Th 9c

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
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VENTURA, CA 93001
(805) 585-1800

ADDENDUM

DATE: April 7, 2009

TO: Commissioners and Interested Parties

FROM: South Central Coast District Staff

SUBJECT: Agenda Item Th 9c, Thursday, April 9, 2009; Application No. 4-09-013 (Mariposa)

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1. **Correspondence has been received from the applicant's representative, Sherman Stacey, in opposition to the staff recommendation. This correspondence is attached as Exhibit 1 of this addendum.**

2. **Correspondence has been received from Heal the Bay in opposition to the staff recommendation. This correspondence, received on April 7, 2009, is attached as Exhibit 2 of this addendum.**

3. **Staff recommends the following changes and additions to the staff report (~~strikethrough~~ indicates text to be deleted from the March 19, 2009 staff report and <u>underline</u> indicates text to be added to the March 19, 2009 staff report):**

On Page 4, make the following correction to Special Condition No. 2:

2. Revised Bank Protection Plans

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, two (2) sets of revised rock slope protection/grading plans with representative cross-sections. The plans shall be prepared and stamped by a registered engineer. The revised plans shall demonstrate the following:

1. That the rock slope protection has been re-engineered to be laid back to a slope no steeper than 2:1 (H:V). However, the toe of the slope protection shall not extend further into the creek than currently exists. If determined feasible, the footing portion of the rock slope protection may remain in place and only the upper portion of the rock shall be laid back to a slope no steeper than 2:1.

2. That geotextile filter fabric ~~(biodegradable, non-plastic)~~ and live willow stakes are incorporated into the re-engineered rock slope protection during construction, consistent with the Revised Revegetation Plan required as part of Special Condition No. 3 below.

The permittee shall undertake the development in accordance with the final approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the plans shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

On Page 10, make the following correction to Special Condition No. 12:

12. Condition Compliance

Within ~~90~~ 180 days of Commission action on this coastal development permit application, or within such time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions Chapter 9 of the Coastal Act.

On Page 10, add the following two Special Conditions:

14. Nesting Bird Protection Measures

A qualified biologist, with experience in conducting bird surveys, shall conduct bird surveys 30 days prior to construction activities to detect any active bird nests and any other such habitat within 500 feet of the construction area. The last survey should be conducted 3 days prior to the initiation of clearance/construction. If an active songbird nest is located, clearing/construction within 300 feet shall be postponed until the nest(s) is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. If an active raptor, rare, threatened, endangered, or species of concern nest is found, clearing/construction within 500 feet shall be postponed until the nest(s) is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest shall be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the sensitivity of the area. The biologist shall record the results of the recommended protective measures described above to document compliance with applicable State and Federal laws pertaining to protection of nesting birds.

15. Implementation of Approved Project

The applicant shall remove the existing as-built revetment and implement and complete the approved revetment project within 18 months of issuance of this coastal development permit. The Executive Director may grant additional time for good cause.

Alternative No. 7 of the Alternatives Analysis section on pages 21-22 of the staff report shall be amended as follows:

Laid-back Revetment with Revegetation: This alternative would involve deconstructing the temporary emergency revetment that is in place, and reconstructing it at a more gradual slope and revegetating. The applicant's engineer has indicated that this alternative would significantly alter the hydraulics of the creek and increase turbidity/sediment delivery. The applicant's engineer also states that the subject bank was steep before and after placement of the emergency rip rap, which is a natural equilibrium slope for the cut bank. However, Commission Staff Coastal Engineer, Lesley Ewing, disagrees with the analysis of the applicant's engineer in regard to this alternative. In her memo dated January 7, 2009, Ms. Ewing states that based on all information provided by the applicant it appears feasible that the bank slope can be rebuilt at a more gradual 2:1 slope (Exhibit 11). Further, she states:

> "…This would require that the revetment be disassembled from the top, the bank be sloped back, and rock be placed again along the bank at a more gradual slope. The Preliminary Engineering Design Study by PACE (May 25, 2007) asserts that laying the top portion of the existing revetment back at a 2:1 (h:v) slope would result in increased turbidity. But, based the provided information, no evidence has been submitted to support this assertion. There is the potential for some temporary turbidity during construction; however this could be minimized through project scheduling, good work practices and implementation of best management practices. If the revetment were to be reconstructed along the bank at a more gradual slope, a bottom layer of filter fabric should be installed to reduce soil piping and reduce turbidity from high flow events. While

> it may be necessary to cut root holes into the filter fabric, the soil loss through these openings in the bottom layer would not be significant. Additionally, turbidity should be greatly reduced from the current revetment with rock covering a bare soil slope with no fabric filter layer at all..."

Additionally, Commission Staff Ecologist Dr. Jonna Engel, in her memo dated January 9, 2009, states that a less steep revetment slope than is proposed, in conjunction with incorporating filter fabric and willow stakes into the reconstructed rip rap design, would be more likely to result in successful riparian restoration along this stretch of Malibu Creek (Exhibit 12). As such, from both a biological and engineering standpoint, a bioengineered rip rap slope protection that is laid back at a less steep slope is a feasible and preferred alternative, as discussed in more detail below. Commission staff has received correspondence from the California Department of Parks and Recreation, Heal the Bay, and Santa Monica Baykeeper, all of whom recommend that the subject bank be laid back at a 3:1 slope to widen the channel and thereby reduce water velocities while also maximizing restoration of the riparian corridor. Staff has indicated that laying the bank slope back to no steeper than 2:1 is an environmentally preferred and feasible alternative in recognition of the fact that there is inadequate space between the top of bank and adjacent development along portions of the subject stretch of bank to accommodate a 3:1 slope. In addition, laying the bank slope back to 3:1 would require increased grading of the upland area between the streambank and adjacent development, and require a much larger area of the bank and upland area to be covered in rock rip-rap.

Make the following correction on Page 24:

Therefore, in order to protect Malibu Creek ESHA from significant disruption of habitat values and to restore the biological productivity and water quality of Malibu Creek to maintain optimum aquatic populations, Special Condition No. Two (2) requires revised rock slope protection plans demonstrating that the rock slope protection has been re-engineered to be laid back to a slope no steeper than 2:1 (H:V). However, the toe of the slope protection shall not extend further into the creek than currently exists. If determined feasible, the footing portion of the rock slope protection may remain in place and only the upper portion of the rock shall be laid back to a slope no steeper than 2:1. Special Condition No. Two (2) also requires that a ~~biodegradable~~ geotextile filter fabric with holes for willow plantings be placed on the graded slope of the bank prior to rock placement in order to stabilize soils. Special Condition No. Three (3) requires revised revegetation plans for the re-engineered bank protection that incorporates live willow cutting stakes among the rock voids, making sure the stakes penetrate the fabric filter and underlying soil. Installing willow cutting into the soil as the revetment is being constructed is a typical design for bioengineered rock slope protection, as it ensures the vegetation has a good foundation to root in throughout the slope. Pursuant to the recommendations of Commission Ecologist, Dr. Engel, the interstitial spaces in the rip rap shall be partially filled with a fine gravel, sand, and soil combination, and mugwort (*Artemisia douglasiana*) and yerba mansa (*Anemopsis californica*) shall be added to the plant palatte for revegetation of the revetment in order to add to the species diversity within the riparian corridor. The revised plans required by Special Conditions 2 and 3 will serve to minimize impacts to the habitat values of the riparian stream corridor of Malibu Creek to the maximum extent feasible.

The following shall be added at the end of the second complete paragraph on Page 25:

Construction activities could disturb raptors or other sensitive bird species if they are nesting in or close to the project site. In order to minimize any construction impacts to raptors and other native birds, the Commission finds it necessary to require the applicant to survey the area within 500 feet of the construction zone to detect the nests of any raptor or sensitive bird species, 30 days prior to the commencement of construction. If any such nests are found, measures must be taken to avoid impacts. These requirements are set forth in Special Condition No. Fourteen (14).

The following shall be added at the end of the third complete paragraph on Page 26:

In order to ensure that the project, as required to be revised, is implemented in a timely manner, Special Condition Nos. Twelve (12) and Fifteen (15) require~~s~~ that the applicant satisfy all conditions of this permit which are prerequisite to the issuance of this permit within ~~90~~ 180 days of Commission action ~~or within such additional time as the Executive Director may grant for good cause.~~ and implement and complete the approved project within 18 months of issuance of this coastal development permit. The Executive Director may grant additional time for good cause.

Add copy given to Hope

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March 31, 2009

Th 9c

Commissioners
California Coastal Commission
45 Fremont Street, #2000
San Francisco, California 94105

Re: Application for Permit No. 4-09-013 (Mariposa Land Company)
Maintenance of Rock Protection along Malibu Creek, Malibu

Dear Commissioners:

On Wednesday, April 9, 2009, I will appear before you on behalf of Mariposa Land Company, the Applicant in Application No. 4-09-013, for the public hearing on its Application to maintain the existing rock bank protection along its property immediately north of Pacific Coast Highway on the west bank of Malibu Creek. The Staff Recommendation effectively denies the Application and requires the Applicant through Special Conditions to remove the existing rock bank protection, grade the bank of Malibu Creek, and replace the rock over a filter fabric on the newly graded bank. The net change for this extraordinary measure is a minor relocation of the rock at an unfeasible cost.

The rock bank protection has been in place for more than 10 years. No adverse effects from the existence of the rock bank protection have been observed or documented. The rocks were lawfully installed based upon an Emergency Permit issued by the Executive Director and appropriate Army Corps of Engineers procedures. The emergency arose in February of 1998 when significant heavy rainfall caused unanticipated erosion. The high waters of Malibu Creek removed up to 20 feet along the Applicant's property adjoining the Cross Creek Plaza Shopping Center.

Observing the extreme erosion on its property, the Applicant was concerned that it may have liability to the shopping center owner if it did not take reasonable steps to prevent further erosion to prevent the shopping center from being damaged. Before 1981 a property owner was protected from liability because the property owner owed no duty to adjoining owners to prevent damage from natural conditions. However, a California Supreme Court ruling in 1981 placed that protection in doubt. A property owner might owe a duty of care to assure that natural

Addendum Exhibit 1
4-09-013 (Mariposa)
Sherman Stacey Letter

conditions on its property do not damage adjoining property when those natural conditions can be reasonably corrected. *Sprecher v. Adamson* (1981) 30 Cal.3d 358. Unsure as to its duties and unwilling to risk liability, the Applicant elected to purchase and place rock to protect the bank at a cost of $60,000 rather than risk damage to the adjoining Shopping Center.

The rock was carefully placed by an experienced contractor and has functioned without failure, deterioration or harm for more than 10 years. Although comments in the Staff Report and by opponents claim that the rock was "unengineered" or "temporary", subsequent evaluation of the placement of the rock by professional engineers has found no basis on which to criticize the rock bank protection. An experienced contractor installed it without the benefit of the prior stamp of an engineer. This is not a basis for finding it inadequate. It is currently approved by engineers for the Applicant, the City of Malibu and Army Corps of Engineers. Moreover, the rock bank protection has successfully functioned as intended since installation. When installed, the Applicant certainly did not look upon the 1400 tons of rock as temporary.

The Applicant followed the proper procedures by seeking and receiving an emergency permit. This application is a follow up for that emergency permit. Before this application could be made, Staff required that the Applicant obtain numerous engineering and environmental studies and obtain approvals from the City of Malibu, California Department of Fish & Game and U.S. Army Corps of Engineers. Each of these agencies asked for additional work as did the Commission Staff. This took considerable time. Ultimately, all other agencies gave approval to maintain the rocks as existing.

Staff now recommends that the rock bank protection be removed only for the same rock to be put back in substantially the same location after limited grading of the bank and the placement of a filter fabric. The recommended mitigation by revegetation is the same as the Applicant proposes. The change proposed by Staff comes at a cost of more than $1,000,000. As will be shown below, taking the rock out (much of which is below water) and grading the bank is far more difficult, and causes substantially more environmental harm, than the original placement of the rock on the existing bank in 1998. It is not feasible for the Applicant to make such an expenditure to to protect the shopping center (which it does not own) while at the same time being required to intentionally excavate its own property.

1. **The Staff Agrees That Under the Coastal Act, the Applicant is Entitled to Protect the Malibu Creek Bank and that Rock is the Appropriate Method of Protection but the Staff Requires a Revision to the Project which is Not Feasible.**

The Staff and the Applicant are in agreement on the two critical points which support approval of a rock wall to prevent erosion. First, the erosion of the bank of Malibu Creek in the vicinity of the Shopping Center poses a serious risk to the fire lanes, septic disposal field and buildings of the Shopping Center. Second, the placement of rock on the bank is the least environmentally damaging alternative to protect the bank. Staff agrees that the rock placed by the Applicant provides protection to the bank. (See, Memorandum of Lesley Ewing, Staff

Report Exhibit 11.) Staff also agrees that the revegetation plan for mitigation proposed by the Applicant is reasonable. (See, Memorandum of Jonna Engel, Staff Report Exhibit 12.) The essential difference is whether the slope of the face of the rock can average 1.7 to 1 (the Applicant's position) or must be not less than 2 to 1 (the Staff position).

The establishment of a rock wall to protect the bank is permitted under Public Resources Code Section 30236 as a "flood control project where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development." There is no dispute that the west bank of Malibu Creek north from the Pacific Coast Highway bridge has become subject to severe erosion over the past 35 years.

In the enclosed booklet under Tab 1 is a series of photographs from 1962, 1977, 1981 and 2000. In 1962, the course of Malibu Creek was essentially straight from the vicinity of the Cross Creek Road crossing to the Pacific Coast Highway bridge. (See also, Staff Report, p. 12-13.) The 1962 photograph also shows how much land lay between the course of Malibu Creek and the Shopping Center property line. Over the next 35 years, accretion on the west bank of Malibu Creek to the north and accretion on the east bank of Malibu Creek on the southern end of this course created a significantly curved watercourse. The curve moved the main channel into a direct line with the Applicant's property and the Shopping Center. Substantial rains in 1998 gave the Malibu Creek waters the power to erode the bank by 20 feet as the creek was forced to turn almost 90 degrees to go under Pacific Coast Highway bridge. The Staff agrees that the protection of the bank is necessary to protect existing development. (Even if the Shopping Center were not threatened, the Applicant has a right to protect its own land from erosion. To the extent the Coastal Act, or the Commission in administering the Coastal Act purports to prohibit such protection, results in a taking of the Applicant's property by the State without compensation.)

The Staff also agrees that no method for protecting existing structures will work and is feasible other than a rock bank protection. However, the Staff Recommendation, at extraordinary cost which is not feasible, requires that the rock be removed and then put back again with very small change in the final result. Here the alternative design in the Staff Recommendation fails to meet the requirements of Section 30236 that the alternative design be "feasible". Feasible is defined in Public Resources Code Section 30108 as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account environmental, economic, social and technological factors." As detailed below, the adverse environmental effects of the Staff Recommendation, the economic demand upon the Applicant and the technological difficulty of dewatering the site in order to carry out the Staff Recommendation, all demonstrate that the Staff Recommendation is not feasible.

2. **The Staff Recommendation is Not the Least Environmentally Damaging Alternative.**

The Staff and the Applicant disagree on whether maintaining the rock bank protection as the Applicant proposes, or removing and then replacing the rocks as the Staff recommends, is the least environmentally damaging alternative. By Special Conditions, the Staff wants the existing rock bank protection to be removed, the bank graded back to a slope not more than 2 to 1, a filter blanket placed over the newly exposed soils and the rocks replaced. Mitigation with willow and other planting already proposed by the Applicant is also required.

Under the Coastal Act, the Commission can only adopt the Staff alternative if it finds that it is both feasible and the least environmentally damaging alternative. The Staff Report has little analysis of the impacts of its proposal and is inadequate as a CEQA document. The evidence shows that leaving the existing rock bank protection in place and mitigating with a revegetation plan as proposed by the Applicant is the least environmentally damaging alternative. This is supported by the reports and studies prepared by the Applicant's engineers and ecologists and by common sense.

The evidence will not support the Staff Recommendation. A coffer dam along a 500 foot portion of Malibu Creek, pumping out the water to allow access to remove the rocks, removal of the rocks, grading of the bank, placing a filter fabric and replacing the rocks only a few feet away from where they were before removal, with the same mitigation the Applicant proposes, is **not** the least environmentally damaging alternative.

a. **The Staff Alternative Creates Adverse Environmental Effects and an Engineering Solution that will be Less Effective.**

The Staff Alternative is based upon a theory that having the rocks at a slope not greater than 2 to 1 will be more like a natural bank and will enhance the potential success of the mitigation measures. The Staff claims that the majority of the rock is placed at 1 to 1 slope angle. This figure was taken from an estimate based on personal observation by a consulting biologist in 2000. This observation was demonstrated to be inaccurate, but it is cited repeatedly, and wrongly, as true. In 2008, the staff required a detailed survey of the rock bank protection. This was performed by David Grimes, a licensed surveyor with Grimes Engineering. The survey showed that the majority of the rock was laid at an angle closer to 1.7 to 1 with the steepest at 1.3 to 1 and the least at 2.1 to 1. Engineer David Jaffe made the slope calculations which are shown on Applicant's Exhibit, Tab 2. A comparison of the Staff Calculation of slope as shown on Staff Report Exhibit 6 is contained on the engineer's calculations and in each case shows the Staff calculation to have exaggerated the slope of the existing rock.

i. **Removal, Grading and Replacement of the Rock will Have Adverse Environmental Effects.**

To remove the rock, grade the bank, and replace the rock as required by the Staff Recommendation will have adverse environmental effects and will risk other significant adverse environmental effects which the Staff Report fails to recognize or analyze. The Commission must understand what it is approving if it accepts the Staff recommendation. The existing rocks will need to be removed and stockpiled. Half of the rocks are below the normal waterline and cannot be removed without removing the water from the area of work. In order to have the area of work accessible, it is necessary to have a coffer dam built of sheet pilings within Malibu Creek parallel to the shore, about 20 feet from the bottom of the rocks. A pile driver suspended from a crane or backhoe would drive piles into the creek bed to create the coffer dam.

Once the coffer dam is in place, the water trapped behind the cofferdam would need to be pumped out over the cofferdam and back into the Creek and Malibu Lagoon. A coffer dam cannot prevent leakage so pumps will necessarily operate continuously throughout the time of the work, estimated to be at least 6 weeks. From the top of the bank, equipment would lift the rocks (with a median weight of 4 tons each) and carry them to a location to stockpile. Lifting the rocks is far more difficult than placing them and often requires massive chains manually set around each rock. With chains in place, either backhoes or cranes are necessary to lift the rocks.

Once the rocks have been removed, large backhoes would grade back the bank to the Staff's desired 2 to 1 slope. Then a filter blanket would be laid over the bank and the rocks would be returned. In order to avoid damage to the filter blanket, placing the rocks is again more difficult than the original 1998 placement. Willow plantings through holes cut in the filter blanket would then be done as mitigation. The coffer dam would be removed. This is generally done by vibrating the piles to loosen the piles from embedding in the creek bottom. An illustration of the elements necessary to carry out the Staff Recommendation is included as Applicant's Exhibit, Tab 3, where the coffer dam, various heavy equipment and dewatering pumps are shown.

The Staff Report does nothing to analyze the environmental effects of this recommended alternative. The Staff Report brushes off the adverse environmental effects with a few sentences acknowledging, but not analyzing, these adverse effects. See, Staff Report, p. 25. The reasonably foreseeable adverse effects are as follows.

First, the laid back configuration of the rocks will increase sediment transport potential as compared to the existing configuration, thereby eroding the creek bottom at the base of the slope. PACE Engineering conducted a SAM Sediment Hydraulic analysis based on Army Corps of Engineers models and determined that the change recommended by the Staff would increase the transport potential for sediment passing the location. This allows sediment to be removed without replacement, resulting in a net deepening adjoining the rocks. It will also increase the potential for sediment entering the Malibu Lagoon, an adverse effect.

Second, the laid back configuration of the rocks will increase flood potential because it does not contain the creek waters as effectively. PACE Engineering conducted a HEC-RAS (Corps of Engineers River Analysis System) analysis of the change from laying back the slope even the small degree required by the Staff Recommendation. The analysis showed that there would be an increase in the potential for flooding beyond the rocks of up to 0.9 feet. (See Applicant's Exhibit, Tab 4.)

Third, In addition to the permanent increase in sediment transport potential, installation of the coffer dam, even with carefully designed BMP's, and reduction of the width of the creek, will adversely affect the sediments carried in the stream. Dewatering and then removal of the coffer dam by vibration will have an additional effect. The addition of fine sediments to Malibu Lagoon will affect water quality and decrease water infiltration through the sand bar. This may place the sand bar in jeopardy of premature breaching as water builds up behind the bar.

Fourth, there are adverse biological impacts to engendered species. The tidewater goby has been transplanted to the Malibu Lagoon and estuary where it had a natural habitat. Its range extends up to the location of the rocks. Without any consultation with the U.S Fish & Wildlife Service (which administers the Endangered Species Act), Special Condition No. 7 proposed by Staff purports to authorize a "qualified resource specialist" to capture and relocate any tidewater goby found to exist. This is unlawful without an incidental take permit from U.S. Fish & Wildlife Service since the Endangered Species Act prohibits not only killing, but harassing an endangered species.

Capturing any tidewater goby may prove difficult as the tidewater goby tends to burrow into the bottom, or seek shelter among rocks, when disturbed. A week of pile driving and a week of pile removal, four weeks of dewatering, operation of heavy equipment causing additional vibration, underwater noise, potential increased siltation of the Malibu Lagoon and other impacts inherent in carrying out the Staff Recommendation are all reasonably foreseeable to have a negative impact on the tidewater goby. Yet the Staff Report includes no analysis of those impacts on the tidewater goby or its critical habitat.

Fifth, in addition to the tidewater goby, the steelhead trout has been identified as an endangered species and the Malibu Lagoon and estuary as a protected habitat. The same construction requirements have the potential to affect steelhead trout, although their presence in the waters of Malibu Creek and Lagoon, is less documented than the tidewater goby. Again, the Staff concludes without consultation or analysis that constructing the Staff alternative design will have no effect on the steelhead trout or its habitat.

Sixth, no analysis of the impact on bird nesting has been done at all. The Applicant is required to do all of its work in April or May. (See Special Condition No. 5a.) No analysis of the effect of the work on bird nesting appears in the Staff Report.

Seventh, no analysis of the effects of the considerable heavy equipment necessary to carry out the project (including backhoes, cranes, pumps, trucks and other equipment) operating for many weeks in a sensitive location adjoining the creek, has been done. Simply the requirement of BMP's does not substitute for an analysis of the risk of adverse environmental effects. Surprisingly, Special Condition 5c prohibits construction equipment or activity which would have any impact on environmentally sensitive habitat areas, streams, wetlands or their buffers. Special Condition No. 5c effectively prohibits the Staff Recommendation because (a) 4 ton boulders cannot be removed without heavy construction equipment, (b) a coffer dam in the creek cannot be installed and removed without impacting the stream, (c) the creek bank cannot be graded to a 2 to 1 slope without heavy equipment, and (d) the rock bank protection cannot be replaced without heavy equipment. The Applicant can no more carry out the Staff Recommendation and comply with Special Condition No. 5c than the jewish slaves of pharaoh in Egypt could build bricks without straw. The simple difficulty of implementing Special Conditions Nos. 2, 5, 6 and 7 should inform the Commission that extensive risks of adverse environmental effects have simply been ignored.

ii. **The Benefits from Removal and Replacement of the Rocks Claimed by the Staff Do Not Arise.**

The staff claims a number of benefits arise from the change it recommends. First, the Staff Report says that it will protect Malibu Creek from disruption of habitat values, restore biological productivity and water quality to maintain optimum aquatic populations. (Staff Report, p. 26.) There is no evidence that the existing rocks disrupt habitat values, nor that removal and replacement of the rocks results in any change to habitat. There is no evidence that there is any effect of the existing rocks on biological productivity or water quality or that the removal and replacement of rocks restores anything that is affected by the existing rocks. Finally, there is no evidence that implementing the Staff Recommendation has any effect on "optimum aquatic populations".

The Commission cannot analyze this project by ignoring that the rocks that presently exist, do exist. This is not a violation where the Commission assumes that the project has not been implemented. This is a lawfully installed protection which the Applicant seeks to keep. Therefore, the comparison is not between what might have existed if the rocks had not been placed as they are today and the Staff Recommendation. The comparison must be between the rocks today and the changes the Staff Recommendation would require. If the rocks today have no adverse water quality, biological productivity, or disruption of habitat values (as was found by the City of Malibu under CEQA), then changing the project to what the Staff recommends does not "restore" biological productivity which was never lost, "restore" water quality which was not affected, protect from "disruption" of habitat values that were never disrupted, or assure "optimum aquatic populations" which were never reduced.

The real substance of what the Staff claims as benefits is limited to the alleged potential for the willows planting among the rocks to be more successful. (See Staff Report, Exhibit 12, page 2.) The balance of the revegetation plan is acceptable to the Staff, only the willows are claimed to benefit from the change in slope. Larry Lodwick of Impact Sciences disagrees and states that the willow cuttings placed among the existing rocks will be just as effective. (See Applicant's Exhibit, Tab 5).

The Staff also claims that the removal and replacement of rocks will reduce turbidity because of the filter blanket. However, there is no evidence that the existing rocks have caused any turbidity which needs to be reduced. To create additional turbidity, the existing rocks would have to suffer "piping" which is the erosion of soils behind the rocks. In the 10 years that the rocks have been in place, the engineers and biologists have not found any piping in the existing condition. Removing and replacing the rocks would increase turbidity from pile driving, grading and dewatering. No amount of best management practices can avoid this. The filter blanket on the newly graded soils is biodegradable and will be laced with holes for the willows. Ultimately, the Staff Recommendation reproduces most of the existing conditions.

iii. **Leaving the Existing Rocks in Place has No Adverse Environmental Effect.**

The Staff required that the Applicant obtain approval from the City of Malibu and that the City of Malibu evaluate the potential environmental effects under CEQA. The City did so and concluded that maintaining the existing rocks posed no risk of significant adverse environmental effect. Mitigation with vegetation replanting and control (with which the Impact Sciences plan is consistent) was required.

The Applicant's proposal to leave the existing configuration of rocks in place has none of the adverse effects that taking out the rock and replacing it would have. Army Corps of Engineers and Department of Fish & Game have both permitted the rocks to remain as they are. The willow planting mitigation proposed by the Applicant is identical to that proposed by the Staff. The Applicant will accept the performance conditions for the mitigation plan. The Staff can point to no evidence that leaving the rocks as they are has any adverse environmental effect.

iv. **The Changes Recommended by the Staff Result in Minimal Net Change.**

In the end, the Commission must be concerned with what has been gained from the tremendous effort required to implement the Staff Recommendation. Behind Tab 2 is a series of 7 cross-sections of the existing wall and of the effect of reducing the bank to a 2 to 1 slope prepared by Engineer Jaffe based on the Grimes survey. The existing wall lies at slopes from 1.3 to 1 to 2.1 to 1. The average is 1.7 to 1. This is not significantly different from the Staff requirement. The average distance that the Staff Recommendation would move the top of the rocks back from the creek is 4.3 feet. The average distance at the normal waterline is 26 inches.

The maximum distance at any point is 10.9 feet. All of this tremendous work required by the Staff moves the top of the rocks moved an average of 52 inches. It seems almost axiomatic that such a small change has no real environmental benefit. When weighed against the adverse environmental effects, the Commission should see that a reasonable mind would simply say the existing rocks should stay in place.

b. **It is Unreasonable to Require the Applicant to Assume the Risk of a Design that Its Engineer Believes will be Less Adequate.**

If the Staff Recommendation is adopted, Special Condition No. 1 requires that the Applicant assume the risk of the design recommended by the Staff and indemnify the Commission. This is unreasonable. The Applicant is prepared to assume the risk of the design which is recommended by his engineers. But when the Staff changes that design to one which the Applicant's engineers claim will increase the potential for flooding over the rock wall, it is not reasonable to make the Applicant take responsibility for a design which is less effective.

c. **It is Unreasonable to Expect that the Applicant Can Obtain Other Agency Approvals in less than 5 years.**

Having required a different engineering design, Special Condition No. 8 requires that the Applicant obtain all of the other necessary approvals from other agencies. This will now be a far more extensive process as other agencies are unlikely to consider the work necessary to implement the Staff Recommendation to be as benign as the Staff considers it. These other necessary approvals would include permits from and/or consultation with at least the following agencies: U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service, National Marine Fisheries Service, Department of Fish & Game, Regional Water Quality Control Board, Department of Parks & Recreation, and City of Malibu.

As an example, the Commission should look at its own process. The Application was finally accepted as complete by the Staff on May 21, 2008. No staff report was prepared until January 22, 2009. The Applicant asked for its one continuance by right which the Staff could not agree to because the February meeting was the last meeting under the Permit Streamlining Act. In order to avoid the conflict, the Applicant and the Staff agreed to a withdrawal and new application. Even if the Commission takes action on April 9, 2009, it will have taken 11 months. Other agencies move just as slowly.

