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

F17a

Staff Report Addendum

Prepared October 3, 2007 (for October 12, 2007 hearing)

To: Commissioners and Interested Parties

From: Charles Lester, District Director
Dan Carl, Interim District Manager
Jonathan Bishop, Coastal Program Analyst

Subject: STAFF REPORT ADDENDUM for F17a
CDP Application Number 3-07-030 (Caltrans, Piedras Blancas)

Since release of the staff report and recommendation for this item, staff has continued to work with Caltrans to address potential issues with the proposed project. These discussions have provided for a productive exchange of information, and for more clarity with respect to the proposed project and related coastal resource issues. Out of these discussions, Caltrans has requested seventeen specific changes to the staff report dated prepared September 20, 2007. The modifications requested by Caltrans are minor and do not substantively alter the staff report and recommendation. To address Caltrans concerns, staff has agreed to incorporate all seventeen of the changes requested by Caltrans into the staff report recommendation. With these changes, Caltrans has indicated that they are in agreement with the staff report recommendation, including its terms and conditions, and has further indicated that they would like the item to be moved to the Commission's consent calendar (see attached October 1, 2007 letter from Caltrans).

The staff report prepared September 20, 2007 is modified as follows:

1. Page 3, paragraph 3, lines 6, 7, and 8: Rewrite as follows: "…upland realignment, and continuing coastal access as part of the realignment project including consideration of bicycle and pedestrian enhancements, and California Coastal Trail enhancements. This conclusion must…"

2. Page 4, paragraph 1, line 10: Add the following text after the sentence that ends with "…more generally": "Caltrans must maintain the barriers within the safety guidelines for K-rail installation. The close proximity to traffic requires that the rail be painted white for easy recognition by motorists in the dark and during any inclement weather conditions."

3. Page 4, paragraph 1, last sentence: Replace the last sentence with the following text: "Caltrans has identified measures to minimize the impact of the barriers and ensure that the barriers as a whole are as uniform and as visually unobtrusive as possible, while maintaining the necessary traffic safety requirements."

4. Page 6, Special Condition 1(d): Replace this condition with the following: "Barrier Modifications. Modifications to the existing concrete barriers at Rocks 2 to minimize

viewshed impacts as much as possible to ensure that the barrier as a whole is uniform and as visually unobtrusive as possible, while maintaining the necessary traffic safety requirements."

5. Page 7, Special Condition 2(d): Replace references to "30 days" with "two weeks".

6. Page 8, Special Condition 2(e)(3), second bullet: Delete the text "work or" from the sentence.

7. Page 10, Special Condition 2(f): Delete the text ", or better where feasible," from the first sentence.

8. Page 10, Special Condition 4: Delete the text "or better" from the second sentence.

9. Page 15, paragraph 2, line 4: Before the sentence beginning with "Thus", insert the following text: "Using bluff retreat calculations, Caltrans engineers determined that the risk of the bluff eroding back to the temporary detour, prior to the completion of the realignment project, was great enough to warrant leaving the existing revetment in place." Replace the text "Thus, is" in the following sentence with the text "However, it".

10. Page 15, paragraph 2, line 5: Replace the text "Fortunately, the" with the text "The".

11. Page 23, second paragraph (beginning with the text "A review of…"): Replace this paragraph with the following text:

    "A review of the site photos revealed that Caltrans' safety rails adjacent to the highway detract from the scenic view. The conditions of the highway, and proximity to frequent wave break across the entire roadway, however, make their presence necessary as Caltrans copes with trying to maintain the highway facility and keep it as safe as possible for the traveling public. The rail is deployed not only for traffic safety, but to provide as low a profile as possible to a barrier that is intended to prevent the wave action from completely undermining and destroying the pavement. The rails are subjected to a high degree of sun, seawater, and abrasion. Alternative barrier designs that might be more visually compatible are not feasible given the limited space available between the highway and the bluff edge, and given the instability of the bluff area more generally. Caltrans has identified measures to minimize the impact of the barriers and ensure that the barriers as a whole are as uniform and as visually unobtrusive as possible, and to remove any concrete and other debris along their extent, so as to minimize their impact to the public viewshed. Thus, the barriers will blend with the natural environment as much as is possible with such structures, and are temporary, minimizing viewshed impacts to the degree feasible."

12. Page 23, paragraph 3, second sentence: Replace second sentence with the following text "However, in this case, there is very little space between the barrier location and the blufftop edge for any form of landscaping."

13. Page 23, paragraph 3, line 4: Replace the word "will" with "may".

14. Page 23, under "Related Issues – Revetment Maintenance and Augmentation", paragraph 1, line 8: Delete the text "; potentially encroach on Sanctuary waters (depending on tides)" from the sentence.

15. Page 24, paragraph 1, line 2: Delete the text "ambiance, serenity, and safety" from the sentence.

16. Page 24, second paragraph, line 8: Delete the text "clearly fence off the minimum construction area necessary," from the sentence.

17. Page 24, paragraph 3, line 8: Delete the text "adjustment and" from the last sentence.

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
(831) 427-4863

F17a

Filed:	7/19/2007
180th day:	1/15/2008
Staff:	J.Bishop
Staff report prepared:	9/20/2007
Hearing date:	10/12/2007
Hearing item number:	F17a

COASTAL DEVELOPMENT PERMIT APPLICATION

Application number.....**3-07-030**

Applicant.....California Department of Transportation (Caltrans)

Project location .....Shoreline fronting Highway One between post miles 65.3 and 65.9 near Piedras Blancas in northern San Luis Obispo County. Project involves a 150-foot upcoast segment (referred to as "Rocks 1") and a 1,780-foot downcoast segment (referred to as "Rocks 2") separated by roughly ¼ mile of unarmored shoreline.

Project description.....Recognize and maintain approximately 1,500 linear feet of rock arrays and revetments at Rocks 1 and Rocks 2 and allow up to approximately 450 linear feet of additional rock at Rocks 2 to protect Highway One. All rock proposed is temporary and would be removed when Highway One is realigned to a more inland location. In addition, the project also includes a request to recognize an emergency culvert repair project undertaken within the Rocks 2 area (pursuant to Emergency Coastal Development Permit 3-07-040-G) on the same temporary basis and subject to the same removal parameters as the rock arrays and revetments.

Related approvals .....Coastal Commission Coastal Development Permit (CDP) 3-97-039 as amended (amendments 3-97-039-A1 and 3-97-039-A2) and Emergency CDPs 3-00-154-G, 3-01-004-G, and 3-07-040-G; San Luis Obispo County CDPs D960151P, P000365E, and D000321P (for portions of work located within the County's coastal permit jurisdiction); California State Lands Commission Public Agency Leases PRC 7978 and PRC 7978.9; U.S. Army Corps of Engineers Permits 200100299-TW, 200200489-LM, 200300153-LM, and 200300218-LM; Monterey Bay National Marine Sanctuary (MBNMS) Authorizations MBNMS-2000-051, MBNMS-2001-006, MBNMS-2001-045, and MBNMS-2002-040; California Regional Water Quality Control Board (RWQCB) Clean Water Act Section 401 Certifications (December 1, 2000 and January 23, 2001).

Staff recommendation ...Approval with Conditions.

Staff Note: The existing rock arrays and revetments that are the subject of this CDP application

were originally permitted by the Coastal Commission in 1997 through CDP 3-97-039 (and as amended by the Commission in 2001 and 2002). Caltrans missed the deadline to submit a request to extend the expiration date of that CDP, and thus it expired. The continued use of the revetments and related measures proposed under this application are <u>temporary measures</u> intended to protect Highway One from erosion only until construction of the new inland Highway One alignment is complete, at which time they are to be removed.

Summary: The California Department of Transportation (Caltrans) is requesting a coastal development permit (CDP) to recognize and maintain (as needed) approximately 1,500 linear feet of arrays and revetments, and to install (and also maintain as needed) approximately 450 linear feet of additional rock in the future to protect Highway One in two locations (known as "Rocks 1" and "Rocks 2") along about one-half mile of shoreline on the seaward side of Highway One near Piedras Blancas in northern San Luis Obispo County. All rock proposed is temporary and would be removed when Highway One is realigned to a more inland location. In addition, the project includes a request to recognize an emergency culvert repair project undertaken within the same area of the Rocks 2 area (pursuant to Emergency CDP 3-07-040-G) on the same temporary basis and subject to the same removal parameters as the rock arrays and revetments. Caltrans has requested an initial 5-year CDP with the option to apply for two additional 5-year extensions to 2017 and 2022

Coastal Act Section 30235 allows shoreline structures only when they are necessary to protect an existing structure in danger from erosion, and when they are designed to eliminate or mitigate adverse impacts on shoreline sand supply. This section of the coast is subject to intense storm surge and continues to be eroded by wave action. Long-term average annual erosion for this stretch of coast has been estimated at nearly 4-feet per year, and past episodic events have resulted in up to 15 feet of erosion and bluff sloughing at one time. The bluffs in the project area have been eroded over time to within five feet of Highway One in places, and the Highway is an existing structure in danger from erosion as that term is understood in a Coastal Act context. The temporary revetments (and the emergency repairs to the Arroyo del Oso culvert) are necessary to protect the Highway and to ensure the continued use of it by the traveling public until such time as an inland realignment of the Highway can be realized (now scheduled for completion in 2017). There are no feasible and less environmentally damaging short-term alternatives to the revetments at this time.

With respect to the sand supply impacts referenced by Section 30235, the rock arrays and revetments continue to cover beach sand and continue to block bluff materials that would otherwise naturally erode and be added to the shoreline sand supply system. If expanded as proposed (up to and including a worst case scenario where all of Rocks 1 and Rocks 2 are built up to full revetments), such impacts would increase over the life of the permit. In this case, these sand supply impacts can more appropriately be described as sandy beach recreational impacts, and thus avoiding such impacts and mitigating for those that are unavoidable fall more clearly under the Coastal Act's access and recreation policies. Coastal Act Sections 30210 through 30224 require that maximum public access to and along the shoreline be provided, and protect public recreational access to the beach. The rock arrays and revetments have had, and will continue to have for as long as they are present and/or expanded as proposed, an adverse impact on beach recreational access because they occupy sandy beach area (blocking both use of that beach area and lateral access along it) and the revetments harden the edge on an otherwise eroding shoreline

which, over time, leads to a loss of beach at this location (i.e., the phenomenon of passive erosion). The revetments also block the aforementioned contributions to the shoreline sand supply system, also adversely affecting beach access by reducing natural contributions to sandy beach formation and retention.

At the same time, Highway One represents the main route for, and primary form of, public access to and along the shoreline in northern San Luis Obispo County. More generally, the Highway is the de facto California Coastal Trail for this stretch of coast. In fact, Highway One is a significant access feature of major importance to the State and visitors to it at this location. Conversely, sandy beach access at this location, while still important and valuable, is more limited due to the irregular configuration of the shoreline that limits beaches to discontinuous "pocket" segments for the most part, and due to the fact that this area is fairly remote and not a primary beach access destination of itself. Thus, impacts to beach recreational access along this stretch of coast as the result of retaining the rock must be weighed against the potential loss of coastal access as a result of damage to and closure of Highway One without the revetments.

In this case, maintaining the temporary rock arrays and revetments and allowing for their future augmentation within this same area (and repairing the culvert) represents the least environmentally damaging feasible alternative for the protection of Highway One in the near term until the Highway can be moved inland. The impacts to beach recreational access are thus offset and mitigated for by ensuring that the rock is only temporary and is removed when the Highway is realigned, by maintaining through access along Highway One, planning for its upland realignment, and maximizing access improvements as part of the realignment project (e.g., bicycle and pedestrian enhancements, minor interpretive facilities, parking, California Coastal Trail enhancements, etc.). This conclusion must be understood in the context of Caltrans' ongoing efforts to move the Highway inland as a means of ensuring long term stability and avoiding the need for armoring over the long term. Caltrans has made substantial progress towards the goal of permanently realigning Highway One inland at this location. The current schedule envisions a ten-year horizon for the final approval of environmental documents, project plans, and the completion of construction. According to Caltrans, if the realignment project remains on the current schedule, construction would start in late 2013 and finish in late 2017. Thus, the armor rock is only a temporary fix to allow the long-term realignment to be realized.

