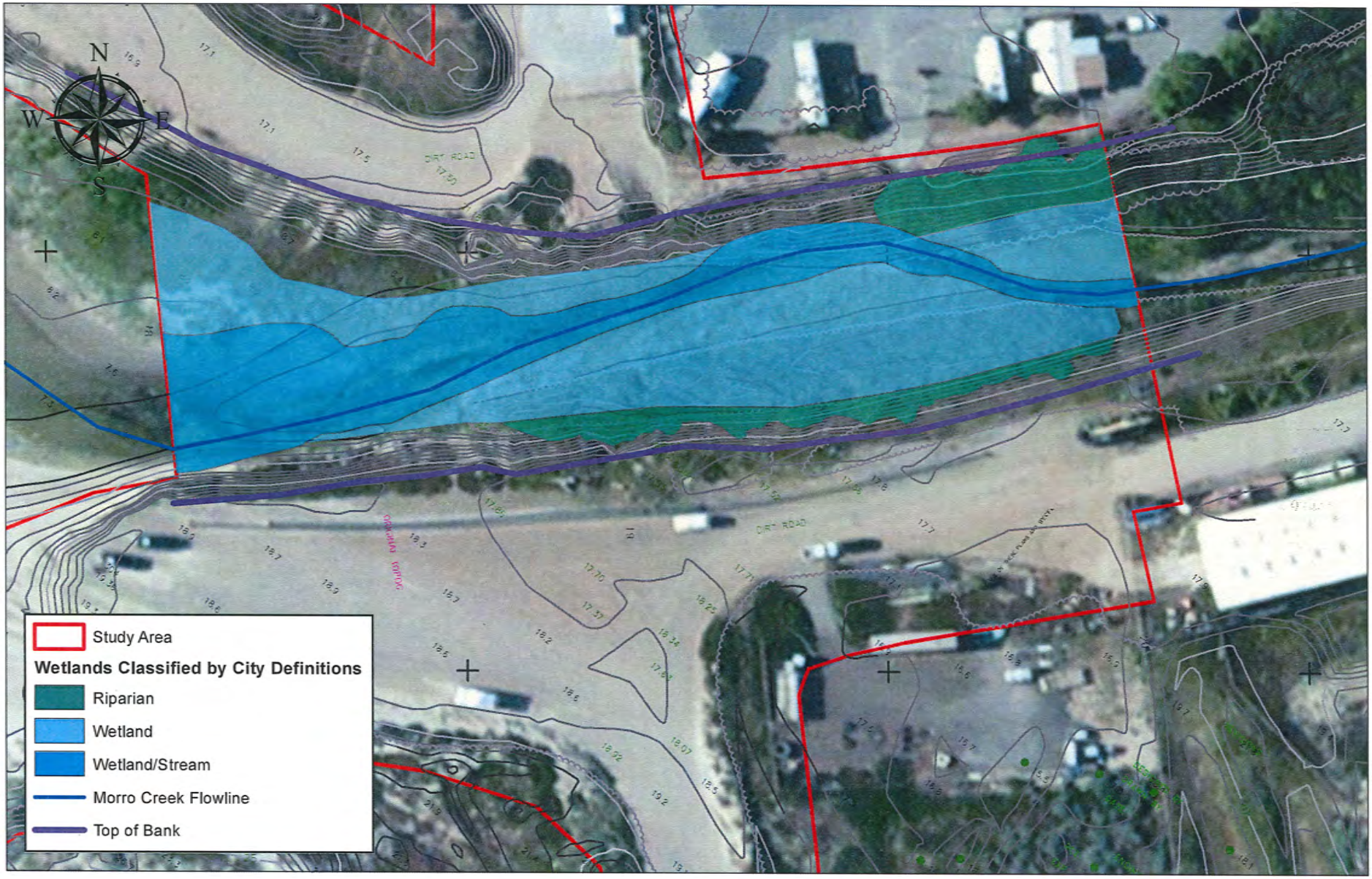

EXHIBIT G

Morro Creek Pedestrian Bridge

2012 San Luis Obispo County
High Resolution Imagery from ESRI Online
Map Updated: October 22, 2013 05:33 PM

Althouse and Meade, Inc.
1602 Spring Street
Paso Robles, CA 93446

EXHIBIT H

MORRO CREEK MULTI-USE TRAIL AND BRIDGE PROJECT
CONSTRUCTION AND STAGING AREAS

Project construction would be staged at a disturbed area adjacent to the Dynegy parking lot, east of Embarcadero Road. This location is approximately 300 feet from the nearest residential receptor; however, the project staging area would be predominantly used for stocking materials and vehicle storage when not in use (such as overnight), and equipment idling would be prohibited in the staging area. Therefore, with implementation of applicable SLOACPD dust control measures, the proposed project would have a less than significant impact to air quality from project construction.