Commissioners should consider that by the time all of the other permits have been obtained, and after substantial expenditure by the Applicant, the revegetation plan and the willow cuttings in the existing rocks would be mature and complete. Impact Sciences has done a projection of the revegetation plan compared to the present circumstances which is Applicant's Exhibit, Tab 6. The Commission cannot hold the Applicant responsible for the lack of a revegetation plan to date because revegetation was not a part of the emergency permit and would have been unlawful without the Commission action on this Application.

The Commission should also consider the costs involved. PACE Engineering estimate that implementing the Staff Recommendation (without the costs of processing other necessary permits) will exceed $1,000,000. The existing rocks cost $60,000 to purchase and place. The applicant has already spent more than twice that amount on engineering and environmental studies. The Staff Recommendation places the burden on the Applicant to seek many other permits at a very high cost over a period of several years. This adds to the infeasible aspect of the Staff Recommendation.

3. **The Position of Heal the Bay, Baywatchers and Department of Parks & Recreation that a "Flood Wall" behind a "Soft" Protection of Soil and Plants has No Evidence to Support It.**

Heal the Bay, Baywatchers and the Department of Parks & Recreation each have opposed both the Application and the Staff Recommendation. The common thread of each opposition is that some form of "bioengineered" soft planting on a 3 to 1 slope will successfully protect the bank and the structures beyond the bank. No evidence is offered that such a "soft" form of protection will successfully resist the erosive forces of water as it is turned almost 90 degrees from the direction at which it flows directly at the Mariposa Land to go beneath the Pacific Coast Highway bridge. The Commission's action must be based upon fact and science, not hope and desire.

Heal the Bay and Baywatchers both suggest that the protection of the Shopping Center should be created by a "flood wall". No description of what a "flood wall" requires is given. In fact, a flood wall would be a vertical wall that would need foundations beneath the lowest water level of the creek and extend up to above flood level height. It needs foundations where erosion will not let the wall just fall over one day. There is no question that erosion of the "soft" bank solution will occur. The Applicant's property is on the outside curve of a sharp river bend which no amount of "soft" engineering will ever resist. Outside curves of rivers erode to steep, sharp banks. Inside curves accrete with deposits and push the outside curve even sharper. The pictures under Tab 1 show this inexorable process at work. As the owner of all of the relevant property, if State Parks really wanted to limit erosion on the west bank, it would remove major accretion from the east bank that forces the flow to erode the west bank.

Once the creek waters have eroded the soils in front of the wall (which is certain to happen), what would remain is a high (approximately 14 feet) vertical, concrete wall, with no plants, no soil and no mitigation. Somehow, Heal the Bay and Baywatchers recommend this as a less environmentally damaging alternative. Commission Staff agrees that the alternative does not meet the Coastal Act. Of course, all the environmental damage from removing the existing rock (coffer dam, dewatering, etc.) will occur. It is hard to see how allowing erosion of the entire bank back to a concrete "flood wall" causes less environmental damage.

The opponents' alternative also requires that all of the Applicant's land be eroded away. It is hard to see how this benefits the water quality or the Malibu Lagoon. Those eroded sediments have only one place to go. Only the Malibu Lagoon is downstream. The sediments have no other locations for deposition. Having spent so much effort to restore the Malibu Lagoon, it is surprising that State Parks courts erosion of new sediments to fill it in again.

4. **The Applicant is Prepared to Accept Suitable Special Conditions.**

The Applicant has prepared Special Conditions which would be appropriate if the Commission agrees to approve the maintenance of the rocks in the present location. (See, Applicant's Exhibits, Tab 7.) These Special Conditions are based upon the Special Conditions contained in the Staff Report, eliminating those that reflect requirements based upon the removal, grading and replacement of the rock.

The Applicant asks that the Commission adopt an amending motion to the motion recommended by the Staff and approve Permit No. 4-09-013 subject to the Special Conditions behind Tab 7.

Sincerely,

SHERMAN L. STACEY

SLS/sh

cc: All Commissioners and Alternates
Ventura Commission Office
Mr. Grant Adamson

APPLICATION FOR PERMIT NO. 4-09-013 (MARIPOSA Land Company)

California Coastal Commission

Applicant's Exhibits

1. Sequence of 1962, 1977, 1981 and 2000 photographs of site showing condition.

2. Existing and Staff Recommendation Slope Comparison Analysis by David Jaffe, Professional Engineer.

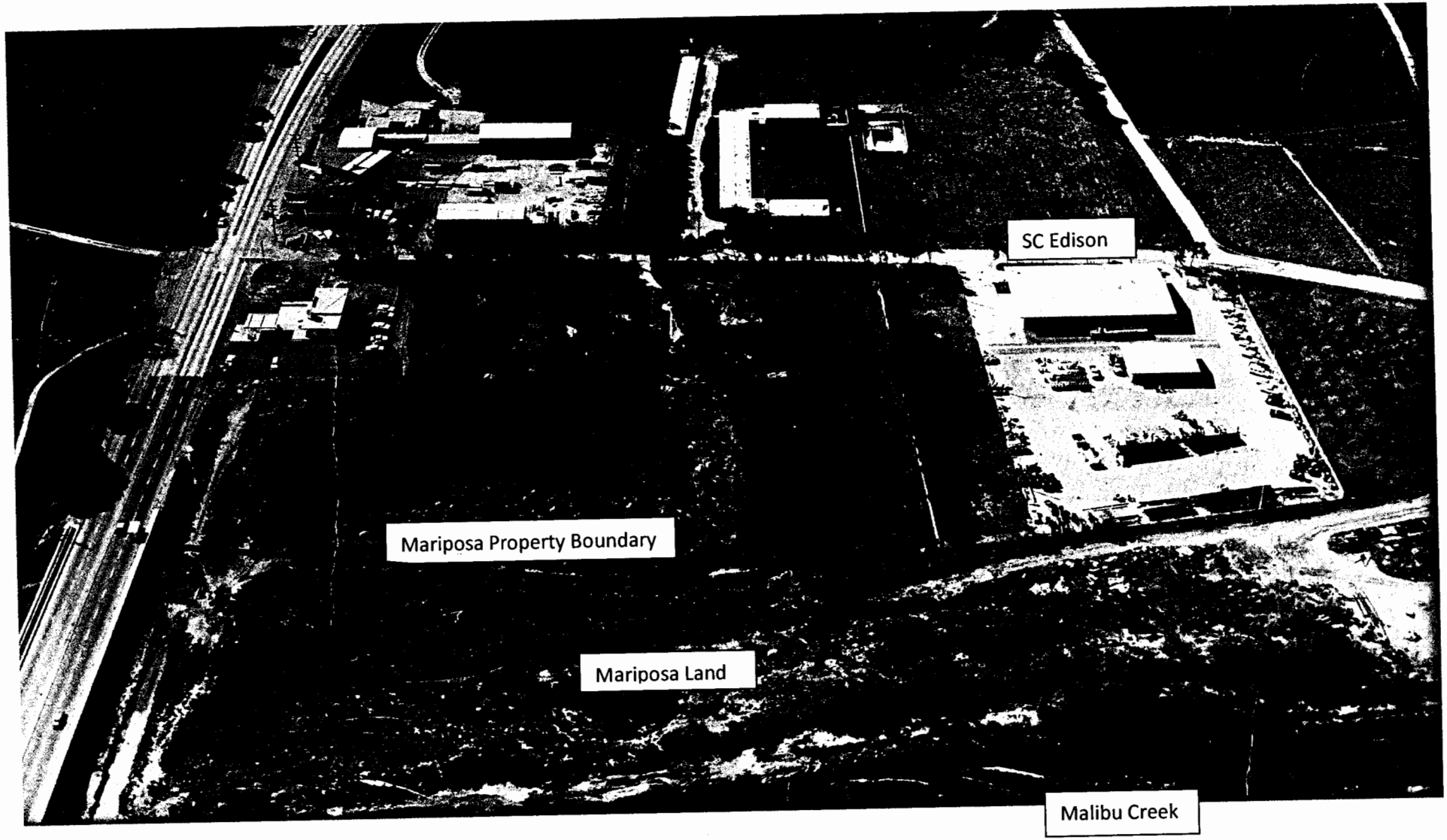
3. Illustration of Method of Work Necessary to Carry Out Staff Recommendation including Coffer Dam, Pile Driver, Backhoe, Trucks, etc.

4. Letter from PACE Engineering regarding flooding impacts from Staff Recommendation design.

5. Letter from Impact Sciences regarding revegetation of Malibu Creek bank.

6. Illustration of existing and future conditions after implementation of Impact Sciences Revegetation Mitigation Plan.

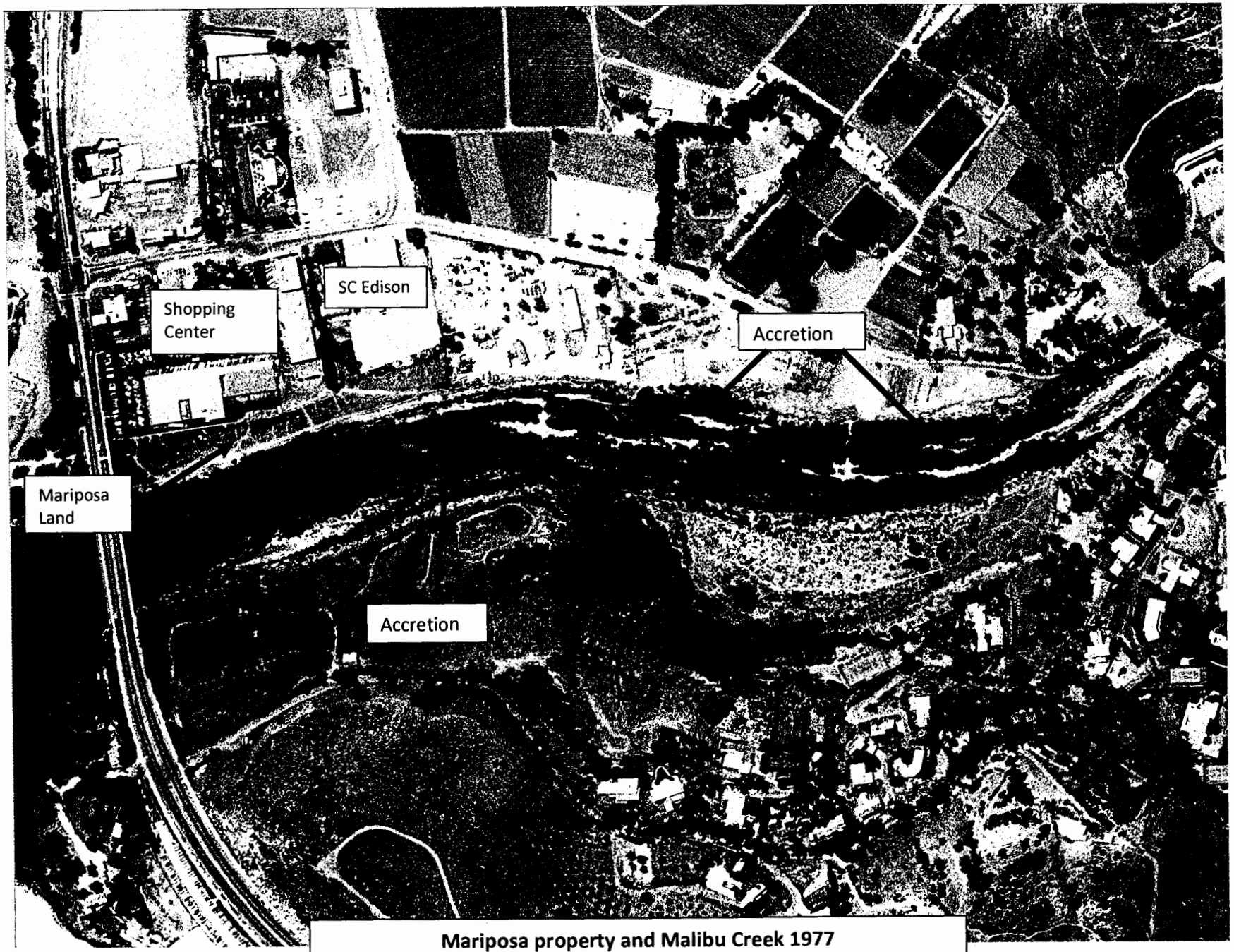
7. Applicant's Proposed Substitute Motion and Special Conditions.



Malibu creek at PCH 1962

Creek along Mariposa Land is straight and land is wide.

EXHIBIT 1



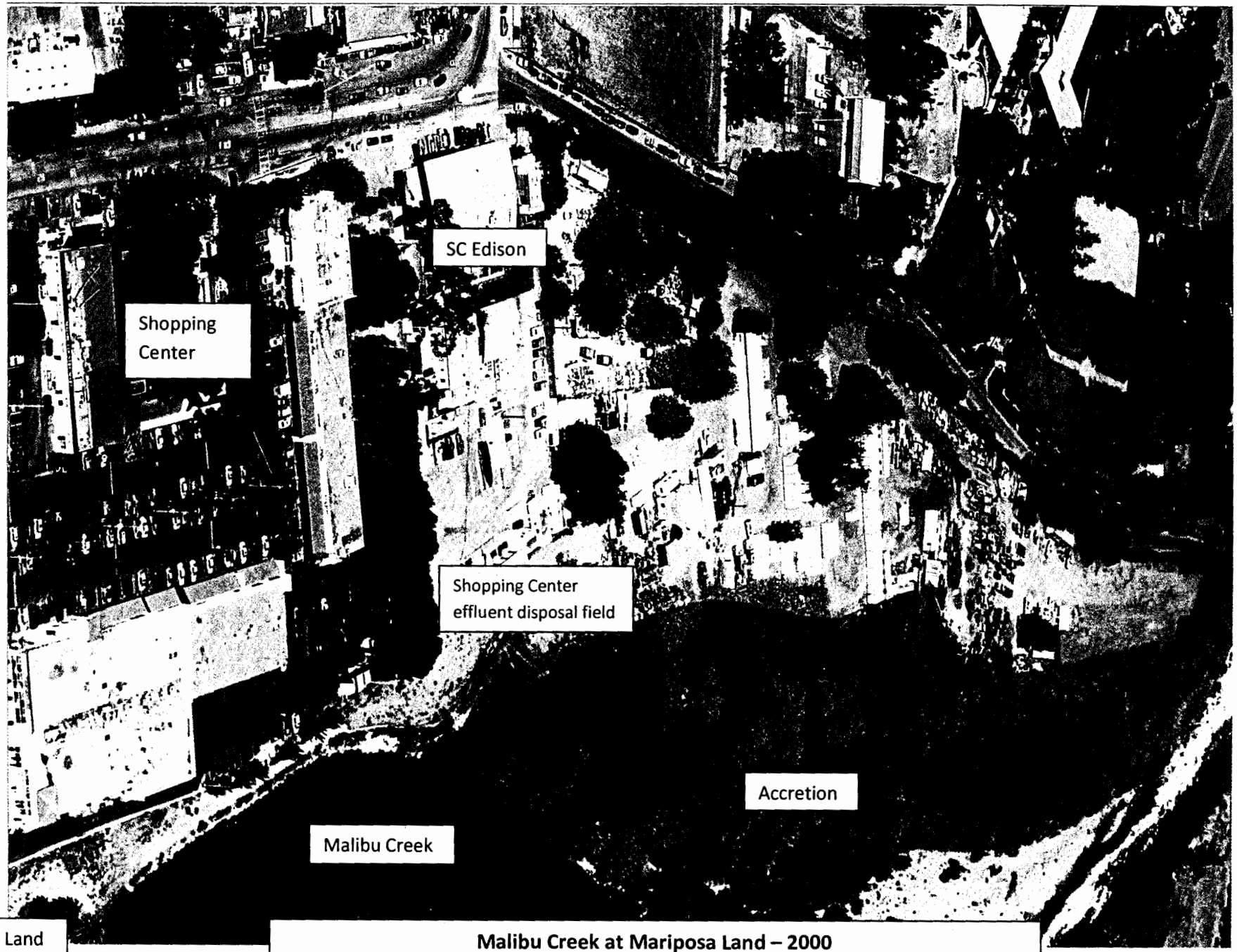
Mariposa property and Malibu Creek 1977

Accretion along the river banks is curving the river to erode the

Malibu Creek along Mariposa Land – 1981

Increased Accretion moves the river course more directly at Mariposa

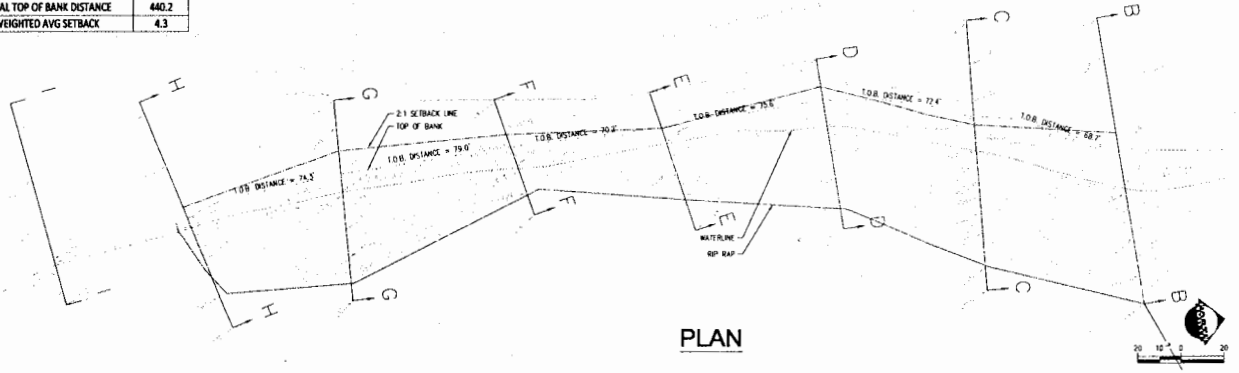
2



Mariposa Land

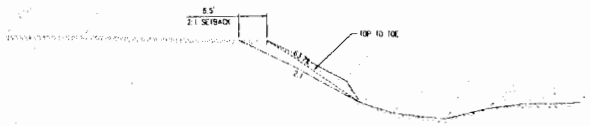
Malibu Creek at Mariposa Land – 2000
River Course now makes 90 degree bend abutting Mariposa Land
Only the existing rock protection prevents erosion of the adjoining shopping center and its newly built effluent disposal field

SECTION	2:1 SETBACK	AVG SETBACK	DIST
B-B	6.5	1.4	68.7
C-C	-3.8	1.3	72.4
D-D	6.4	3.1	75.6
E-E	-0.3	2.9	70.2
F-F	6.0	8.5	79.0
G-G	10.9	8.1	74.3
H-H	5.2		
TOTAL TOP OF BANK DISTANCE			440.2
WEIGHTED AVG SETBACK			4.3



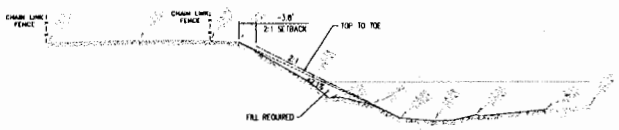
PLAN

SECTION VIEW "B-B"
LOOKING NORTHERLY
SCALE: 1"=10'



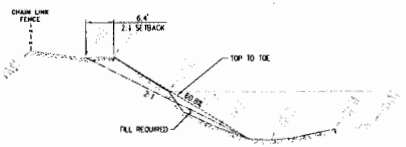
TOP TO TOE	64% (1.6:1)
CCC SLOPE (CALCULATED)	N/A (----)

SECTION VIEW "C-C"
LOOKING NORTHERLY
SCALE: 1"=10'



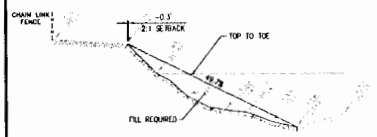
TOP TO TOE	47% (2.1:1)
CCC SLOPE (CALCULATED)	65% (1.5:1)

SECTION VIEW "D-D"
LOOKING NORTHERLY
SCALE: 1"=10'



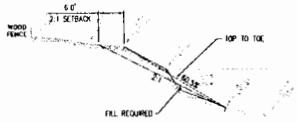
TOP TO TOE	61% (1.6:1)
CCC SLOPE (CALCULATED)	81% (1.2:1)

SECTION VIEW "E-E"
LOOKING NORTHERLY
SCALE: 1"=10'



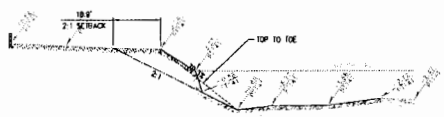
TOP TO TOE	50% (2.0:1)
CCC SLOPE (CALCULATED)	85% (1.1:1)

SECTION VIEW "F-F"
LOOKING NORTHERLY
SCALE: 1"=10'



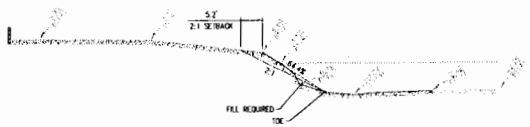
TOP TO TOE	61% (1.6:1)
CCC SLOPE (CALCULATED)	73% (1.4:1)

SECTION VIEW "G-G"
LOOKING NORTHERLY
SCALE: 1"=10'



TOP TO TOE	79% (1.3:1)
CCC SLOPE (CALCULATED)	100% (1:1)

SECTION VIEW "H-H"
LOOKING NORTHERLY
SCALE: 1"=10'



TOP TO TOE	64% (1.6:1)
CCC SLOPE (CALCULATED)	75% (1.3:1)

SECTION VIEW "I-I"
LOOKING NORTHERLY
SCALE: 1"=10'

ENGINEER'S SEAL (SLOPE STUDY ONLY):

DAVID A. JAFFE P.E. 66321

GRIMES SURVEYING & MAPPING, INC.
5244 HUNTINGTON DRIVE SOUTH LOS ANGELES, CALIFORNIA 90032 (323)223-1011

SURVEY OF:

MALIBU CREEK

FILE NO: 2008164 SCALE: 1"=10' DATES: SURVEYED-SEPTEMBER 15, 2008 PLOTTED-SEPTEMBER 24, 2008

MALIBU, CALIFORNIA

SHEET 2 OF 2 SHEETS

SURVEYOR'S SEAL:

DAVID P. GRIMES L.S. 5774

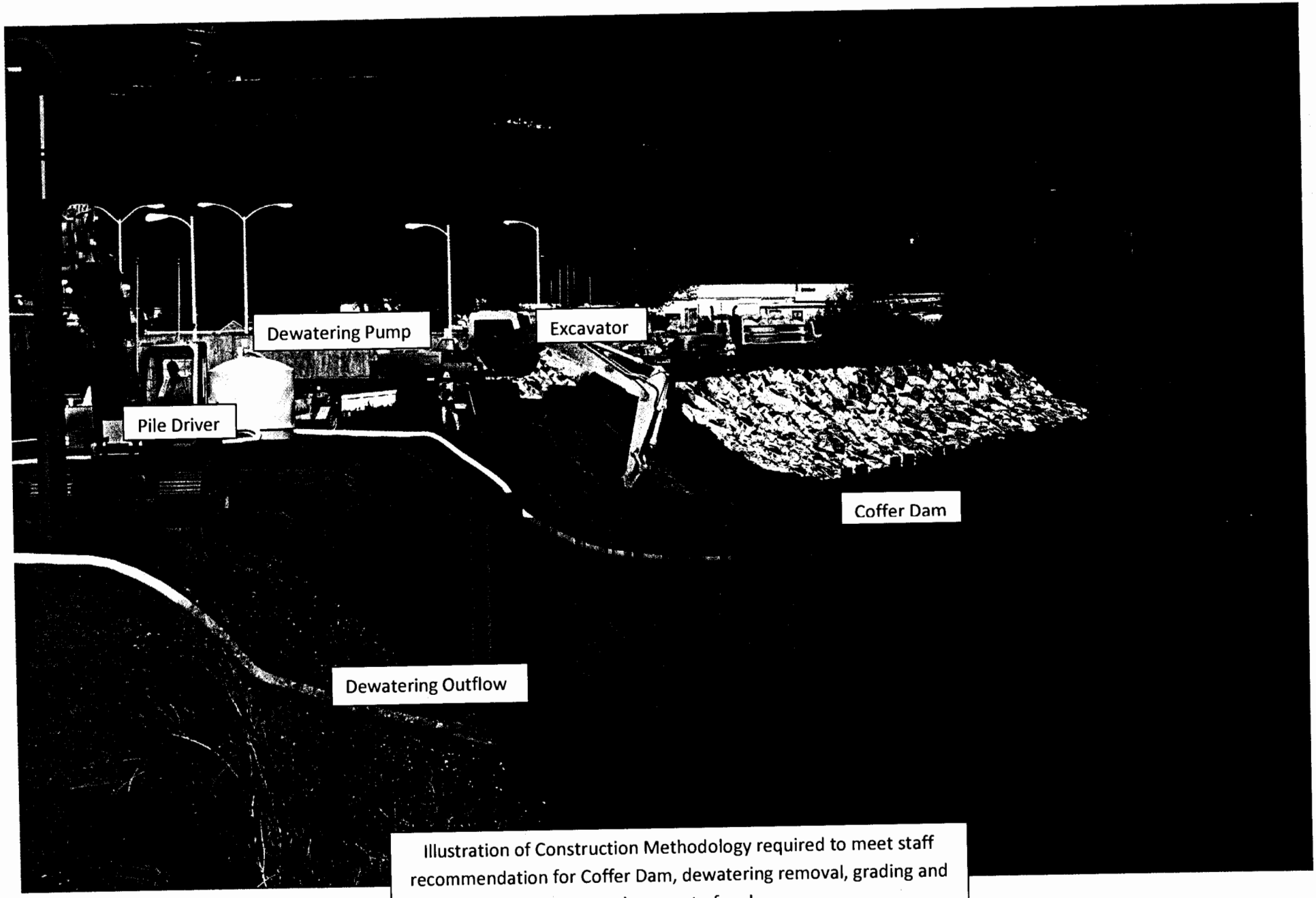


Illustration of Construction Methodology required to meet staff recommendation for Coffer Dam, dewatering removal, grading and replacement of rock.

EXHIBIT 3

PACE
Advanced Water Engineering

March 24, 2009

Grant H. Adamson
Vice President
Mariposa Land Corporation
23852 Pacific Coast Hwy. #368
Malibu, CA 90265
Phone (310) 456-3230

Fax (310) 456-3182

Re: Malibu Creek Bank Restoration
Change in Depth for the Proposed Coastal Commission Improvements # 7856E

Dear Grant,

Attached, please find the results of the existing and proposed conditions HEC-RAS model of lower Malibu Creek. The model output for flow depth is shown in Table 1.

Please recall that the existing conditions model examines the hydraulics of the Creek during the 100-year event with the creek geometry in its present state. The proposed conditions geometry reflects the changes requested by CCC and represents the 2:1 side-slope on the west bank upstream of the HWY 101 Bridge. The revised slope is approximately 500 ft in length.

The results of the modeling indicate that, on average, the depth of flow during the 100-year discharge event will increase by 0.1 ft for the study reach as a whole, and with a 0.9 ft maximum water surface elevation increase.

It is important to note that the overbank area of the project site, as well as the adjacent property presently exists in the FEMA flood zone AO (Depth 2) indicating shallow flooding up to 2 ft (see enclosed FIRM panel 1541F). An increase of flow depth at this location has the potential to exacerbate flooding in the presently mapped location and adjacent to the project site.

Please feel free to contact me with any questions or comments regarding this project.