In terms of other coastal resource issues, the primary concern with the proposed project is with respect to protecting the public viewshed. This viewshed is protected by Coastal Act Section 30251 and again by the access and recreation policies of the Coastal Act (because visual access is a form of public access). The area is highly scenic as that term is understood in a Coastal Act context. The project area is located in rural northern San Luis Obispo County at the southern gateway to the Big Sur shoreline. Inland are rolling pastoral hills capped by majestic mountain ranges, and the dynamic rocky shoreline and the Pacific Ocean (and Monterey Bay National Marine Sanctuary) are just opposite. The arrays and revetments are visible and adversely affect the overall public viewshed and aesthetic by introducing large rock into the sandy back beach area. This impact is hard to mask completely given the physical nature of revetments and their massing more generally. However, this impact is mostly tempered in this case by the location of the rock at a lower beach elevation as seen from travelers on the highway and naturally occurring vegetation on the bluff edge that help camouflage the piles of rock. Even with

augmentation to full revetments (and other than areas of rock very near the highway shoulder at Rocks 2), the rock is mostly screened out of direct view of the highway. A review of site photos shows that Caltrans' safety barriers ("k-rail") adjacent to the highway actually disrupt the viewshed more than the rocks themselves. These existing concrete k-rail barriers run along Rocks 2, and are made up of several 3-foot high sections. These barriers disrupt coastal views, are unattractive, and detract from the otherwise scenic view from the highway to the ocean. However, they are necessary for ensuring public safety at this location, and alternative barrier designs that might be more visually compatible are not feasible given the limited space available between the highway and the bluff edge, and given the instability of the bluff area more generally. Fortunately, Caltrans has identified measures to minimize the impact of the barriers (by aligning them so as to be as unobtrusive as possible, and ensure that the barriers as a whole are as uniform and as visually unobtrusive as possible (e.g., barrier exterior that is unpainted concrete, or painted with unobtrusive neutral hues, etc.) while maintaining the necessary traffic safety requirements.

More broadly, and as a means to limit armoring and its attendant impacts as much as possible, Caltrans' proposed methodology is to use rock arrays as a first option. A rock array is a technique where a series of boulders are placed in the beach areas that would otherwise be occupied by the base of a full revetment, but where the rocks do not touch and are not stacked (rather they are "arrayed"). When a rock array is not sufficient to protect the highway, the rock arrays would be built up into a full revetment. There are currently roughly 500 linear feet of rock arrays within the 1,500 linear feet of rock (and this area could be expanded to a full revetment under this proposed project) and 450 feet where there is currently no rock but where rock arrays would be the first phase of new armoring to be installed under this proposed project. According to Caltrans' reports, this technique of using arrays as a first and preferred option has proven somewhat effective in reducing shoreline erosion rates and avoiding full revetments (and their greater impacts), and should be pursued consistent with Caltrans proposed methodology to minimize coastal resource impacts.

In conclusion, Staff supports the long term goal of moving Highway One inland and out of harms way, and the complementary goal of enhancing coastal access as part of that effort, including realizing significant California Coastal Trail improvements in northern San Luis Obispo County. To ensure that impacts due to the temporary revetments remain limited and temporary, staff recommends a series of conditions of approval: 1) to allow the revetments to remain in place up to ten years, or until the realignment of Highway One is complete, whichever occurs first, and to time the term of this permit the same way (Caltrans could apply to amend the permit to extend its term beyond ten years should circumstances warrant); 2) to specify the criteria under which maintenance and augmentation to the revetments can be undertaken pursuant to this permit consistent with coastal resource protection; 3) to implement Caltrans proposed concrete barrier specifications as a means to reduce and offset public viewshed impacts; 4) to require Caltrans to report to the Executive Director on significant targeted benchmarks through the planning and construction phases of the realignment project in order to ensure that progress continues to be made towards the inland realignment alternative; and 5) to require removal of the revetments and restoration of the affected area pursuant to a Removal and Restoration Plan to be submitted at an appropriate time within the 10-year (or less) term of this permit.

As conditioned, Staff recommends that the Commission **approve** the Coastal Development Permit.

Staff Report Contents

I. Staff Recommendation on CDP Application

Staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development subject to the standard and special conditions below.

Motion. I move that the Commission approve Coastal Development Permit Number 3-07-030 pursuant to the staff recommendation.

Staff Recommendation of Approval. Staff recommends a **YES** vote. Passage of this motion will result in approval of the coastal development permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve a Coastal Development Permit. The Commission hereby approves the coastal development permit on the grounds that the development, as conditioned, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the coastal development permit complies with the California Environmental Quality Act because either: (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment; or (2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the development on the environment.

II. Conditions of Approval

A.Standard Conditions

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
3. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
4. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

B.Special Conditions

1. **Expiration and Scope of Permit.** This coastal development permit is valid for ten (10) years from the date of Commission approval (until October 12, 2017), or until construction of the inland realignment of Highway One is complete and through traffic is diverted to it, whichever occurs first. A new coastal development permit shall be required for the retention of any development authorized by this coastal development permit beyond the end of the term of this permit. While valid this coastal development permit authorizes:

   (a) **Existing Rock.** Recognition of 1,520 linear feet of existing rock arrays and revetments (150 linear feet of full revetment at Rocks 1 plus 1,370 linear feet of arrays and full revetments at Rocks 2), as shown in Exhibit B.

   (b) **Additional Rock.** Up to 450 additional linear feet of rock arrays and/or revetments at those portions of Rocks 2 that are currently unarmored (see Exhibit B), and expansion of rock arrays at Rocks 2 up to full revetments as needed (up to 1,780 feet of full revetments). Additional rock shall be no higher than the height of the blufftop edge and no flatter than a 1.5:1 slope. Rock arrays, specifically, shall not extend further seaward than the base of a full size revetment would extend.

   (c) **Approved Culvert and Headwall.** Recognition of the emergency repair to the Arroyo del Oso culvert and headwall within the temporary revetment at Rocks 2 undertaken pursuant to emergency coastal development permit 3-07-040-G (see Exhibit B).

   (d) **Barrier Modifications.** Modifications to the existing concrete barriers at Rocks 2 to align the barriers in such a way as to minimize viewshed impacts as much as possible, and to modify the

barrier sections to ensure that the barrier as a whole is uniform and as visually unobtrusive as possible (e.g., barrier exterior that is unpainted concrete, or painted with unobtrusive neutral hues, etc.) while maintaining the necessary traffic safety requirements.

(e) Maintenance. Maintenance of the rock, culvert/headwall, and barriers pursuant to the terms of this permit, including Special Condition 2.

2. Future Augmentation and Maintenance Authorized. This coastal development permit authorizes future augmentation and maintenance subject to the following:

(a) Augmentation. "Augmentation," as it is understood in this special condition, means placement of up to approximately 450 linear feet of additional rock and any expansion of rock at Rocks 2 as described in Special Condition 1.

(b) Maintenance. "Maintenance," as it is understood in this special condition, means development that would otherwise require a coastal development permit whose purpose is: (1) to reestablish or place rock within the permitted footprint and/or profile of the Existing Rock and/or the Additional Rock (once initially placed) as described in Special Condition 1; and/or (2) to retrieve any rocks that move seaward of the permitted footprint and/or profile of the Existing and Additional Rock and either restack them (within the approved footprint and profile) or remove them from the project area as soon as is feasible after discovery of the rock movement.

(c) Other Agency Approvals. The Applicant acknowledges that these maintenance and augmentation stipulations do not obviate the need to obtain permits from other agencies for any future maintenance and/or augmentation episodes.

(d) Augmentation and Maintenance Notification. At least two weeks prior to commencing any augmentation and/or maintenance event, the Permittee shall notify, in writing, planning staff of the Coastal Commission's Central Coast District Office. The notification shall include: a detailed description of the augmentation and/or maintenance event proposed; any plans, engineering and/or geology reports describing the event; a construction plan that complies with the Construction Plan requirements described below; other agency authorizations; and any other supporting documentation (as necessary) describing the augmentation and/or maintenance event. The augmentation and/or maintenance event shall not commence until the Applicant has been informed by planning staff of the Coastal Commission's Central Coast District Office that the event complies with this coastal development permit. If the Applicant has not received a response within 30 days of submitting the notification, the augmentation and/or maintenance event shall be authorized as if planning staff affirmatively indicated that the event complies with this coastal development permit. The notification shall clearly indicate that the augmentation and/or maintenance event is proposed pursuant to this coastal development permit, and that the lack of a response to the notification within 30 days constitutes approval of it as specified in the permit. In the event of an emergency requiring immediate augmentation and/or maintenance, the notification of such emergency event shall be made as soon as possible, and shall (in addition to the foregoing information) clearly describe the nature of the emergency.

(e) Construction Plan. The maintenance and/or augmentation notification shall include a Construction Plan that, at a minimum, provides for the following:

(1) Construction Areas. All areas within which construction activities and/or staging are to take place shall be minimized to the maximum extent feasible in order to minimize construction encroachment on Highway One and the beach, and to have the least impact on public views from Highway One and public access to the shoreline otherwise.

(2) Construction Methods and Timing. All construction methods to be used, including all methods to be used to keep the construction areas separated from public recreational use areas and to minimize public view impacts, shall be clearly identified. Construction shall be limited in duration as much as feasible to limit overall construction impacts. The Plan shall ensure that all erosion control/water quality best management practices to be implemented during construction and their location are provided to the Executive Director prior to commencement of construction.

(3) Construction Requirements. The Plan shall include the following construction requirements specified via written notes on the Plan. Minor adjustments to the following construction requirements may be allowed by the Executive Director if such adjustments: (1) are deemed necessary due to extenuating circumstances; and (2) will not adversely impact coastal resources.

- All work shall take place during daylight hours and lighting of the beach area is prohibited.
- Construction work or equipment operations shall not be conducted below the mean high water line unless tidal waters have receded from the authorized work areas.
- Grading of intertidal areas is prohibited with one exception as follows: existing rock that has migrated seaward of the rock arrays and/or revetments, that is naturally exposed, and that can be retrieved without substantial excavation of the surrounding sediments, shall be retrieved and reused or removed to an appropriate disposal site offsite. Any existing rock retrieved in this manner shall be recovered by excavation equipment positioned landward of the waterline (i.e., excavator equipment with mechanical extension arms).
- Only rubber-tired construction vehicles are allowed on the beach, except track vehicles may be used if the Executive Director agrees that they are required to safely carry out construction. When transiting on the beach, all such vehicles shall remain as high on the upper beach as possible and avoid contact with ocean waters and intertidal areas.
- All construction materials and equipment placed on the beach during daylight construction hours shall be stored beyond the reach of tidal waters. All construction materials and equipment shall be removed in their entirety from the beach area by sunset each day that work occurs.
- Equipment and materials shall be stored out of the ocean view as seen from Highway

One if feasible.

- Construction (including but not limited to construction activities, and materials and/or equipment storage) is prohibited outside of the defined construction, staging, and storage areas.

- No work shall occur during weekends and/or the summer peak months (i.e., from the Saturday of Memorial Day weekend through Labor Day, inclusive) unless, due to extenuating circumstances (such as tidal issues or other environmental concerns), the Executive Director authorizes such work.

- Equipment washing, refueling, and/or servicing shall not take place on the beach.

- The construction site shall maintain good construction site housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the beach).

- All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day to prevent construction-related runoff and/or sediment from entering into the Pacific Ocean.

- During all construction, copies of the signed coastal development permit and the construction plan shall be maintained in a conspicuous location at the construction job site at all times, and such copies shall be available for public review on request. All persons involved with the construction shall be briefed on the content and meaning of the coastal development permit and the construction plan prior to commencement of construction.

- A construction coordinator to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and in emergencies) shall be designated, and their contact information (i.e., address, phone numbers, etc.) including, at a minimum, a telephone number that will be made available 24 hours a day for the duration of construction, shall be conspicuously posted at the job site where such contact information is readily visible from public viewing areas, along with indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The construction coordinator shall record the name, phone number, and nature of all complaints received regarding the construction, and shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry.

- The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 working days in advance of commencement of construction, and immediately upon completion of construction.

(f) Restoration. The Permittee shall restore all bluff areas, all beach areas, and all beach access points impacted by construction activities to their pre-construction condition, or better where feasible, within three days of completion of construction, except that associated landscaping and/or erosion control seeding shall take place within three months of completion of construction, unless a different time period is approved by the Executive Director. Any beach sand impacted shall be cleared of all construction debris as part of these restoration activities.

(g) Non-compliance Proviso. If, in the opinion of the Executive director, the Permittee is significantly out of compliance with the terms and conditions of this coastal development permit at the time that a maintenance and/or augmentation event is proposed, then the event that might otherwise be allowed by this coastal development permit, including the terms of this future augmentation and maintenance condition, shall not be allowed until the Permittee is in full compliance with this permit.

(h) Emergency. In addition to the emergency provision set forth in subsection (d) above, nothing in this condition shall serve to waive any Permittee rights that may exist in cases of emergency pursuant to Coastal Act Section 30611, Coastal Act Section 30624, and Subchapter 4 of Chapter 5 of Title 14, Division 5.5, of the California Code of Regulations (Permits for Approval of Emergency Work).