Agenda No: C-1

Meeting Date: December 18, 2013

City of Morro Bay
Public Services/Planning Division
Current Project Tracking Sheet
This tracking sheet shows the status of the work being processed by the Planning Division
New Planning items or items recently updated are highlighted in yellow. Building permit updates are highlighted in green.

Approved projects are deleted on next version of log.

#	Applicant/ Property Owner	Project Address	Date	Permit Numbers	Project Description/Status	Planning Comments and Notations	Building/Fire Comments and Notations	Engineering Comments and Notations	Harbor/Admin Comments and Notations
Hearing or Action Ready									
1	*City of Morro Bay*	*Morro Creek/Embarcadero*	*3/14/13 & 10/25/13*	*UP0-371*	*FHWA Approved PE funds - CASB12RP-5391(013) - Phase 1 Morro Creek Trail & Bridge Project*	*In process. NEPA review required.RFP released 3-25-13. Planning working on PES form. Working with Althouse to do Botany survey and wetland delineation. Met with consultants on site on May 22, 2013. Consultant selected. PWAB meeting held to discuss bridge design options. Option 1. MND routed to State Clearinghouse. Review period ends 11/26/13. CUP application recvd 10/25/13. Under review.*	*BC- under review.TP-Cond. Approve 12/3/13*	*BCR-Planning and engineering ongoing. Bridge load and configuration selected: H-20 loading will allow our FD vehicles to cross. 30% design complete. Financial limitations may require redesign of trail. Supplemental funds spplied for from SLOCOG.*	
2	*Volk*	*800 Quintana*	*10/14/13*	*CP0-413 & UP0-368*	*R/R Antennas & TMA Units*	*CJ- Project reviewed and ready for Planning Commission meeting 11/20/13. Project to include a height exception to increase height by 3 feet. Project approved by Planning Commission on November 20, 2013 but inadequate noticing was provided, project to be renoticed for the January 2, 2014 P.C. meeting.*	*FD/TP-Cond. Approve 11/13/13. BC- conditionally approved.*	*RPS: Rcmd Approval with no comments*	
30 -Day Review, Incomplete or Additional Submittal Review									
3	Parker/Steinmann	885 Embarcadero	11/6/13	UP0-372 (Amendment of CUP 28-02)	Amendment to Use Permit 28-02 to modify location of trash enclosure	KM - Corrections returned 11-21-13.	BC- conditionally approved. Fire denied 11-26-13. TP-Disapprove 11/22/13.		
4	Turner	356 Yerba Buena	10/30/13	CP0-412	Single Family Addition & Remodel	Property located within ESH area. Wetlands delineation study received. Incomplete letter sent 11-26-13. CJ.	BC- conditionally approved.TP-Cond Approve 11/25/13.		
5	Buquet	647 Estero	10/16/13	CP0-411	Admin Coastal Development Permit for new SFR	KM - Under review. Corrections returned 11/15/13.	Review complete, applicant to	DH-Comments provided	