Sincerely,

David A. Jaffe, PhD, PE
Project Manager

DAJ/AS

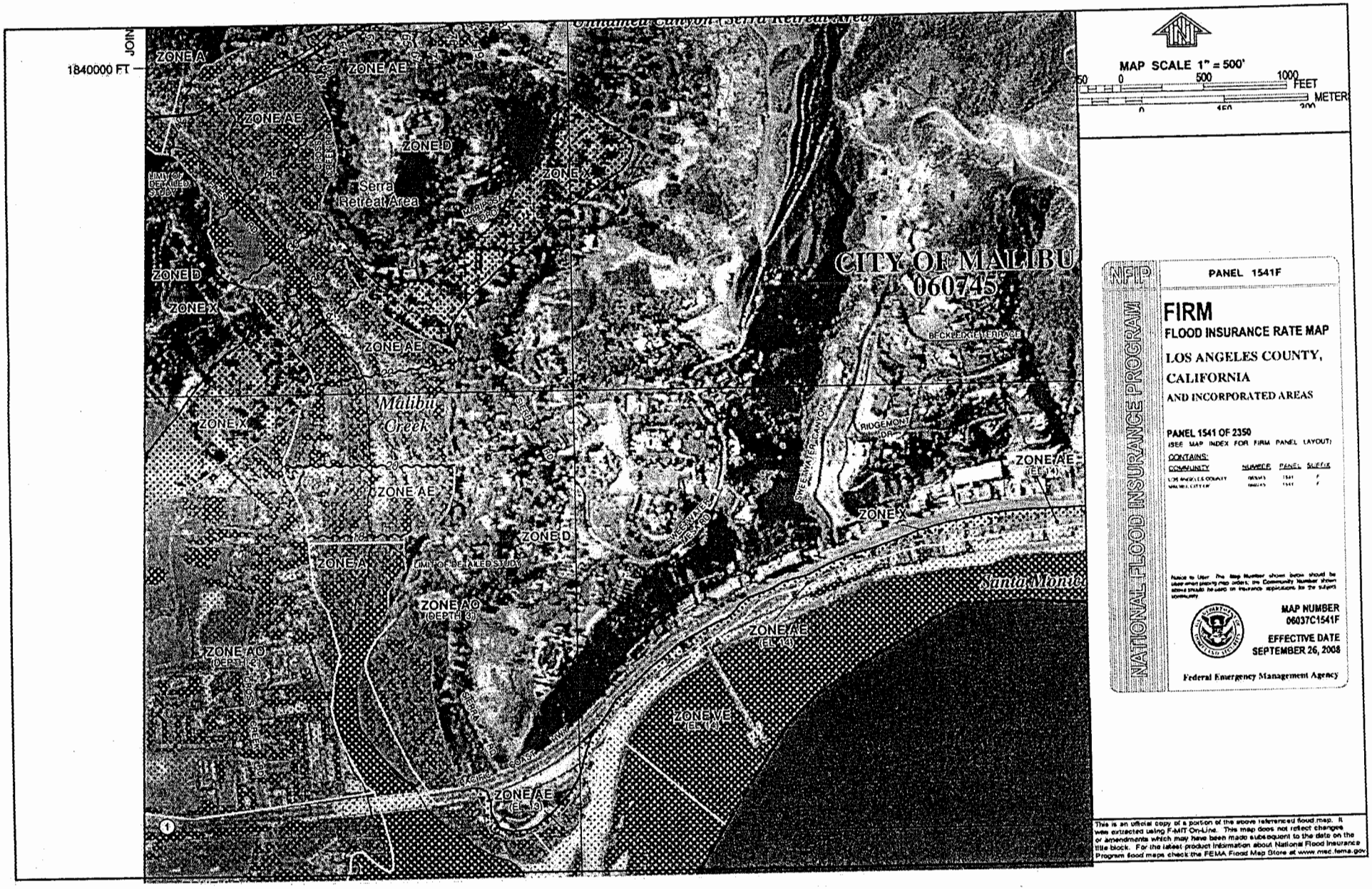
P:\7856E\5-Administrative\Letters\Out\Adamson, Grant - Change in Depth 03-24-09.doc

EXHIBIT 4

(4)

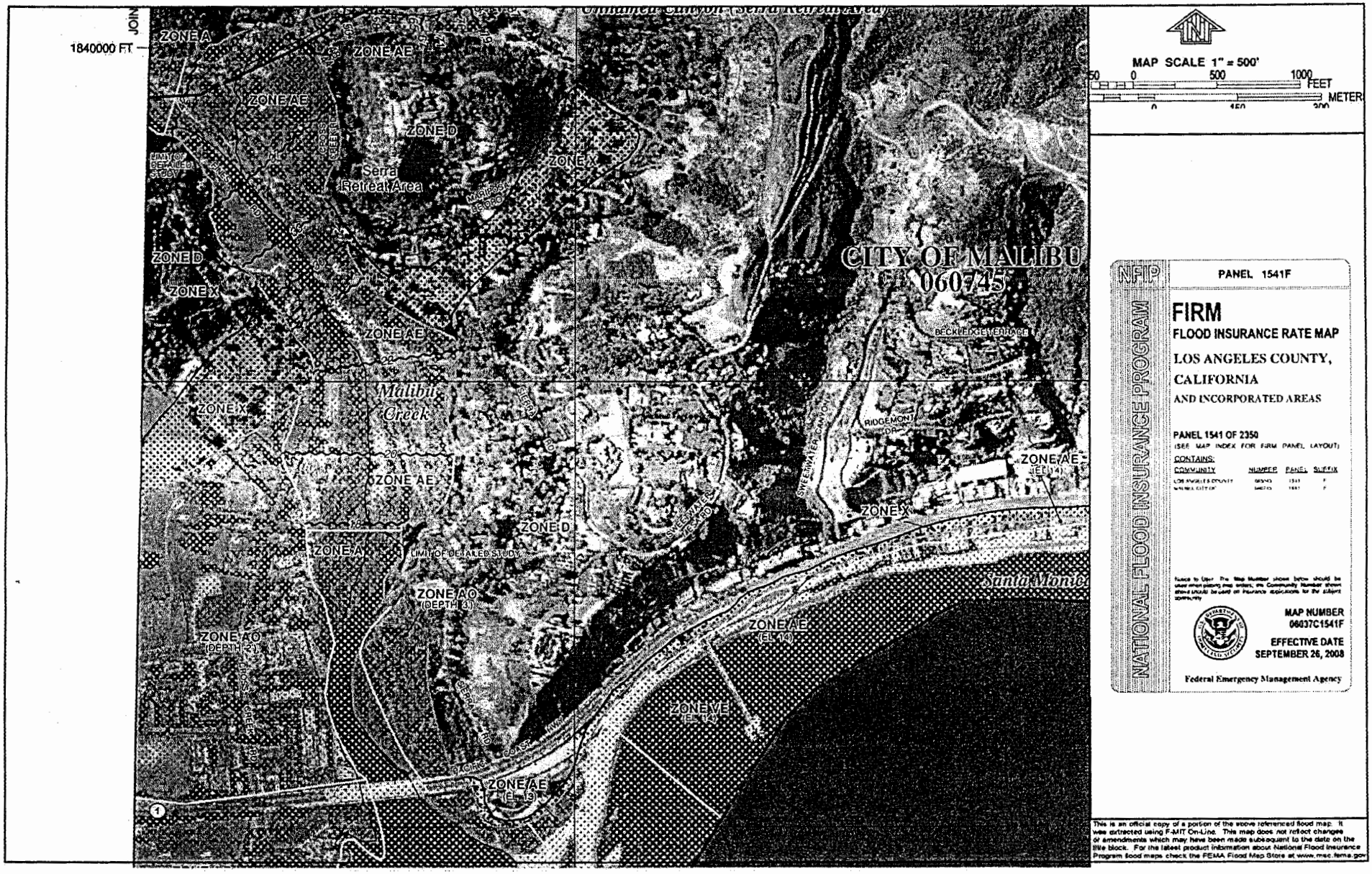
Table 1: Lower Malibu Creek Existing and Proposed (CCC) Depth (ft) by Section			
Section	Depth (ft) Existing	Proposed	Δ
2100	17.5	17.6	0.2
2070.36*	17.3	17.4	0.2
2040.73*	17.0	17.1	0.2
2011.1	15.9	16.1	0.2
2006.1	16.0	16.2	0.2
2001.1	15.9	16.1	0.1
1984.25*	15.9	16.0	0.1
1967.4*	15.8	15.9	0.1
1950.55*	15.7	15.9	0.1
1933.7*	15.7	15.8	0.1
1916.85*	15.7	15.8	0.1
1900	15.6	15.7	0.1
1883.33*	15.6	15.6	0.1
1866.66*	15.6	15.7	0.1
1850.*	15.7	15.8	0.1
1833.33*	15.8	15.9	0.1
1816.66*	15.8	16.0	0.1
1800	15.9	16.0	0.1
1783.33*	15.8	15.9	0.1
1766.66*	15.7	15.8	0.1
1750.*	15.5	15.6	0.1
1733.33*	15.4	15.5	0.1
1716.66*	15.2	15.3	0.1
1700	14.9	15.1	0.2
1683.33*	14.7	14.9	0.2
1666.66*	14.5	14.6	0.2
1650.*	14.3	14.3	0.0
1633.33*	14.2	14.0	-0.1
1616.66*	14.1	13.4	-0.6
1600	14.0	13.5	-0.5
1586.8*	13.9	13.5	-0.4
1573.6	13.8	13.5	-0.3
1568.5	13.8	13.5	-0.3
1563.2	12.7	12.7	0.1
1531.6*	11.3	12.2	0.9
1500	11.3	11.8	0.5
1400	11.0	11.2	0.2
1323	9.9	9.9	0.0
		Average=	0.1
		Maximum=	0.9

PACE



This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

(4)


JOIN
1840000 FT
ZONE A
ZONE AE
ZONE AE
ZONE D
ZONE X
Serra Retreat Area
LIMIT OF DETAILED STUDY
ZONE D
ZONE X
ZONE AE
CITY OF MALIBU
060745
BECKLEY TERRACE
Malibu Creek
ZONE X
ZONE AE
RIDGEMONT DR
ZONE AE (EL 14)
ZONE X
ZONE D
ZONE A
LIMIT OF DETAILED STUDY
ZONE AO (DEPTH 1)
Santa Monica
ZONE AE (EL 14)
ZONE AO (DEPTH 1)
ZONE VE (EL 14)
ZONE AE (EL 13)
1
MAP SCALE 1" = 500'
50 0 500 1000 FEET
0 150 300 METER
NATIONAL FLOOD INSURANCE PROGRAM
NFIP
PANEL 1541F
FIRM
FLOOD INSURANCE RATE MAP
LOS ANGELES COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 1541 OF 2350
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
LOS ANGELES COUNTY 065043 1541 F
MALIBU, CITY OF 060745 1541 F
MAP NUMBER
06037C1541F
EFFECTIVE DATE
SEPTEMBER 26, 2008
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

(4)

IMPACT SCIENCES | 20 YEARS

February 23, 2009

Grant Adamson
Mariposa Land Company
PO Box 2485
Malibu, California 90265

Attn: Grant Adamson

Re: Comments regarding revegetation of the Malibu Creek bank

Dear: Mr. Adamson:

I have reviewed the January 9, 2009 letter from Dr. Jonna Engle to Deanna Christensen of the Coastal Commission regarding the vegetation restoration plan prepared by Impact Sciences for your property. The second paragraph of her letter states that "vegetation has been able to naturally recruit among the rip rap. However, plants are unable to establish on the majority of the rip rap which stand at a steep 1:1 slope angle. It is my opinion that the stream bank restoration would be more successful if the proposed rip rap were to be laid back at a lesser slope angle, such as 2:1, which is more typical for vegetated rip rap bank stabilization designs."

The 1:1 slope was a figure mentioned prior to the survey by Edward P. Sternagle, a licensed surveyor, who determined the true slope, which in part is closer to a 1.7:1 angle. What Dr. Engle did not mention is that the mulefat shrubs that revegetated part of the stream bank are in areas that received sufficient sunlight for the seedlings to become established. The angle of the slopes and the depth of the rip rap in other parts of the stream bank preclude sunlight from penetrating to where seedlings might germinate, thereby not allowing the seedlings to photosynthesize, the process whereby the nutrients are produced for the developing seedlings.

The proposed willow cuttings should be sufficiently long to extend beyond the rip rap thereby allowing developing leaves to be exposed to sunlight, and undergo photosynthesis. The use of cutting would speed up and ensure success of the stream bank revegetation.

The letter also states that "placement of a bottom layer of fabric filter under the rip rap would reduce soil piping and turbidity from high flow events." As the rip rap has been stable for the 10 years since installation, without any sign of soil piping or turbidity, the need for this fabric is questionable. The placement and rooting of willow

EXHIBIT 5

cuttings should only increase stream bank stability. However, if the stable slopes are altered with the rip rap removed and the bank cut back, fabric filter would be required to control soil piping and reduce siltation caused by this new disturbance.

In conclusion, Malibu Creek's banks, where rip rap has been for the past 10 years, can be successfully revegetated if willows are installed in a manner that allows the plants access to the soil to root, stabilize the soil, and obtain nutrients. Furthermore, the manner of installation should permit access to sunlight for photosynthesis, without disturbing the stable banks currently present.

Very truly yours,
IMPACT SCIENCES, INC.

Larry Lodwick

Larry Lodwick
Associate Principal

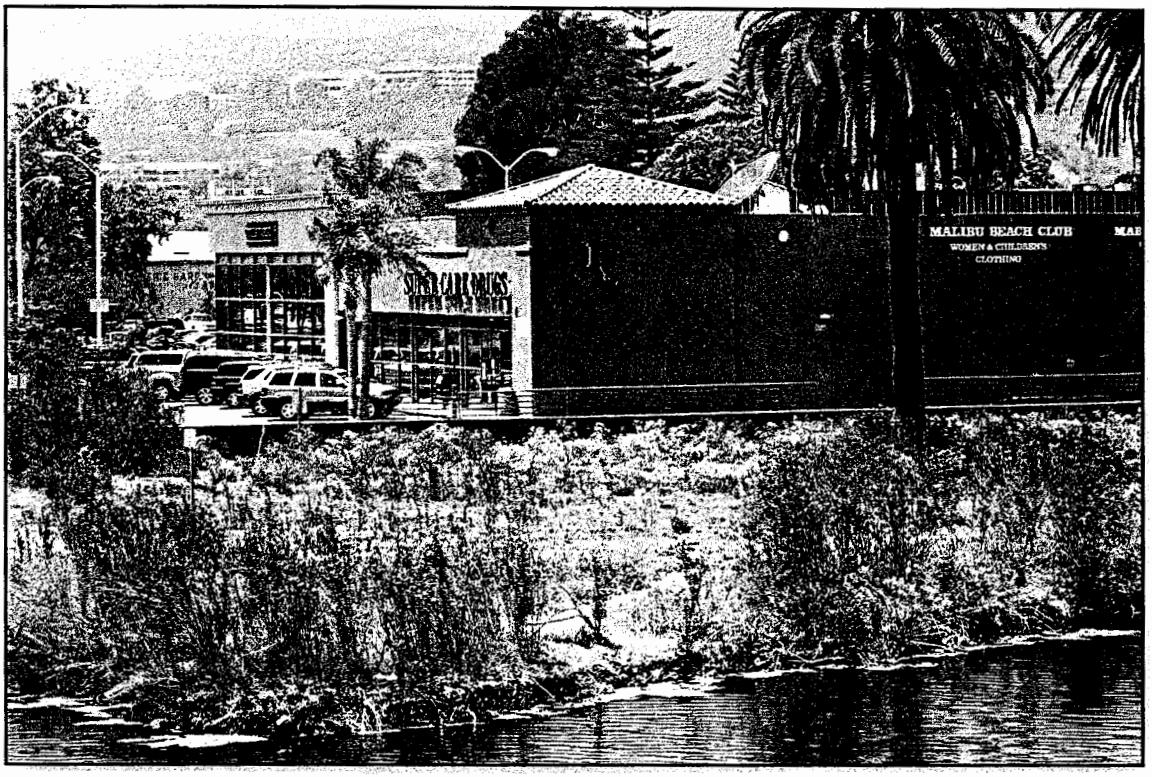


Photo 1 – South end of site

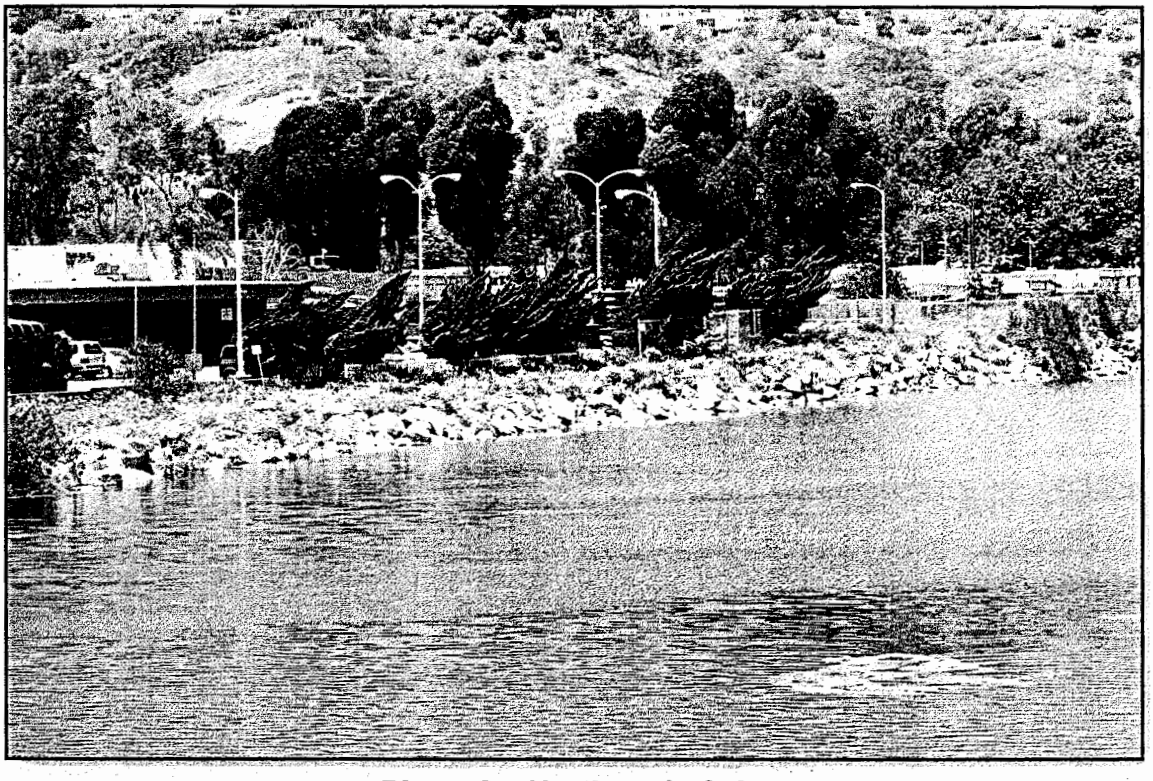


Photo 2 – North end of site

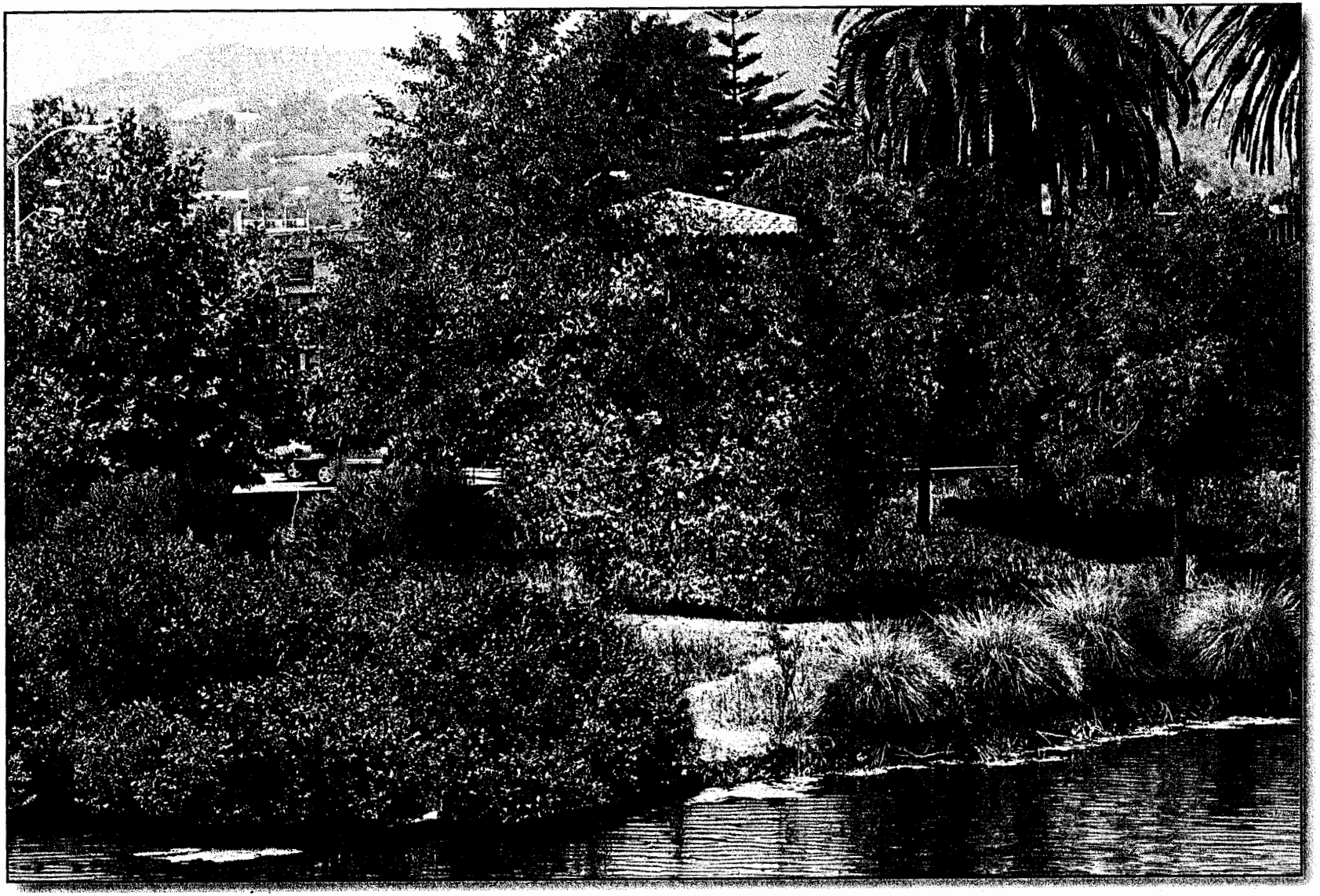
SOURCE: Impact Sciences, Inc. – August 2007

FIGURE 3

EXHIBIT 6

Photographs Depicting Current Site Conditions

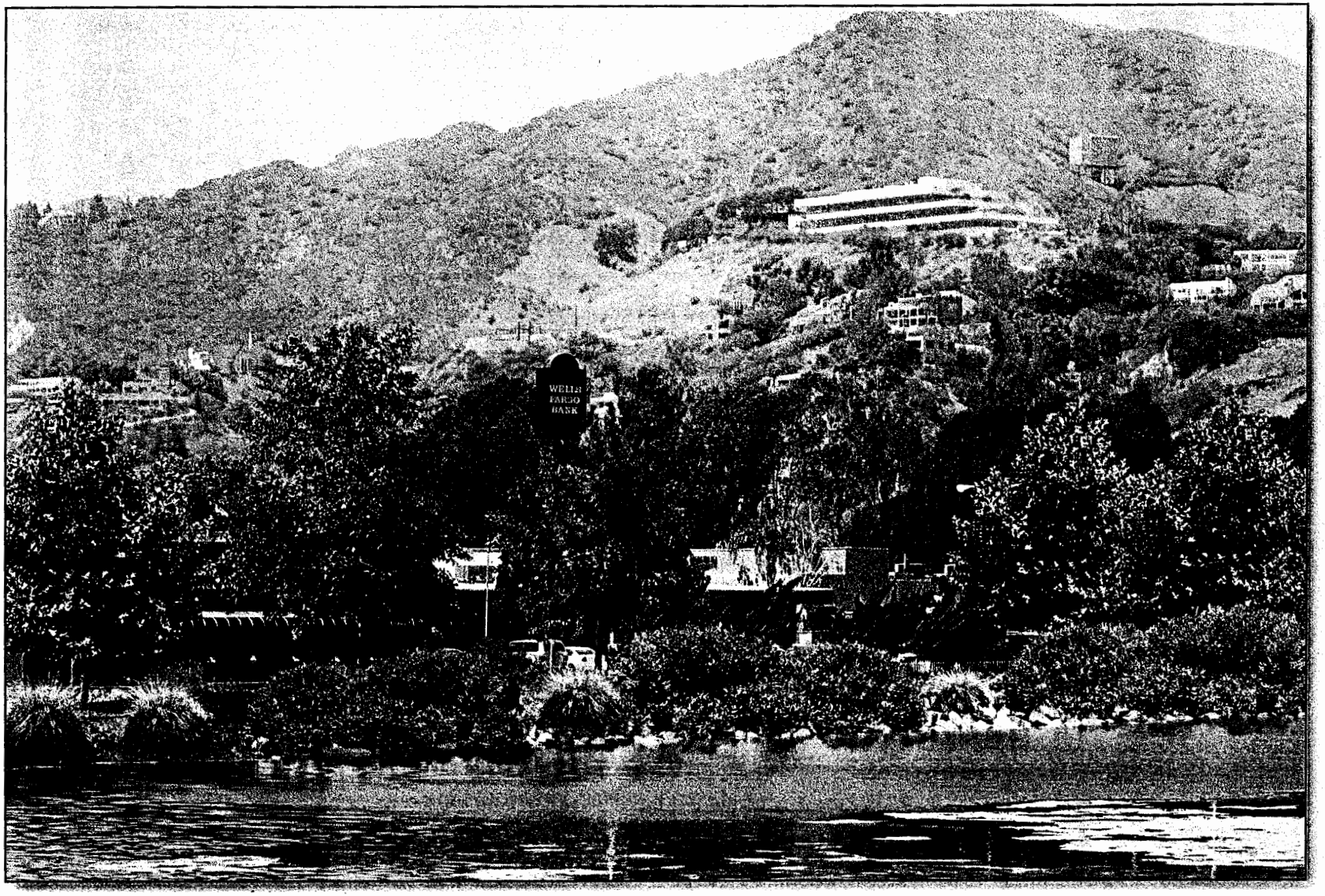
908-001•08/07



SOURCE: Impact Sciences - July 2007

FIGURE 6

Photograph Simulation of Mitigation (Year 5) – South End of Site



SOURCE: Impact Sciences - August 2007

FIGURE 7

Photograph Simulation of Mitigation (Year 5) – North End of Site

MOTION

I move a substitute motion approve to the Applicant's proposed development subject to the Standard Conditions and the Special Conditions set forth below and to adopt revised findings in support of such decision on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will be not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 10 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 further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

SPECIAL CONDITIONS

1. Assumption of Risk

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from erosion and flooding; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) 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 costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

2. Revegetation Implementation and Monitoring

By acceptance of this permit, the applicant agrees to implement the approved "Vegetation Restoration Plan" (Impact Sciences Inc.). The plan shall be carried out under the direction of qualified biologist or resource specialist. Successful site restoration shall be determined if the revegetation of native plant species on site is

adequate to provide 90% coverage by the end of the five (5) year monitoring period and is able to survive without additional outside inputs, such as supplemental irrigation.

The applicant shall submit, upon completion of the initial planting, a written report prepared by a qualified resource specialist, for the review and approval of the Executive Director, documenting the completion of the initial planting/revegetation work. This report shall also include photographs taken from pre-designated sites (annotated to a copy of the site plans) documenting the completion of the initial planning/revegetation work.

Five years from the initial planting completion date, the applicant shall submit for the review and approval of the Executive Director, a Revegetation monitoring Report, prepared by a qualified biologist or resource specialist, that certifies whether the on-site revegetation is in conformance with the revegetation plan approved pursuant to Special Condition 3 and has been implemented consistent with, and restoration has been successful as defined by, this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

3. Maintenance Activities and Future Alterations

The permittee shall maintain the permitted bank protection in its approved state. Any change in the design of the project or future addition/reinforcement of the approved structure beyond exempt maintenance as defined in Public Resources Code section 30610(d) and Section 13252 of Title 14 of the California Code of Regulations to restore the structure to its original condition as approved herein will require a coastal development permit. However, if (after inspection) it is apparent that the repair and maintenance is necessary, the permittee shall contact the Executive Director to determine whether a coastal development permit or an amendment to this permit is legally required, and, if required, shall subsequently apply for a coastal development permit or permit amendment foe the required maintenance.

4. Deed Restriction

Prior to issuance of the Coastal Development Permit, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2)imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the

event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

5. Site Inspection

A. By acceptance of this permit, the applicant irrevocably authorizes, on behalf of itself and its successors-in-interest with respect to the subject property, Coastal Commission staff and its designated agents to enter onto the property to undertake site inspections for the purpose of monitoring compliance with the permit, including the special conditions set forth herein, and to document their findings (including but not limited to, by taking notes, photographs, or video), subject to Commission staff providing 24 hours advanced notice to the contact person indicated pursuant to paragraph B prior to entering the property, unless there is an imminent threat to coastal resources, in which case such notice is not required. If two attempts to reach the contact person by telephone are unsuccessful, the requirement to provide 24 hour notice can be satisfied by voicemail, email, or facsimile sent 24 hours in advance or by a letter mailed three business days prior to the inspection. Consistent with this authorization, the applicant and its successors: (1) shall not interfere with such inspection/monitoring activities and (2) shall provide any documents requested by the Commission staff or its designated agents that are relevant to the determination of compliance with the terms of this permit.

B. ***Prior to issuance of the Coastal Development Permit***, the applicant shall submit to Commission staff the email address and fax number, if available, and the address and phone number of a contact person authorized to receive the Commission's notice of the site inspections allowed by this special condition. The applicant is responsible for updating this contact information, and the Commission is entitled to rely on the last contact information provided to it by the applicant.

6. Condition Compliance

Within 180 days of Commission action on this coastal development permit application, or within such time as the Executive Director may grant for good cause, the applicant shall Satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions Chapter 9 of the Coastal Act.