(i) Duration of Covered Augmentation and/or Maintenance. Future augmentation and/or maintenance under this coastal development permit is allowed subject to the above terms for as long as this coastal development permit remains valid (see Special Condition 1).

3. **Annual Progress Reports.** On an annual basis, with the first report due one year from the issuance of this coastal development permit, the Permittee shall submit a report to the Executive Director for review and approval demonstrating progress made that year toward the completion of the "Piedras Blancas Realignment Project". Progress shall be measured by the activities, targets, and target deadlines shown in Exhibit D of this report. If a target has not been achieved by the target deadline, then the annual report shall identify a revised target deadline and the measures that will be taken to ensure that the revised target deadline will be met. If, in the opinion of the Executive Director, the Permittee is significantly out of compliance with the terms and conditions of this coastal development permit, including meeting target deadlines in Exhibit D, then the matter shall be scheduled for Coastal Commission review and potential action, where such action at the Coastal Commission's discretion may include modifying the terms and conditions of this coastal development permit, including the end of the term of the permit.

4. **Rock Removal and Restoration Required.** SIX MONTHS PRIOR TO END OF THE TERM OF THIS PERMIT (and by April 12, 2017 at the latest), the Permittee shall submit for Executive Director review and approval, a detailed Rock Removal and Restoration Plan. The goal of the Plan shall be to remove the temporary rock and associated structures authorized by this coastal development permit and to return the area occupied by rock and/or impacted by construction to its pre-rock installation condition or better. The plan shall describe all BMP's to be implemented and shall include measures to avoid impacts to public views and interference to public access during removal and site restoration activities (with the exception of necessary provisions to protect the

public and workers during removal and restoration activities), and shall at a minimum include all of the construction requirements identified in Special Condition 2. The Plan shall provide for the submittal of a final report documenting all removal and restoration activities, including a narrative description and photographic evidence, within three months after completion of removal and restoration activities. The temporary rock and associated structures authorized by this coastal development permit shall be removed and the site restored pursuant to the approved Plan no later than the end of the term of this permit (see Special Condition 1).

III. Recommended Findings and Declarations

The Commission finds and declares as follows:

A. Project Location

The proposed project is located on the seaward side of Highway One along about one-half mile of shoreline near Piedras Blancas (between post miles 65.3 and 65.9) in northern San Luis Obispo County near the gateway to southern Big Sur (see Exhibit A). The proposed project involves a 150-foot upcoast segment (referred to as "Rocks 1") and a 1,780-foot downcoast segment (referred to as "Rocks 2") separated by roughly ¼-mile of unarmored shoreline. This is almost entirely a rural stretch of Highway One with only scattered areas of more urban style development in the vicinity (e.g., the village of San Simeon and the town of Cambria to the south). Inland are rolling hills capped by majestic mountain ranges (parts of Hearst Ranch), and the dynamic rocky shoreline and the Pacific Ocean (and the Monterey Bay National Marine Sanctuary) are just west of the Highway. The Highway here thus snakes through a pastoral and highly scenic stretch of central California coast where it is essentially the only north-south access route along the relatively undeveloped coastline.

See Exhibit A for location maps and photos of the Rocks 1 and Rocks 2 areas.

B. Background

In August 1997, the Coastal Commission approved a coastal development permit (CDP) to allow Caltrans to place temporary revetments along an area of coastline north of Piedras Blancas to prevent the closure of Highway One (CDP 3-97-039). Additional rock was placed under emergency CDP's 3-00-154-G and 3-01-004-G, and under a subsequent amendment of the base permit (amendment A1) during the winter season of 2000/2001. In 2002, the Commission authorized another amendment (amendment A2) that extended the life of the base permit to 2007 (see Exhibit C for adopted CDP 3-97-039, as amended previously, authorizing the placement of rock slope protection at this location). In 2002, the County of San Luis Obispo approved a coastal permit allowing for the construction of two temporary Highway One detours to bypass the Rocks 1 and Rocks 3 areas (where Rocks 3 is located roughly one and a half miles south of Rocks 2). These temporary highway realignments were constructed in the summer of 2003. At the Rocks 3 location, the temporary revetment that had been

placed there to protect the highway under the base coastal permit was removed and transferred to the Rocks 2 area (see Exhibit B) when the bypass was complete. At the Rocks 1 location, the temporary revetment was left in place because, according to Caltrans, there was potential for the bluff to erode back to the new detour before the completion of the permanent realignment.

Thus, rock is currently located at Rocks 1 and Rocks 2 locations only. At Rocks 1, there is a full revetment extending to the top of the bluff along about 150 feet of shoreline. At Rocks 2, about 1,370 feet of shoreline are armored: roughly 1,000 feet of full size revetment, and roughly 370 feet of rock arrays[1] at the north and south ends of Rocks 2. CDP 3-97-039 as amended provided temporary authorization for these rock arrays and revetments, and included a condition that Caltrans could apply for another five-year extension in 2007. Caltrans inadvertently missed the deadline for submittal of the extension request, and CDP 3-97-039 as amended expired on May 15, 2007.

As a permanent long-term solution to erosion dangers to Highway One at this location, Caltrans is pursuing a permanent realignment of Highway One inland from its present location. Caltrans approved a Project Study Report (PSR) on August 16, 2001, which identified permanent realignment as the ultimate preferred alternative to protect the highway and allow for the removal of the existing rock from beach and tidal areas. To date, substantial progress has been made on the permanent realignment project. Environmental studies have been conducted and an Environmental Impact Report/Environmental Assessment is to be prepared to satisfy the requirements of the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). According to Caltrans, the current schedule for the realignment project includes a construction start date of 2013, with completion slated for 2017.

C. Project Description

The proposed project is to retain, maintain, augment, and over time remove the existing rock at Rocks 1 and Rocks 2, and to recognize the recent culvert/headwall repairs at Rocks 2[2] on a temporary basis until the Highway can be realigned. Because Caltrans missed the deadline for submittal of an application to extend the base permit, CDP 3-97-039 expired and Caltrans is applying for a new CDP consistent with the previous authorization (i.e., to maintain and augment where necessary the temporary rock arrays and revetments until such time as the Highway can be permanently realigned inland). The original CDP was valid through 2002 with an acknowledgement that two 5-year extensions could be pursued to extend its expiration to the year 2012. Because the current schedule for the permanent realignment shows a construction start date that is beyond the original maximum term, Caltrans is proposing that the new CDP be for an initial 5-year term, with the option to apply for two additional 5-year extensions to 2017 and 2022.

At the Rocks 1 location, Caltrans proposes to progressively harvest some rock to be utilized as needed at

[1] A rock array is where individual rocks are arrayed just seaward of the bluffs as a means to dampen (as opposed to block as is the case typically with a "full" revetment) wave and tidal energy.

[2] The culvert/headwall repair is essentially an integral component of the revetment at Rocks 2. For the purposes of this report, this component is not further distinguished but rather is understood to be a part of the revetment at Rocks 2.

the Rocks 2 location ("Augmentation"). Over time, the Rocks 1 revetment would be reduced from a full 150 linear foot stacked revetment, to a three to four row deep rock array. At the Rocks 2 location, Caltrans would place a perimeter rock array in front of and around existing unarmored headlands, connecting them to the revetments on either side of them before they erode and fail. Additional rock at these new rock arrays, and at the existing north and south arrays at either end Rocks 2, may also be necessary and would be installed by Caltrans on an as-needed basis in the future.[3] Caltrans indicates that the revetments are needed until the Highway is realigned inland and through traffic is moved to the realigned location. Caltrans anticipates that additional planning for the realignment will take five years, and that construction will take an additional five years. As proposed, the revetments, including areas to be augmented with additional rock, are temporary measures needed only until the long-term permanent realignment has been completed. Caltrans proposes to remove all rock when the highway has been realigned and through traffic routed onto it.

See Exhibit A for photos of the Rocks 1 and Rocks 2 areas, and see Exhibit B for an annotated site plan detailing the location of existing and proposed additional rock areas.

D. Coastal Development Permit Determination

1. Shoreline Structures

Section 30235 of the California Coastal Act identifies parameters for the review of proposed shoreline structures in the coastal zone. Section 30235 states, in relevant part:

> *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required . . . to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. …*

Under this section, the Commission may approve a shoreline structure, such as the rock arrays and revetments which are the subject of this application, when (1) it is required to protect an existing structure in danger from erosion and (2) it is designed to eliminate or mitigate adverse impacts on shoreline sand supply.

Highway One has been in place at this location since the early 1900's, pre-dating the coastal permitting requirements of Proposition 20 (the "Coastal Initiative") and the Coastal Act, and it is considered to be an "existing structure" for the purposes of Section 30235.

The Coastal Act allows shoreline armoring to protect existing structures in danger from erosion, but it does not define the term "in danger." There is a certain amount of risk in maintaining development along a California coastline that is actively eroding and can be directly subject to violent storms, large waves, flooding, earthquakes, and other hazards. These risks can be exacerbated by such factors as sea

[3] For reference, all currently proposed future maintenance and augmentation work would occur within Rocks 1 and Rocks 2 locations and footprints that were approved by the Commission in the previous CDP.

level rise and localized geography that can focus storm energy at particular stretches of coastline. As a result, some would say that all development along the immediate California coastline is in a certain amount of "danger." It is a matter of the degree of threat that distinguishes between danger that represents an ordinary and acceptable risk, and danger that requires shoreline armoring pursuant to Coastal Act Section 30235. Lacking a Coastal Act definition, the Commission's long practice has been to evaluate the immediacy of any threat in order to make determinations as to whether an existing structure is "in danger." While each case is evaluated based upon its own particular set of facts, the Commission has generally interpreted "in danger" to mean that an existing structure would be unsafe to use or otherwise occupy within the next two or three storm season cycles (generally, the next few years) if nothing were to be done (i.e., in the no project alternative).

Generally, erosion of the sandstone bedrock and marine terrace formations at this location in northern San Luis Obispo County is causing the steady retreat of the shoreline within the project area. Comparisons of aerial photographs taken in 1957 and 1998 show a retreat of shoreline of as much as 150 feet in some areas over this period. Updated analysis of photographic evidence from 1957 to the present yields an average annual long term rate of erosion of 3.7 feet per year of bluff erosion. This is a very high rate of erosion relative to many of the areas where shoreline armoring is considered by the Coastal Commission (where a 1-foot per year rate is typically considered fairly high). In addition, in recent years large sections of bluff have eroded away in single storm events, up to 15 feet lost in single events in certain locations, underscoring the episodic and uncertain nature of shoreline erosion in general and specifically along this section of coast. Further contributing to erosion forecasting difficulty, erosion has varied widely at different points along the bluffs here due to a variety of intrinsic variables (including angle of the bluffs to swell direction, offshore and surf zone rock formations, failure planes and differences in geologic composition, the width of the beach, etc.). These variables also help to make it difficult to predict where, when, and to what extent bluff erosion will occur in the project area over time. That said, it is clear that this section of the coast is subject to intense storm surge and continues to be eroded by wave action. The bluffs in the project area are mostly lightly cemented cobble with little strength, and at several places within the project area the shoreline has eroded to less than five-feet of Highway One, immediately threatening the integrity of the roadbed.

At the Rocks 2 location, and without the subject revetments, Highway One is in danger from erosion as that term is understood in relation to Section 30235. The highway is within a few feet of the roadway at Rocks 2. The widest blufftop area at Rocks 2 is approximately 62 feet and 38 feet at the two unarmored headlands (see Exhibit B). However, these headlands are relatively small bluff areas, are both currently undercut in sections, and there is little strength in the lightly cemented cobble above the undercuts. With an average annual erosion rate that is nearly 4-feet per year, and episodic events documented in this area that can take up to 15 feet of bluff at a time, it is clear that Highway One at Rocks 2 would be undermined absent the subject rock arrays and revetments. Such impacts would be expected to occur within the next few storm cycles. As such, Highway One at Rocks 2 constitutes an existing structure in danger from erosion. There is little question that the affected sections of Highway One at Rocks 2 would be lost if the rock arrays and revetments were not in place, and certainly within the next two to three storm cycles, meeting the applicable "in danger" test of Section 30235. The Commission's staff geologist has evaluated the degree of threat to Highway One at this location and concurs with the above threat assessment.