#	Applicant/ Property Owner	Project Address	Date	Permit Numbers	Project Description/Status	Planning Comments and Notations	Building/Fire Comments and Notations	Engineering Comments and Notations	Harbor/Admin Comments and Notations
6	*Hough*	*289 Main*	*10/16/13*	*CP0-410 & UP0-369*	*CDP and CUP to construct a single family home on vacant lot*	*CJ- under review. Met with Applicant's representative 11-21-13. Project subject to bluff development standards.*	*BC- conditionally approved. TP-Disapprove 12/6/13.*	*BCR: Conditionally approved: ECP and sewer video required per memo of 10/28/13*	
7	*Hough*	*279 Main*	*10/7/13*	*CP0-409 &UP0-366*	*CDP and CUP to construct a single family home on vacant lot*	*CJ- Project reviewed and additional info requested 11-21-13. Met with Applicant's representative 11-21-13.*	*Bldg -- Review complete, applicant to obtain building permit prior to construction. TP/FD Disapprove w/corrections 10/17/13.*	*BCR: Conditionally approved: ECP and sewer video required per memo of 10/28/13*	
8	Adamson	1000 Ridgeway	9/12/13	CP0-408	Admin Coastal Development Permit for Demo/Reconstruct of single family residence.	Under initial review. Parking Exception previously granted by Planning Commission for reduced driveway length Oct. 2012. CJ. KM - Correction letter sent 10/11/13. Corrections received 11/18/13.	Bldg -- Review complete, applicant to obtain building permit prior to construction	BCR: Resubmit plans to address comments noted in memo of 10/14/13 - drainage report and street widening required	
9	*Sonic*	*1840 Main St.*	*8/14/13*	*UP0-364 & CP0-404*	*Conditional Use Permit and Coastal Development Permit to develop Sonic restaurant.*	*Under initial review. Comment letter sent 9/10/13. CJ. Spoke w/ applicant 10/3 re: traffic study. CJ. Public Works & Fire comments received & forwarded 10/8/13 to applicant. Comments from Cal Trans receivd 10/31 and forwarded to Applicant. Applicant requested meeting w/ City staff & Cal Trans to review project requirements. Had project meeting-discussed traffic study requriementson 11-21-13.*	*Bldg -- Review complete, applicant to obtain building permit prior to construction.FD-Disapprove UPO 364/CPO 404 9/11/13*	*RPS: Intial conditions provide by memos of 9/10/13 and 10/14. Met with Caltrans on 10/17 and are awaiting their comment letter. Left messages for project Architect 10/18/13 advising him of Caltrans concerns.*	
10	Redican	725 Embarcadero Rd.	6/26/13	UP0-359	Use Permit for seven boat slips and gangway	Under review. Incomplete letter sent 7-23-13. Resubmittal received on October 1, 2013. Additional info requested and resubmittal received 12-2-13.	Bldg -- Review complete, applicant to obtain building permit prior to construction. TP-Disapprove 11/19/13.	N/R	
11	AT&T	788 Main St.	6/10/13	UP0-362 & CP0-403	Special Use Permit for Recycling Container Enclosure in Parking Lot	CJ- Application under Review. Deemed Incomplete. Letter sent 7-9-13. Resubmittal received 11-5-13. Letter of incompleteness sent 12-4 CJ.	Bldg -- Review complete, applicant to obtain building permit prior to construction.TP-FD Disapprove Express Check 3/18/13 & FD Disapprove UPO 362 7/23/13. TP-Cond. Approve 12/9/13.	RS- Rvw complete no frontage improvements required	
12	Goodwin	2920 Juniper	5/21/13	CP0-399	Coastal Development Permit for new SFR on vacant lot	CJ- Application deemed incomplete. Requested corrections 6/10/13.	No review performed.	RS&DH-Plan revisions rqd per memo 5/29/13	

#	Applicant/ Property Owner	Project Address	Date	Permit Numbers	Project Description/Status	Planning Comments and Notations	Building/Fire Comments and Notations	Engineering Comments and Notations	Harbor/Admin Comments and Notations
13	City of Morro Bay	N/A			MND for Chorro Creek Stream Gauges	Applicant requesting meeting for week of 9/9/13. SWCA performing the environmental review-tentatively scheduled for 10/14/2013.	No review performed.	N/R	

#	Applicant/ Property Owner	Project Address	Date	Permit Numbers	Project Description/Status	Planning Comments and Notations	Building/Fire Comments and Notations	Engineering Comments and Notations	Harbor/Admin Comments and Notations
Continued projects									
14	City of Morro Bay	End of Nutmeg	1/18/12	UP0-344	Environmental documents for Nutmeg Tanks. Permit number for tracking purposes only County issuing permit. Demo existing and replace with two larger reservoirs. City handling environmental review	KW--Environmental contracted out to SWCA estimated to be complete on 4/27/2012. SWCA submitted draft I.S. to City on May 1, 2012. MR-Reviewed MND and met with SWCA to make corrections. In contact with County Environmental Division for their review. MND received by SWCA on 10/7/12. MND out for public notice and 30 day review as of 11/19/12. 30 day review ends on 12/25/12. No comments received. Scheduled for 1/16/13 Planning Commission meeting and then to be referred back to SLO County. Planning Commission continued this item to address concerns regarding traffic generated from the removal of soil. In applicant's court, they are addressing issues brought up by neighbors during initial P.C. meeting. Project has been redesigned and will be going forward with concrete tanks. Modifications to the MND are in process.	No review performed.	BCR- New design concept completed. Needs new MND for concrete tank, less truck trips.Neighborhood mtg held 9/27. Neighbors generally support new design that reduces truck trips by 80%. Concrete batch plant set up on site will further reduce impact.	
Ongoing Projects									
15	City of Morro Bay	N/A				CDBG funding to CAPSLO for operation of the Prado Day Center & Homeless Shelter, & Senior Nutrition Program	Staff has ongoing responsibilities for contract management.	No review performed.	N/R	
Projects in Process									
16	*Frye*	*244 Shasta*	*3/6/13*	*CP0-396 and AD0-081*	*Secondary Unit and Parking Exception.*	*Proposed creation of secondary unit from garage. Parking exception. First Noticed 5-16-13. Setbacks noted on plan incorrect, therefore project required to be re-noticed on 6/26/13. Applicant now required to comply with or amend existing permit #CP0-013 before proceeding with proposed project. Met with applicant's representative regarding previously approved permit. Waiting for applicant's resubmital.*	*No review performed.*	*N/R*	