Gaines & Stacey LLP
1111 Bayside Drive, #150
Corona del Mar, CA 92625
(949)219-2000; FAX (949)219-9908

FAX LETTER

To: Deanna Christensen

Fax No. 805-641-1732

From: Sherman L. Stacey

Re: Permit No. 4-09-013

Date: April 7, 2009

cc:

Total Pages -- 16

Attached are the following documents in connection with the record and hearing on Permit No. 4-09-013.

1. Biological Impact Analysis Malibu Creek Riprap Replacement dated April 3, 2009 by Impact Sciences, Inc.

2. Resume of Lawrence (Larry) N. Lodwick of Impact Sciences, Inc.

3. Resume of Daryl Koutnik of Impact Sciencses, Inc.

4. Resume of David Jaffe, PhD, PE of PACE Engineering

5. Resume of Andrew Ronnau, PhD, PE of PACE Engineering

If you or Jack would like to discuss any matters on this, I will be at the hearing all day tomorrow.

RECEIVED
APR 7 2009
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

Biological Impact Analysis
Malibu Creek Riprap Replacement
Mariposa Land Company

Impact Sciences
April 3, 2009

The proposed reshaping of the Malibu Creek slopes that were protected from erosion by placing riprap along the banks in 1998 is being considered. As with any project involving heavy equipment to reshape contours along water courses, there are a number of impacts that would occur.

The Mariposa Land Company property is located on the west bank of Malibu Creek just upstream (north) from the Pacific Coast Highway bridge, which is considered to be a part of Malibu Lagoon, but is not part of the Malibu Lagoon State Park (Abramson and Grimmer, 2005). While Malibu Creek has some saltwater intrusion, there is an active downstream flow along this stretch of the creek. Water levels vary by several feet depending on the condition of the sandbar at Malibu Lagoon. When the lagoon sandbar is breached, usually in the fall to winter, the water levels drop as water is able to freely move into the ocean. As the sandbar gradually re-forms after peak stream flows recede, the water levels increase by several feet. This annual cycle of flow regimes is necessary for maintaining the channel morphology, recruitment of spawning gravels, flushing fine sediments, rejuvenating riparian habitats, and supporting the life cycle of the fish fauna, particularly the steelhead population (NMFS, 2007).

A number of impacts would be associated with the implementation of riprap removal project, which would, at a minimum, involve water quality and habitat disruption. Another potential impact has a likelihood of affecting water quantity. These and other impacts must be considered by a number of agencies during the permitting process

Water Quality Issues:

Construction within streams has been shown to change the rate, type, and amount of erosion and sedimentation within streams (NMFS, 2007). In the present case, at least two factors will affect these changes:

Impacts would occur with the installation of any coffer dam. Work in stream sediments, even by the most careful installation of BMPs for siltation control, would affect the sediments within a flowing stream. These sediments would be carried downstream to settle in the lagoon. Fine sediments could have a serious impact in decreasing water infiltration though the sandbar, placing the sandbar in jeopardy of being washed away prematurely as water, which cannot move through the sand as freely, builds up, adding pressure onto the bar.

Second, an increase in the flow rate in Malibu Creek around the protective coffer dam would occur in reducing the width of Malibu Creek with a diversion, i.e., a coffer dam constructed around the area containing the riprap to be moved, without a decrease in the volume of water moving past the coffer dam. This increase in stream flow will further alter natural sediment movement, increasing deposition into the lower lagoon (in the State Park). Increased flow rates,

combined with additional fine sediments, would increase water levels and add pressure behind the sandbar, and adding to the potential to breach the bar earlier than is typical.

As with any construction project, there is a potential to have oils and greases from construction equipment that could potentially contaminate waters. While BMPs can minimize this impact, this is an area very sensitive area, both biologically and publically.

Biological Impacts:

The Creek is designated as critical habitat for two fish species that are federally and state-listed as "Endangered," the tidewater goby (*Eucyclogobius newberryi*) and steelhead (*Oncorhynchus mykiss*). There are a number of concerns regarding these two species and how they would be impacted by the riprap replacement. Additional information and research will likely be required to determine the exact impacts on these two species before a Biological Opinion would be issued by the agencies charged with the protection of these species, specifically the US Fish and Wildlife Service (USFWS) for the tidewater goby and by the National Oceanic and Atmospheric Administration (NOAA) for the steelhead.

Tidewater goby is a resident fish that as adult is are bottom-dwellers, escaping into burrows or other hiding places when disturbed. Tidewater gobies spawn in May 1 through November 1, with hatching occurring in 9-10 days (Hunt, 2000; Malibu Lagoon Restoration and Enhancement Plan, 2006). The young are free-swimmers in the lagoon, taking up territories and burrows as they mature. This project would almost certainly be considered a "take" of tidewater gobies as a result of:

- additional siltation that would occur would likely affect the gobies burrows, by reducing visibility and the ability for the gobies to catch their prey,
- the immature gobies, which are free-swimmers in the lagoon and would be susceptible to the increased silt in the water, and
- the necessary dewatering, which will directly kill the fish.

Relocation of gobies by dip nets from the dewatering area is made especially difficult by the gobies potentially using their burrows or the riprap for shelter (Hunt, 2000). Seines are not practical for goby relocation, as the gobies enter their burrows at the first signs of danger, and electro-shocking is not possible where brackish water occurs, because the electrical current is dispersed by the salt content, and gobies are bottom-dwellers and sink when stunned by the electric current, making capture for relocation extremely difficult.

Another impact with a high likelihood to affect gobies is the underwater noise from mechanically moving the riprap. Underwater noise and vibration is a significant factor with many aquatic or marine organisms, but has not been studied with tidewater gobies. Disturbances such as noise and vibrations is known to force the gobies to withdraw into their burrows, but it is unclear if prolonged, but not constant noise would change goby feeding habits and survivorship.

Steelheads are anadromous fish that spawn in coastal watersheds and young rear in freshwater or estuarine habitats for one to three years prior to returning to the sea to reach maturity. While relatively few steelheads are found in Malibu Creek, the impacts would likely not be as great as for the tidewater goby. However, alteration of stream flows has been shown to affect migratory behavior, and have altered the breaching pattern at the mouth of coastal estuary (NMFS, 2007), which affect steelhead rearing and migratory opportunities. The potential for an early breach in the sandbar at the lagoon would likely have little effect on the stream course upstream of the lagoon area, as flows from the water source would remain the same, but would have a pronounced effect on lower watershed streams and estuaries. Timing of the project would be critical to avoid a steelhead "take" during the period when steelhead would be moving through the channel.

Timing of the project would also be limited by bird nesting in the area. This is a very well known area for birds and this is a very sensitive public issue that requires attention and careful scheduling.

In essence, water quality and habitat would be adversely affected by this project, and while mitigation would likely be in the form of adding BMPs, the effect on tidewater gobies would likely be considerable.

Permitting Issues:

Federal and State agencies including the US Army Corps of Engineers (USACE), the California Department of Fish and Game (CDFG), and the Los Angeles Regional Water Quality Control Board (RWQCB) will require new authorizations for riprap relocation. The biggest issues would be with the USACE and their (1) requirement to conduct Section 7 (of the Endangered Species Act) Consultation with both the USFWS and NOAA for the listed species described above, and (2) potential issuance of an Individual Section 404 permit.

The Section 7 Consultation process would involve detailed descriptions for the fish and life histories, habitat requirements, details for the engineering, the rationale, including a detailed analysis for the need to conduct the project, a detailed analysis of all potential impacts, with data to support these analyses, and detailed information on the quantity of the impacts. If the analysis lacks the supporting evidence for the conclusions, such data would likely need to be ascertained by research. Once the USACE, via the applicant, has produced the Biological Assessment, the two federal agencies review the information as well as their own information about the species. A Biological Opinion by the USFWS and NOAA would be issued. If the Biological Opinion concludes that a direct or incidental "Take" is likely, the agencies would need to issue a permit, requiring an opportunity for public comment. The result is that the USFWS or NOAA may or may not issue a permit.

The USACE would likely require an Individual Section 404 permit, as impact to jurisdictional "waters of the US" that are greater than one-half acre in area or greater than 300 linear feet along a "water" does not meet the criteria for such projects. The process for issuing Individual Section 404 permits requires among other requirements is that a Section 404(b)(1) Alternatives Analysis be conducted. Section 404(b)(1) Alternatives Analysis requires examining alternatives to the

project, either the location or the implementation process, that result in less impact to waters of the US, but that achieve the purpose of the project. As the purpose of riprap is erosion control, this would likely be their major focus. If the USACE decides that a permit is eligible for issuance, they must issue the permit for the "least damaging alternative that meets the purpose of the project." The timeframe for the Consultation, Take permit, and Individual Section 404 permit would take a minimum of 1.5–2 years, with no guarantee of receiving permits at the end of that timeframe, given projects with similar requirements. However, if additional research is requested by any of the agencies, the timeframe could be much longer. State authorizations would take much shorter periods, although the RWQCB would likely not take actions until the USACE made a decision on whether to issue their permit.

References

Abramson, M. and M. Grimmer, 2005. Fish Migration Barrier Severity and Steelhead Habitat Quality in the Malibu Creek Watershed. Produced for California State Coastal Conservancy and

California Department of Parks and Recreation.
http://www.cityofcalabasas.com/pdf/documents/environmental-services/Steelhead-Barrier-and-Habitat-in-Malibu-Creek-Watershed-062305.pdf

Hunt, L. 2000. Evaluation of Biological Impacts of Bank Stabilization Project on Lower Malibu Creek, Los Angeles County, California. Prepared for Grant Adamson, Mariposa Land Company. 16 page.

Malibu Lagoon Restoration and Enhancement Plan, 2006. Final EIR.
http://www.parks.ca.gov/pages/980/files/000%20MMRP.pdf

National Marine Fisheries Service. 2007. 2007 Federal Recovery Outline for the Distinct Population Segment of South-Central California Coast Steelhead. http://swr.nmfs.noaa.gov/recovery/FINAL_2007_Recovery_Outline_for_the_DPS_of_South-Central_CA_Coast_Steelhead.pdf. 56pages

Laurence (Larry) N. Lodwick

Business Address: Impact Sciences, Inc.
803 Camarillo Springs Road, Suite A
Camarillo, California 93012
Phone (805) 437-1900
llodwick@impactsciences.com

Home Address: 6630 Webster, #293
Ventura, California
Phone (805) 760-7623
e-mail: llodwick@lodwick.com

Education: Baylor University, Waco, Texas M.S. 1975 (Biology)
Thesis Title: Net Aerial Primary Production of Three East Texas Peat Bogs.
Central Methodist College, Fayette, Missouri B.A. 1971
Major - Biology, Minor - Chemistry

Professional Experience

General:

Worked in the fields of wetland and riparian habitats, vegetation, and natural resources management since 1973, with experience in both the state agencies and the private sectors, in the western U.S. Experienced in natural resources mapping, species and habitat inventories, functional assessments, habitat management, and natural resources regulations.

Specific Experience:

February 2006-Present: Associate Principal;
January 2001 – December 2005: Senior Regulatory/Restoration Ecologist, Impact Sciences, Inc. 803 Camarillo Road, Suite A, Camarillo, California 93012
Supervisor: Daryl Koutnik

Project manager for the company's regulatory/restoration team of the biological division. Responsible for coordinating and mentoring up to five biologists involved in wetland and riparian delineation and regulatory work. Provides training programs for company personnel and for clients and engineering firms. Conducts wetland delineations, including delineations of streams and wetlands, utilizing state and federal regulatory agencies' protocols, in southern California. Maps and characterizes vegetation on project sites. Conducts species-specific habitat characterizations on clients' properties. Prepares and implements resource mitigation and management plans. Conducts surveys of sites and proposes mitigation measures to reduce overall impacts on habitat. Prepared Biological Assessments for Section 7 consultations regarding endangered *Astragalus* species, and implemented proposed mitigation on those species. Researched and prepared mitigation plans for projects involving the state rare species, Santa Susana Tarplants and silvery legless lizards and successfully implemented those plans.. Provides mitigation monitoring during land clearing and construction projects. Provides clients with information regarding federal, state, county, and municipal land-use regulations governing wetland projects, and fill requirements. Provides supervision and training for the biological division, and for other divisions of the company. Conducts mitigation planning for projects involving impacts to special-status species and wetland/streambed impacts. Preparation of California Environmental Quality Act documents and works on various EIR sections, as needed. Assists in editing biological studies prior to finalization.

November 1992 - December 2000: Senior Ecologist, The JD White Company, Inc., 1111 Main Street, Suite 300, Vancouver, Washington 98660.
Supervisor: John White (360) 696-1338
Acts as a project manager and a member of the company's environmental team. Has conducted over 250 wetland delineations, assessments, functional analyses, and mitigation plans for public agencies, industrial, commercial and residential clients of the planning and environmental services firm. Conducts wildlife surveys of sites and proposes mitigation measures to reduce overall impacts on habitat. Provides clients with information on federal, state, county, and municipal land-use regulations governing wetland projects, fills, and local buffer requirements. Provides supervision and training for wetlands and wildlife team and other members of the company. Plans mitigation for projects involving wetland impacts, including hydrologic enhancement, soil amendments and use and selection of native vegetation. Trained in the use of the Washington Department of Ecology's "Washington State Wetland Functional Assessment Methodology" (1998) for testing the methodology prior to adoption and served on the wetland assessment team for functional assessments for the development of Oregon Hydrogeomorphic Method for functional assessments. Preparation of State Environmental Projects Act documents and works on various EIS sections, as needed. Editing of company wetland and wildlife studies prior to submittal. Preparation of proposals and contracts for environmental studies.

September 1992 - October 1992: Independent Consulting Ecologist, Sedro-Woolley, Washington.
Wetlands consultant conducting delineations and assessments, and conducted environmental impact analyses of development projects. Developed mitigation plans for development sites. (Consultant to Sturdy Engineering Corporation and Skagit County, Washington Planning Department).

July 1991 - September 1992: Wetlands Ecologist, Sturdy Engineering Corporation, Sedro-Woolley, Washington.
Supervisor: Gary Sturdy
Conducted wetland delineations and assessments under both 1987 and 1989 methods in Skagit County, Washington, for a civil (environmental) engineering firm for land development and subdivision projects. Provides clients with information on federal, state, county, and municipal land-use regulations governing wetland projects, fills, and local buffer requirements. Plans mitigation for projects involving wetland impacts, wherever avoidance is not practical. Preparation of SEPA documents and works on various EIS sections, as appropriate. Environmental management and monitoring on projects as needed.
January 1991 - July 1991: Independent Consulting Ecologist, Santa Ana, California.
Conducted biological impact analyses, wetland delineations and assessments on projects in southern California. Impact analyses included mitigation planning and implementation strategies to be incorporated into overall project developments. (Consultant to Planning and Design Solutions, Inc.)

January 1990 - January 1991: Senior Ecologist, Planning and Design Solutions, Newport Beach, California.
Supervisor: Eric Ruby
Conducted biological and wetland impact analyses for various commercial, industrial, and residential development projects in southern California. Work included surveys of the flora, fauna, and endangered species and occurrence of critical habitat. Coordinated projects with local, state, and federal agencies for permitting purposes. Written reports on all aspects of the environmental surveys were prepared.

October 1986 - Present: Freelance and Stock Photographer
Specializing in wildlife, underwater, nature, outdoor, panoramic and landscape photography. Currently maintains approximately 20,000+ carefully edited photographs. Supplies photos to magazines, researchers and public. Regularly presents shows to various groups.

October 1986 - September 1987: Land Resources Coordinator, Lower Colorado River Authority, Austin, Texas.
Supervisor: Kirk Cowan
Employed as a natural resources biologist and land planner on lands owned by the river authority, a public utility district of the State of Texas. Developed land use plans and a soil and water conservation plan for the properties managed by the Parks and Lands Division. Directed and assisted with the implementation of the management programs in the field. Initiated prescribed burning program for utility lands. Worked with LCRA staff and Soil Conservation Service on public education of the soil and water conservation program on agricultural and park lands. Provided technical assistance of natural resources to personnel of the LCRA. Conducted environmental assessments of selected projects on LCRA properties.

September 1982 - October 1986: Ecologist II (Coastal Management and Section 401 Programs), Alaska Department of Environmental Conservation, Juneau, Alaska 99801.
Supervisor: Douglas Redburn
Served as Assistant Coordinator (Sept. 1982 - Feb. 1986) and Coordinator (Feb. 1986 - October 1986) of the coastal management and wetland policy programs for the Alaska Department of Environmental Conservation. Monitored and reviewed state-wide, regional, and local coastal management programs for compliance with State air, land, and water quality regulations and concerns, and provided assistance to the coastal districts to comply with the State's requirements. Served as the department's representative on the coastal management and permit reform interagency working groups, developing regulatory criteria and procedural guidance for the state agencies' development and permitting activities within the state's coastal region. Provided procedural guidance and assisted department staff concerning interpretation of local coastal management programs. Coordinated departmental actions on local plans with other state agencies. Responsible for the review and departmental response on proposed state, federal, and local regulations and land use and wetland programs involving coastal, state lands, and wetland issues. Managed EPA grant and consulting contract on state assumption of Section 404 responsibilities. Served on a working group to develop a wetlands management plan for the City of Juneau, Alaska. Coordinated activities of the personnel issuing the 401 certifications for wetland permits throughout the State of Alaska.

October 1973 - January 1982: Biologist II, Resource Management Section, Park Operations and Maintenance Branch, Texas Parks and Wildlife Department, 4200 Smith School Road, Austin, Texas.
Supervisor: David Riskind
Assistant to the head of the Resource Management Section, Park Operations Division. Responsible for the compilation of natural resource inventories for twenty-five state parks in the eastern part of Texas. Documented habitats and status of endangered and threatened species in the parks. Documented past and present land use practices on the properties and review proposed land uses as they would likely affect the resources of the parks. Prepared and implemented natural resource management programs for individual parks, including revegetation, prescription burning, and exotic species control. Assisted department personnel in developing specific revegetation, reforestation, and landscape plans in the parks. Conducted environmental assessments of projects proposed for parks and conducted surveys of

damage to park resources by various parties to assess damages. Prepared and responded to correspondence regarding natural resources of the state received from the public.

INSTRUCTION

Instructor for three-day courses entitled "Environmental Site Restoration/Mitigation, Creative Planning and Implementation Course ID: BIO-402" (2 Continuing Education Units), presented by the Northwest Environmental Training Center. taught in:
-Seattle Washington, June 25-27, 2008
-Oxnard California, October 1-3, 2008
-Sacramento California, March 24-26, 2009
-Portland, Oregon, April 8-10, 2009 (scheduled)
-Austin, Texas, April 15-17, 2009 (scheduled)

PUBLICATIONS

Lodwick, L.N. 1975. A Second Collection of *Psilotum nudum* from Texas. American Fern Journal. 65: 62

Amerson, P., L.N. Lodwick, and D.H. Riskind. 1975. The Incredible Orchid Family. Texas Parks and Wildlife Magazine 33(10): 16-20.

Lodwick, L.N. 1976. Vegetation Sampling for LANDSAT Data. Appendix B. In: Development and Application of Operational Techniques for the Inventory and Monitoring of Resources and Uses for the Texas Coastal Zone. Quarterly Report, Feb. 1976. Prepared by the Texas General Land Office, for the Goddard Space Flight Center, Greenbelt, Maryland.

Lodwick, L.N. 1976. The Big Thicket Bogs and Pineland Preserve. Texas Horizons 2(3): 7.

Lodwick, L.N. and D.H. Riskind. 1977. Landscape Maintenance and Management Program. In: Preservation Plan and Program for Washington-on-the-Brazos State Historic Park. pp. 79-85. Texas Parks and Wildlife Department, Austin, Texas.

Lodwick, L.N. and D.H. Riskind. 1978. Resource Management Program. In: Development Plan and Program for Hale Ranch State Park. pp. 142-147. Texas Parks and Wildlife Department, Austin, Texas.

Lodwick, L.N. and D.H. Riskind. 1978. Landscape Management Program. In: Preservation Plan and Program for Caddoan Mounds State Historic Site. pp. 64-67. Texas Parks and Wildlife Department, Austin, Texas.

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Wyatt, R. and L.N. Lodwick. 1981. Variation and Taxonomy of *Aesculus pavia* in Texas. Britonnia 33(1): 39-51.

Lodwick, L. and E.J. Ruby. 1990. Regional Wetland Mitigation Banking: Has Its Time Come? Association of Environmental Professional Statewide News. Summer 1990, p. 6. Association of Environmental Professionals. Sacramento, CA.

Lodwick, L.N. 1992. Featured Plant: *Gaultheria shallon* Pursh., Ericaceae (Heath Family). Newsletter of the Salal Chapter of the Washington Native Plant Society. Vol. 2(1): 3-4. Reprinted in Douglasia, Newsletter of the Washington Native Plant Society 16(2): 24.

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Lodwick, L.N. 1992. Generalized Plant Communities and Specific Community Descriptions. Newsletter of the Salal Chapter of the Washington Native Plant Society. Vol. 2(3): 6.

Lodwick, L. N. 2005. A U.S. Biologist's Observations on the Ecology of Cairns. Bull. Soc. Wetland Scientists. 22(4): 17-21.

PROFESSIONAL MEETING PARTICIPATION

2008 Headwaters to Oceans (H2O) Conference. October 28, 2008. Mitigation for Silvery Legless Lizards on a Coastal Site in Oxnard. Long Beach, California

2008 Headwaters to Oceans (H2O) Conference. October 30, 2008. Early Development of a Created Coastal Freshwater Wetlands Dependent on Groundwater. Long Beach, California

Association of Environmental Professionals, California State meeting. April 30, 2007. Paper: "Development of a sustainable coastal freshwater wetland for mitigation"

Society of Wetland Scientists, 27th International Congress. July 9–14, 2006. Paper: "Creating sustainable coastal freshwater wetlands in southern California required for mitigation."

Society of Wetland Scientists, 27th International Congress. July 9–14, 2006. Session Chair: Characteristics of created and natural wetlands.

Texas Council of Chapters of the Soil Conservation Society of America, June 19, 1987. Paper: "Today's Resource Management For Tomorrow's Needs."

Alaska: Regional Wetland Functions. Workshop held in Anchorage, Alaska, May 28-29, 1986. Invited Participant.

AFFILIATIONS

Society of Wetland Scientists. 1994 - Present

Daryl Koutnik
Managing Principal, Biology Group

Education
Bachelor of Arts, Mathematics and Biology, California State University, Northridge

Master of Science [illegible] Philosophy, Botany, [illegible] California, Davis

Dr. Koutnik has over 25 years of experience in biology and project management. He has directed, managed, and conducted plant and wildlife studies, biological resource inventories, sensitive species [illegible] biological [illegible] California.

Dr. Koutnik has a thorough understanding of the California Environmental Quality Act, having worked in and managed the [illegible] Los Angeles County Department of [illegible] He has managed more than 30 [illegible] impact reports within Los Angeles County, including residential, industrial, and educational developments.

Dr. Koutnik has broad knowledge of both state and federal Endangered Species Acts, and state and federal regulations involving biological resources. His biological expertise includes knowledge of biological and ecological relationships, with particular emphasis on habitat impact analysis, special-status plant species, and wildlife movement corridors. He has an exceptional knowledge of Southern California flora, and was an active participant in the drafting of the West Mojave Plan for multi-species habitat conservation.

Dr. Koutnik is a contributor to the *The Jepson Manual: Higher Plants of California* and *The Jepson Desert Manual*. He is recognized internationally as an expert on prostrate spurges and other members of the spurge family (Euphorbiaceae). He is co-author of the book *Cotyledon and Tylecodon*, published in 2004.

Representative Professional Experience

- Managed the preparation and certification of the EIR for a 13,000-acre Specific Plan area located near Magic Mountain Entertainment Center in Valencia, California. Environmental factors analyzed included: oak resource management per County of Los Angeles requirements, SEA stewardship for both the Santa Clara River and the Santa Susanna Mountains, and detailed water resource analysis in completing re-certification of the EIR. Coordinated all subsequent environmental reports through 2006, including individual residential and wastewater treatment development located within the Specific Plan area.

- Managed and coordinated the Significant Ecological Areas Technical Advisory Committee of Los Angeles County in implementing that jurisdiction's General Plan designated Significant Ecological Areas (SEAs).

IMPACT SCIENCES, INC.

- [illegible] County Environmental Review Board (ERB) for development proposed within the Coastal [illegible]

- [illegible]

- [illegible]

- [illegible] of the EIR for the replacement conditional use permit of the Sunshine Canyon Landfill near Los Angeles, California.

- Managed the preparation of the EIR for the 3,600-unit Northlake residential project in the community of Castaic, California.

- [illegible] Zone of the Santa Monica Mountains.

- Managed for the County of Los Angeles [illegible] certification of the EIR for the Cemex [illegible]

- Managed the preparation and certification [illegible] Waste Disposal materials recovery facility [illegible]

- Managed the preparation and certification [illegible] replacement [illegible] Landfill near Los Angeles, California.

- Managed the preparation of the EIR [illegible] residential project in the community of [illegible]

IMPACT SCIENCES, INC.

[illegible]

[illegible] Jaffe, PhD, PE
Project Manager

EDUCATION

Ph.D., Civil & Environmental Engineering
University of [illegible]
[illegible]

M.S., Civil & Environmental Engineering
University of [illegible]
[illegible]

M.S., Physical [illegible] Science
University of Southern Mississippi/Stennis Space Center
1996

B.A., Earth Science
Johns Hopkins University
1994

REGISTRATION

Professional Engineer/CA
2005/68321

Professional Engineer/AZ
2006/44318

YEARS OF EXPERIENCE

Joined Pacific in 2002
With others over 4 years

AFFILIATIONS

American Society of Civil Engineers (ASCE)

Floodplain Management Association (FMA)

[illegible] of Civil, Environmental, and Coastal Engineering [illegible]. His experience includes work with flood control [illegible] and floodplain [illegible] sampling, and [illegible]

[illegible] Creek, [illegible] Ranch, and River [illegible] Fluvial Studies – [illegible]
Dr [illegible] Creek, [illegible] (Santa Clara [illegible]) fluvial studies based on HEC-[illegible]. The studies provided a detailed and [illegible] evaluation of the hydrologic and hydraulic impacts from proposed development. General adjustment was based on ACOE SAM numerical modeling, established historical topographic [illegible] local scour was estimated [illegible] empirical analysis [illegible] criteria. The study was used to minimize project impacts and establish horizontal and vertical extents of protection measures, including bridge protection.

Pershing Creek Fluvial Study – Banning, CA
Dr Jaffe authored a technical study providing and evaluation of the fluvial characteristics and long-term stability of Pershing Creek in Banning, California. The proposed buried soil cement bank protection on both the north and south banks of the Creek is intended to provide long-term erosion protection from lateral migration of the bank and flood protection for the adjacent proposed development areas. Development on the Creek has the potential modify the fluvial mechanics of the Creek. The analysis evaluated impacts from build-out of developments from fluvial modifications of the creek bed from single hypothetical storm events and changes in the floodplain fluvial operation over the long-term. ACOE HEC-6T software was used to determine general adjustment, while long-term adjustment was estimated using AMAFCA methodology. Other scour components were estimated using empirical relationships. Revetment height was determined as was based on maximum freeboard and toedown requirements after Los Angeles County Hydrology Manual.

Lytle Creek Revetment – San Bernardino County, CA
As a Project Manager, Dr Jaffe assisted the design team in the acquisition of FEMA, SWRCB, and USACOE permits for construction of the improvements of the Lytle Creek associated with the development of TRACT 33334 in unincorporated San Bernardino County. Lytle Creek is located on a relic alluvial fan of the San Gabriel Mountains, which exhibit highly fractured rock, and produces a high yield of coarse sediment. The drainage area tributary to Lytle Creek at the apex is approximately 50 square miles and the fan slope is approximately 3 percent. The 100-yr design peak flow rate for the Lytle North bank improvements was 64,540 cfs. Dr. Jaffe assisted in the preparation of FEMA CLOMR and LOMR studies and applications, construction document processing, and resource agency permit acquisitions on behalf of Lennar Communities to construct the Lytle Creek improvements and remove the proposed 1,500 unit housing development from the 100-yr floodplain. The construction of this project is expected to be complete in 2009.

Guadalupe Dike No. 2 –La Quinta, CA
Dr. Jaffe developed, oversaw and performed the hydraulic and sediment transport analysis for Guadalupe Dike, La Quinta, California. The purpose [illegible] existing dike could be certified by FEMA [illegible] built in the late 1960's by the [illegible]. Hydrologic and hydraulic [illegible] method of French et al [illegible] modeling software. The purpose of this [illegible] year discharge that can be expected [illegible] provide [illegible] analyzed [illegible] potential for a [illegible] freeboard, and two-dimensional [illegible] of rip-rap is sufficient to meet design criteria based on flow velocity at the levee. Certification of the dike was given by FEMA, along with an updated FIRM in September, 2007.