At the 150-foot long Rocks 1 location, the blufftop setbacks are somewhat wider than at Rocks 2. This is primarily due to the fact that Caltrans moved the road inland (as a temporary detour) in 2002. Recent field measurements show that the realigned highway is upward of 100 feet from the bluff edge at Rocks 1. Thus, is does not appear that the highway at Rocks 1 is in danger from erosion in a Coastal Act sense. Accordingly, the rock should be removed. Fortunately, the applicant has proposed to remove the rock and transfer them to the Rocks 2 location over time. Although accelerating the removal schedule at Rocks 1 (including up to requiring removal immediately) is an option, to do so would mean that the rocks at Rocks 1 would need to be moved offsite to another storage area and then brought back to the Rocks 2 location over time. By instead harvesting the rock over time, rock does not need to be stored and trucked back and forth. Ultimately, all of the rock will be removed over the life of the permit.

Feasible Alternatives

Under Section 30235, the proposed rock arrays and revetments may be approved (and in this case, remain in place) as the appropriate response to the erosion risk if they are "required" to protect the existing structure in danger from erosion. In other words, armoring may be permitted if it is the only feasible[4] alternative capable of protecting the endangered structure. When read in tandem with other applicable Coastal Act policies protecting coastal resources as cited in these findings, this 30235 evaluation is often conceptualized as a search for the least environmentally damaging feasible alternative that can serve to protect existing endangered structures. Other alternatives typically considered include: the "no project" alternative; abandonment of threatened structures; relocation of the threatened structures; sand replenishment programs; drainage and vegetation measures on the blufftop itself; and combinations of each. Because the no project alternative (in this case, the 'remove revetment immediately' option) does not protect the existing endangered structures, it is not feasible in a 30235 protection sense.

In this case, Caltrans has evaluated a range of alternatives, including: (1) no revetment/remove the rock immediately; (2) maintain and expand rock array and revetment footprints as necessary (as previously approved under the now expired permit), to protect the existing roadway until the complete realignment, and then remove all of the rock; (3) remove rock and install other "hard" shoreline protective measures (e.g., seawalls, groins, etc.); and (4) move Highway One to a more inland location.

The "no revetment" or "remove rock immediately" alternative leaves unchecked the natural erosive processes which in time will inevitably undermine the present roadbed of Highway One within the project area. The only question is how long, within the near future, it will take for erosion to reach the highway. As discussed, this section of coast is subject to intense storm surge and continues to be eroded by wave action. The annual long term erosion rate for this area is nearly 4-feet per year, and individual episodic events up to 15 feet of bluff loss at a time have been documented. The bluffs in the project area are mostly lightly cemented cobble with little cohesion and strength. If no measures are taken, or if the rock is removed immediately, portions of Highway One could be lost during the next major storm event. The Coastal Commission's experience with emergency permitting of rock revetments in this area over

[4] Note that Coastal Act Section 30108 defines feasibility as follows: "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

the last few years indicates that erosion can occur very rapidly at this location. The bluff edge within the project area is close enough to the highway that imminent risk of damage to the highway exists in this area due to the relatively high rate of erosion and the documented potential for large sections of bluff to retreat in individual storm events. As a result, the "no revetment" or "immediate removal" option is not a practical, feasible alternative to protect the existing endangered structure.

The "maintain and expand the existing rock arrays and revetments" alternative is the proposed project. This is the alternative that has been the accepted approach at this location in light of the long term realignment project by all involved agencies since 1996 (e.g., Caltrans, San Luis Obispo County, Coastal Commission, State Lands Commission, RWQCB, ACOE, and MBNMS). Rock revetments are flexible, can be supplemented or rearranged, absorb a great amount of force, and can be placed by crane, eliminating the need to encroach onto sensitive bluff, beach, and intertidal areas. Most importantly, revetments can be removed leaving virtually no trace of having been there.[5] This is particularly relevant given the proposed project includes removal of the rock when the highway has been realigned and traffic diverted to it. As an interim measure, maintaining the existing revetments in place, augmenting when necessary, and ultimately removing rock when no longer necessary to protect the highway, remains an appropriate Highway One protection measure.

The alternative to replace the revetments with some other type of "hard" shoreline structure (e.g., concrete seawalls, crib walls, interlocking block or jacks, concrete gabions, etc.) is best understood as a different type of armoring as opposed to a true alternative to armoring. Many of these alternative shoreline protective measures would be ineffective due to the nature of shoreline erosion in the region. For example, crib walls are not effective in this type of setting given the lightly cemented cobble bluffs and because there is too much possibility of the inner fill for the cribs to be lost through wave hydraulics. Gabions were considered but rejected because it is doubtful that the baskets could withstand the intense wave impact and abrasion (and there was also concern that sharp wire ends on gabion baskets might injure marine animals and birds). Concrete walls could certainly offer the same level of protection as rip-rap (if not more), and could be colorized/contoured to more effectively blend into viewshed aesthetics, but the initial cost and installation impacts would be greater, and such structures would be extremely difficult, costly, and environmentally damaging to remove. Given the protection is meant to be a temporary measure, and the difficulty of removing such "hard" structures from the beach and bluff, these alternatives are not appropriate in this case.

The most relevant alternative is really to move the endangered structure, Highway One, out of harms way. In sum, the "highway realignment inland" option represents the only acceptable long-term alternative. As discussed, Caltrans is already well into the planning stage for permanent highway realignment in this area. When completed, this alternative will obviate the need for rock revetments in this area to protect the highway. However, because of the numerous property ownership (Hearst land is inland of the highway), legal, environmental and engineering issues presented by such a major realignment, the planning process will take as many as five years to complete, and construction will require another five years past that (i.e., a total of ten years until Highway traffic can be redirected to the

[5] This is evidenced in a recent Commission action that required the removal of rock rip-rap in Shell Beach, also in San Luis Obispo County. The removal of rocks at that location appears to have left no visible traces of impacts to the bluff and beach area.

realigned Highway One).

Endangered Structures Conclusion

In conclusion, the proposed temporary rock arrays and revetments represent the most appropriate temporary solution for protecting Highway One until such time as the inland Highway realignment is realized. Such rock arrays and revetments will result in coastal resource impacts (including on sand supply, beach recreational opportunities, and public views) requiring mitigation (see below), but they represent the least environmentally damaging feasible solution in this case. That said, Caltrans' application (for a five-year term with two potential five-year extensions to it) makes little regulatory sense for a project that is, by current estimates, on a ten-year horizon. Such construct only serves to complicate the permitting process (including by virtue of the expected need for the Coastal Commission to consider extensions, etc.). Accordingly, this CDP is conditioned for a ten-year term, or until the highway is realigned and through traffic is shifted to it (see Special Condition 1). In this way, the CDP recognizes and responds to the permitting and construction realties associated with a major alignment of Highway One, and allows adequate time under it for Caltrans to implement the realignment project. Should the realignment project take longer than expected, Caltrans can pursue an amendment to this CDP at that time, but it is inappropriate and unnecessary to provide a mechanism to account for that now not knowing the context that may be in place then.

By the same token, and in making this finding, the Commission expects that Caltrans will continue to make progress towards realizing the realignment project. As a means of codifying that expectation, and in consultation with Caltrans, a series of benchmarks have been established that can be used to ensure that the realignment project remains "on track" over the ten-year horizon (see Exhibit D). It is because this realignment is being pursued that the revetment makes Coastal Act sense at this location, and it is only if that project being achieved that the Commission can find this project consistent with the Act in that regard (see Special Condition 3).

Finally, although Caltrans proposes to remove the rock as part of the project, Caltrans also indicates that it may be appropriate to leave some of the rock in place at Rocks 1 when the Highway is realigned inland. Caltrans believes that the rock at Rocks 1 mimics the appearance of the rock formations to the north and that the heavy amounts of plant growth on the lowest rocks makes them appear even more natural in this regard. Accordingly, and despite proposing to remove the rock as part of this project, Caltrans has entertained the idea of leaving behind some of the rock to promote the complexity of the tidal zone habitat. However, the rock arrays and revetments authorized under this CDP are temporary and only meant to protect Highway One. As a result, when the Highway (and through traffic on it) is moved inland, then the Highway One basis for retaining the revetment is no longer relevant. Leaving some rock on the beach is not considered acceptable at this time and is not supported by the Commission. Accordingly, and to limit coastal resource impacts as much as possible, this approval is conditioned to implement Caltrans proposed removal of the rock and associated structures at that time (see Special Condition 4).

In making this finding that the rock must be removed entirely, the Commission notes that it may prove desirable and/or appropriate to preserve the existing roadway after the Highway One realignment is complete, including the possibility of preserving the existing highway as a segment of the California

Coastal Trail (CCT). This project is within the newly-acquired San Simeon State Park North Coast Acquisition area under the management of the State Department of Parks and Recreation. In addition, just to the south of the Rocks 2 location, the State recently acquired the 20-acre Piedras Blancas Motel site, which has also been transferred to State Parks for public recreational purposes. Currently the State Coastal Conservancy is leading a multi-agency effort, including staff from the Coastal Commission, State Parks, San Luis Obispo Planning Department, Caltrans, and San Luis Obispo Council of Governments, to plan for CCT needs along the area that will be affected by the realignment project. It is anticipated that the entire length of the abandoned highway segment will become a portion of the CCT. One important task for this CCT working group will be to identify highway structures (such as culverts and bridges, etc.), that may need to remain in place to serve the CCT. These future needs will be evaluated and addressed as part of the realignment project's environmental review and coastal permit processes. As such, though, it is inappropriate to determine the fate of the rock now when it will be dependent on a different factset in place when the road is realigned and CCT and related park planning is integrated into that effort ten years hence. It may prove that the rock is ultimately considered for retention to protect the CCT or otherwise, but that is a future decision, and it needs to be the subject of its own permit review process and factset. For this application, and to clean the slate for any future application, the rock must be removed when it has reached its useful life protecting Highway One; when and if rock is retained after that will need to be decided at that time.

Mitigation of Impacts to Sand Supply

Under Section 30235, any proposed shoreline structure that is appropriate under the "existing structure in danger" test described above must also be designed to eliminate or mitigate adverse impacts to shoreline sand supply. Shoreline armoring measures, including rock revetments, lead to adverse impacts to local sand supply by blocking sand generating materials in the bluff from entering shoreline sand supply systems and leading to the loss of sandy beaches fed by same. Rock arrays and revetments can also block littoral drift, further affecting beach formation and retention. The primary way that these impacts are mitigated by project design (and as conditioned by the Commission to ensure this is the case) is because the rock revetments are temporary. Caltrans has committed in part, and the conditions of approval require, removal of the rock for this purpose. Thus, the sand supply impacts are limited to the time during which any rock is in place, and not for all time. That said, the rock arrays and revetments have had, and will continue to have for as long as they are present and/or expanded as proposed, an adverse impact on beach recreational access because they block the aforementioned contributions to the shoreline sand supply system, thus adversely affecting beach access by reducing natural contributions to sandy beach formation and retention. In this case, these sand supply impacts can more appropriately be described as sandy beach recreational impacts, and thus avoiding such impacts and mitigating for those that are unavoidable falls more clearly under the Coastal Act's access and recreation policies (see the Public Access and Recreation finding below).

Conclusion

The Commission finds that the temporary rock arrays and revetments are required to protect an existing endangered structure, Highway One, pending completion of the permanent realignment of the highway at this location, and that no feasible less environmentally damaging alternatives exist at this time. Sand

supply impacts that aren't avoided by project design, including by the temporary nature of the rock as proposed, are mitigated (see findings that follow) and the project can be found consistent with Coastal Act Section 30235.

2. Public Access and Recreation

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation.

> *30210. In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*
>
> *30211. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*
>
> *30213. Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. …*
>
> *30214(a). The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*
>
> *(1) Topographic and geologic site characteristics.*
>
> *(2) The capacity of the site to sustain use and at what level of intensity.*
>
> *(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.*
>
> *(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter. …*
>
> *30220. Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*
>
> *30221. Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*
>
> *30223. Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Coastal Act Section 30240(b) also protects parks and recreation areas such as the beach area seaward of

the site. Section 30240(b) states:

> *30240(b). Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

As previously described, the project is located within the San Simeon State Park North Coast Acquisition area under the management of the State Parks. In addition, the State Parks' recently acquired Piedras Blancas Motel site is located to the south of the Rocks 2 location. Highway One itself is the dominant public access and recreation feature of this stretch of coast, and remains the de facto California Coastal Trail. The project area is somewhat remote otherwise, and does not represent a primary beach recreational access destination. Public access along the beach and immediate shoreline in the project area is also somewhat difficult due to the natural topography of the area. For the length of the project area, a fairly steep sandstone bluff averaging approximately 20 feet in height limits easy vertical access to the beach from Highway One. Informal access to the beach exists at the mouth of Arroyo de la Cruz north of the Rocks 1 location, but no stairways exist leading from blufftop to beach. In addition, a fence runs along the shoulder of Highway One for much of the length of the project area, limiting access to the bluff top. Narrow gravel and sand pocket beaches are sporadically located along most of the length of the project area below the bluffs. Although the ocean reaches the bluffs at many points at high tide, rendering the beaches impassable at these times, there is lateral access along the rocky shoreline at lower tides. The nearest formal access point is approximately three miles south of the project area.