#	Applicant/ Property Owner	Project Address	Date	Permit Numbers	Project Description/Status	Planning Comments and Notations	Building/Fire Comments and Notations	Engineering Comments and Notations	Harbor/Admin Comments and Notations
17	LaPlante	3093 Beachcomber	11/3/11	CP0-365	New SFR. Resubmittal and Phase 1 Arch report 2/6/12.	SD-- Incomplete Letter 12/12/11. Phase 1 Arch Report required and Environmental Document. Environmental in process. Letter sent 4/11/2012 requesting environmental study. Applicant has requested a meeting on August 9, 2012 to review environmental study request. MR-Met with Applicant and discussed potential impacts of project and CEQA information requested to complete MND. Applicant will provide MND fees with submittal of Biological report. 8/9/12 MR met with applicant and owner to discuss environmental issues. Would require a detailed MND. Applicant is still considering preparation of Biological Report. Staff met with applicant and his agent, discussed elements of the project especially the Biological report needs to be prepared. Draft biological report received and under review. Project referred to environmental consultant and Coastal. MND in process. Applicant revising bio report.	Review complete, applicant to obtain building permit prior to construction.	DH comments submitted 1/18/2012. Provide EC, drainage report, SW mgmt.	No Comments to date

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Environmental Review									
18	*Lucky 7*	*1860 Main*	*3/12/13*	*CP0-394*	*Construct Fuel Island Canopy*	*CJ- Requested additional info. 3-29-13 Resubmittal received 7-22. Project deemed not exempt from CEQA. Initial Study in process.*	*Review complete, applicant to obtain building permit prior to construction. FD Approval CPO 394 8/23/13*	*N/R*	
19	Sequoia Court Estates	670 Sequoia	4/3/12	UP0-349 & S00-112	Parcel Map. 3 parcels and an open space parcel. A revised subdivision map was submitted for review on August 6, 2012.	Incomplete letter sent to applicant/agent. Project submitted without necessary materials for processing. Applicant submitted a revised plan reducing the number of lots, and is providing additional information as requested addressing City requested information. Additional information submitted; waiting for biological report. Report should be submitted in September 2012. Needs drainage plans. MR: Second incomplete letter sent 11/13/12. MND in preparation. Susan Craig, Coastal Commission staff confirmed property is entirely outside coastal zone. Met with applicant on 1/30/2013 project moving ahead, staff waiting on resubmittal. Applicant directed to obtain wetland determination. Project waiting on applicant. Resubmittal received 9-10-13. Corrections sent to applicant.	Review complete, applicant to obtain building permit prior to construction. TP/FD Disapprove SOO-112 w/corrections 10/18/13.	BCR- comments submitted 4/47/12. Drainage issues need to be addressed.	

#	Applicant/ Property Owner	Project Address		Date	Permit Numbers	Project Description/Status	Planning Comments and Notations	Building/Fire Comments and Notations	Engineering Comments and Notations	Harbor/Admin Comments and Notations
Grants										
20	Community Development Block Grant (CDBG) / HOME Program through Urban County Consortium	Downtown area	City-wide	11/13/12		CDBG Applications received 10/12/12. Nine applications received. Draft funding recommendations to be adopted at 11/13/12 City Council Meeting. Final Funding Approval heard at 2-13-13 City Council Meeting. Final action taken by County Board of Supervisors 3-5-13.	Application recommended for funding is Pedestrian Accessibility Improvements for City of Morro Bay. Council approved on 11-13 funding for Senior Nutrition and Pedestrian Accessibility. 2nd Funding Workshop to be held at Community Center on 1/9/13. Subreceipient Agreement and NEPA Environmental Review under review. CEQA NOE filed. NEPA clearance obtained 6/21/13. FY2014 Funding Cycle: Applications released on 9/9/13 and due on 10/15/13. Needs Workshop held on 9/16/13 at City of Atascadero. Draft funding recommendtions to Council on 11/12/13. Council approved staff recommendation on 11/12/13.	No review preformed.	2014 application submitted 10/14/13	
21	Sustainable Communities	City-wide				$900,000 Grant Opportunity for funding for long-range planning activities including LCP update, General Plan. State has not released grant information for the next application cycle.	Draft guidelines not yet released for 3rd round of funding.	No review performed.	N/A	
22	Coastal Conservancy, California Coastal Commission, California Ocean Protection Council	City-wide				$250,000 Grant Opportunity for funding for LCP update to address sea-level rise and climate change impacts.	Application submitted July 15, 2013. Awaiting results. Agency requested additional information and submitted 10-7-13. Notice received application was successful for amount requested. City funded $250,000.	No review performed.	N/A	
23	*Coastal Commission LCP Assistance Grant Program*	*City-wide*				*$1,000,000 Grant funding for Applications of $50,000-$300,000 in funding to assist with update of Local Coastal Plan to address effects of climate change and sea-level rise.*	*Application to be submitted. Deadline date 11-22-13 with funding announcements to be announced in early 2014.. Grant application submitted 11-22-13 with Council resolution due by 12-19-13.*	*No review performed.*	*N/A*	