Camarillo Lakes – Camarillo, CA
Dr. Jaffe oversaw the creation and directed the development of the two-dimensional numerical models for the study of shallow, overland flooding at the confluence of Calleguas and Conejo Creeks, Camarillo, California. Modeling included a representation of previous, detailed one-dimensional HEC-RAS models developed for the streams. The study expanded and detailed the limits of the published FEMA FIRM and accurately assessed the limits of the shallow flooding. Special attention was paid to develop an accurate representation of the confluence of the two streams and any subsequent, combined overland flow. The FLO-2D model was developed in several steps, which included: 1) determining the extent of the model grid based on previous HEC-RAS modeling and FEMA's floodplain boundary; 2) determining the model grid size, which is a function of the site-specific hydraulics and numerical modeling constraints; 3) assign model roughness values and other floodplain parameters based on recent aerial photography and site visits; 4) model assembly including channels, inflow and outflow locations, bridges, culverts and other model components; 5) initial model testing and analysis to correct any errors through modification of the model; and 6) final run and verification of the model. Model boundaries were chosen to eliminate any issues associated with the arbitrary location of the model boundary influencing the hydraulics, particularly at the stream confluence. In addition, boundary limits were developed to provide a detailed baseline model that can quantify changes to the downstream channel conditions as a result of proposed development.

Antonio Parkway / Ortega Highway / Cow Camp Road Bridges Scour Analysis – San Juan Capistrano, CA
A technical investigation was completed by Dr. Jaffe providing a detailed and focused evaluation of the fluvial characteristics and long-term stability of San Juan, Chiquita and Gobernadora Creeks at the Antonio Parkway, Ortega Highway, and Cow Camp Road Bridges, San Juan Capistrano, California. The investigation included a qualitative overview of the physical changes that have occurred on San Juan Creek during the period of record using historical aerial photographs, as well as analyses of meander migration based on geographic features and geomorphic planform characteristics readily discernible on aerial photographs and topographic maps. Five separate photographic techniques were employed. Channel hydraulics were modeled using ACOE HEC-RAS software, and both general and long-term adjustment was modeled using ACOE HEC-6T software. The long-term continuous simulation hydrograph was developed for the HEC-6T model using mean daily averaged gage date over the period of record. Other scour was determined in the study using FHWA HEC-18 procedures. Bridge and bank protection toe-down elevations were developed from the analysis.

[illegible] Ronnau, PhD, PE
Senior Project Engineer

EDUCATION

PhD Civil Engineering
University of Illinois at Urbana-Champaign

M.S. Engineering
California State University, [illegible]

B.A. Physics
University of California at Berkeley

REGISTRATION
Professional Engineer, CA [illegible]

YEARS OF EXPERIENCE
Joined PACE in 2005

AFFILIATIONS
American Society of Civil Engineers (ASCE)

Andrew Ronnau has extensive experience working with numerical and mathematical models for [illegible]. Andrew has a PhD in Civil Engineering, with an [illegible] channels, [illegible] detention [illegible], BMPs, and Master Drainage Plans. Andrew is proficient with the HEC-1, HEC-HMS, HEC-RAS, HEC-GeoRAS, AES, FLO-2D [illegible] software packages.

PROJECT EXPERIENCE

[illegible] BMP Design, Mira Loma, CA, TTM 33461
Dr. Ronnau was responsible for the onsite drainage hydrology and hydraulic design. [illegible] conditions, [illegible]. Dr. Ronnau was [illegible], and testified before the Mira Loma City Council to gain approval for the BMP design and placement in the adjacent city park.

Hydrology and Onsite Drainage, Belle Meadows, Riverside Co, CA
Dr. Ronnau performed offsite and onsite hydrology in the existing and developed condition to determine runoff impacts and need for possible mitigation measures. He was responsible for developing onsite drainage patterns for residential drainage design.

Channel and Culvert/Crossing Design, Evans Road Channel, Perris, CA
As part of the Perris Valley Area Drainage Plan, Dr. Ronnau was responsible for the Evans Road Channel hydraulic design. This design included determining channel shape, dimensions and transitions and culverts/crossings. Extremely flat terrain, coupled with high tailwater conditions, and tie-in requirements for the crossings from Evans Road to the adjacent residential tract provided a rigid set of design constraints. Using HEC-RAS, Dr. Ronnau performed extensive design iteration and modeling to create a design that satisfies all the required design objectives.

Master Drainage Plan, Copa De Oro, Kern County, CA
Dr. Ronnau performed the large scale offsite hydrology, using HEC-1, for the alluvial fan area near Lancaster, CA, where the Copa De Oro residential development and golf course will be built. He developed a flood protection system incorporating a system of channels to capture and convey flood flows safely through the development in satisfaction of Kern County and FEMA requirements. The analysis included a calculation of the sediment production and sediment yields that accompany the high flow rates in alluvial fans. Dr. Ronnau designed the channels to convey the peak flows and to disperse the flow at the project downstream border in the pre-development condition, thus eliminating hydraulic impact to downstream neighboring properties

Retention Basin Design, Enclave at La Quinta, La Quinta, CA
Dr. Ronnau was responsible for the design of the retention basin system for The Enclave at La Quinta. La Quinta requires onsite runoff to be retained, while offsite runoff may pass through the project site. Offsite and onsite runoff hydrographs were created using software, developed by Dr. Ronnau specifically for this project, to accommodate the relatively short lag times for the watersheds at The Enclave. He also performed a hydraulic analysis, routing the runoff hydrographs through the system of retention basins to determine the size and configuration of the basins that will provide the required level of stormwater retention.

Channel Bank Protection
Dr. Ronnau has performed [illegible] to the Whitewater River at Miles Crossing. A new commercial and [illegible] Whitewater River will necessitate channel improvements. Based on the [illegible] an improved channel configuration to provide flood protection for the [illegible] environmental impacts. Hydraulic modeling has [illegible] Construction documents for the improvements are [illegible] in 2010.

Detention Basin Hydraulics and Design, French Valley [illegible] 32186, French Valley, CA
Onsite hydrology was performed by Dr. Ronnau and a detailed hydraulic model was created to facilitate the hydraulic design of a system of detention [illegible] other structures necessary [illegible] also suggested a design [illegible] providing required stormwater [illegible]

Lytle Creek Levee / Revetment, San Bernardino County
As Project Engineer, Dr. Ronnau assisted the design team in the acquisition of FEMA, SWRCB, and USACOE permits for construction of the improvements of the Lytle Creek associated with the development of TRACT 33334 in unincorporated San Bernardino County. Lytle Creek is located on a relic alluvial fan of the San Gabriel Mountains, which exhibit highly fractured rock, and produces a high yield of coarse sediments. The drainage area [illegible] Lytle Creek at the apex is approximately 50 square miles and the fan slope is approximately 3 percent. The 100-yr design peak flowrate for the Lytle North bank improvements was 64,540 cfs. Dr. Ronnau assisted in the preparation of FEMA CLOMR and LOMR studies and applications, construction document processing, and resource agency permit acquisitions on behalf of Lennar Communities to construct the Lytle Creek improvements and remove the proposed 1,500 unit housing development from the 100-yr floodplain.

CPH Rosamond Project –Rosamond, CA
As the lead engineer, Dr. Ronnau performed the hydrologic and hydraulic analysis for the design study and CLOMR application package. GIS and HEC-1 were used to create a hydrologic model of the very large offsite watershed. A two-dimensional (FLO-2D) hydraulic model was used to analyze the alluvial floodplain flow at the project site to create a design concept which provides economical flood protection for the planned residential development. An integrated analysis and design approach was used, combining hydrologic (HEC-RAS), hydraulic (FLO-2D), GIS, and CAD, so that each aspect of the analysis and design could be performed with the most capable and appropriate tools available.

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April 6, 2009

California Coastal Commission
South Central Coast Area
89 South California St., Suite 200
Ventura, CA 93001
Via fax: (805) 641-1732

Re: Opposition to CDP Application No. 4-09-013 to permanently retain 500 linear feet of rock rip-rap revetment on Malibu Creek at 3728 Cross Creek Road

Dear Coastal Commissioners:

Heal the Bay has reviewed Application No. 4-09-013, submitted by the Mariposa Land Company, which requests permission to permanently retain approximately 500 linear feet of rock rip-rap revetment along the west bank of lower Malibu Creek. Heal the Bay urges the Coastal Commission to deny this application based on the detailed written comments we submitted on February 3, 2009 (Attachment A) and the concerns outlined below. The proposed project is in direct conflict with numerous policies in the California Coastal Act, as well as the City of Malibu's Local Coastal Program ("LCP"), as it will negatively affect habitat that is designated environmentally sensitive habitat area ("ESHA").

In our previous letter we raised concerns that the subject stream bank should be designated ESHA, and therefore the proposed project should be designed to provide the most ESHA protection. The staff report states that this concern is addressed in section B of the staff report, yet that section has not been updated since the previous staff report on application 04-98-024.

Malibu Creek is a USGS-designated blue-line stream, which constitutes ESHA. Malibu Creek and its riparian corridor are also designated as ESHA in the certified Malibu LCP. Section 30240 of the Coastal Act requires that both ESHA and ESHA buffers be protected from development and activities that cause degradation. Heal the Bay has found through our Stream Team mapping efforts that armored stream banks are one of three major causes of downstream bank erosion and sedimentation. In addition to the hardened stream bank, the proposed project also features permanent submerged rip-rap within Malibu Creek, which is also discordant with City of Malibu LCP and Coastal Act policies. Approval of a permanent hardened revetment in Malibu Creek and its buffer is inconsistent with the ESHA policies of the Coastal Act and the City of Malibu LCP, as it will cause further degradation of stream and riparian habitat in this area. Instead, we support a bioengineered solution, as it will be the most protective of the streambank, restore some floodplain connectivity and restore riparian vegetation.

Addendum Exhibit 2
4-09-013 (Mariposa)
Heal the Bay Letter

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We also stated in our February 3, 2009 letter that the grouted rip-rap at an upstream storm drain outlet and an adjacent fenced storage area are unpermitted and should be included in the scope of work for the subject permit. Staff responds in the current report that this development is, "is unrelated to the project proposed in the subject permit application and in a location that is outside the Commission's retained jurisdiction." Aerial photographs and planning document schematics demonstrate that this area is, in fact, on part of the project applicant's property, and is therefore subject to this permit (Attachments B and C). Furthermore, it is unclear how that area would be outside of the Commission's retained jurisdiction, as properties to the north, south, east and west of that property all fall within the Coastal Zone.

The staff report and proposed permit fail to address the emergency permit (Emergency CDP No. 4-98-024-G) and associated development, which has been unlawfully retained and contributed to water quality and habitat degradation in the Malibu Creek and Lagoon for the past 10 years. In addition, the permanent rip-rap proposed within this application will require regular maintenance and repair, which will further degrade habitat and water quality in the Malibu Creek and Lagoon. We urge the Commission to deny this permit application and recommend that a bioengineered solution be designed for this site. A soft bioengineered solution will be the most protective of the streambank, restore some floodplain connectivity and restore riparian vegetation. Moreover, a bioengineered solution is consistent with the Coastal Act and the City of Malibu LCP, and will be the most cost-effective long-term solution for stabilization at this site.

Sincerely,

Sarah Abramson Sikich
Coastal Resources Director

Heal the Bay

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Attachment A: February 3, 2009 Heal the Bay Letter to the Coastal Commission

February 3, 2009

California Coastal Commission
South Central Coast Area
89 South California St., Suite 200
Ventura, CA 93001
Via fax: (805) 641-1732

Re: Opposition to CDP Application No. 4-98-024 to permanently retain 500 linear feet of rock rip-rap revetment on Malibu Creek at 3728 Cross Creek Road

Dear Coastal Commissioners:

Heal the Bay has reviewed Application No. 4-98-024, submitted by the Mariposa Land Company, which requests permission to permanently retain approximately 500 linear feet of rock rip-rap revetment along the west bank of lower Malibu Creek. After thorough review, Heal the Bay urges the Coastal Commission to deny this application. The proposed project is in direct conflict with numerous policies in the California Coastal Act, as well as the City of Malibu's Local Coastal Program ("LCP"), as it will negatively affect habitat that is designated environmentally sensitive habitat area ("ESHA"). Additionally, we believe the methods presented for revegetation of the impacted riparian zone will not achieve the stated goal of restoring upland and riparian habitat and will further exacerbate erosion and sediment loading of the Malibu Creek and Lagoon. Due to the proximity of this site to the ecologically important Malibu Lagoon, an environmentally responsible long-term, "soft" bioengineered solution is needed.

As stated in the staff report, this application is based on a previously issued emergency permit (Emergency CDP No. 4-98-024-G) and development, which has been unlawfully retained for the past 10 years. This permit was granted for an emergency situation during an El Niño year and was never intended to help the applicant permanently harden this stretch of the lower Malibu Creek and avoid meeting the conditions of the Coastal Act. As stated in the staff report, to obtain a full Coastal Development Permit, an application must be within 60 days of issuance of the emergency permit; otherwise, the emergency work shall be removed within 150 days of the emergency permit date.

Heal the Bay's Stream Team has over 10 years of experience in research and restoration of native riparian and scrub habitats in the Malibu Creek Watershed. The Malibu Creek and Lagoon are sensitive habitats that face disturbance from water quality impairments, hardened stretches upstream in the

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creek, and other factors in the watershed. The Malibu Creek and Lagoon are listed on the Clean Water Act section 303(d) list of Impaired Water Bodies for sediment, bacteria, and nutrients. Efforts are currently underway by the California Coastal Conservancy and State Parks to restore the ecologically significant Malibu Lagoon based on a restoration plan Heal the Bay helped develop.

The Malibu Creek and lagoon also are home to important species. The Malibu Creek is listed by the National Oceanic and Atmospheric Administration as critical habitat for the southern California steelhead trout (*Oncorhynchus mykiss*), according to the Federal Register (Vol. 70, Number 170), and for tidewater goby (*Eucyclogobius newberryi*), according to Federal Register: January 31, 2008 (Volume 73, Number 21). Both of these species are federally listed as endangered.

Heal the Bay submitted a letter in 2005 to the City of Malibu opposing the Negative Declaration submitted for this project. We have provided that letter as an attachment, as most of our initial concerns are still valid and have not been adequately addressed in this application. We also address additional concerns, which are further detailed in this letter:

The following issues are of major concern to Heal the Bay in regards to the current application:

- The proposed project does not consider or has rejected environmentally superior alternative scenarios, as required by the City of Malibu LCP;
- The proposed project is in direct conflict with the California Coastal Act and City of Malibu LCP ESHA policies;
- The proposed project fails to address the fencing area, storage buildings, and the grouted rip-rap armoring directly upstream of the site, which contribute to stream bank erosion and habitat degradation;
- The streambank slope should be recontoured to better protect the area from further erosion; and
- The revised revegetation plan will not adequately restore upland and riparian habitat and it will exacerbate impacts from streambank hardening.

1. **<u>The proposed project does not consider or has rejected environmentally superior alternative scenarios, as required by the City of Malibu LCP.</u>**

The proposed project will have serious negative impacts to sensitive habitat areas designated as ESHA in the lower Malibu Creek system, including Malibu Lagoon. The presence of concrete rip-rap in the stream and riparian ecosystems negatively impacts and changes the stream's natural morphology, hydrologic balance, sediment regime, habitat provision, species composition, and natural chemical and biological processes.[1] A "soft" bioengineered solution, instead of one reliant on stream bank hardening,

[1] J. Craig Fischenich, 2003, "The Effects of Riprap on Riverine and Riparian Ecosystems" a report published by the US Army Corps of Engineers, Engineer Research and Development Center.

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would create less impact to ecologically sensitive features at the site and downstream, and has not been adequately proposed or assessed.

As we outlined in our previous letter (Discussion Point #2), the presence of rip-rap as a permanent measure to redesign the stream bank for flood control measures is not a workable long-term solution and will have significant negative impacts onsite and downstream. A "soft" bioengineered solution is not only preferable, but it is mandated in section 3.32 of the Malibu LCP (Discussion Point #5). As further discussed below, the proposed project does not adequately demonstrate the feasibility of a "soft" bioengineered solution at this site.

Relying on the hardening of a stream bank for bank stabilization, where there are feasible non-hardening alternatives, is inconsistent with Chapter 3, section 3.2 of the LCP, which states, "Channelizations or other substantial alterations of streams shall be prohibited except for...2) flood protection for existing development where there is no other feasible alternative,...Any channelization or stream alteration permitted for one of these three purposes shall minimize impacts to coastal resources..., and shall include maximum feasible mitigation measures to mitigate unavoidable impacts." The project applicant has failed to demonstrate that a bioengineered bank stabilization project is adequate at this site. A "soft" bioengineered solution would meet the project goals of protecting existing structures, flood control, and habitat protection, and it would be compliant with Coastal Act and LCP policies (see Discussion Point #3 in the attached letter).

For example, alternative #6 proposed in the staff report, which features the construction of a concrete floodwall and revegetation of creek bank, is a viable alternative that is consistent with Coastal Act and LCP policies. Rejection of this alternative was based largely on cost, which is not an adequate reason under the Coastal Act, especially considering the impacts of the preferred alternative to the Malibu Creek and Lagoon and its associated aquatic life, including the federally endangered southern steelhead trout, a state-listed threatened species, and the tidewater goby, which are detailed in the attached letter (Discussion Point #2). Alternative #6 was also rejected based upon the potential erosional effects this alternative "could" have at the stream bank; however, sufficient evidence supporting this conclusion was not provided in the staff report.

We urge you to deny this application and instead recommend the removal of the existing rip-rap paired with a "soft" or bioengineered solution to stabilize the stream bank (such as that provided in Alternative #6), as this approach is consistent with the Coastal Act and LCP. Implementing a bioengineered solution at the site will effectively restore native riparian and upland trees, shrubs, and other vegetative components of the riparian zone, while preventing additional erosional impacts and sediment loading downstream that are associated with hardened revetments.

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2. **The proposed project is in direct conflict with California Coastal Act and City of Malibu LCP ESHA policies**

The proposed project will result in further degradation to environmentally sensitive habitat area ("ESHA") at this location. Downstream scour and sediment loading from the existing rip-rap at this site already impact the lower Malibu Creek and Lagoon. The Malibu Creek is designated as ESHA. The staff report states that although Malibu Creek itself meets the definition of an ESHA, the disturbed west bank does not. We disagree with this conclusion. According to the Coastal Act and City of Malibu LCP, the west stream bank of lower Malibu Creek and the adjacent riparian buffer zone are designated and protected as ESHA. As such, it is the responsibility of the applicant and the Coastal Commission to ensure that this environmentally sensitive area is protected, according to law, and that impacts to this area and the contiguous areas of Malibu Creek and Malibu Lagoon are minimized and mitigated to the fullest extent possible.

According to the City of Malibu LCP the disturbed west bank should be considered ESHA. The City of Malibu Local Implementation Plan ("LIP"), Chapter 4.3.B.2, defines ESHA as, "Any habitat area that contributes to the viability of plant or animal species that are designated or are candidates for listing as rare, threatened, or endangered under State or Federal law." The Malibu Creek and Lagoon are critical habitat for the federal endangered southern steelhead and tidewater goby, and therefore, should be considered ESHA based on requirements under the LIP.

Furthermore, according to the City of Malibu Land Use Plan ("LUP"), lower Malibu Creek and its corresponding riparian area are considered part of ESHA. Section 3.1 of the LUP states, "The ESHAs in the City of Malibu are riparian areas, streams, native woodlands, native grasslands/savannas, chaparral, coastal sage scrub, dunes, bluffs, and wetlands, unless there is site-specific evidence that establishes that a habitat area is not especially valuable because of its special nature or role in the ecosystem." The area considered in the proposed project contains both stream and riparian habitat, and should be protected as ESHA under the LUP.

The project area is also mapped as ESHA in the City Malibu LCP. Section 3.6 of the LUP states "Any area mapped as ESHA shall not be deprived of protection as ESHA, as required by the policies and provisions of the LCP, on the basis that habitat has been illegally removed, degraded, or species that are rare or especially valuable because of their nature or role in an ecosystem have been eliminated." Coastal Commission staff contend in their report that, "Work will take place along a bank that has obviously been disturbed over the years, both by the erosive forces of Malibu Creek and by disturbance from adjacent development in the floodplain. As such, the subject bank is not considered ESHA." Under the LUP, degradation of habitat is not sufficient justification for loss of ESHA protections.

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Moreover, Section 30240 of the Coastal Act requires that both ESHA and ESHA buffers be protected from development and activities that cause degradation.[2] Armored stream banks are one of three major causes of downstream bank erosion and sedimentation, based on Heal the Bay's Stream Team mapping efforts in the Malibu Creek Watershed. In addition to the hardened stream bank, the proposed project also features permanent submerged rip-rap in Malibu Creek, which Coastal Commission staff already recognizes as ESHA since it is a blue-line stream. Approval of a permanent hardened revetment in Malibu Creek is inconsistent with the ESHA policies of the Coastal Act and the City of Malibu LCP, as it will cause further degradation of stream and riparian habitat in this area.

3. **The proposed project fails to address the fencing, storage buildings, and the grouted rip-rap armoring directly upstream of the site, which contribute to stream bank erosion and habitat degradation.**

The contribution of upstream fencing, storage buildings, and rip-rap armoring to stream bank erosion and habitat degradation was discussed extensively in our previous letter (Discussion Point #3, Discussion Point #5 e. Bullet 8), yet it is still not addressed in the current proposal. The cumulative effects of these structures, which are contiguous to the project area, on both flood control and habitat impairment, must be addressed in this proposal and staff report. As outlined in our previous letter, both the fencing and storage area were illegally built in the riparian buffer zone, on the subject parcel, upstream of the subject stretch of riprap. These structures, in combination with the proposed downstream rip-rap revetment, will contribute to further bank erosion, failure of the bank downstream, and sediment loading to the stream and lagoon. Finally, the combined negative effects of these structures on the project area make it impossible to correctly assess the actual impacts of the described alternatives, as they may contribute to the failure of any of the proposed alternatives. The applicant has a long history of violating the Coastal Act and even now, while requesting Coastal Commission approval, has neglected to to remove these structures and restore the area. The presence of these structures must be addressed and included in the design of an environmentally superior alternative, and the illegal structures (fencing and storage facilities) must be removed.

4. **The stream bank slope should be recontoured to better protect the area from further erosion.**

In a November 14, 2008 letter to the Coastal Commission, The California Department of Parks & Recreation (the owner and manager of downstream, impacted Malibu Lagoon State Park) recommends that a slope of 3:1 would be more suitable to habitat restoration at the site. However, under Special Condition #2, the staff report recommends recontouring the stream bank to a 2:1 slope. Insufficient

[2] California Coastal Act section 30240 (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (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.

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evidence is provided in the staff report to substantiate the effectiveness of recontouring at a 2:1 slope. We urge the Commission to deny this project, and instead recommend a solution that is consistent with the Department of Parks & Recreation recommendation, as this would better support rehabilitation of native riparian flora, while also helping to mitigate high velocity flow at the site, and thus onsite erosion.

Furthermore, more information is needed regarding the geotextile fabric proposed to be used in the stream bank stabilization effort. Although the use of a geotextile fabric filter might be necessary to prevent soil loss during revegetation efforts, the applicant does not describe what type of product will be used. We recommend that only biodegradable materials be considered for long-term placement, as the use of non-degradable plastic-based material could have negative impacts on the riparian floral and faunal communities, as well as to downstream recipients of possible degraded materials. The long-term placement of plastic-based materials would further hinder the growth of vegetation at the site. Plastic-based filter fabrics are designed for uses such as for placement under permeable concrete, and not for habitat restoration purposes. A full analysis of the material to be used on the slope would be needed to further address potential impacts to the ecosystem.

Moreover, depending on the material used for the geotextile fabric filter, it is possible that the filter fabric will create an artificial layer on top of the soil, under which plant and animal life will not be able to thrive. The high possibility of this effect is acknowledged in the applicant's restoration plan itself, where it is stated that holes will need to be cut in the filter fabric to accommodate the willow plantings.

5. **The revised revegetation plan will not adequately restore upland and riparian habitat and it will exacerbate impacts from stream bank hardening.**

The restoration goal within this project is "to create approximately 0.59 acres of riparian and upland habitat," however, the proposed restoration activities will simply not result in adequate habitat restoration. In the attached letter we address the faulty of design of the revegetation plan for this project (Discussion Point #4). We also find that the added revisions by Coastal Commission staff and per recommendations of scientists at Impact Scientists, do little to better the plan from an ecological viewpoint. For example, the plant list included in this application is limited to very few species. No habitat in Southern California consists of only nine species of plants, and we recommend more plant diversity be built into a proposed restoration at this site. Furthermore, the effects of disturbance to the rip-rap from the planted willows when they reach a mature size and overgrow the width of spacing between rip-rap blocks has not been addressed in the staff report. Heal the Bay's Stream Team has documented numerous rip-rap plantings that have failed throughout the watershed. Future concrete breakage and other impacts from mature willows associated with the proposed project should be considered in the staff analysis.

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Conclusion

Heal the Bay opposes this project and strongly urges the Coastal Commission to deny this application, which would result in the permanent hardening of the lower reach of the Malibu Creek. In fact, we have testified previously urging the Commission to move forward on enforcement actions against the applicant because of the egregious violations of the Coastal Act. Rather than moving forward on enforcement, Commission staff unconscionably went against the recommendations of State Parks, City of Malibu LCP policies and ESHA requirements to recommend a severely flawed streambank stabilization project. The application is not supported by sound ecology, and it is in direct conflict with the Coastal Act and City of Malibu LCP. The emergency rip-rap located at this site has detrimentally impacted the natural resources and water quality in the Malibu Creek and Lagoon for the past ten years. Approval of this project will have long-term negative impacts from stream bank erosion and sediment loading on the Malibu Creek and Lagoon and will potentially compromise future habitat restoration efforts in these areas. Significant financial investments have been made by the State Coastal Conservancy and the City of Malibu to improve water quality and enhance habitat at Malibu Lagoon and Surfrider Beach. Restoration of Malibu Lagoon, at considerable taxpayer expense, will begin soon and this project will likely negatively impact this restoration. As one of the few remaining coastal wetlands in Los Angeles County, it is critical that the Malibu Lagoon be protected and restored.

We urge the Commission to recommend a "soft" bioengineered solution at this location, which would restore riparian habitat and some floodplain connectivity in this region. Restoration is preferable to continued degradation. A "soft" bioengineered solution would also be more cost effective, as it would not require regular maintenance and repair. We appreciate the opportunity to comment on this staff report; please contact us if you have any questions.