The subject rock arrays and revetments extend onto the beach roughly 15 to 25 feet. The total area of beach covered by such rock revetment is, thus, fairly large – approximately one acre of sandy beach coverage. This beach coverage adversely impacts beach recreational access in a variety of ways. First, the acre of sandy beach area covered is not available for public recreational use. Given the already transitory nature of the pocket beaches in the project area, this loss of sandy beach public access area is magnified. Further, because of the area of beach covered and the shoreline configuration, the rock inevitably blocks lateral access along the beach, particularly at higher tides. With respect to the sand supply impacts referenced in the previous finding above, the revetments continue to cover beach sand and continue to block bluff materials that would otherwise naturally erode and be added to the shoreline sand supply system, thus also adversely affecting beach access by reducing natural contributions to sandy beach formation and retention; this impact is exacerbated at this location given the beaches are not very large to begin with. Finally, the revetments have hardened (and will further harden where rock arrays are expanded to full revetments) the edge on an otherwise eroding shoreline which, over time, leads to a loss of beach at this location (i.e., the phenomenon of passive erosion).[6]

[6] Experts generally agree that where the shoreline is eroding and armoring is installed, as is the case here, the armoring will eventually define the boundary between the sea and the upland. On an eroding shoreline fronted by a beach, the beach will be present as long as some sand is supplied to the shoreline and the beach is not submerged by sea level rise. As erosion proceeds, the beach also retreats. This process stops, however, when the retreating shoreline comes to a revetment or a seawall. While the shoreline on either side of the armor continues to retreat, shoreline retreat in front of the armor stops. Eventually, the shoreline fronting the armor protrudes into the water, with the mean high tide line fixed at the base of the structure. In the case of an eroding shoreline, this represents the loss of a beach as a direct result of the armor. These effects are also known as "passive erosion."

In sum, the proposed revetments have had, and will continue to have for as long as they are present and/or expanded, adverse impacts on beach recreational access as described above. Mitigations for such impacts that have historically been considered by the Commission include offsetting acquisition of bluff/beach areas in the vicinity, sand mitigation fees (for sand loss specifically), beach loss mitigation fees (for loss of beaches more broadly), removal of other impediments to beach access in the vicinity (such as removal of unnecessary revetments, etc.), construction/provision of other access improvements (stairways, paths, boardwalks, etc.), etc. In this case, Highway One represents the main route for, and primary form of, public access to and along the shoreline in northern San Luis Obispo County. More generally, the Highway is the de facto California Coastal Trail for this stretch of coast. In short, Highway One is a significant access feature of major importance to the State and visitors to it at this location.

Conversely, sandy beach access at this location, while still important and valuable, is more limited due to the irregular configuration of the shoreline that limits beaches to discontinuous "pocket" segments for the most part, and due to the fact that this area is fairly remote and not a primary beach access destination of itself. Thus, temporary impacts to beach recreational access along this stretch of coast as the result of retaining the revetments must be weighed against the potential loss of coastal access as a result of damage to and closure of Highway One without the revetments. In this case, maintaining the temporary rock arrays and revetments represents the least environmentally damaging feasible alternative for the protection of Highway One in the near term until the Highway can be moved inland. The impacts to beach recreational access are thus offset and mitigated for by ensuring that the revetments are only temporary and are removed when the Highway is realigned, by maintaining through access along Highway One, and maximizing access improvements as part of the realignment project (e.g., bicycle and pedestrian enhancements, minor interpretive facilities, parking, California Coastal Trail enhancements in realigned highway and/or along current alignment, etc.), and related parks planning for this stretch of coast. In making this finding the Commission notes that it fully expects the Highway One realignment process to consider access and recreation enhancements, including CCT enhancements, as an integral part of any subsequent realignment project, and that it is incumbent on Caltrans to maximize public access in this respect consistent with the Act.

Highway One represents the main route for public access to and along the coast in northern San Luis Obispo County from Morro Bay to the gateway to Big Sur. Impacts to lateral access along the beach north of Piedras Blancas as the result of retaining the rock slope protection must be weighed against the significant loss of coastal access that would result from damage to and closure of Highway One. Experience over the last four storm seasons has shown that in the absence of adequate shore armoring measures at key points in this area where bluff retreat is greatest, damage to Highway One during large storm events is virtually certain to occur. As conditioned, maintaining the rock revetments installed by Caltrans represent the best alternative for the protection of Highway One in the near term for which no less environmentally damaging feasible alternative exists.

Overall, within the context of the paramount importance of Highway One for coastal access, temporary beach access and recreational impacts can be mitigated (including viewshed impacts – see also findings below), and as conditioned to limit the term of the authorization, to require revetment removal and restoration at the end of the term, and to require annual progress reports and enforceable benchmarks to

ensure impacts are limited to the degree feasible, the proposed project can be found consistent with the Coastal Act's access and recreation policies as cited above in this respect.

3. Visual Resources

Coastal Act Section 30251 states:

> *30251. The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Coastal Act Section 30240(b), previously cited, also protects the aesthetics of recreation areas such as those involved in this application. Section 30240(b) states:

> *Section 30240(b). Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

In addition, because visual access is a form of public access, the public viewshed here is also protected by the access and recreation policies of the Coastal Act previously cited.

As previously described, the project area is located in rural northern San Luis Obispo County at the southern gateway to the Big Sur shoreline. Inland are rolling pastoral hills capped by majestic mountain ranges, and the dynamic rocky shoreline and the Pacific Ocean (and MBNMS) are just opposite. In short, the area is a highly scenic area as that term is understood in Coastal Act context.

In this context, the revetments are visible, would be more visible if fully augmented as proposed in a worst case scenario, and adversely affect the overall public viewshed and aesthetic by introducing large rock into the back beach area along Highway One. This impact is hard to mask completely given the physical nature of revetments and their massing more generally. This impact can typically be softened by the use of native landscaping at the blufftop edge to help camouflage the piles of rock. However, this impact is mostly tempered in this case by the location of the rock at a lower beach elevation as seen from travelers on the highway and naturally occurring vegetation on the bluff edge that help camouflage the rock. Even with augmentation to full revetments (and other than areas of rock very near the highway shoulder at Rocks 2), the rock is mostly screened out of direct view of the highway.

A review of site photos shows that Caltrans' safety barriers adjacent to the highway actually disrupt the viewshed more than the rocks themselves. These existing "k-rail" barriers run along Rocks 2, and are made up of several sections of 3-foot high concrete modular walls strung end to end (see Exhibit A). These barriers disrupt coastal views, are unattractive, and detract from the otherwise scenic view from

the highway to the ocean. However, they are necessary for ensuring public safety at this location, and alternative barrier designs that might be more visually compatible are not feasible given the limited space available between the highway and the bluff edge, and given the instability of the bluff area more generally. Fortunately, Caltrans has identified measures to minimize the impact of the barriers (by aligning them so as to be as unobtrusive as possible, and ensure that the barriers as a whole are as uniform and as visually unobtrusive as possible (e.g., barrier exterior that is unpainted concrete, or painted with unobtrusive neutral hues, etc.), and to remove any concrete and other debris along their extent, so as to minimize their impact to the public viewshed. Thus, the barriers will blend with the natural environment as much as is possible with such structures, and are temporary, minimizing viewshed impacts to the degree feasible.

Even with such barriers modifications, the rock at Rocks 2 (particularly if expanded to full revetments as would be approved) will still adversely impact public views. However, in this case, there is very little space between the barrier location and the blufftop edge, and it is not clear that landscaping can be successfully installed to screen the rock in that sense. In addition, rock will be augmented over time and it is both unclear when this will occur and unclear how and when landscaping would need to be installed in relation to such augmentation (including the degree to which previously installed and tended vegetation might be removed by such augmentation). In light of these issues, and in light of the limited and temporary duration of the project, it doesn't appear warranted to require such landscaping in this case. In the alternative, and at a minimum, revetments shall not be allowed to extend higher than the blufftop height to limit their impact on views from the Highway (see Special Condition 1).

As conditioned, the temporary revetment project can be found consistent with the Coastal Act's public viewshed protection policies.

4. Related Issues – Revetment Maintenance and Augmentation

Caltrans proposes to maintain and augment the rock arrays and revetments during the time when the temporary rock would remain in place protecting Highway One, but has not provided significant detail as to how such maintenance and augmentation would occur. Such construction raises Coastal Act resource protection issues similar to those discussed in the above findings related to public access and recreation and the public viewshed. In sum, such maintenance and augmentation will: require the movement of large equipment, workers, and supplies along the bluffs and beach; include large equipment operations on the bluff and at the beach area; result in the loss of bluff and beach area to a construction zone (at the immediate project area); potentially encroach on Sanctuary waters (depending on tides); adversely impact public views from Highway One; and generally intrude and negatively impact the aesthetics, ambiance, serenity, and safety of the beach and viewshed experience at this location. Because the project would allow for multiple such construction episodes, some potentially larger than others, these impacts will be correspondingly multiplied.

In order to limit coastal resource impacts from such maintenance and augmentation (including impacts to public access and recreation and the public viewshed), the process for implementing such maintenance and augmentation must be clear. Toward this end, a condition is applied that specifies the

parameters under which such work is allowed to occur under this permit (see Special Condition 2).[7] Specifically, these impacts can be contained through construction parameters that limit the area of construction, limit the times when work can take place (to avoid both weekends and peak summer use months when recreational use of the highway and the beach is highest), minimize bluff area equipment operations and storage to minimize public view impacts, clearly fence off the minimum construction area necessary, keep equipment out of Sanctuary waters, require off-beach equipment and material storage during non-construction times, clearly delineate and avoid to the maximum extent beach and bluff areas, require advance notification for scheduled events, etc.. A series of construction parameters are required for this purpose (see Special Condition 2). Even with these containment provisions, however, the public will bear the burden of the negative construction impacts associated with construction along this highly scenic stretch of coastline each time that rock is manipulated under this coastal permit.

Although the bluffs and beach can and must be restored to their original configuration immediately following construction to limit these impacts (again, see Special Condition 2), the other temporary construction impacts (the loss of bluff and beach space, and the degradation of highway, bluff, and beach recreational experience and viewshed), require some form of compensatory mitigation. Unfortunately, there doesn't currently exist a formal program in this area for addressing such impacts in a systematic way (e.g., an in-lieu fee to be applied to access enhancements in the area). As with the project overall, some of this impact is offset by maintaining Highway One for through public access. The remainder can be offset by the required barrier adjustment and modifications at Rocks 2 that will ensure that Highway One views in the project area are protected and enhanced as much as feasible (see Special Condition 1).