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Project requiring coordination with another jurisdiction									
24	City of Morro Bay	Outfall			Original jurisdiction CDP for the outfall and for the associated wells	Coastal staff is working with staff. Coastal letter received 4/29/2013.	No review performed.	City provided response to CCC on 7/12/13. Per Qtrly Conference Call CCC will take 30days to respond	
25	City of Morro Bay Desal Plant	170 Atascadero			Project requires a Coastal Development Permit for upgrades at the Plant. Final action taken Sent to CCC but pursuant to their request the City has rescinded the action.	Waiting for outcome from the CDP application for the outfall	No review performed.	BCR- Phase 1 Maint and Repair project is underway. Desal plant start-up scheduled for 10/15	
Preapplication projects									
26		Little Morro Creek Road			BMX park	Permit process info provided to applicant on 7-23-13. Staff met with applicant on 8/30/13 to provide further application requirement info. Provided additional clarifying information 11-19-13 to applicant who is finalizing use permit application package. No recent contact.	Met with applicant.	Met w/ applicant 10/15/13 to determine project scope	

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Final Map Under Review									
27	Zinngarde	1305 Teresa	5/9/11	Map	Final Map. Public Works review of the final map, CCR's and conditions of approval. Plans 8/5/11. Applicant resubmitted CCRS. Incomplete submittal as of 1/23/12. Resubmitted 4/4/2012	KW--Comments given to applicant, held meeting on 9/27/2011 regarding comments. Biological being review by applicant to address drainage issues. Biological Report approved by Planning as well as the CCRs. Tentative map improvements.	Improvements under construction.	DH - PIP submitted PIP to be built prior to map recordation. Public Improvements under construction.	
28	Medina	3390 Main	10/7/11	Map	Final Map. Issues with ESH restoration. Applicant placed processing of final map on hold by proposing an amendment to the approved tentative map and coastal development permit. Applicant proposed administrative amendment. Elevated to PC, approved 1/4/12. Appealed, scheduled for 2/14/12 CC Meeting. Appeal upheld by City Council, and project with denied 2/14/12. map check returning for corrections on 3/9/12	SD--Meeting with applicant regarding ESH Area and Biological Study. MR- Received letters from biologist regarding revegetation on 9/2/12. Letter sent to biologist. Recent Submittal reviewed and memo sent to PW regarding deficiencies. Initial review shows resubmitted map does not meet the 50 foot ESH boundary.	No review preformed.	DH - resubmitted map and Biological study on Dec 19th 2012. PW has completed their review. Received a letter from Medina's lawyer and preparing response. PW comments sent to RS to be included with his response letter. RS said to process map for CC. Letter being prepared to send to applicant to submit mylars for CC meeting.	

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Projects Continued Indefinitely, No Response to Date on Incomplete Letter or inactive									
29	Maritime Museum Association (Larry Newland)	Embarcadero	11/21/05	UP0-092 & CP0-139	Embarcadero-Maritime Museum (Larry Newland). Submitted 11/21/05. Resubmitted 10/5/06, tentative CC for landowner consent 1/22/07 Landowner consent granted. Resubmitted 5/25/07. Resubmitted additional material on 9/30/09. Applicant working with City Staff regarding lease for subject site. Applicants enter into agreement with City Council on project. Applicant to provide revised site plan. Staff processing a "Summary Vacation (abandonment)" for a portion of Surf Street. Staff waiting on applicant's resubmittal. Meeting held with applicant 2/23/2011. Staff met with applicant 1/27/11 and reviewed new drawings, left meeting with applicant indicating they would be resubmitting new plans based on our discussions.	KW--Incomplete 12/15/05. Incomplete 3/7/07. Incomplete Letter sent 6/27/07. Met to discuss status 10/4/07 Incomplete 2/4/08. Met with applicants on 3/3/09 regarding inc. later. Met with applicants on 2/19/2010. Environmental documents being prepared. Meeting held with city staff and applicants on 2/3/2011.	Please route project to Building upon resubmittal.	An abandonment of Front street necessary. To be scheduled for CC mtg.	
30	James Maul	530, 532, 534 Morro Ave	3/12/10	SP0-323 & UP0-282	Parcel Map. CDP & CUP for 3 townhomes. Resubmittal 11/8/10. Resubmittal did not address all issues identified in correction letter.	KW-Incomplete letter sent 4/20/10. Met with applicant 5/25/10. Letter sent to applicant/agent indicating the City's intent to terminate the application based on inactivity. City advised there will be a new applicant and to keep the application viable.MR: Received letter from applicant's rep 11/15/12 requesting project remain open. Called B. Elster for further information. Six month extension granted.	Please route project to Building upon resubmittal.	N/A	