Sincerely,

/s/	/s/	/s/
Allison J. Lipman, Ph.D.	Sarah Abramson Sikich	Mark Gold D.Env.
Stream Team Manager	Coastal Resources Director	President
Heal the Bay	Heal the Bay	Heal the Bay

Heal the Bay

1444 9th Street
Santa Monica CA 90401

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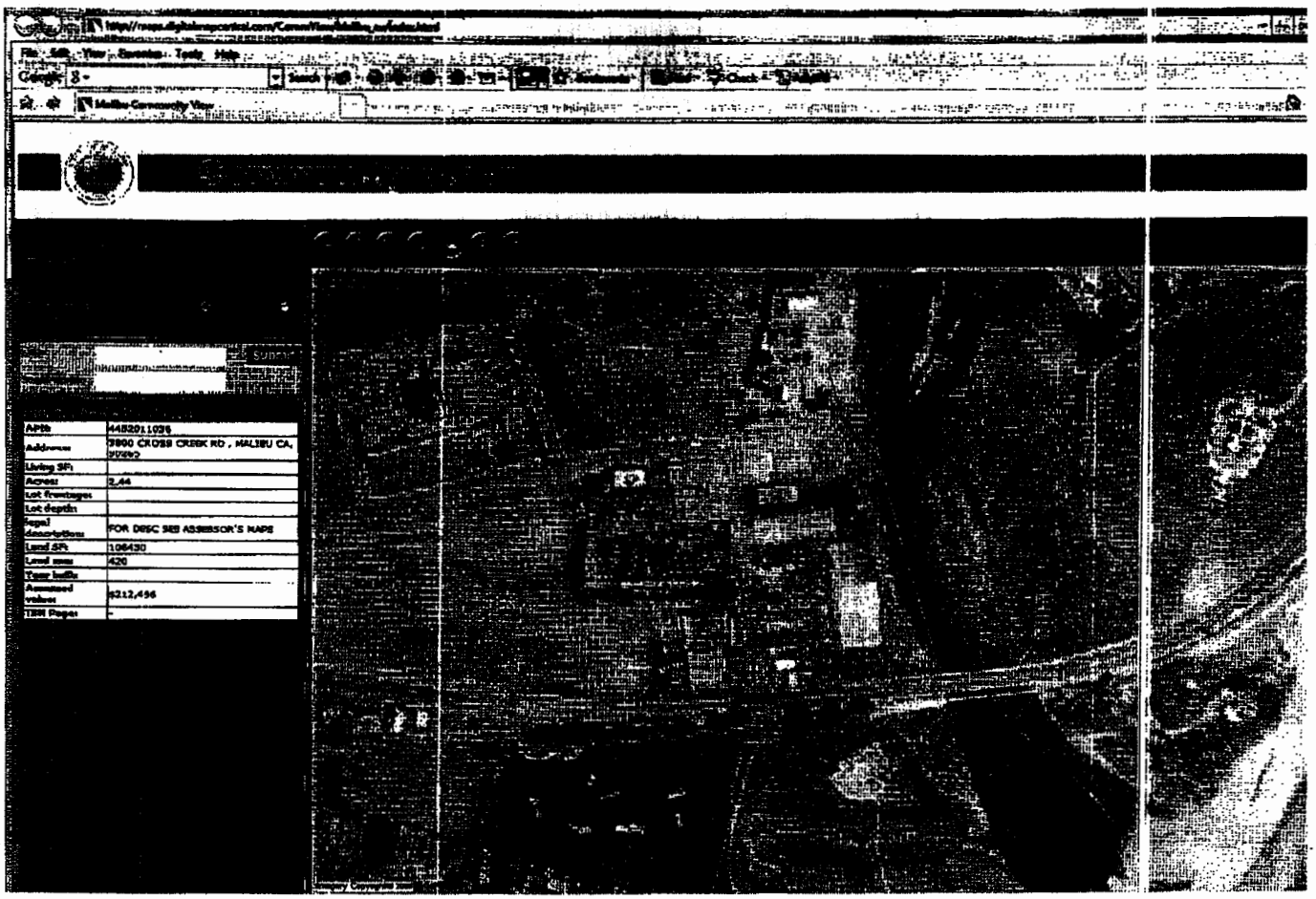
Attachment B: APN 4452011036 Documents the entire parcel area of ~900 feet, not just the 500 f..
proposed in CDP Application No. 4-09-013



Heal the Bay

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Attachment C: Upper Mariposa Land Company Parcel documenting upstream rip-rap and storage buildings not considered in this application

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 585-1800

Th 9c

Filed:	2/2/09
180th Day:	8/1/09
Staff:	D. Christensen
Staff Report:	3/19/09
Hearing Date:	4/9/09

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-09-013

APPLICANT: Mariposa Land Company

PROJECT LOCATION: 3728 Cross Creek Road, City of Malibu, Los Angeles County

ASSESSOR PARCEL #: 4452-011-036

PROJECT DESCRIPTION: Follow-up to Emergency Coastal Development Permit No. 4-98-024-G for placement of rock rip-rap revetment along an approximately 500 foot long section of the west bank of lower Malibu Creek. The proposed project also includes revegetation of the revetment site to create approximately 0.59 acres of riparian and upland habitat.

MOTION & RESOLUTION: Page 3

SUMMARY OF STAFF RECOMMENDATION

Staff recommends **APPROVAL** of CDP No. 4-09-013 with **thirteen (13) special conditions** relating to assumption of risk, revised bank protection plans, revised revegetation plans, revegetation implementation and monitoring, construction timing and best management practices, dewatering plan, aquatic species protection, required approvals, future alterations, deed restriction, site inspection, condition compliance, and State Parks permission. The proposed project area lies within the City of Malibu, but falls within the Commission's area of retained original permit jurisdiction because development is proposed on lands that are below the mean high tide line and/or on public trust lands. The standard of review for the project is the Chapter 3 policies of the Coastal Act. In addition, the policies of the certified Malibu Local Coastal Program (LCP) serve as guidance.

The applicant is requesting authorization to permanently retain approximately 500 linear feet of rock rip-rap revetment that was installed along the west bank of lower Malibu Creek to protect an existing commercial development from flood waters pursuant to Emergency CDP No. 4-98-024-G. The revetment consists of 1,500 tons of 0.5 to 8-ton granite boulders placed at approximately 1:1 to 1.5:1 (H:V) slope and 14-16 feet in height (2-4 foot toe below stream bed). The applicant is also proposing to revegetate the revetment site by inserting willow bundles among spaces in the rock rip-rap and to plant the slope above the revetment with riparian plant species.

Continued on next page

In past permit actions concerning rock rip-rap in streams, the Commission has approved such development only where there is no feasible alternative to protect existing development and where revegetation with willows and other riparian species is incorporated into the actual construction. Given that the un-engineered revetment proposed here was not designed to accommodate plantings and was constructed at a very steep angle, it is not assured that the applicant's proposed revegetation will ensure that water quality, stability, scenic quality, and habitat value of the bank are all protected, consistent with the requirements of Chapter 3. It has not been demonstrated that the proposed project is the least environmentally damaging alternative or that it is sited and designed to be consistent with the Chapter 3 requirements for protection of habitat and scenic values of the riparian stream corridor of Malibu Creek.

However, an alternative has been identified that would function to adequately protect existing development in the floodplain as well as render the project consistent with the Chapter 3 protections for Malibu Creek ESHA, water quality, and visual resources. If the proposed project were revised, pursuant to the recommended special conditions, to re-construct the rock slope protection at a less steep slope in conjunction with incorporating filter fabric and willow stakes into the reconstructed rip rap design, the proposed project can be found consistent with Section 30230, 30231, 30236, 30251, 30253, and 30240 of the Coastal Act and the relevant policies of the Malibu LCP, which the Commission uses as guidance.

SUBSTANTIVE FILE DOCUMENTS: Certified City of Malibu LCP; City of Malibu Approval-in-Concept, dated June 28, 2007; Emergency Coastal Development Permit No. 4-98-024-G (Mariposa Land Company); U.S. Army Corps of Engineers Regional General Permit No. 98-00315-AOA for emergency placement of rip-rap revetment, issued February 13, 1998; U.S. Army Corps of Engineers Jurisdictional Determination letter for the proposed vegetation restoration plan, dated March 6, 2008; Notification of Emergency Streambed Alteration Work for revetment sent to California Department of Fish & Game February 19, 1998 (no agency response); California Department of Fish & Game letter stating statutory deadline had lapsed to issue an agreement regarding Streambed Alteration Notification No. 1600-2005-0503-R5 (vegetation restoration plan), dated January 13, 2008; "Emergency Regional General Permit No. 52," Regional Water Quality Control Board, Los Angeles Region; "City of Malibu Initial Study 03-003 and Mitigated Negative Declaration 04-002, dated July 7, 2005; "Lower Malibu Creek and Lagoon Resource Enhancement and Management Plan," by Richard Ambrose and Anthony Orme, dated May 2000; "Preliminary Engineering Design Study for Lower Malibu Creek Emergency Revetment," prepared by Pacific Advanced Civil Engineering Inc. (PACE), dated March 28, 2006; "Addendum to the Preliminary Engineering Design Study for Lower Malibu Creek Emergency Revetment," prepared by PACE, dated May 25, 2007; "Response to Comments" Memo, by PACE, dated October 18, 2007; "Evaluation of Biological Impacts of Bank Stabilization Project," prepared by Hunt & Associates Consulting Biologists, dated September 5, 2000; "Floodplain Analysis for Rock Levee along Malibu Creek," prepared by Land Design Consultants Inc., dated September 23, 1998; "Vegetation Restoration Plan,", prepared by Impact Sciences Inc., dated August 2007; January 9, 2009 Letter from Impacts Sciences, Inc. Regarding Modification to the "Vegetation Restoration Plan"; Riprap Installation Letter by Roy Brothers' Drilling Company, dated January 7, 2009; Memorandum by Commission Ecologist Dr. Jonna Engel, dated January 9, 2009; Memorandum by Commission Coastal Engineer Lesley Ewing, dated January 7, 2009.

I. JURISDICTION AND STANDARD OF REVIEW

The proposed project area lies within the City of Malibu, but falls within the Commission's area of retained original permit jurisdiction because development is proposed on lands that are below the mean high tide line and/or on public trust lands. The standard of review for the project is the Chapter 3 policies of the Coastal Act. In addition, the policies of the certified Malibu Local Coastal Program (LCP) serve as guidance.

II. STAFF RECOMMENDATION

MOTION: ***I move that the Commission approve Coastal Development Permit No. 4-09-013 pursuant to the staff recommendation.***

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the 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 THE PERMIT:

The Commission hereby approves Coastal Development Permit No. 4-09-013 for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the 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 further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

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

4. 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.

5. 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.

IV. SPECIAL CONDITIONS

1. Assumption of Risk

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from erosion and flooding; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) 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 costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

2. Revised Bank Protection Plans

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, two (2) sets of revised rock slope protection/grading plans with representative cross-sections. The plans shall be prepared and stamped by a registered engineer. The revised plans shall demonstrate the following:

1. That the rock slope protection has been re-engineered to be laid back to a slope no steeper than 2:1 (H:V). However, the toe of the slope protection shall not extend further into the creek than currently exists. If determined feasible, the footing portion of the rock slope protection may remain in place and only the upper portion of the rock shall be laid back to a slope no steeper than 2:1.

2. That geotextile filter fabric (biodegradable, non-plastic) and live willow stakes are incorporated into the re-engineered rock slope protection during construction, consistent with the Revised Revegetation Plan required as part of **Special Condition No. 3** below.

The permittee shall undertake the development in accordance with the final approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the plans shall occur without a Coastal Commission approved

amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

3. Revised Revegetation Plan

Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, a revised "Vegetation Restoration Plan," that incorporates the following changes.

1. The "Vegetation Restoration Plan" (by Impact Sciences Inc., dated 8/2007 and amended 1/2009) shall be revised pursuant to the approved rock slope protection plan required by **Special Condition 2** above. The revised plan shall indicate that geotextile filter fabric with holes for willow plantings will be placed on the graded slope of the bank prior to rock placement to stabilize the soil. As the rock revetment is being installed, live willow stakes shall be inserted among the voids, making sure the stakes penetrate the fabric filter and underlying soil. Interstitial spaces in the rip rap shall be partially filled with a fine gravel, sand, and soil combination. In addition, mugwort (*Artemisia douglasiana*) and yerba mansa (*Anemopsis californica*) shall be added to the plant palatte for revegetation of the revetment.

The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

4. Revegetation Implementation and Monitoring

By acceptance of this permit, the applicant agrees to implement the approved "Vegetation Restoration Plan" (Impact Sciences Inc.) that is revised per Special Condition No. 3 above. The plan shall be carried out under the direction of qualified biologist or resource specialist. Successful site restoration shall be determined if the revegetation of native plant species on site is adequate to provide 90% coverage by the end of the five (5) year monitoring period and is able to survive without additional outside inputs, such as supplemental irrigation.

The applicant shall submit, upon completion of the initial planting, a written report prepared by a qualified resource specialist, for the review and approval of the Executive Director, documenting the completion of the initial planting/revegetation work. This report shall also include photographs taken from pre-designated sites (annotated to a copy of the site plans) documenting the completion of the initial planting/revegetation work.

Five years from the initial planting completion date, the applicant shall submit for the review and approval of the Executive Director, a Revegetation Monitoring Report, prepared by a qualified biologist or resource specialist, that certifies whether the on-site revegetation is in conformance with the revegetation plan approved pursuant to Special Condition 3 and has been implemented consistent with, and restoration has been

successful as defined by, this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the monitoring report indicates the revegetation is not in conformance with or has failed to meet the performance standards specified in this condition or in the revegetation plan approved pursuant to this permit, the applicant, or successors in interest, shall submit a revised or supplemental revegetation plan for the review and approval of the Executive Director. The revised revegetation plan must be prepared by a qualified biologist or resource specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan. The approved revised revegetation plan shall then be immediately implemented.

5. Construction Timing and Best Management Practices

The permittee shall comply with the following construction-related requirements:

a. Grading and rock slope protection work shall take place only during the dry season (April 1 – October 31). This period may be extended for a limited period of time if the situation warrants such a limited extension, if approved by the Executive Director. If the approved project requires construction dewatering or work within the waters of Malibu Creek, then work shall also be confined to the months of April and May to the extent feasible, which is the estimated non-breeding period of tidewater gobies and non-migration period of steelhead trout.

b. No demolition or construction materials, debris, or waste shall be placed or stored where it may enter sensitive habitat, receiving waters or a storm drain, or be subject to wave, wind, rain, or tidal erosion and dispersion.

c. No demolition or construction equipment, materials, or activity shall be placed in or occur in any location that would result in impacts to environmentally sensitive habitat areas, streams, wetlands or their buffers.

d. Any and all debris resulting from demolition or construction activities shall be removed from the project site within 24 hours of completion of the project.

e. Demolition or construction debris and sediment shall be removed from work areas each day that demolition or construction occurs to prevent the accumulation of sediment and other debris that may be discharged into coastal waters.

f. All trash and debris shall be disposed in the proper trash and recycling receptacles at the end of every construction day.

g. The applicant shall provide adequate disposal facilities for solid waste, including excess concrete, produced during demolition or construction.

h. Debris shall be disposed of at a legal disposal site or recycled at a recycling facility. If the disposal site is located in the coastal zone, a coastal development permit or an amendment to this permit shall be required before disposal can take place unless the Executive Director determines that no amendment or new permit is legally required.

i. All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil.

j. Machinery and equipment shall be maintained and washed in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems.

k. The discharge of any hazardous materials into any receiving waters shall be prohibited.

l. Spill prevention and control measures shall be implemented to ensure the proper handling and storage of petroleum products and other construction materials. Measures shall include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent any spillage of gasoline or related petroleum products or contact with runoff. The area shall be located as far away from the receiving waters and storm drain inlets as possible.

m. Best Management Practices (BMPs) and Good Housekeeping Practices (GHPs) designed to prevent spillage and/or runoff of demolition or construction-related materials, and to contain sediment or contaminants associated with demolition or construction activity, shall be implemented prior to the on-set of such activity.

n. All BMPs shall be maintained in a functional condition throughout the duration of construction activity.

o. Silt screens, filter fabric covers, coffer damming, silt curtains, and/or other dewatering method appropriate for use in estuary and intertidal setting applications shall be installed at the toe of the slope and around the perimeter of the area to be graded prior to the initiation of the grading activities and shall be maintained throughout project construction to minimize erosion and sediment from runoff waters during construction. Additional siltation barrier materials shall be kept at the site and deployed as needed to reinforce sediment containment structures should unseasonable rainfall occur. All sediment shall be retained on-site unless removed to an appropriate approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill.

6. Dewatering Plan

If it is determined that construction dewatering is required to reconstruct the rock slope protection, ***prior to issuance of the Coastal Development Permit***, the applicant shall submit a dewatering plan to the Executive Director for review and approval, and evidence that the dewatering plan has been approved by the Regional Water Quality Control Board, California Department of Fish and Game, and California Department of Parks and Recreation, or evidence that any such approval is not necessary. The dewatering plan shall detail the provisions and Best Management Practices that will be used for the diversion and/or removal of water within the construction site, and indicate the location, size, and details of all dewatering devices that will be utilized. The plan shall also detail the location, size, and capacity of the settling basin utilized to remove sediments prior to the discharge of water.

The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

7. Aquatic Species Protection

By acceptance of this permit, the applicant agrees to retain the services of a qualified aquatic species specialist to implement the following aquatic species protection measures if the approved project requires construction dewatering or work within the waters of Malibu Creek:

1. The qualified resource specialist shall survey for sensitive aquatic species (tidewater gobies and steelhead trout) within 100 feet of the project area prior to commencement of construction site dewatering work. If sensitive aquatic species are present, the qualified resource specialist and a crew working under his/her direction shall move, by hand, sensitive species from the area to be dewatered to safe locations elsewhere along the reach of Malibu Creek.

2. The qualified resource specialist shall inspect the dewatered areas and construction site regularly to detect whether any tidewater gobies or other fish are passing through the cofferdam/silt curtain and investigate whether tidewater goby protection measures are being implemented.

3. The qualified resource specialist shall be present when the cofferdams are removed and the construction area refilled with water to relocate any fish present in the construction area before completion of removal operations and to ensure successful reintroduction of aquatic habitat in the construction area.

4. The applicant shall cease work should the qualified resource specialist determine that any breach in permit compliance has occurred, or if any unforeseen sensitive habitat issues arise. If the Executive Director determines that significant impacts or damage have occurred to sensitive habitats or to wildlife species, the Executive Director may require the applicant to revise the project to adequately mitigate such impacts, which shall be processed as an amendment to this coastal development permit or a new coastal development permit.

8. Required Approvals

By acceptance of this permit, the applicant agrees to obtain all other Local, State, and/or Federal permits that may be necessary for all aspects of the approved project (including any necessary permits from the City of Malibu, California Department of Fish and Game, Regional Water Quality Control Board, and the U.S. Army Corps of Engineers).

9. Maintenance Activities and Future Alterations

The permittee shall maintain the permitted bank protection in its approved state. Any change in the design of the project or future additions/reinforcement of the approved structure beyond exempt maintenance as defined in Public Resources Code section 30610(d) and Section 13252 of Title 14 of the California Code of Regulations to restore the structure to its original condition as approved herein will require a coastal development permit. However, if (after inspection) it is apparent that repair and maintenance is necessary, the permittee shall contact the Executive Director to determine whether a coastal development permit or an amendment to this permit is legally required, and, if required, shall subsequently apply for a coastal development permit or permit amendment for the required maintenance.

10. Deed Restriction

Prior to issuance of the Coastal Development Permit, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

11. Site Inspection

A. By acceptance of this permit, the applicant irrevocably authorizes, on behalf of itself and its successors-in-interest with respect to the subject property, Coastal Commission staff and its designated agents to enter onto the property to undertake site inspections for the purpose of monitoring compliance with the permit, including the special conditions set forth herein, and to document their findings (including, but not limited to, by taking notes, photographs, or video), subject to Commission staff providing 24 hours advanced notice to the contact person indicated pursuant to paragraph B prior to entering the property, unless there is an imminent threat to coastal resources, in which case such notice is not required. If two attempts to reach the contact person by telephone are unsuccessful, the requirement to provide 24 hour notice can be satisfied by voicemail, email, or facsimile sent 24 hours in advance or by a letter mailed three business days prior to the inspection. Consistent with this authorization, the applicant and its successors: (1) shall not interfere with such inspection/monitoring activities and (2) shall provide any documents requested

by the Commission staff or its designated agents that are relevant to the determination of compliance with the terms of this permit.

B. ***Prior to issuance of the Coastal Development Permit***, the applicant shall submit to Commission staff the email address and fax number, if available, and the address and phone number of a contact person authorized to receive the Commission's notice of the site inspections allowed by this special condition. The applicant is responsible for updating this contact information, and the Commission is entitled to rely on the last contact information provided to it by the applicant.

12. Condition Compliance

Within 90 days of Commission action on this coastal development permit application, or within such time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions Chapter 9 of the Coastal Act.

13. California Department of Parks & Recreation Permission

Prior to issuance of the Coastal Development Permit, the applicant shall provide to the Executive Director evidence that California State Parks has granted permission to undertake the portion of the project that is on State Parks property, or evidence that no permission is required.

V. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. PROJECT DESCRIPTION AND BACKGROUND

Background

On February 20, 1998, the Executive Director authorized Emergency Coastal Development Permit No. 4-98-024-G. The permit authorized Mariposa Land Company (Grant Adamson) to place approximately 500 linear feet of rock rip-rap revetment along the west bank of lower Malibu Creek, about 300 feet upstream of the Pacific Coast Highway bridge. The revetment consists of 1,500 tons of 0.5 to 8-ton granite boulders placed at approximately 1:1 to 1.5:1 (H:V) slope and 14-16 feet in height (2-4 foot toe below stream bed). The contractor who installed the rock used a backhoe to cut back the eroded vertical bank slope and notched a key at the toe of the slope to allow for a stable base surface for the rock. Rocks were then placed individually with the backhoe, starting at the key, and working upwards in sections. In the several months following the initial installation, boulders were adjusted and additional rocks were added to enhance the stability of the emergency revetment.

In the application for Emergency Permit 4-98-024-G, the applicant stated that the revetment was necessary to protect the subject property and an adjacent commercial

development from further severe stream bank erosion in the face of potential continuing winter storms. Prior to placement of the revetment, approximately 20 feet of lateral erosion occurred along the subject stretch of creek bank following significant storm flows in February 1998. Conditions of approval of Emergency CDP No. 4-98-024-G required the applicant to apply for a regular CDP within 60 days in order to seek permanent authorization for the emergency work, and that the regular CDP application was to include an analysis of stream bank protection alternatives prepared by a qualified engineer (**Exhibit 10**).

On June 3, 1998, Mariposa Land Co. submitted a regular CDP application (No. 4-98-024) requesting permanent authorization for the rock rip-rap revetment that was installed under the emergency permit. However, the CDP application did not contain enough information to deem the application "complete" under the applicable regulations, and Commission staff sent the applicant an "incomplete" letter on June 24, 1998, outlining the needed application items. Additional information was not received from the applicant until July 2000. However, again, not all of the information requested in staff's 1998 letter was included. Commission staff sent a follow-up letter in September 2000 outlining the outstanding items. Over the next eight years the applicant submitted portions of the requested application items and numerous contacts were made by Commission staff to the applicant attempting to obtain the necessary information, particularly in regards to an engineering analysis of alternatives. In July 2006 and June 2007, the applicant provided an engineering design study/alternatives analysis for the proposed project. And in October 2007, the applicant revised the proposed project description to include planting of the rip-rap stream bank and top of bank with riparian and upland species, and submitted a "Vegetation Restoration Plan", prepared by Impact Sciences, Inc.

On May 21, 2008, the CDP application was deemed complete, and Commission staff tentatively scheduled the application for the Commission's November, 2008 hearing. In August 2008, it was brought to the attention of Commission staff that the as-built project plans submitted by the applicant and analyzed by their engineer were not based upon a detailed survey and therefore are not a reliable depiction of the actual configuration of the rip-rap slope across the project area. Commission staff requested the applicant provide accurate, detailed surveyed plans of the proposed project, prepared by a licensed land surveyor, to facilitate staff's analysis of the as-built project. The applicant provided staff with surveyed plans on October 10, 2008.

Application No. 4-98-024 was filed on May 21, 2008, and would have had to have been acted on by the Commission at its November 2008 meeting in order to comply with the Permit Streamlining Act (PSA). However, in order to allow staff adequate time to analyze the recently submitted surveyed as-built plans, the applicant extended the Commission's review time by 90 days. The application was then scheduled for the February 4, 2009 Commission hearing and a staff report was circulated on January 22, 2009. The February hearing was the last hearing the Commission could act upon the application before the 270th day PSA deadline. Therefore, since the applicant found they needed more time to respond to the January 22, 2009 staff report, the applicant withdrew permit application No. 4-98-024 two days before the scheduled hearing and re-submitted it as a new application. The re-submitted application is identical to the previous application, but it was

assigned a new permit number (4-09-013) and filed on February 2, 2009. As of the date of this staff report, staff has not received any correspondence from the applicant.

Environmental Setting

The Malibu Creek watershed covers approximately 110 square miles. It is the second largest watershed draining into Santa Monica Bay and the largest draining from the Santa Monica Mountains. Lower Malibu Creek watershed includes the steep and rugged Malibu Canyon, which cuts through the central axis of the Santa Monica Mountains. Downstream of Malibu Canyon the watershed emerges onto a coastal plain where channel slopes and flow velocities reduce and the Malibu Creek fluvial system begins to transition to a coastal estuarine lagoon system. Malibu Lagoon is a 31-acre shallow embayment at the terminus of Malibu Creek that empties into the Pacific Ocean at Surfrider Beach. However, depending on hydrologic conditions of the estuary system, the mouth of the lagoon may either be "open" with no barrier beach, or "closed" by the presence of a barrier beach and lack of tidal inlet channel. When the lagoon is closed, the water level in the subject reach of creek ranges between 6 and 7 feet in depth.

Malibu Creek and its estuary provide habitat for a diversity of wildlife, including waterfowl, shorebirds, wading birds, songbirds, and raptors. A smaller number of mammals, amphibians and reptiles also inhabit the area. The significant species of fish that are known to utilize lower Malibu Creek are southern steelhead trout (*Oncorhynchus mykiss*), a state-listed threatened species, and tidewater goby (*Eucyclogobius newberryi*), federally listed as endangered and a California species-of-special-concern.

The subject 500 linear foot section of the west bank of lower Malibu Creek is situated along a westward meander cut bank approximately 300 feet upstream from the Pacific Coast Highway bridge and Malibu Lagoon (**Exhibits 1-3**). The project site is located on a narrow, relatively flat, 2.5-acre strip of vacant land owned by the applicant that is bound by a commercial shopping center development to the west and Malibu Creek to the east (**Exhibit 2**). The site is located within the 100-year floodplain for Malibu Creek, as designated by the Federal Emergency Management Agency (FEMA). Prior to severe storm erosion and subsequent placement of the proposed rip rap revetment on the property in the late 1990's, the subject stretch of creek bank was primarily disturbed and did not possess a well-developed riparian canopy due to its close proximity to a commercial shopping center and Pacific Coast Highway. Currently, the subject bank and rip rap is largely devoid of vegetation, with the exception of a small amount of arroyo willow at the northern end of the revetment and a small amount of mulefat at the southern end. The upland area above the revetment is dominated by weeds and non-native annual grasses. A footpath also exists on the upland area above the revetment. The width between the top of revetment and the fence/wall that delineates edge of shopping center parking lot varies between 18 feet and 60 feet (**Exhibits 3-4**).

Lower Malibu Creek in the project vicinity has changed significantly over time according to historic aerial photographs dating back to 1932. Stream flows had historically been confined to a rather straight channel leading up to the Pacific Coast Highway bridge, since much of the floodplain was in agricultural production, particularly the west side of the creek. In the 1960's, a shopping center was built in close proximity to the subject

stretch of the west bank. An old rip rap revetment that extends along the west creek bank at least a thousand feet upstream from the Pacific Coast Highway bridge is evident in a 1972 aerial photograph. It appears this old revetment was constructed to protect the adjacent shopping center prior to 1972. The sinuosity of the lower Malibu Creek stream channel increased substantially between 1976 and 1985, which increasingly directed flows against the west bank in the project location. By 1998, it appears that most of the old rip rap revetment had fallen away due to changes in channel morphology. However, there still exists some grouted rip rap on either side of a storm drain outlet located on an adjacent parcel approximately 100 feet north of the proposed rip rap revetment. A canopy of healthy riparian vegetation is growing on the bank above the grouted rip rap section. The storm drain and grouted rip rap were installed by Los Angeles County Flood Control District in the 1970's. Although this grouted rip rap is connected to the stretch of proposed rip rap, it is not a part of the subject permit application since it is located on an adjacent parcel under separate ownership and appears to have been constructed prior to the Coastal Act. However, according to the applicant's site plan, it appears a small portion of the proposed rip rap is located on an adjacent parcel owned by California Department of Parks & Recreation (4452-011-903). As such, **Special Condition No. Thirteen (13)** is required to ensure that State Parks permission is obtained prior to issuance of the permit.

Description of Proposed Project

The applicant is requesting authorization to permanently retain in its "as-built" condition approximately 500 linear feet of rock rip-rap revetment that was installed along the west bank of lower Malibu Creek to protect an existing commercial development from flood waters pursuant to Emergency CDP No. 4-98-024-G. The revetment consists of 1,500 tons of 0.5 to 8-ton granite boulders placed at approximately 1:1 to 1.5:1 (H:V) slope and 14-16 feet in height (2-4 foot toe below stream bed) (**Exhibits 5-6**). The applicant is also proposing to revegetate the revetment site to create approximately 0.59 acres of riparian and upland habitat ("Vegetation Restoration Plan," prepared by Impact Sciences, Inc., dated August 2007, amended January 2009). To vegetate the existing rock revetment, the applicant had proposed to secure fascines of willow cuttings to the rip rap with wire. The willow bundles would be oriented at a 45-degree angle, facing downstream, with one end placed into the creek. Once the willow fascines produced sufficient roots, the interstitial spaces would be filled with sand and fine gravel as a substrate for additional plantings. The applicant also proposes to plant the upland area above the revetment with a mixture of native shrubs and trees, such as mulefat, sycamore, black walnut, cottonwood, and elderberry (**Exhibits 7-8**).

In a letter dated January 9, 2009, Impact Sciences Inc. revised the proposed Vegetation Restoration Plan to omit the willow fascine element and to instead place willow cuttings that are at least one inch in diameter and six feet long into the interstitial spaces between rocks (**Exhibit 9**). Once the willows establish, the interstitial spaces would be filled with sand and fine gravel as a substrate for additional plantings. In researching examples where the concept of securing willow fascines to rock had been used successfully per the request of Commission staff, Impact Sciences found that willow fascines were not appropriate for use atop a rock slope protection and that the willows needed contact with moist soil beneath the rock. After consulting with the Natural Resources Conservation

Service, Impact Sciences revised their revegetation plan to instead place willow cuttings into the spaces of the rip rap.