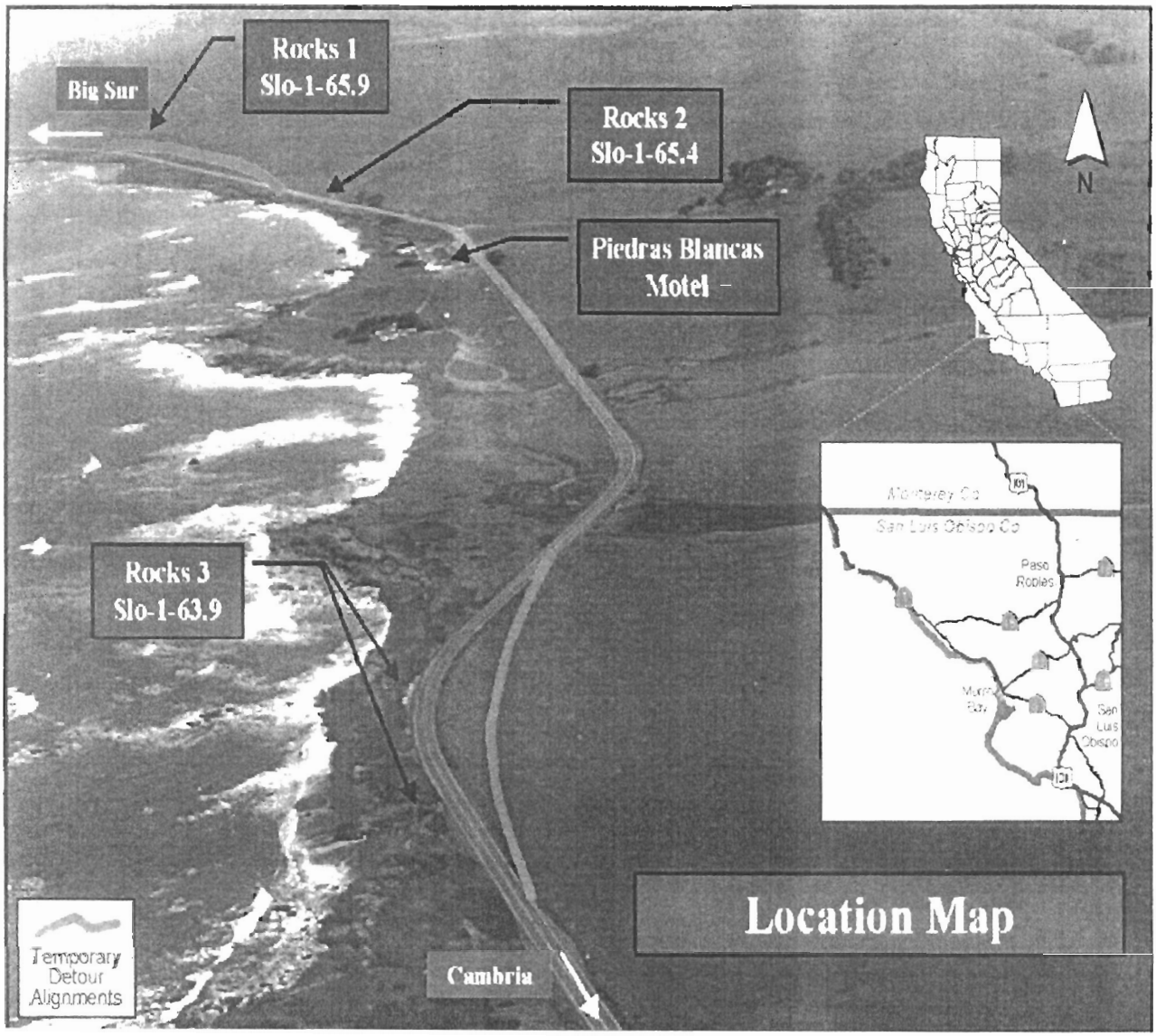
5. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This staff report has discussed the relevant coastal resource issues with the proposal, and has recommended appropriate suggested modifications to avoid and/or lessen any potential for adverse impacts to said resources. Accordingly, the project is being approved subject to conditions which implement the mitigating actions required of the Applicant (see Special Conditions). All public comments received to date have been addressed in the findings above. All above Coastal Act findings are incorporated herein in their entirety by reference.

[7] Special Condition 2 includes the types of maintenance parameters typically applied by the Commission to revetment maintenance episodes in the Central Coast area.

As such, there are no additional feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. Thus, the Commission finds that only as modified and conditioned by this permit will the proposed project not have any significant adverse effects on the environment for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).



CCC Exhibit A
(page 1 of 3 pages)

View looking south along old roadway alignment from Rocks 1. May 30, 2007. Detour at full landward offset parallels this alignment to avoid the coastal bluff retreat.

ROCKS 1

CCC Exhibit A
(page 2 of 3 pages)

ROCKS 2

CCC Exhibit A
(page 3 of 3 pages)

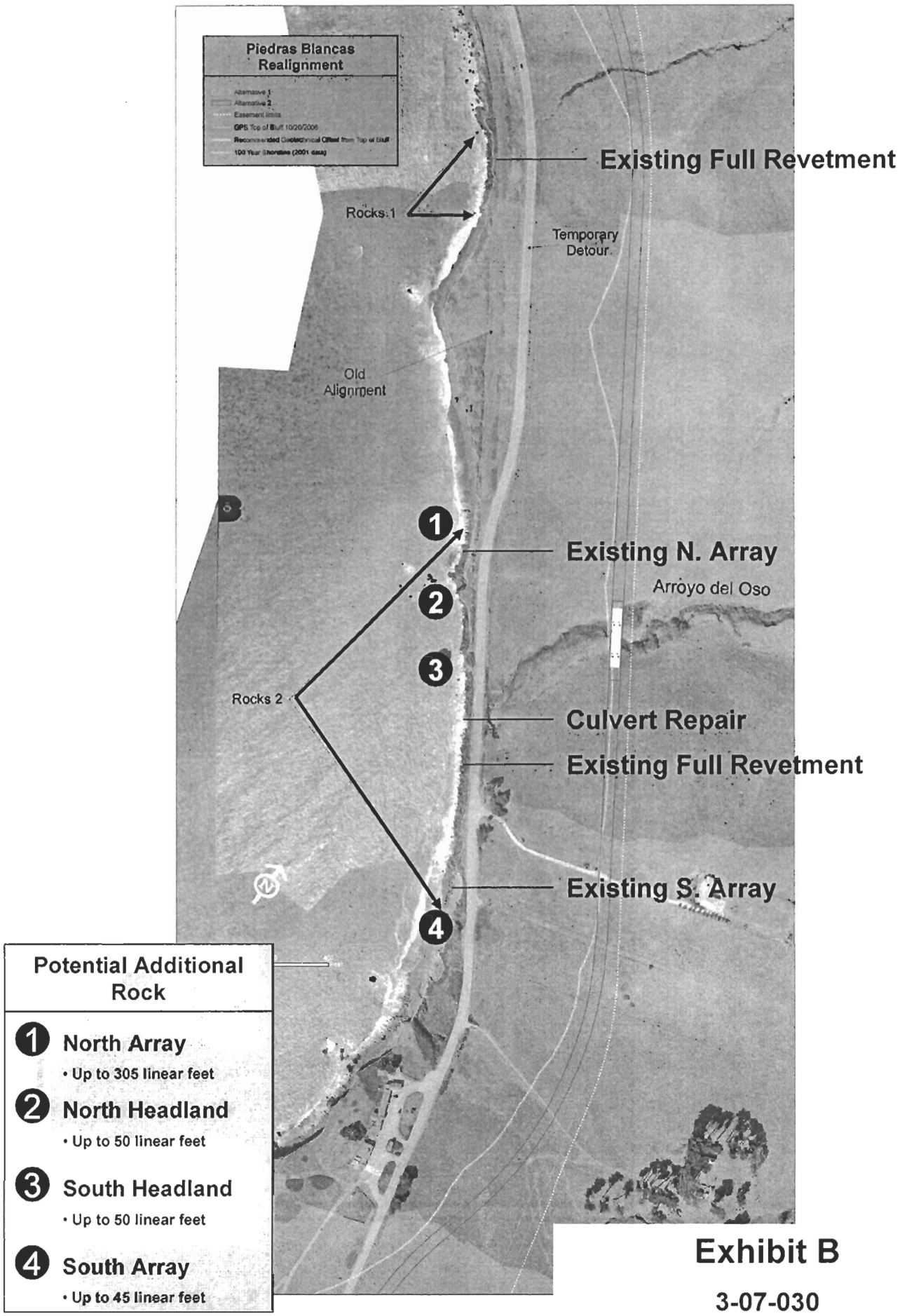


Exhibit B

3-07-030

1 of 1

C.7.a. 1/8/02

CALIFORNIA COASTAL COMMISSION
NORTH CENTRAL COAST DISTRICT
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5260
FAX (415) 904-5400

ADOPTED

Date Filed:	May 16, 2001
49th Day:	Waived by Applicant
180th Day:	November 12, 2001
Staff:	PTI/SF
Staff Report:	September 20, 2001
Hearing Date:	October 10, 2001

STAFF REPORT: REGULAR CALENDAR

Application No.:	**3-97-039-A1**
Project Applicant:	**California Department of Transportation (Caltrans)**
Location:	Shoreline adjacent to Highway 1 between post miles 63.9 and 65.9, near Piedras Blancas, San Luis Obispo County.
Project Description:	Interim placement of 769 linear feet (17,132 cubic yards) of rock revetment, varying between 12 and 20 feet in height, comprised of 4-8 ton boulders on face of eroding bluff and shoulder reconstruction with soil backfill at three locations within the project limits as authorized by Emergency Permits number 3-00-154-G and 3-01-004-G for up to ten-year period pending completion of permanent highway realignment. Requested authorization to place a total of 1,325 feet (13,636 cubic yards) of additional interim rock slope protection, varying between 10 and 24 feet in height, at areas adjacent locations pending completion of highway realignment.
Related Approvals:	CDP 3-97-039; Army Corps permit number 200100299-TW; Monterey Bay National Marine Sanctuary Authorizations MBNMS-2000-051 and MBNMS-2001-006; RWQCB CWA Section 401 certification.
Substantive File Documents:	Permit 3-97-039; SLO County CDP D960151P

1.0 EXECUTIVE SUMMARY

California Department of Transportation (Caltrans) is requesting amendment of coastal development permit 3-97-039 to include emergency rock slope protection and shoulder reconstruction work performed during the 2000-2001 winter season along State Scenic Highway 1 at Piedras Blancas pursuant to Emergency Permits number 3-00-154-G and 3-01-004-G. In addition, Caltrans seeks permit authority to place additional temporary rock slope protection at areas adjacent to these locations where severe erosion threatens to cause failure of Highway 1.

Coastal development permit 3-97-039 authorized the interim placement of rock at certain locations along Highway 1 at Piedras Blancas for a five-year term, and applies to that portion of the project seaward of San Luis Obispo County's coastal permit jurisdiction. The permit requires Caltrans to remove all rock by August 15, 2002, but provides that Caltrans may seek permit extension for an additional two five-year terms pending completion of permanent highway realignment. This rock revetment is a temporary measure intended to protect Highway 1 pending completion of a planned permanent realignment; Caltrans is required to remove all rock slope protection at the latest by the end of August 15, 2012.

The staff recommends approval of the proposed development subject to the same special conditions as contained in the existing permit. In particular, staff recommends approval be conditioned on removal of the rip rap by August 15, 2002 unless an extension is approved.

TABLE OF CONTENTS

CCC Exhibit C
(page 2 of 14 pages)

EXHIBITS

1. Location map
2. Site map, cross sections, and photographs, emergency rock slope protection ("RSP") already in place
3. Site map, cross sections, and photographs, proposed additional RSP
4. SLO County's Permit Conditions (CDP D960151P)

2.0 STAFF RECOMMENDATION

The staff recommends conditional approval of Coastal Development Permit Application 3-97-039-A1 by adoption of the following resolution:

Motion: *I move that the Commission approve Coastal Development Permit Application No. 3-97-039-A1, conditioned in the following recommendation.*

Staff Recommendation of Approval

The staff recommends a YES vote. To pass the motion, a majority of the Commissioners present is required. Approval of the motion will result in the adoption of the following resolution and findings.

Resolution

The Coastal Commission hereby **grants** permit No. 3-97-039-A1 subject to all of the same conditions as the original permit, as specified below, for the proposed development on the grounds that (1) the development is in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976 and (2) there are no feasible alternatives or feasible mitigation measures other than those specified in this permit that would substantially lessen any significant adverse impact which the activity may have on the environment.

3.0 CONDITIONS

3.1 Standard Conditions

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Compliance.** All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation

from the approved plans must be reviewed and approved by staff and may require Commission approval.

4. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

5. **Inspections.** The commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.

6. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

7. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

3.2 Special Conditions

1. **Revised Plans.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, permittee shall submit to the Executive Director for review and approval two copies of revised plans showing that the rock slope protection will have a maximum slope of 1.5:1.

2. **Other Approvals.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, permittee shall submit a letter of approval or other documentation from the State Lands Commission, Army Corps of Engineers and the Monterey Bay National Marine Sanctuary showing that the project has been approved by those agencies, or that no approval is necessary. This permit applies only to that portion of the project seaward of San Luis Obispo County's coastal permit jurisdiction; Caltrans must accordingly seek a separate coastal development permit or amendment from the County of San Luis Obispo for that portion of the project within the County's LCP jurisdiction.

3. **Approved Development.** This permit amendment is for the interim installation of rock slope protection in the manner and form described in the original application materials for 3-97-039 and this amendment, and the findings contained herein. The rock placed pursuant to this permit amendment shall not exceed the total volume and length specified in Caltrans' permit amendment application and Exhibits 2 and 3 hereto, specifically, 150 feet (4,533 cubic yards) at "Rocks 1," 1,544 feet (19,835 cubic yards) at the area known as "Rocks 2," and at two locations in the area known as "Rocks 3" of 200 feet (3,200 cubic yards) each. This permit is valid from the date of issuance through August 15, 2002. Unless extended by amendment as provided in Special Condition 4, this permit shall expire, and permittee shall remove all rock slope protection from the site and return it to pre-construction conditions, **by August 15, 2002.**

4. **Permit Amendment to Authorize Continued Use of Rock Slope Protection.** This permit may be amended no more than twice to authorize the continued use of the rock slope protection for a maximum of two, five-year terms beyond the initial expiration date of this permit. If the permittee chooses to do this, then the permittee shall submit a completed amendment application form with all the necessary supporting material no later than May 15 of the year in which the then current five-year term will expire, i.e. May 15, 2002, and May 15, 2007. Supporting material shall include the following: 1) an alternatives analysis. The

alternatives analysis shall include all feasible measures to protect the highway while avoiding or minimizing encroachment onto the beach and tidal areas. Alternatives shall include, but not be limited to: realigning the roadway, maintaining the rock slope protection, removing rock slope protection, use of other shoreline protection methods; an avoidance alternative must be considered; 2) cumulative impact discussion for the area in the general vicinity (approximately one-half mile up and down coast of the current project area) where similar conditions exist or could reasonably be expected to occur. A new permit shall be required for any permanent protection.