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Projects going forward to Coastal Commission for review										
31	*City of Morro Bay*		*Citywide*	*2/1/13*	*Ordinance 556*	*AMENDING THE MUNICIPAL CODE BY ADDING CHAPTER 17.27 ESTABLISHING REGULATIONS AND PROCEDURES ENTITLED "Antennas and Wireless Telecommunications Facilities" AND MODIFYING CHAPTER 17.12 TO INCORPORATE NEW DEFINITIONS, 17.24 to MODIFY primary district matrices to incorporate the text changes , 17.30 to eliminate section 17.30.030.F "antennas", 17.48 modify to eliminate section 17.48.340 "Satellite dish antennas" and Modify THE TITLE PAGE TO REFLECT THE NEW CHAPTER.*	*Application for Amendment submitted to Coastal Commission 9-11-13. Received comments back from CCC working on addressing issues*	*No review preformed.*	*N/A*	

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Projects Appealed or Forwarded to City Council									
32	City of Morro Bay	N/A		n/a	Urban Forest Management Plan	Public Works anticipating to present plan at Nov. 20th PC meeting. Presented to Planning Commission at 11-20-13 meeting which provided comments to be forwarded to Council.	No review performed.		
33	City of Morro Bay	Citywide	6/19/13	A00-015	Sign Ordinance Update. Text Amendment Modifying Section 17.68 "Signs"	Text Amendment Modifying Section 17.68 "Signs". Planning Commission placed the ordinance on hold pending additional work on definitions and temporary signs. 5/17/2010. PC made recommendations and forwarded to Council. Scheduled for 5/10/11 CC meeting, item was continued. Item heard at 5/24/11 City Council Meeting. Interim Urgency Ordinance approved to allow projecting signs. A report on the status of this project brought to PC on 2/7/2011. The item to be back to City Council first meeting in Nov. Workshops scheduled 9/29/11 & 10/6/11 .-Workshop results going to City Council 12/13/11. Continued to 1/10/12 CC meeting. Staff Report to PC. Project went to 5/2/2012. Currently an intern is working on the Sign Ordinance. Update due to City Council in June 2013. Draft Sign Ordinance reviewed by PC on 6/19/13. Continued to 7/3/13 PC meeting for further review. PC has reviewed Downtown, Embarcadero, and Quintana Districts as well as the Tourist-Oriented Directional Sign Plan. 8/21/13 PC meeting scheduled to review North Main Street District. Final Draft of Sign Ordinance approved at 9/4/13 PC meeting with recommendation to forward to City Council. Council directed staff to do further research with local businesses. First workshop held 11/14 with approx. 12 Quintana area businesses. Second workshop in process of being scheduled.	No review performed.	N/R	
34	Perry	3202 Beachcomber	9/8/11	AD0-067	Variance. Demo/Reconstruct. New home with basement in S2.A overlay. Variance approved for deck only; the issue of stories was resolved due to inconsistencies in Zoning Ordinance.	Variance approved at 8/15/12 PC meeting. Appealed by 3 parties to City Council. Appeal to be heard. City Attorney reviewing.Appeal in abeyance until coastal application complete.	Review complete, applicant to obtain building permit prior to construction.	See above	
Projects in Building Plan Check									
35	Sangren	675 Anchor	11/28/12	B-29813	SFR Addition	Requested corrections 1/9/13. CJ. Resubmittal received and under review (November 14, 2013)	BC- Returned for corrections 1/9/13.	N/A	
36	Sherrod	938 Anchor	11/8/13	B-30053	SFR Add/ Remodel	KM -Under review	BC- under review.		
37	Skousen	175 Bali	11/18/13	B-30055	SFR Add/ Roof Deck	Requested corrections 11/19/13. CJ.	BC- Returned for corrections 11/21/13.		