Agency Review/Approvals

The Commission has received the following agency correspondence from the applicant regarding the proposed project:

- U.S. Army Corps of Engineers Regional General Permit No. 98-00315-AOA (with concurrence from the U.S. Fish & Wildlife Service) for emergency placement of rip rap revetment, issued February 13, 1998;

- U.S. Army Corps of Engineers Jurisdictional Determination letter for the proposed vegetation restoration plan, dated March 6, 2008;

- Notification of Emergency Streambed Alteration Work for emergency placement of rip rap revetment, sent to California Department of Fish & Game February 19, 1998 (no agency response);

- California Department of Fish & Game letter stating statutory deadline had lapsed to issue an agreement regarding Streambed Alteration Notification No. 1600-2005-0503-R5 (vegetation restoration plan), dated January 13, 2008;

- Emergency Regional General Permit No. 52, Regional Water Quality Control Board, Los Angeles Region;

- City of Malibu Approval-in-Concept, dated June 28, 2007.

Correspondence Received

Commission staff has received correspondence from the following interested parties (letters attached as **Exhibit 13**):

- Letter from Ron Schafer, California Dept. of Parks and Recreation District Superintendent, dated November 14, 2008, expressing concern regarding the proposed project. The letter states that the un-engineered revetment continues to contribute to an unstable site for establishment of riparian vegetation. Now that the emergency has passed, State Parks believes that the rip rap should be removed and the bank should be laid back at a less steep slope that is soft bio-engineered for greater water quality, stability, and habitat benefits.

- Letter from Dr. J. Robert Hatherill, former faculty member of the UCSB Environmental Studies Program, dated August 11, 2008, expressing support for the proposed restoration plans to enhance the habitat value of the creek bank for tidewater goby and other native fauna.

- Letter from Heal the Bay, dated February 3, 2009, expressing opposition to the proposed project and the staff recommendation. Heal the Bay states that stream

bank armoring is an ineffective method for long-term bank stabilization and a major cause for downstream bank erosion and sedimentation. Heal the Bay recommends a soft solution in that the rip rap should be removed, the bank slope laid back at a 3:1 slope and re-vegetated, and if necessary, a floodwall installed next to the shopping center as far back as possible. Heal the Bay also believes that the subject stream bank should be designated ESHA. These comments and concerns are addressed in Section B of the staff report. Lastly, Heal the Bay states that the grouted rip rap at an upstream storm drain outlet and an adjacent fenced storage area are unpermitted and should be included in the scope of work for the subject permit. However, staff notes that the development Heal the Bay refers to is unrelated to the project proposed in the subject permit application and in a location that is outside the Commission's retained jurisdiction.

- Letter from Malibu Surfing Association, dated February 3, 2009, joining in and concurring with Heal the Bay's letter described above.

- Letter from Mark Abramson of Santa Monica Baykeeper (SMB), dated February 3, 2009, expressing opposition to the proposed project and the staff recommendation. SMB states that stream bank armoring is an ineffective method for long-term bank stabilization and a major cause for downstream bank erosion and sedimentation. SMB recommends a soft solution in which the bank slope is laid back at a 3:1 slope and re-vegetated. In addition, SMB states that the subject stream bank should be designated an ESHA. These comments and concerns are addressed in Section B of the staff report. SMB also states that a grouted rip rap area upstream and an adjacent fenced storage area are unpermitted and should be addressed as part of the subject permit application. However, staff notes that the development SMB refers to is unrelated to the project proposed in the subject permit application and in a location that is outside the Commission's retained jurisdiction.

Commissioner ex parte communications received to date are attached as **Exhibit 14**.

B. WATER QUALITY, STREAM ALTERATION, HAZARDS, AND SENSITIVE HABITAT

The proposed project area lies within the City of Malibu, but falls within the Commission's area of retained original permit jurisdiction because development is proposed on lands that are below the mean high tide line and/or on public trust lands. The standard of review for the project is the Chapter 3 policies of the Coastal Act. In addition, the policies of the certified Malibu Local Coastal Program (LCP) serve as guidance.

Section 30230 of the Coastal Act states:

> ***Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.***

Section 30231 of the Coastal Act states that:

> ***The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.***

Section 30236 of the Coastal Act states:

> ***Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.***

Section 30253 of the Coastal Act states, in pertinent part, that new development shall:

> ***1. Minimize risks to life and property in areas of high geologic, flood, and fire hazard.***
>
> ***2. Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.***

Section 30233(a) of the Coastal Act provides as follows, in applicable part:

> ***The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:***
>
> ***(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.***
> ***(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.***
> ***(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.***

(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
(6) Restoration purposes.
(7) Nature study, aquaculture, or similar resource dependent activities.

Coastal Act Section 30240 affords protection of environmentally sensitive habitat areas as follows:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(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.

Section 30107.5 of the Coastal Act defines an environmentally sensitive area as:

"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Sections 30230 and 30231 of the Coastal Act mandate that marine resources and coastal water quality shall be maintained and, where feasible, restored through, among other means, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flows, maintaining natural buffer areas that protect riparian habitats, and minimizing alteration of natural streams. Special protection shall be given to areas and species of special significance, and uses of the marine environment shall be carried out in a manner that will sustain biological productivity of coastal waters. Section 30236 limits channelizations, dams, or other substantial alterations of rivers and streams to flood control projects necessary to protect public safety and existing development and two other types of projects, any of which must incorporate the best mitigation measures available and where there are no feasible alternatives. In addition, Section 30240 of the Coastal Act states that environmentally sensitive habitat areas shall be protected and that development within or adjacent to such areas must be designed to prevent impacts which could significantly degrade those resources.

In addition, the City of Malibu certified Local Coastal Program contains the following policy that specifically pertains to lower Malibu Creek:

LUP Policy 3.34
Bioengineering methods or "soft solutions" should be developed as an alternative to constructing rock revetments, vertical retaining walls or other "hard structures" along lower Malibu Creek. If bioengineering methods are

demonstrated to be infeasible, then other alternatives may be considered. Any applications for protective measures along lower Malibu Creek shall demonstrate [1] that existing development in the Civic Center is in danger from flood hazards, [2] that the proposed protective device is the least environmentally damaging alternative, [3] that it is sited and designed to avoid and minimize impacts to the habitat values of the riparian corridor along the creek and the recreational and public access use of State Park property along the creek, and [4] that any unavoidable impacts have been mitigated to the maximum extent feasible.

The proposed project site is situated along a 500 linear foot section of the west bank of lower Malibu Creek, approximately 300 feet upstream from the Pacific Coast Highway bridge and Malibu Lagoon. The lower Malibu Creek watershed emerges onto a coastal plain where channel slopes and flow velocities reduce and the Malibu Creek fluvial system begins to transition to a coastal estuarine lagoon system. Malibu Lagoon is a 31-acre shallow embayment at the terminus of Malibu Creek that empties into the Pacific Ocean at Surfrider Beach. Malibu Creek and its estuary provide habitat for a diversity of wildlife, including waterfowl, shorebirds, wading birds, songbirds, and raptors. A smaller number of mammals, amphibians and reptiles also inhabit the area. The significant species of fish that are known to utilize lower Malibu Creek are southern steelhead trout (*Oncorhynchus mykiss*), a state-listed threatened species, and tidewater goby (*Eucyclogobius newberryi*), federally listed as endangered and a California species-of-special-concern. Malibu Creek is a U.S.G.S. designated blue-line stream that supports a well-developed riparian corridor which constitutes ESHA. Malibu Creek and its riparian corridor is also designated as ESHA in the certified Malibu LCP.

Riparian habitats and their associated streams form important connecting links in the Santa Monica Mountains. These habitats connect all of the biological communities from the highest elevation chaparral to the sea with a unidirectional flowing water system, one function of which is to carry nutrients through the ecosystem to the benefit of many different species along the way. The streams themselves provide refuge for sensitive species including: the coast range newt, the Pacific pond turtle, tidewater goby, and southern steelhead trout. The health of the streams is dependent on the ecological functions provided by the associated riparian woodlands. These functions include the provision of large woody debris for habitat, shading that controls water temperature, and input of leaves that provide the foundation of the stream-based trophic structure.

The project site is located on a narrow, approximately 2.5-acre strip of vacant land owned by the applicant that is bound by a commercial shopping center development to the west and Malibu Creek to the east. Prior to severe storm erosion and subsequent placement of the proposed emergency rip rap revetment on the property in the late 1990's, the subject stretch of creek bank was primarily disturbed due to modifications to the creek's west bank and floodplain that created a highly disturbed riparian environment of limited habitat value. Currently, the subject bank and proposed as-built rip rap remains largely devoid of vegetation, with the exception of a small amount of arroyo willow at the northern end of the revetment and a small amount of mulefat at the southern end. The upland area above the revetment is dominated by weeds and non-native annual grasses. A footpath also exists on the upland area above the revetment. The width between the top of revetment and the fence/wall that delineates the edge of a commercial shopping center varies between 18 feet and 60 feet.

For the reasons listed above, the Commission finds that Malibu Creek itself meets the definition of ESHA under the Coastal Act, but the disturbed west bank in the area of the proposed project does not meet the definition of ESHA under the Coastal Act.

The applicant is requesting authorization to permanently retain approximately 500 linear feet of rock rip-rap revetment that was installed along the west bank of lower Malibu Creek to protect an existing commercial development from flood waters pursuant to Emergency CDP No. 4-98-024-G. The revetment consists of 1,500 tons of 0.5 to 8-ton granite boulders placed at approximately 1:1 to 1.5:1 (H:V) slope and 14-16 feet in height (2-4 foot toe below stream bed). The applicant is also proposing to revegetate the revetment site to create approximately 0.59 acres of riparian and upland habitat. At the time of installation, the proposed rock was placed outside the stream channel and within the footprint of the excavated/eroded stream bank following a severe El Nino storm event. Therefore, no fill of wetland areas occurred at the time of installation.

Pursuant to Coastal Act Section 30236, the substantial alteration of coastal streams is limited to necessary water supply projects, habitat improvement projects, and flood control projects where flood protection is necessary for public safety or to protect existing structures in the floodplain and no other method of protecting the structures is feasible. In this case, prior to placement of the emergency revetment, approximately 20 feet of lateral erosion occurred along the subject stretch of creek bank following significant storm flows in February 1998. The revetment was deemed a necessary measure to temporarily protect an adjacent commercial development from damage as a result of further severe stream bank erosion in the face of potential continuing winter storms. The applicant asserts that the existing rock slope protection is permanently needed in the project location to continue to protect adjacent development from future erosion and flooding. The subject 500 linear foot section of the west bank of lower Malibu Creek is situated along a westward meander cut bank. The hydraulics of the creek will likely erode the west bank, perhaps significantly during a severe storm event, and threaten the existing development if some form of bank protection is not utilized. In this case, the proposed flood control project is allowed to protect existing development consistent with Section 30236. However, Section 30236 further limits streambed alterations for flood control to situations where no other method for protecting the existing structures in the floodplain is feasible. In addition, Policy 3.34 of the Malibu LCP requires that bioengineering methods should be developed as an alternative to constructing rock revetments, vertical retaining walls or other "hard structures" along lower Malibu Creek. If bioengineering methods are demonstrated to be infeasible, then other alternatives may be considered provided they are demonstrated to be the least environmentally damaging alternatives and are sited and designed to avoid and minimize impacts to the habitat values of the riparian corridor along the creek. In other words, under the policies of the Coastal Act and the Malibu LCP, the project must be the least environmentally damaging feasible alternative.

Alternatives Analysis

The various alternatives to the proposed project that have been analyzed are discussed below:

1. **Revegetation of Creek Bank**: This alternative would involve removing the temporary emergency revetment that is in place and revegetating the subject bank with riparian vegetation. The applicant's engineer has indicated that this alternative is not hydraulically suitable to protect the bank because stream power and velocity values along this reach of cut bank exceed what re-vegetation alone is capable of resisting. Staff finds this conclusion to be valid. Therefore, this would not be a feasible alternative that is consistent with all Chapter 3 policies of the Coastal Act.

2. **Revegetation of Upper Bank with Rip Rap in Low Flow Channel**: This alternative would involve removing the temporary emergency revetment that is in place except for the rip rap in the low flow channel and revegetating the upper bank with riparian vegetation. The applicant's engineer has indicated that this alternative is not hydraulically suitable to protect the bank because erosion would occur within the channel behind the rip rap, which would eventually undermine the rip rap and cause it to fail. Staff finds this conclusion to be valid. Therefore, this would not be a feasible alternative that is consistent with all Chapter 3 policies of the Coastal Act.

3. **Revegetation of Creek Bank Using Geotextiles**: This alternative would involve removing the temporary emergency revetment that is in place, with the exception of a rock or concrete footing upon which to anchor geotextile fabric to the bank. The geotextile slope would then be vegetated. The applicant's engineer has indicated that this alternative is not hydraulically suitable to protect the bank because stream power and velocity values along this reach of cut bank exceed what geotextiles are capable of withstanding in the long-term. Concrete block-based geotextiles have a higher velocity and shear tolerance, but due to the steep bank slope and constrained space, this alternative would require more grading and likely placing fill into the creek to achieve sufficient grade. Staff finds this conclusion to be valid. Therefore, this would not be a feasible alternative that is consistent with all Chapter 3 policies of the Coastal Act.

4. **Construction of Concrete Levee or Soil Cement Levee**: This alternative would involve removing the temporary emergency revetment that is in place, and installing a concrete or soil cement levee along the bank. The applicant's engineer has indicated that this alternative would be hydraulically feasible, but would require significant grading and costs to install. Staff finds this conclusion to be valid. Due to the intensive cost and environmental impacts associated with this alternative, it is not a feasible alternative that is consistent with all Chapter 3 policies of the Coastal Act.

5. **Construction of Crib Wall**: This alternative would involve removing the temporary emergency revetment that is in place, and installing crib walls (a three dimensional structure created from untreated timbers, fill, and live cuttings). Live cribwalls provide a means of long-term streambank stabilization and are best used as part of a system which includes a component to deter undercutting at the bed/bank interface, such as rock riprap or gabions. The applicant's engineer has indicated that this alternative is not hydraulically suitable for banks that experience lateral

migration or in locations where bank roughness is an issue, such as the subject site. Staff finds this conclusion to be valid. Therefore this alternative is not a feasible alternative that is consistent with all Chapter 3 policies of the Coastal Act.

6. **Construction of Concrete Floodwall and Revegetation of Creek Bank**: This alternative would involve removing the temporary emergency revetment that is in place, installing a concrete floodwall next to the commercial development, lay back the bank between wall and channel, and revegetate bank. While this alternative would protect the adjacent development from flood waters permanently, the cut bank would continue to erode until there was no longer a natural bank between wall and channel. Such a solution is high cost and in the long run could result in the loss of any vegetated streambank area along this stretch of Malibu Creek. Therefore this alternative is not a feasible alternative that is consistent with all Chapter 3 policies of the Coastal Act.

7. **Laid-back Revetment with Revegetation**: This alternative would involve deconstructing the temporary emergency revetment that is in place, and reconstructing it at a more gradual slope and revegetating. The applicant's engineer has indicated that this alternative would significantly alter the hydraulics of the creek and increase turbidity/sediment delivery. The applicant's engineer also states that the subject bank was steep before and after placement of the emergency rip rap, which is a natural equilibrium slope for the cut bank. However, Commission Staff Coastal Engineer, Lesley Ewing, disagrees with the analysis of the applicant's engineer in regard to this alternative. In her memo dated January 7, 2009, Ms. Ewing states that based on all information provided by the applicant it appears feasible that the bank slope can be rebuilt at a more gradual 2:1 slope (**Exhibit 11**). Further, she states:

> "…This would require that the revetment be disassembled from the top, the bank be sloped back, and rock be placed again along the bank at a more gradual slope. The Preliminary Engineering Design Study by PACE (May 25, 2007) asserts that laying the top portion of the existing revetment back at a 2:1 (h:v) slope would result in increased turbidity. But, based the provided information, no evidence has been submitted to support this assertion. There is the potential for some temporary turbidity during construction; however this could be minimized through project scheduling, good work practices and implementation of best management practices. If the revetment were to be reconstructed along the bank at a more gradual slope, a bottom layer of filter fabric should be installed to reduce soil piping and reduce turbidity from high flow events. While it may be necessary to cut root holes into the filter fabric, the soil loss through these openings in the bottom layer would not be significant. Additionally, turbidity should be greatly reduced from the current revetment with rock covering a bare soil slope with no fabric filter layer at all..."

Additionally, Commission Staff Ecologist Dr. Jonna Engel, in her memo dated January 9, 2009, states that a less steep revetment slope than is proposed, in conjunction with incorporating filter fabric and willow stakes into the reconstructed rip rap design, would be more likely to result in successful riparian restoration

along this stretch of Malibu Creek (**Exhibit 12**). As such, from both a biological and engineering standpoint, a bioengineered rip rap slope protection that is laid back at a less steep slope is a feasible and preferred alternative, as discussed in more detail below.

Analysis of Proposed Project: The applicant is requesting permanent authorization for an un-engineered, as-built rip rap revetment, consisting of 1,500 tons of 0.5 to 8-ton granite boulders placed at approximately 1:1 to 1.5:1 (H:V) slope and 14-16 feet in height (2-4 foot toe below stream bed). Since the revetment site is almost completely devoid of native riparian vegetation, the applicant is also proposing to revegetate the revetment site to create approximately 0.59 acres of riparian and upland habitat. To vegetate the existing rock revetment, the applicant had, until recently, proposed to secure fascines of willow cuttings to the rip rap with wire. These willow bundles would be oriented at a 45-degree angle, facing downstream, with one end placed into the creek. Once the willow fascines produced sufficient roots, the interstitial spaces would be filled with sand and fine gravel as a substrate for additional plantings. The applicant also proposes to plant the upland area above the revetment with a mixture of native shrubs and trees, such as mulefat, sycamore, black walnut, cottonwood, and elderberry. In a letter dated January 9, 2009, Impact Sciences Inc. revised the proposed "Vegetation Restoration Plan" to omit the willow fascine element and to instead place willow cuttings that are at least one inch in diameter and six feet long into the interstitial spaces between rocks. Once the willows establish, the interstitial spaces would be filled with sand and fine gravel as a substrate for additional plantings. In researching examples where the concept of securing willow fascines to rock had been used successfully per the request of Commission staff, Impact Sciences found that willow fascines were not appropriate for use atop a rock slope protection and that the willows needed contact with moist soil beneath the rock. After consulting with the Natural Resources Conservation Service, Impact Sciences revised their revegetation plan to instead place willow cuttings into the spaces of the as-built rip rap.

Technical studies prepared for the project have concluded that channel hydraulics of lower Malibu Creek are not significantly impacted by the proposed project and that the project will not cause erosion or other adverse impacts to adjacent banks. The applicant's engineer asserts that the subject bank was steep before and after placement of the emergency rip rap, and its steepness is a natural equilibrium slope for the cut bank. As mentioned previously, Commission Staff Engineer, Lesley Ewing, disagrees with the applicant engineers' assertion that a less steep bank in this location would significantly alter stream hydraulics. In her memo dated January 7, 2009, Ms. Ewing states that based on all information provided by the applicant it appears feasible that the bank slope can be rebuilt at a more gradual 2:1 slope (Exhibit 11). In fact, laying the revetment back at a more gradual slope and incorporating a more bio-engineered design would substantially reduce turbidity and increase riparian and in-stream habitat value compared to the proposed un-engineered design. In the ten years that the existing revetment has been in place, vegetation has been unable to naturally establish along the majority of the rip rap, most notably along the steepest portions. It is the opinion of Commission Staff Ecologist, Dr. Engel, that site restoration would be more successful if the rip rap revetment were to be laid back at a lesser slope angle, such as 2:1, which is more typical for vegetated rip rap stabilization designs.

The existing un-engineered revetment has resulted in adverse indirect impacts to aquatic and semi-aquatic habitats through loss of shade and cover along the bank. Loss of shade and cover results in increased water temperatures and loss of areas to seek shelter from predators. In addition, without filter fabric stabilizing the bank soils beneath the revetment, sediment transport and turbidity are increased during winter flows. As discussed above, the applicant is proposing to carry out a re-vegetation effort to install willows within the rock rip-rap and to plant the slope above the revetment with riparian plant species. In past permit actions concerning rock rip-rap in streams, the Commission has approved such development only where there is no feasible alternative to protect existing development and where revegetation with willows and other riparian species is incorporated into the actual construction. Such projects can be designed to include planting areas in the interstitial spaces between individual rocks in order to accommodate the planting of willows and other riparian plants. It is much more difficult to retrofit an existing revetment that has not been designed to accommodate plantings. Given that the revetment proposed here was not designed to accommodate plantings and was constructed at a very steep angle, it is by no means assured that the applicant's proposed revegetation will be successful. While the proposed insertion of willow cuttings into the existing rock revetment may serve to improve stream and riparian habitat value to an extent, the steepness of the revetment and the unconventional methodology for bioengineering it will not ensure that water quality, stability, and habitat value of the bank are all protected consistent with the requirements of Chapter 3 of the Coastal Act. It has not been demonstrated that the proposed project is the least environmentally damaging alternative and is sited and designed to avoid and minimize impacts to the habitat values of the riparian stream corridor of Malibu Creek. As such, the Commission finds that the proposed project is *not* the least environmentally damaging alternative and does not protect Malibu Creek ESHA from significant disruption of habitat values or restore the biological productivity and water quality of Malibu Creek to maintain optimum aquatic populations. The project is therefore not consistent with Section 30230, 30231, 30236, and 30240 of the Coastal Act. In addition, the proposed project cannot be found consistent with Policy 3.34 of the Malibu LCP, which the Commission uses as guidance.

However, an alternative has been identified that would function to adequately protect existing development in the floodplain as well as render the project consistent with the Chapter 3 protections for water quality and ESHA. As discussed previously, this alternative would involve deconstructing the temporary emergency revetment that is in place, and reconstructing the revetment at a more gradual slope along the bank (no steeper than 2:1 (H:V)). This would also include incorporating filter fabric and willow stakes into the reconstructed rip rap design, and revegetating the riparian corridor. The Commission's staff Coastal Engineer, Ms. Ewing, has stated that this alternative is feasible from an engineering standpoint.

Therefore, in order to protect Malibu Creek ESHA from significant disruption of habitat values and to restore the biological productivity and water quality of Malibu Creek to maintain optimum aquatic populations, **Special Condition No. Two (2)** requires revised rock slope protection plans demonstrating that the rock slope protection has been re-engineered to be laid back to a slope no steeper than 2:1 (H:V). However, the toe of the slope protection shall not extend further into the creek than currently exists. If determined

feasible, the footing portion of the rock slope protection may remain in place and only the upper portion of the rock shall be laid back to a slope no steeper than 2:1. **Special Condition No. Two (2)** also requires that a biodegradable geotextile filter fabric with holes for willow plantings be placed on the graded slope of the bank prior to rock placement in order to stabilize soils. **Special Condition No. Three (3)** requires revised revegetation plans for the re-engineered bank protection that incorporates live willow cutting stakes among the rock voids, making sure the stakes penetrate the fabric filter and underlying soil. Installing willow cutting into the soil as the revetment is being constructed is a typical design for bioengineered rock slope protection, as it ensures the vegetation has a good foundation to root in throughout the slope. Pursuant to the recommendations of Commission Ecologist, Dr. Engel, the interstitial spaces in the rip rap shall be partially filled with a fine gravel, sand, and soil combination, and mugwort (*Artemisia douglasiana*) and yerba mansa (*Anemopsis californica*) shall be added to the plant palatte for revegetation of the revetment in order to add to the species diversity within the riparian corridor. The revised plans required by **Special Conditions 2 and 3** will serve to minimize impacts to the habitat values of the riparian stream corridor of Malibu Creek to the maximum extent feasible.

To ensure that the revegetation plan is successful and that the subject area is adequately revegetated, **Special Condition No. Four (4)** requires implementation of the revised revegetation plan, monitoring for a five year period, submission of a Revegetation Monitoring Report at the end of the five year period for the review and approval of the Executive Director, and supplemental planting/seeding be implemented as necessary, to ensure successful restoration that is in compliance with the specified guidelines and performance standards outlined in the revegetation plan.

Although the conditions described above render the project sufficiently stable to satisfy the requirements of Section 30253, no project is wholly without risks. Due to the fact that the project is located in an area subject to an extraordinary potential for damage or destruction from erosion and flood flows, those risks remain substantial here. If the applicant nevertheless chooses to proceed with the project, the Commission requires the applicant to assume the liability from these associated risks. Through the assumption of risk condition, the applicant acknowledges the nature of the flood flow and erosion hazard that exists on the site and that may affect the safety of the development. Therefore, **Special Condition No. One (1)** is required, as determined in the findings above, to assure the project's consistency with Section 30253 of the Coastal Act and as a response to the risks associated with the project.

At the time of installation, the proposed rock was placed outside the stream channel and within the footprint of the excavated/eroded stream bank following a severe El Nino storm event. Therefore, no fill of wetland areas occurred at the time of installation. However, if it is determined that the toe portion of the revetment must be reconstructed pursuant to the revised bank protection plans specified in Special Condition No. 2, the revised revetment toe may not extend further into the creek than currently exists, as required in **Special Condition No. Two (2)**. Extending the toe of the revetment streamward would constitute fill of wetlands for flood control, which is not an allowable use of wetland fill under the requirements of Section 30233 of the Coastal Act.

The project, as revised, would involve some soil disturbance and vegetation removal along the bank during the revetment re-construction. The work will take place along a bank that has obviously been disturbed over the years, both by the erosive forces of Malibu Creek and by disturbance from adjacent development in the floodplain. As such, the subject bank is not considered ESHA. However the project area is adjacent to the Malibu Creek channel that is considered to be ESHA and the potential exists for impacts to the water quality of the creek, particularly from erosion of sediment from the site. Although implementing the revised project will ultimately enhance the habitat value of lower Malibu Creek, there is potential for temporary adverse impacts to water quality and biological productivity of Malibu Creek through the release of sediment. Soil disturbance and vegetation removal adjacent to the creek could result in the discharge of sediment into Malibu Creek, causing increased turbidity and adversely affecting fish and other sensitive aquatic species. Sediment is considered a pollutant that affects visibility through the water, and affects plant productivity, animal behavior (such as foraging) and reproduction, and the ability of animals to obtain adequate oxygen from the water. Sediments may physically alter or reduce the amount of habitat available in a watercourse by replacing the pre-existing habitat structure with a stream-bottom habitat composed of substrate materials unsuitable for the pre-existing aquatic community. In addition, sediment is the medium by which many other pollutants are delivered to aquatic environments, as many pollutants are chemically or physically associated with the sediment particles. It is particularly critical that these impacts are avoided given the presence of endangered southern steelhead and tidewater goby in Malibu Creek and Lagoon during certain times of the year. Conducting work for the revised rock slope protection plan when stream flows are minimal during the dry season will minimize erosion into the creek, associated turbidity, and will minimize the potential for disturbing local amphibians and fishes. As such, **Special Condition No. Five (5)** outlines construction timing and best management practices to be implemented during all approved work activities.

If it is determined that the approved revised rock slope protection plans will require work within stream waters, **Special Condition No. Six (6)** requires that the applicant submit a dewatering plan, for the review and approval of the Executive Director, and evidence that the dewatering plan has been approved by the Regional Water Quality Control Board (RWQCB), California Department of Fish & Game, and California State Parks, or evidence that such approvals are not required. In order to minimize potential impacts to tidewater gobies and southern steelhead, **Special Condition No. Five (5)** also limits grading and rock slope protection work to the months of April and May (the species' estimated non-breeding/non-migration season) in the event work is required within stream waters.

If the revised project requires construction dewatering or work within the waters of Malibu Creek, measures to protect sensitive aquatic species are necessary. Therefore, **Special Condition No. Seven (7)** requires that a qualified resource specialist survey for sensitive aquatic species (tidewater gobies and steelhead trout) within 100 feet of the project area prior to commencement of construction site dewatering work. If sensitive aquatic species are present, the qualified resource specialist and a crew working under his/her direction shall move, by hand, sensitive species from the area to be dewatered to safe locations elsewhere along the reach of Malibu Creek. The qualified resource specialist shall inspect

the dewatered areas and construction site regularly and be present when the dewatering device is removed. The qualified resource specialist shall require the applicant to cease work should any breach in permit compliance occur, or if any unforeseen sensitive habitat issues arise. If significant impacts or damage occur to sensitive habitats or to wildlife species, the applicant shall be required to revise the project to adequately mitigate such impacts, which shall be processed as an amendment to this coastal development permit or a new coastal development permit.

In addition, the revised project may require review by other regulatory agencies such as RWQCB, U.S. Army Corps of Engineers, California Dept. of Fish & Game, or City of Malibu. Therefore, **Special Condition No. Eight (8)** requires the applicant to obtain all other permits that may be necessary for the approved project.

To ensure that the permitted bank protection is maintained in its approved state and future repairs or additions to the approved structure receive the appropriate approvals, **Special Condition No. Nine (9)** requires the applicant to contact the Executive Director for a determination of whether a coastal permit or permit amendment are legally required when it is apparent that repair and maintenance is necessary. **Special Condition Ten (10)** requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the property and thereby provides any prospective purchaser of the site with recorded notice that the restrictions are imposed on the subject property.