5. **Incorporation of Local Government Conditions.** The conditions of San Luis Obispo County Coastal Development Permit No. D960151P, attached as Exhibit 4, shall be considered as conditions of this permit as well. Any changes in these conditions shall not be effective until: a) such change is submitted to the Executive Director for a determination of materiality; and b) if found to be material, it is approved in accordance with the requirements of the Commission permit amendment process.

6. **Maintenance.** Maintenance of the permitted shoreline protection device shall be the responsibility of the permittee. If, after inspection, it is apparent that repair or maintenance is necessary, the permittee shall contact the Commission office to determine whether additional permits are necessary.

7. **Excavation.** Keyway excavation and similar work that could potentially impact the marine environment shall be conducted only during the low tide portions of the daily tidal cycle.

8. **Work From Bluff Top.** The work shall be performed from the bluff top; operation of construction vehicles on the beach or intertidal areas is not authorized by this permit.

9. **Assumption of Risk, Waiver of Liability and Indemnity.** By acceptance of this permit, the applicant on behalf of (1) themselves, (2) their agents and assignees and (3) any other holder of the possessory interest in the development authorized by this permit, acknowledges and agrees:

    1. that the project and site may be hazardous due to site conditions, including heavy surf;
    2. to waive unconditionally any and all claims of damage or liability against the Commission, its officers, agents, and employees for injury or damage arising from the project or resulting directly or indirectly from such hazards; and to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including fees and costs incurred in defense of such claims), expenses, and amount paid in settlement arising from any injury or damage arising from the project or due to such hazards.

10. **All Original Permit Conditions Applicable.** All work which is the subject of this amendment application is subject to all of the same conditions contained in the original permit number 3-97-039.

CCC Exhibit C
(page 5 of 14 pages)

4.0 FINDINGS AND DECLARATIONS

4.1 Project Background and History

4.1.1 Project Area

The project is located on the seaward side of Highway 1 near Piedras Blancas in northern San Luis Obispo County at three locations where severe erosion of the bluff threatens the highway. The three locations, known as "Rocks 1" (post mile 65.9), "Rocks 2" (post mile 65.4), and "Rocks 3" (postmile 63.9), are spread along a roughly three mile stretch of coastline. "Rocks 2" has been divided into four sub-areas, labeled "a" through "d" (see Exhibit B).

4.1.2 Shoreline Erosion at Piedras Blancas

Erosion of the sandstone bedrock and marine terrace formations at this location in northern San Luis Obispo County is causing the steady retreat of shoreline within the project area. Comparisons of aerial photographs taken in 1957 and 1998 show a retreat of shoreline of as much as 150 feet in some areas over this period. Analysis of photographic evidence from 1957 to the present yields an average of 3.7 feet per year of bluff erosion. However, the rate of bluff erosion ranges widely from year to year. Also, the erosion rate varies widely at different points along the bluff due to a variety of external variables including angle to the surf, offshore and surf zone rock formations, and relative distance from the shore break. These variables make prediction of where, when, and to what extent bluff erosion will occur an inexact science. At several places within the project area, the shoreline has eroded to within less than five feet of Highway 1, imminently threatening the integrity of the roadbed.

4.1.3 Previous Shoreline Protection Projects at Piedras Blancas

Following winter storms in December 1996, Caltrans placed some rock as an emergency measure at the base of the bluff at the location known as "Rocks 1" at postmile 65.9 to prevent closure of Highway 1. In January 1997, Caltrans obtained a permit from San Luis Obispo County (SLO CDP D960151P) authorizing the placement of the existing and additional rock. Subsequent evaluation determined that some rock had been placed seaward of the mean high tide line, within Coastal Commission original jurisdiction, and that additional rock protection would be required. Caltrans accordingly sought and obtained Coastal Commission permit authorization under Permit No. CDP 3-97-039 in August 1997 for the placement of existing and additional rock slope protection along a 150 foot stretch of shoreline at "Rocks 1."

4.2 Project Description

4.2.1 Emergency Rock Slope Protection In Place

The project seeks permit approval for emergency rock slope protection measures and highway shoulder reconstruction work performed last winter pursuant to Emergency Permits number 3-00-154-G and 3-01-004-G pending completion of the proposed highway realignment at this location. The emergency permits require that Caltrans seek amendment of the existing permit at this location to include this emergency work. If granted, the amendment will be subject to all of

the same terms and conditions of the permit 3-97-039, including that the rock be removed by August 15, 2002, unless extension is sought and granted by the Commission.[1]

Emergency permit 3-00-154-G involved placement of approximately 400 cubic yards of 4-8 ton rock in an area 130 feet in length adjacent to the existing revetment at "Rocks 2" and approximately 625 cubic yards of 4-8 ton rock in an area 75 feet in length 300 feet south of Arroyo del Oso Creek, at "Rocks 2a."

Rock was placed under emergency permit 3-01-004-G at the areas known as "Rocks 1" and "Rocks 2a-d" beginning on January 11, 2001 and concluding on February 15, 2001. The total amount of rock placed at "Rocks 1" was 3,022.6 tons, or 4,533.9 cubic yards, stretching approximately 150 linear feet. At "Rocks 2," the total amount of rock placed at the four sub-areas was as follows:

- "Rocks 2a": 1,691.2 tons (2,536.8 cubic yards), spanning 100 feet in length;
- "Rocks 2b": 1,494.3 tons (2,241.5 cubic yards), spanning 65 feet in length;
- "Rocks 2c": 2,035.4 tons (3,053.1 cubic yards), spanning 78 feet in length; and
- "Rocks 2d": 2,496 tons (3,744 cubic yards), spanning 171 feet in length.

The height of the rock revetment at these locations varies between 12 and 20 feet. The site maps and cross sections attached as Exhibit 2 show the placement of this rock in greater detail. At these locations, horizontal distance from bluff to foot of revetment ranges from 14.8 to 24.7 feet. Because of the variation in height and width of the revetment, exact area of beach coverage is difficult to calculate, but estimates based on the submitted plans are as follows:

New Proposed RSP:

Revetment Area	Length	Avg. Width	Area (sq. ft.)	Area (acres)
South of "Rocks2"	175	14	2,450	0.06
North of "Rocks2"	750	24	18,000	0.41
"Rocks 3"	400	28	11,200	0.26
Total			31,650	0.73

Emergency Permit RSP:

Revetment Area	Length	Avg. Width	Area (sq. ft.)	Area (acres)
EP 3-00-154-G				
"Rocks 2"	205	19	3,895	0.089
EP 3-01-004-G				
"Rocks 1"	150	19	2,850	0.065
"Rocks 2"	414	19	7,866	0.181
Total			14,611	0.335

[1] Notwithstanding Standard Condition #2 of the CDP 3-97-039, the additional Rock Slope Protection authorized by the permit amendment is subject to the original five year term and extension requirements fo CDP 3-97-039, which has been exercised.

Although surveys completed by Caltrans in March 2001 determined that of the five locations where rock was placed in January and February 2001, only two extended below the plane of Mean High Water (MHW), there is some uncertainty as to precise location of the Coastal Commission's jurisdiction in this case, and some portion of all of the proposed rock work may lie within the Commission's original permit jurisdiction.[2] In any case, this permit amendment applies only to that portion of the project within Coastal Commission original jurisdiction; and Caltrans has simultaneously applied to San Luis Obispo County for a separate coastal development permit amendment for that portion of the project within the County's LCP jurisdiction, and the County planning staff has indicated that any County permit amendment will conform to the Commission's permit amendment.

4.2.2 Additional Proposed Slope Protection Measures

Caltrans has identified additional locations as having the potential to fail and threaten Highway 1, the area located at PM 63.9 ("Rocks 3"), where no rock has been placed to date, and at "Rocks 2," immediately adjacent to the existing installations. As part of its amendment application, Caltrans has sought permission to place rock at these areas.

At "Rocks 3," where to date no rock has been placed, Caltrans seeks permission to place rock along two stretches, each approximately 200 feet in length, where the bluff is currently between 12 and 15 feet from the roadway. These areas would together require an estimated 6,400 cubic yards, or 9,300 tons, of rock.

Caltrans additionally proposes to place rock at two locations at "Rocks 2," where the bluff is between 15 and 20 feet from the roadway, north and south of the rock revetment already in place. The length of the proposed revetment at "Rocks 2" would be 175 feet to the south and 750 feet to the north of the existing revetment. Caltrans estimates the total volume of rock required will be approximately 7,236 cubic yards, or a total of 10,505 tons.

As described by Caltrans, the proposed additional rock slope protection is a measure necessary to protect Highway 1 where it is threatened by shoreline erosion pending the completion of the temporary detours and permanent realignment of Highway One, discussed below. As discussed below, without the additional rock slope protection, there is a substantial likelihood, given the proximity of the bluff edge and the historic rates of erosion, that Highway 1 will be damaged in the near future, and certainly before the temporary detours and permanent realignment can be completed. The rock slope protection placed under emergency permits in 1997 and last winter was installed during storm events with ocean waves and spray hitting the Highway 1 road surface, with the bluff top less than five feet from the road bed. The additional rock slope protection sought by this permit amendment application is necessary to avoid the imminent danger of collapse and closure of Highway 1 and such eleventh hour measures while winter storms are in progress. As discussed in greater detail in Section 4.3.1 below, the rock slope protection represents the least damaging and only practical alternative until the temporary detours and permanent realignment are complete. As conditioned, the rock slope protection under this permit amendment is a <u>temporary measure</u> needed only until the long-term solution of

[2] This uncertainty is due to such factors as the ambulatory nature of the MHT, the uncertainty inherent in limited surveys, the fact that the base datum for such surveys may be out of date, etc.

the permanent realignment has been completed. All rock must be removed by the applicant at the latest by the expiration of the permit.

4.2.3 Temporary Detours and Permanent Highway Realignment

In two areas, at one from "Rocks 2" to beyond "Rocks 1" and the second, from south to just north of "Rocks 3," temporary detours have been proposed. Design of the temporary detours has nearly been completed and the project is in the environmental phase. Due to the environmental issues, it will likely be 1 ½ to 2 years before the temporary detours can be constructed.

At the area known as "Rocks 2," however, where much of the existing and proposed rockwork is located, a temporary detour is not feasible because of potential impacts to nearby Arroyo ~~Del~~ Oso and cultural resources in the immediate vicinity. Arroyo Del Oso is a seasonally wet area which provides potential red-legged frog habitat. In addition, as depicted in Exhibit 3, Figure 1, a site known to contain archaeological resources lies immediately inland of Highway 1 at Arroyo Del Oso. A temporary detour inland of the present alignment of Highway 1 would difficult to construct without disturbing these sensitive resources. As a result, because a temporary detour is not practically feasible at this location, rock placed at "Rocks 2" will in effect have to be left in place until completion of the permanent realignment.

A long-term plan of permanent realignment is planned by Caltrans for the area from PM 63.0 to 66.8, and is presently in the preliminary study phase. Caltrans is working on a Project Study report which will identify several design alternatives for the realignment. Project Development Team meetings have begun. Caltrans does not yet have a schedule for completion, but it is unlikely that construction will begin before 2010.

4.3 Other Approvals

4.3.1 Army Corps of Engineers

The ACOE issued Permit number 200100299-TW on December 5, 2000 for work at "Rocks 2" placed in December 2000. On February 20, 2001, Caltrans applied for an "after-the-fact" permit for the January work at "Rocks 1" and "Rocks 2." The Army Corps Ventura Field Office is still preparing and has not yet issued this permit or a permit for the new proposed rock work.

4.3.2 Monterey Bay National Marine Sanctuary

Monterey Bay National Marine Sanctuary has issued two authorizations, MBNMS-2000-051 and MBNMS-2001-006, for rock slope protection placed to date. Caltrans is simultaneously seeking MBNMS authorization for the future rock slope protection which is the subject of the present permit amendment application, and MBNMS has indicated its intention to grant authorization conforming to the amended Commission permit.