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38	LaPlante	3093 Beachcomber	11/3/11	B-29586	New SFR	SD--Incomplete Letter 12/12/11. Phase 1 Arch Report required and Environmental Document. Incomplete letter sent 2/2012. MR: Met with applicant to go over environmental issues.	BC- Application on hold during planning process	DH- Provide SW mgmt, drainage rpt, EC.	
39	Bowser	1364 Clarabelle	11/6/13	B-30051	SFR Remodel/ Deck		BC- Returned for corrections 11/21/13.		
40	Foster	500 Dawson	8/15/13	B-29983	New SFR	CJ- Needs CDP	BC- Resubmitted 10/28/2013.	JW- correction given 9.10.13, frontage req.	
41	Bylo	593 Driftwood	3/12/13	B-29870	SFR Addition	Disapproved. Compact in-fill permit conditions not met. 3-27	BC-Returned for corrections 3/28/13.	DH- Provide SW mgmt, drainage rpt, EC.	
42	Imani	571 Embarcadero	4/23/12	B-29695	Commercial alteration, addition	CJ- Incomplete Memo 11/26/2012 sent to applicant's representative. Correction sent 7/22/13 and 9/8/13 and 10/29/13. Waiting on applicant to show compliance with environmental mitigations	BC- RTI pending bond.	BCR- Approved 5/23/12	
43	Vaughn	601 Embarcadero	10/11/13	B-29997	Commerical TI	KM - Under review. Corrections returned 11-21-13. Resubmittal received 11-26-13.	BC- returned for corrections 11/21/13. TP/FD Disapprove Corrections 9/30/13. TP/FD Approves 11/6/13.	N/R	
44	PG&E	1290 Embarcadero	10/2/13	G-040	Soil Removal	CJ- Needs CDP	BC- on hold pending planning process.	Memo of 11029/13. CDP application should address soil	
45	Harbor	1620 Embarcadero	4/4/13	B-29888	Construct restroom and storage mezzanine within existing "Cal Poly Building."	CJ-requested corrections 4-15 CJ - Resubmittal received and correction sent 8/30/13.	BC-Returned for corrections 9/10/12.	BCR- approved	
46	Cribbs	2360 Greenwood	7/26/13	B-299720	SFR Addition	KM - Approved 11/20/13.	BC- Issued 11/20/13.	JW- correction given 8.23.13, frontage req.	
47	Methodist Church	3000 Hemlock	8/16/12	B-29752	Construct new modular classroom, site work.	Approved by MR 8-30-12	BC- out for pw corrections.FD Approves	BCR- 11/01/13 Revised Drainage report received and is	
48	Ferguson	605 Ironwood	4/24/13	B-29861	New SFR	KM - Approved 10/15/13.	BC- resubmitted 10/2/13. FD Approval CPO 400 8/22/13	BCR-11/01/13- Developer reduced impervious area to reduce requirements.	
49	Gomzalez	481 Java	10/6/13	B-30029	SFR Addition/ Remodel	KM - Disapproved due to nonconforming issues 10/22/13.	BC- on hold pending planning process.	Plans returned w/o comment until Plng issue resolved	
50	Douglass	2587 Laurel	10/14/13	B-30030	SFR Addition/ Remodel	KM - Under review. Corrections returned 12-3-13.	BC- resubmitted 11/12/13.	JW: Plans returned w/o comment Returned 12-11-2013	
51	Naran	2176 Main	5/13/13	B-29918	Partial change of occupancy	CJ - Corrections sent 5-29. Resubmittal received 11-20 and under review.	BC-resubmitted 11/8/13.	N/R	
52	Markowitz	589 Morro Avenue	8/17/11	B-29820	Roof Deck	Under review. Spoke with architect 1/23/13 to clarify requested corrections. Architect to discuss with applicant. KM- Permit Denied - building over height pursuant to height certificate submitted by applicant	BC- Corrections	N/A	
53	Rodgers	950 Napa	9/3/13	B-30999	New SFR	KM - CDP Approved	BC- Issued.	JW: approved	
54	Frantz	499 Nevis	9/23/12	B-29510	New SFR	CJ- approved	BC- RTI 9/16/2013.	N/A	
55	Strong	292 Olive	11/13/13	B-30054	SFR Remodel	KM - Under review. Approved 12-10-13. Approved 12/9/13.	BC- under review.		
56	Johnson	902 Pacific	11/4/13	B-30048	Deck	KM - Under review. Corrections returned 11-20-13.	BC- under review.		

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57	Heller	271 Palm	10/31/13	B-30045	Remodel	KM - Under review. Corrections returned 11-20-13.	BC- returned for corrections 11/22/13.		
55	Adamson	1000 Ridgeway	9/11/13	B-30008	New SFR	CJ - needs CDP	BC- under review.	BCR: Revise plans per memo of 10/14/13	
56	Frye	244 Shasta	5/7/13	B-29910	Garage to Second Unit conversion	KM - Needs to comply with or amend existing CDP.	BC- on hold pending planning process.	BCR-approved 5/13/13	
57	Inn at MB	60 State Park	6/27/13	B-29884	Main Building Remodel	CJ- Corrections sent 7-17. Resubmittal received and under review.	BC- Resubmitted 11/14/13.	RS - Referred to State Parks for comment on frontage improvmts	
58	Cooley	510 Yerba Buena	11/5/13	B-30050	SFR Roof Deck		BC- returned for corrections 11/21/13.		

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Projects & Permits with Final Action									
59		Climate Action Plan		n/a	The City of Morro Bay Climate Action Plan (CAP) is a long-range plan to reduce greenhouse gas (GHG) emissions from City government operations and community activities within Morro Bay and prepare for the anticipated effects of climate change. The CAP will also help achieve multiple community goals such as lowering energy costs, reducing air pollution, supporting local economic development, and improving public health and quality of life	Routed Initial Study - Negative Declaration to State Clearinghouse 10/28/13. Scheduled for Planning Commission 12/4/13 and Council adoption 1/14.			
60	Coastal Conservancy Climate Ready Grant	City-wide			$200,000 Grant Opportunity for funding for a wide range of activities that address climate change impacts.	Application submitted 8-28-13. Notice received application request denied.	No review performed.	N/A	
62	TNF Ventures - Foster	500 Dawson	8/16/13	CP0-405	Admin Coastal Development Permit for new SFR on vacant lot	KM- Under review. KM - Concurrent permitting. Correction letter sent 9-11-13. Corrections received and under review. Approved 12/10/13.	Bldg -- Review complete, applicant to obtain building permit prior to construction.FD Approval CPO 405 9/11/13	JW: Conditionally approved with conditions noted in memo of 9/11/13. Revise Building plans based on memo of 9/11/13	

City of Morro Bay

Public Services/Planning Division

Advanced Planning Work Program

Work Item	Requested by	Date Requested	Comments	Estimated Staff Hours	Planning Commission	City Council	Coastal Commission
Updating the Strategic plan matrix for managing the greening process	City Council	Annually	Original green matrix went to P.C. on 7/6/09 and then to C.C. on 12/14/09. Now subject to annual updates	20 hours	Annual Updates	Annual Updates	
CEQA Implementation Guidelines	City Council	2006	CEQA guidelines were adopted in March 9, 1981 need to be updated.	120 to 160	TBD	TBD	NA
North Main Street Parking Plan	City Council	2011	Text amendment to be review by Planning Commission and PC to make recommendation to City Council 4/18/12 PC mtg. City Council took action on June 3, 2012 and Approved the amendment. Text Amendment ready to be submitted to California Coastal Commission.	100	4/18/2012	6/4/2012	TBD
Sign Ordinance Update	City Council	2010	Text Amendment Modifying Section 17.68 "Signs". Planning Commission placed the ordinance on hold pending additional work on definitions and temporary signs. 5/17/2010. Planning Commission made recommendations and forwarded to Council. Anticipate a City Council public hearing on the draft ordinance on May 2011. Scheduled for 5/10/11 CC meeting, item was continued. Item heard at 5/24/11 City Council Meeting. Interim Urgency Ordinance approved to allow projecting signs. A report on the status of this project brought to PC on 2/7/2011. The item shall be brought back to City Council first meeting in November. Workshops scheduled September 29, 2011 and October 6, 2011.-Workshop results going to City Council December 13, 2011. Continued to 1/10/12 CC meeting. Staff Report to PC. Project went to 5/2/2012. Currently an intern is working on the Sign Ordinance. Update due to City Council in June 2013	150 to 250 + consultant hrs	Project went to P.C. on May 16, 2012. At this meeting staff was given several tasks to accomplish prior to the June 20, 2012 meeting including the following: bring back survey results differentiating between the surveys, a new matrix with all definitions including those new definitions provided by the Commission, bring back pictures of signs, clarification of the difference between internally and externally illuminated signs, limitations on materials, encourage increase in window signs, add a column for staff recommendations, define shopping center, enlarge the downtown area.	TBD	
Wireless Ordinance	City Council	2009	Text amendment. Ready to be submitted to California Coastal Commission				
Updated Zoning Ordinance	CC based on CCC letter	2010	Project on hold pending direction.	1,800	TBD	TBD	TBD
Updated General Plan/LCP	CC based on CCC letter	2010	Subcommittee formed. Meetings held are: 11/9/11 to develop plan of action, 12/7/11 to review Access & Recreation Element. Changes were made but not yet finalized. 1/9/12 to review Harbor Resources Element Next meeting scheduled for 1/30/12 to discuss Visual Resources. No additional meetings held. Work plan for the update of the General Plan and LCP due back to City Council on June 25, 2013	1,800	TBD	TBD	TBD
2014 Housing Element Update		2013	The City of Morro Bay is required to update their Housing Element (5th Cycle). The update is due June 14, 2014. Staff will be sending out an RFP for a consultation to assist with the preparation of the update.				
Status report on Progress of Planning Study Committee Solutions (May 13)	City Council	2013					