4.3.3 Regional Water Quality Control Board

A Clean Water Act Section 401 water quality certification was issued on December 1, 2000.

4.4 Coastal Act Issues

4.4.1 Shoreline Structures

Section 30235 of the California Coastal Act governs proposed shoreline structures in the coastal zone. It states, in relevant part:

> *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required . . . to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.*

Under this section, the Commission may approve a shoreline structure, such as the revetments which are the subject of the application, when (1) it is necessary to protect an existing structure threatened by erosion and (2) it is designed to eliminate or mitigate adverse impacts on shoreline sand supply.

Existing Structure at Risk. The project which is the subject of the application involves rock revetments intended to protect Highway 1 from damage due to erosion. Roads such as Highway One are typically considered to be "structures" for purposes of section 30235. Caltrans' application materials indicate that in the areas both where emergency rock was placed last winter and where Caltrans proposes additional rock placement, the bluff top ranges from 24 feet to less than 5 feet from the roadway.

Erosion of the sandstone bedrock and marine terrace formations at this location in northern San Luis Obispo County is causing the steady retreat of shoreline within the project area. Comparisons of aerial photographs taken in 1957 and 1998 show a retreat of shoreline of as much as 150 feet in some areas over this period. Analysis of photographic evidence from 1957 to the present yields an average of 3.7 feet per year of bluff erosion. However, the rate of bluff erosion ranges widely from year to year. In recent years, large sections of bluff have eroded away in single storm events, underscoring the episodic and uncertain erosion along this section of coast. Also, the erosion rate varies widely at different points along the bluff due to a variety of external variables including angle to the surf, offshore and surf zone rock formations, and relative distance from the shore break. These variables make prediction of where, when, and to what extent bluff erosion will occur an inexact science. At several places within the project area, the shoreline has eroded to less than five feet of Highway 1, imminently threatening the integrity of the roadbed. There is little question in this case that the sections of Highway One proposed for additional rock protection are at risk within the next 3-5 storm cycles, meeting the test of section 30235.

Feasible Alternatives. Under section 30235, the proposed revetment may be approved as the appropriate response to the erosion risk if "required" to protect an existing structure, i.e., when there is no feasible alternative. Here, three alternatives exist which require discussion: (1) no revetment, and (2) highway realignment; and (3) a vertical seawall.

(1) The "no revetment" or status quo alternative leaves unchecked the natural erosive processes which in time will inevitably undermine the present roadbed of Highway 1 within the project area. The only question is how long, within the near future, it will take for erosion to reach the highway. As discussed, although an average annual erosion rate in excess of three feet has been calculated for the Piedras Blancas shoreline, the erosion rate at particular locations varies widely. Caltrans believes that, if no measures are taken, portions of Highway 1 could be lost as early as this winter. The experience with emergency permitting of rock revetments in this area over the last few years indicates that erosion can occur very rapidly. The bluff top within the

project area is close enough to the highway, and the rate of erosion variable enough, that imminent risk of damage to the highway exists in each of the locations identified by Caltrans. The staff geologist concurs that the areas in question are at risk for purposes of section 30235. As a result, the "no revetment" option is not a practical, feasible alternative.

(2) The second alternative, highway realignment inland, represents the only acceptable long-term alternative. Caltrans is already in the early planning stage for permanent highway realignment from PM 63.0 to PM 66.8. When completed, this alternative will obviate the need for rock revetments in this area to protect the highway. However, because of the numerous legal, environmental and engineering issues presented by realignment, the planning process will take as many as ten years to complete. In the interim, Caltrans is also planning a temporary detour, or minor realignment inland, of Highway 1 at the locations known as "Rocks 1" and "Rocks 3." However, the planning and construction of these detours, which present some of the same issues as the major realignment, will take in all probability at least two years. Due to the significant impacts to wetlands and archaeological sites, no interim detour is proposed at "Rocks 2," adjacent to Arroyo Del Oso. With respect to at least "Rocks 2," therefore, the present alignment of Highway 1 must remain functional until the permanent realignment is complete. Given the uncertain length of time required to complete both the detours and the realignment, the "realignment" alternative is not adequate at this time to protect Highway 1 and insure continued public access along this stretch of coastline.

(3) A third alternative to the proposed rock slope protection is a vertical seawall. The cost of a seawall is significantly greater than placed rock and more permanent in nature. Vertical seawalls have the advantage of creating less footprint on the beach than would the proposed revetment, thereby lessening any impact to lateral access along the beach. Seawalls are also less likely to trap sand moving parallel to coast with littoral drift. However, in addition to being more expensive, any seawall at this location would probably be visually more intrusive and more difficult to remove without significant impacts than placed rock. Because the shore armoring measures sought by Caltrans at this location are intended as a temporary measure to protect an existing structure until that structure can be moved, a vertical seawall is inappropriate.

Mitigation of Impacts to Sand Supply. Under Section 30235, any proposed shoreline structure must be designed to eliminate or mitigate adverse impacts to shoreline sand supply. Shoreline armoring measures, including rock revetments, lead to adverse impacts to local sand supply by preventing sand replenishment from bluff erosion and accelerating erosion of sand beaches. Rock revetments can also trap sand in voids between rocks and block littoral drift. The project as proposed includes a number of conditions to lessen these impacts. First, the rock revetments are temporary. The amended permit would be subject to the same terms and conditions as the existing permit, under which Caltrans is required to remove all rock at the expiration of the permit. The permit will presently expire on August 15, 2002, unless an extension is sought and granted by the Commission. The permit allows for a maximum of two five-year extensions. Thus any adverse impacts will be limited to the time that the rock is in place.

Second, Special Condition 1 requires that rock revetments be built at a maximum 1.5:1 horizontal to vertical slope. As a result, wave action against the revetment which results in erosion of beach sand and impacts on littoral drift is also minimized. Caltrans surveys also showed that all rock placed in fact had a slope less (steeper) than 1.5:1. Finally, rock slope protection tends to absorb more energy than alternative structures such as seawalls, thereby decreasing erosion relatively where water does come in contact with the revetments.

The Commission finds that the proposed project is required to protect an existing structure, Highway 1, pending the completion of the permanent realignment of the highway at this location and that no feasible alternative exists. The Commission further finds that the proposed project is designed to mitigate adverse impacts to sand supply in conformance with the requirements of Section 30235 of the Coastal Act.

4.4.2 Public Access and Recreation

Coastal Act Section 30210 states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Coastal Act Section 30211 states:

> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Coastal Act Section 30214 states in relevant part:

> *(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*
>
> *(1) Topographic and geologic site characteristics.*
>
> *(2) The capacity of the site to sustain use and at what level of intensity.*
>
> *(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.*
>
> *(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.*

Public access in the project area is somewhat difficult due to the natural topography of the area. For the length of the project area, a steep, sandstone bluff averaging approximately 20 feet in height limits easy vertical access to the beach from Highway 1. Informal access to the beach exists at the mouth Arroyo de la Cruz north of "Rocks #1," but no stairways exist leading from bluff top to beach. In addition, a fence runs along the shoulder of Highway 1 for much of the

length of the project area, limiting access to the bluff top. Narrow gravel and sand beaches run sporadically for most of the length of the project area below the bluffs. Although the ocean reaches the bluffs at many points at high tide, rendering the beaches impassable at these times, there is lateral access along the rocky shoreline at lower tides. The land seaward of Highway 1 in the project area is part of Hearst Ranch belonging to the Hearst Corporation. The nearest formal access point is approximately three miles south of the project area.

The emergency rock placed last winter extends onto the beach between 14.8 and 24.7 feet. Because of this variation, exact area of beach coverage is difficult to calculate. As shown in the cross-sections contained in Exhibit 3, the proposed additional rock revetment would project 13 feet onto the beach at the location south of "Rocks 2," 24 feet at the location north of "Rocks 2," and 28 feet at the "Rocks 3," locations 1 and 2. As summarized earlier, the total area of beach covered by rock revetment will be significant – approximately 1 acre of shoreline. Because of the area of beach covered, the revetments inevitably impact lateral access along the beach. As noted, access to the beach from Highway 1 is obstructed by the steep bluff top along the length of the project area. The rock revetment will not affect access along the bluff top.

The rock revetments are an interim solution to protect Highway 1 pending the completion of the permanent realignment. As is the case throughout the state, Highway 1 represents the main route for public access to and along the coast in northern San Luis Obispo County from Morro Bay to the gateway to Big Sur. Impacts to lateral access along the beach north of Piedras Blancas as the result of the rock slope protection must be weighed against significant loss of coastal access as a result of damage to and closure of Highway 1. Experience over the last four storm seasons has shown that in the absence of adequate shore armoring measures at key points in this area where bluff retreat is greatest, damage to Highway 1 during large storm events is virtually certain to occur. The rock revetments proposed by Caltrans represent the best alternative for the protection of Highway 1 in the near term for which no viable alternative exists. Overall, within the context of the paramount importance of Highway One for coastal access, the temporary impacts to lateral access along the beach from rock revetments, to protect Highway One, meet the objectives of section 30210.

Permit conditions require that all rock must be removed at the expiration of the permit term, and the permit can be extended for a maximum of two, five-year terms. For this reason, any impacts to access from the presence of the rock are temporary, limited to the time that the rock remains in place. The Commission finds that the proposed project, as conditioned, will protect public access in conformance with the requirements of Section 30210 of the Coastal Act and that any impacts to lateral beach access from the proposed revetments are outweighed by need to protect public access along Highway 1. In addition, the Commission finds that any impacts to coastal access from the revetments are temporary.

4.4.3 California Environmental Quality Act

Section 13096 of the California Code of Regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or

feasible mitigation measures available, which would substantially lessen any significant adverse effect that the activity may have on the environment.

The proposed project has been conditioned to be found consistent with the policies of the Coastal Act and to minimize all adverse environmental effects. The Commission incorporates its findings on Coastal Act policies at this point as if set forth in full. As conditioned, there are no feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse impact, which the project may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, and can be found consistent with Coastal Act requirements to conform to CEQA.

EXHIBIT D – Required Activities, Targets and Target Deadlines for the Highway One Realignment Project

1. **Activity:** SHOPP funding request processed
   Target: 2008 SHOPP program includes project
   Target Deadline: May 2008

2. **Activity:** Finalize Siting Surveys and Environmental Technical Studies (Biological, Geological, Noise/Air/Water, Hazardous Waste, Visual, Community Impact (except for final Cultural studies that require subsequent reviews)) to support Draft Environmental Document (DED)
   Target: DED siting surveys and Environmental Technical Studies completed
   Target Deadline: December 2007

3. **Activity:** Prepare Draft DED for Caltrans' internal review
   Target: Draft DED completed
   Target Deadline: January 2008

4. **Activity:** Approve DED for circulation
   Target: DED completed
   Target Deadline: June 2008

5. **Activity:** Circulate DED for public review
   Target: DED and State Clearinghouse notice circulated to interested parties and appropriate agencies (including the Coastal Commission)
   Target Deadline: July 2008

6. **Activity:** Incorporate public comments on the DED
   Benchmark: Response to comments on the DED completed and available for public review
   Benchmark Deadline: December 2008

7. **Activity:** Prepare Final Environmental Document (FED) and obtain approval
   Target: FED certified
   Target Deadline: February 2010

8. **Activity:** File Caltrans Notice of Determination (NOD)
   Milestone: NOD filed
   Benchmark Deadline: February 2010

9. **Activity:** Complete Project Approval/Environmental Document (PA/ED)
   Target: PA/ED completed and available for public review
   Target Deadline: March 2010

10. **Activity:** Begin Project Specification and Estimates (PS&E) and ROW Activities
    Target: Calculations and analysis necessary for PS&E and ROW Activities initiated
    Target Deadline: March 2010

11. **Activity:** Apply for required permits, including Coastal Development Permits
Target: Pre-application meeting with San Luis Obispo County Planning Department, Coastal Commission, and other resource agency staff
Target Deadline: June 2010

12. **Activity:** Submit CDP application
Target: CDP application deemed complete
Target Deadline: March 2011

13. **Activity:** Obtain all permits
Target: All required permits obtained
Target Deadline: January 2012

14. **Activity:** Complete PS&E, ROW Certification
Target: Final PS&E and ROW Activities documents completed and available for public review
Target Deadline: January 2012

15. **Activity:** Prepare Ready to List (RTL)
Target: RTL published
Target Deadline: June 2012

16. **Activity:** Begin Construction
Target: Groundbreaking ceremony and commencement of construction
Target Deadline: December 2012

17. **Activity:** Complete Construction
Target: Ribbon cutting ceremony held; through Highway One traffic diverted to realigned highway; and all rock removal and restoration requirements of CDP 3-07-030 completed
Target Deadline: December 2017