In order to ensure that the project, as required to be revised, is implemented in a timely manner, **Special Condition No. Twelve (12)** requires that the applicant satisfy all conditions of this permit which are prerequisite to the issuance of this permit within 90 days of Commission action or within such additional time as the Executive Director may grant for good cause.

Finally, in order to ensure that the terms and conditions of this permit are adequately implemented, **Special Condition Eleven (11)** authorizes Commission staff to enter onto the property (subject to 24 hour notice to the property owner) to undertake site inspections for the purpose of monitoring compliance with the permit.

As such, the Commission finds that, with the mitigation measures discussed above, the project will (a) protect the ESHA from any significant disruption of habitat values, (b) not significantly degrade adjacent ESHA, (c) be compatible with the continuance of the habitat area, (d) restore the biological productivity and water quality of Malibu Creek to maintain optimum aquatic populations, and (e) minimize risks to life and property and assure stability. Therefore, the project, as conditioned, is consistent with Section 30230, 30231, 30233, 30236, 30253, and 30240 of the Coastal Act. In addition, the project, as conditioned, is consistent with Policy 3.34 of the Malibu LCP, which the Commission uses as guidance.

C. VISUAL RESOURCES

Section 30251 of the Coastal Act states, in part:

> ***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.***

Section 30251 of the Coastal Act requires scenic and visual qualities to be considered and preserved. Section 30251 also requires that development be sited and designed to protect views of scenic areas, minimize alteration of landforms, and be visually compatible with the surrounding area.

The project is located along a 500-foot section of the west bank of lower Malibu Creek, approximately 300 feet upstream from Pacific Coast Highway and Malibu Lagoon State parkland. The project site is located on a narrow, approximately 2.5-acre strip of vacant land owned by the applicant that is bound by a commercial shopping center development to the west and Malibu Creek and State parkland to the east. The subject site is visible from State parkland to the east, as well as Pacific Coast Highway to the south, a designated scenic highway.

The proposed as-built rock revetment is composed of light-colored granite boulders that was not constructed to encourage natural recruitment of riparian vegetation. As such, the stream bank is almost entirely devoid of natural vegetation that would have acted to screen views of the armored stream bank from public viewing areas. While the proposed insertion of willow cuttings into the existing revetment may serve to soften public views of the rock to an extent, it has not been demonstrated that the steepness of the revetment and the unconventional methodology for bioengineering it will maximize revegetation success. As discussed above, an alternative project design is required to render the project consistent with the Chapter 3 protections for water quality and ESHA. The revised revetment design, will result in the slope of the revetment being no steeper than 2:1, and is required to utilize filter fabric, and to incorporate planting areas in the interstitial spaces between the rocks. Finally, this alternative will include the revegetation of these planting areas with willows or other riparian plant species, and the planting of the area above the revetment with riparian and associated native plants. As conditioned, the revised revetment will be vegetated and the area landward of the revetment will be vegetated with plants appropriate for the riparian and upland areas of the project site. This will reduce the reflective effect of the light colored rocks and soften, if not obscure, the view of the revetment from Malibu Creek State Beach and other public viewing areas.

The following special conditions are required to assure the project's consistency with Section 30251 of the Coastal Act:

Special Condition 2. Revised Bank Protection Plans
Special Condition 3. Revised Revegetation Plans
Special Condition 4. Revegetation Implementation and Monitoring

For the reasons set forth above, the Commission finds that the proposed project, as conditioned, is consistent with Section 30251 of the Coastal Act.

D. CALIFORNIA ENVIRONMENTAL QUALITY ACT

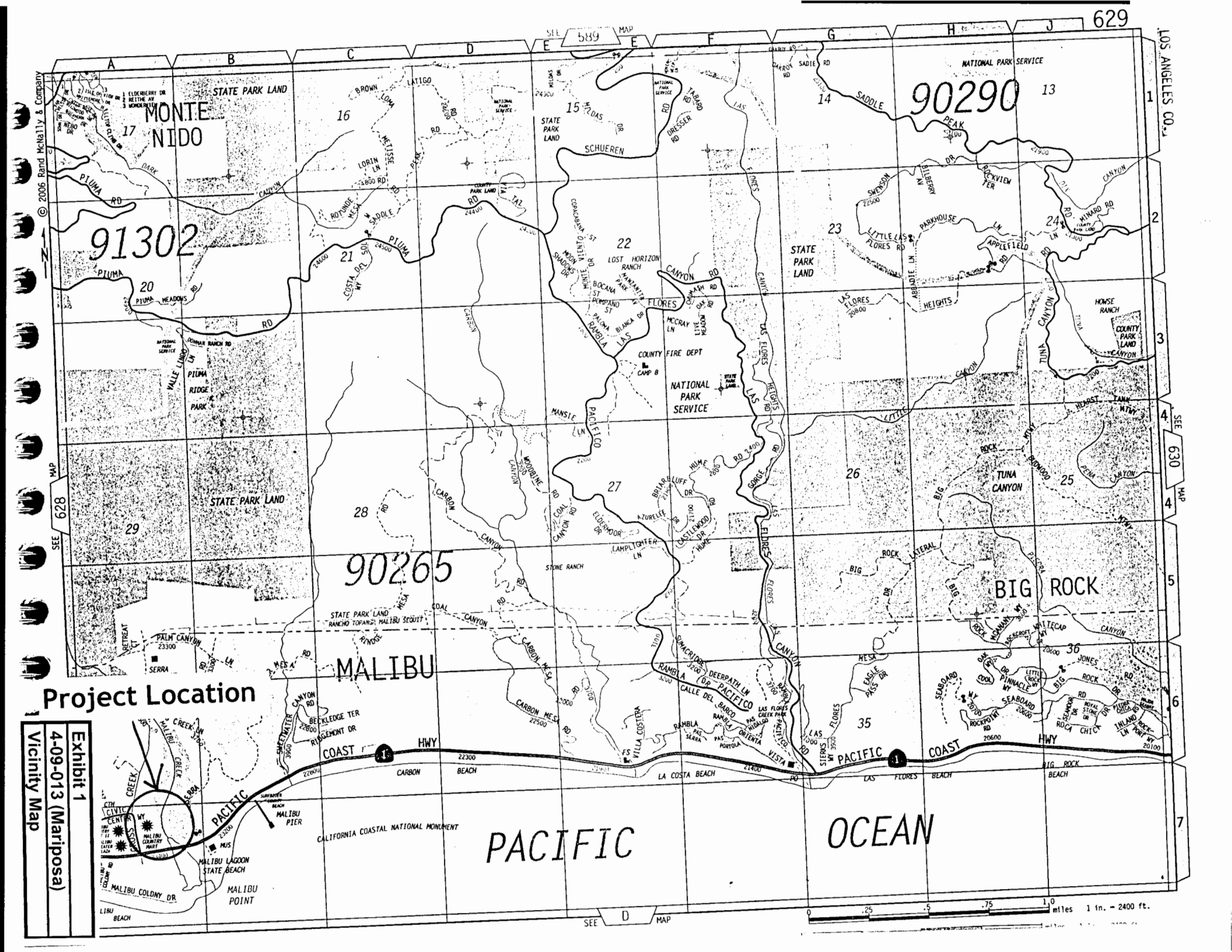
Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California 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 Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed in detail above, project alternatives and mitigation measures have been considered and incorporated into the project. Five types of mitigation actions include those that are intended to avoid, minimize, rectify, reduce, or compensate for significant impacts of development. Mitigation measures required to minimize impacts include requiring best management practices (water quality and ESHA), limitations on construction timing (water quality and ESHA), revegetation plans (ESHA and visual resources), and dewatering plan with aquatic species protection measures (ESHA).

The following special conditions are required to assure the project's consistency with Section 13096 of the California Code of Regulations:

Special Conditions 1 through **13**

As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.



Project Location

Exhibit 1
4-09-013 (Mariposa)
Vicinity Map

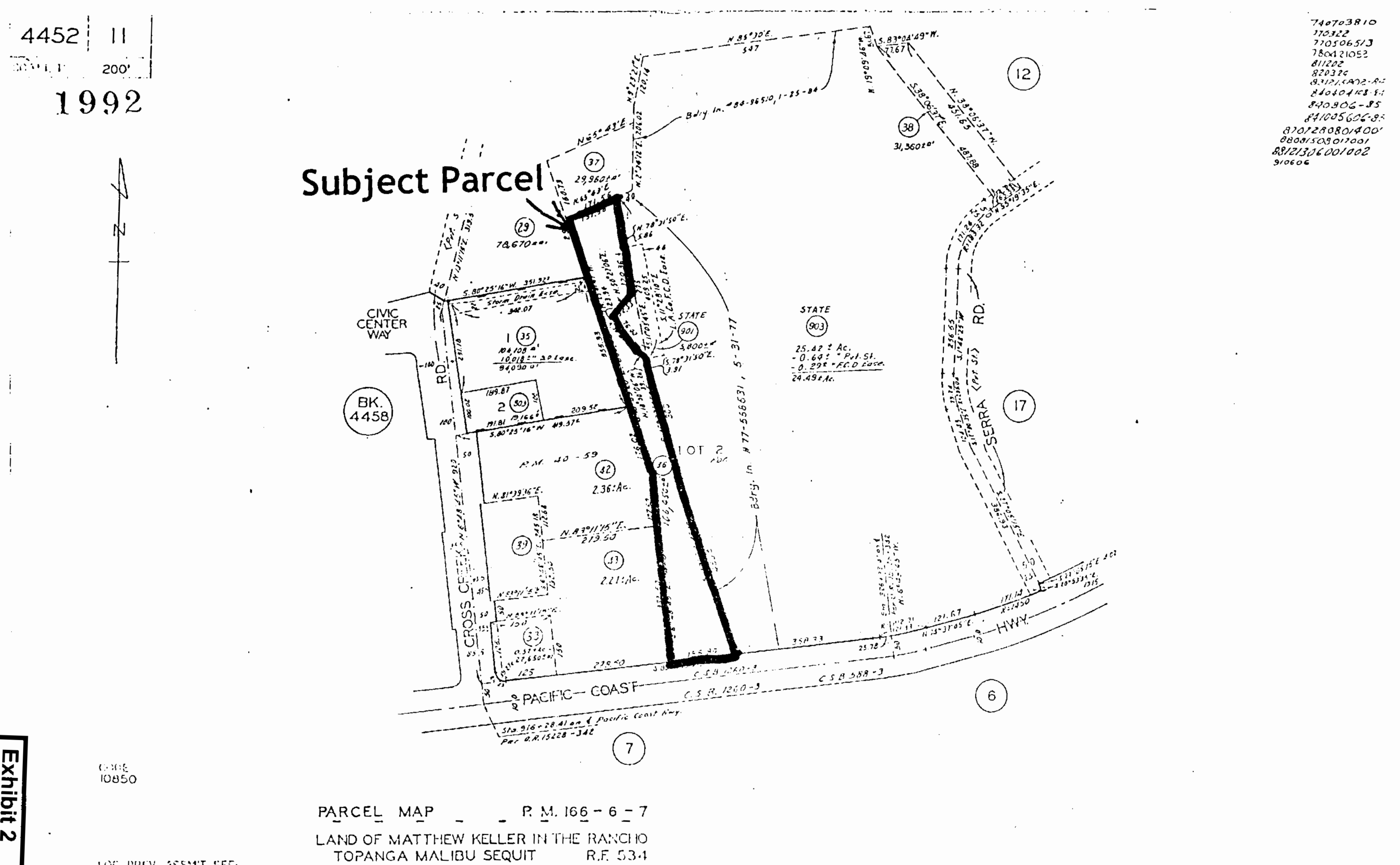


Exhibit 2
4-09-013 (Mariposa)
Parcel Map

Exhibit 3
4-09-013 (Mariposa)
Aerial View (1 of 2)

Exhibit 3
4-09-013 (Mariposa)
Aerial View (2 of 2)

Exhibit 4
4-09-013 (Mariposa)
Site Photos (1 of 2)

Exhibit 4
4-09-013 (Mariposa)
Site Photos (2 of 2)

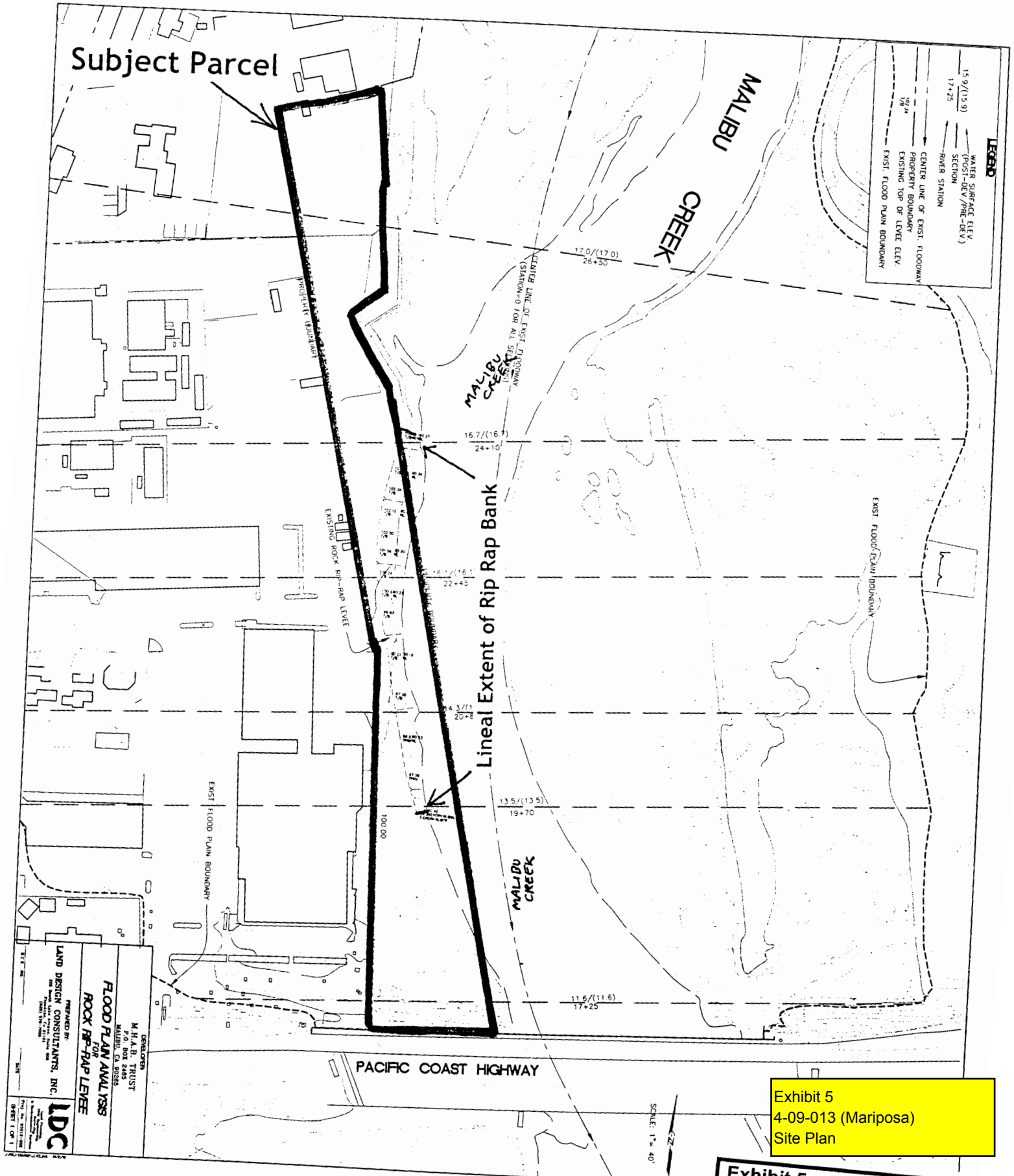
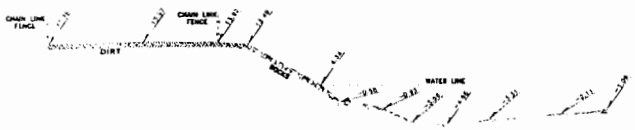


Exhibit 5
4-09-013 (Mariposa)
Site Plan

Exhibit 5
4-09-013 (Mariposa)

Exhibit 6
4-09-013 (Mariposa)
Surveyed Site Plan with Cross Sections

SECTION VIEW "C-C"



65% Slope
Top of Bank to Property Line: 45 ft.

SECTION VIEW "D-D"

81% Slope
Top of Bank to Property Line: 19 ft.

SECTION VIEW "E-E"

85% Slope
Top of Bank to Property Line: 18 ft.

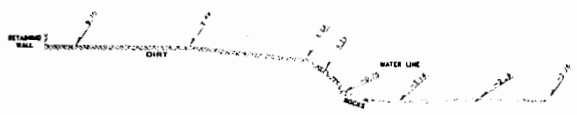
SECTION VIEW "F-F"

73% Slope
Top of Bank to Property Line: 22 ft.

SECTION VIEW "G-G"

100% Slope
Top of Bank to Property Line: 35 ft.

SECTION VIEW "H-H"



75% Slope
Top of Bank to Property Line: 58 ft.

SECTION VIEW "I-I"

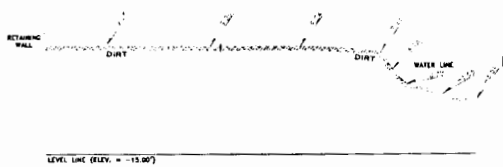
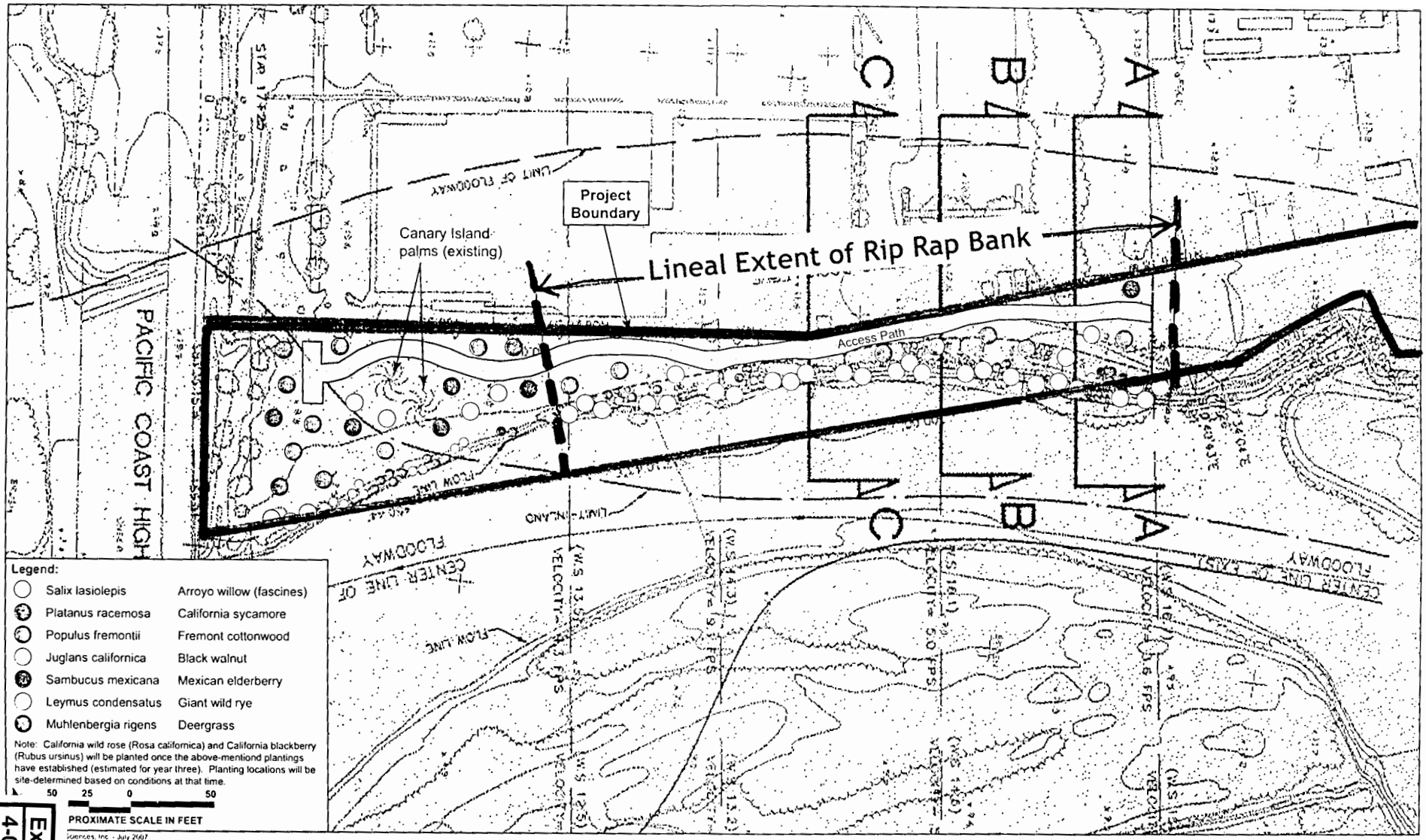


EXHIBIT 6

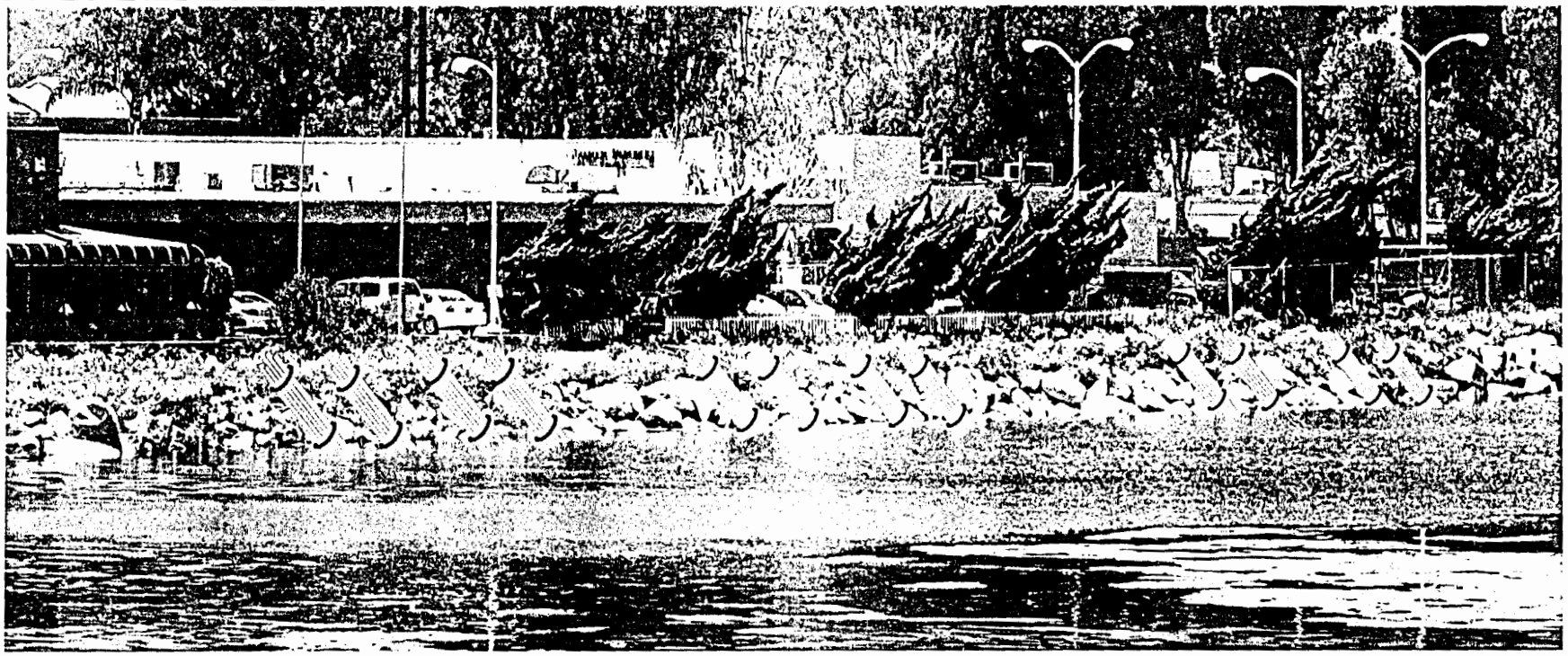


Sciences, Inc - July 2007

FIGURE 4

Planting Plan

Exhibit 7
4-09-013 (Mariposa)
Proposed Planting Plan



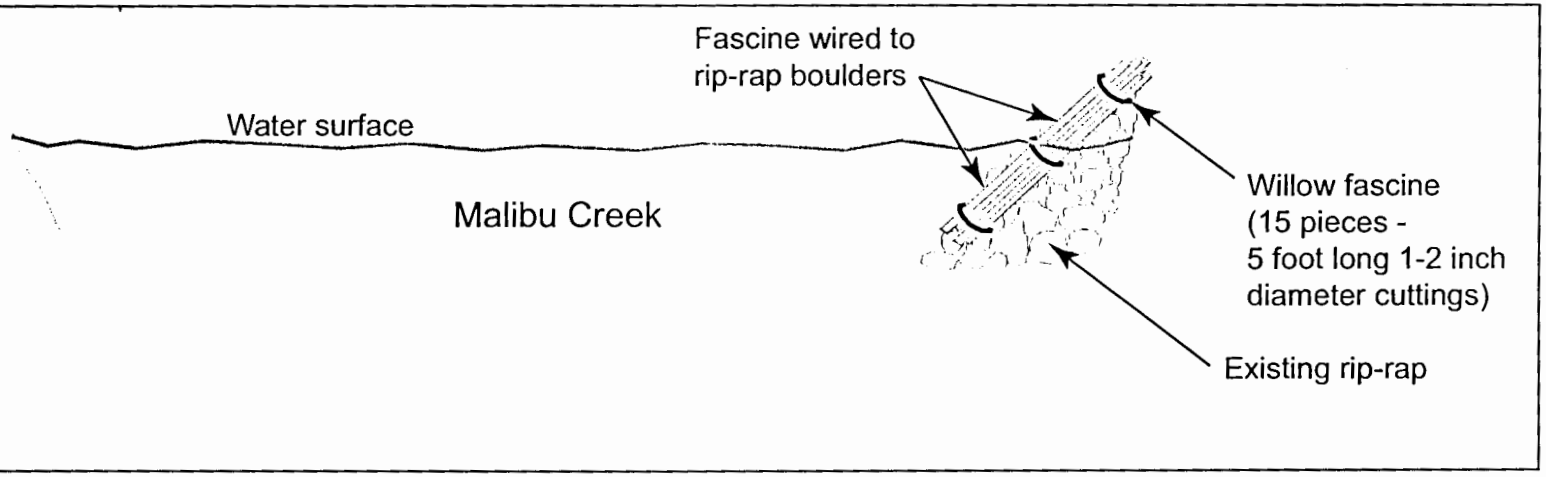


Exhibit 8
4-09-013 (Mariposa)
Willow Fascine
Schematic

O SCALE

ences - July 2007

FIGURE 5

Willow Fascine Schematic

IMPACT SCIENCES | 20 YEARS

January 9, 2009

California Coastal Commission
89 South California Street, Suite 200
Ventura, CA 93001-2801

Attn: Deanna Christensen

Re: Modification to the Mitigation Plan for Mariposa Land Company at Malibu Creek.

Dear Ms. Christensen:

Impact Sciences proposes to modify one aspect of the "Vegetation Restoration Plan – Malibu Creek", the restoration plan that was submitted as part of the application package for Malibu Land Company's pending final permit for bank stabilization along Malibu Creek. Specifically, Impact Sciences now proposes to use willow cuttings, rather than using the willow fascines fastened to the riprap.

In discussing the establishment of willows in riprap, particularly with Susan Litteral, NRCS Agricultural Engineer in the Templeton CA Field Office and Charles Davis, the State Conservation Engineer, the Natural Resources Conservation Service has been planting willows in riprap for over 25 years. According to Mr. Davis, "The key is the willow roots need to be in water." Mr. Davis provided the attached document entitled *"History of NRCS Streambank Protection Projects with Rock Slope Protection Completed under the NRCS Emergency Watershed Protection Program"*

Ms. Litteral indicated that fascines were most useful in establishing willows to protect otherwise unprotected banks where the fascines could be placed in contact with the soil. However, for areas already protected by riprap, particularly where the riprap had sufficient interstitial spaces between the riprap, and into the soil where it can be reached between the riprap, that cuttings should be placed through the riprap and into moist soil. Ms. Litteral, who has a number of project in San Luis Obispo County, recommended this method, including auguring holes for the cuttings, or using a water jet to excavate holes to place the cuttings into. Ms. Litteral also mentioned that typically, the initial growth of willow cutting planted during the winter is to have one or more leaves emerge in early spring, and for the cutting to then have root growth for a year or so before additional leaves emerge.

Therefore, we propose to modify the plan by eliminating the willow fascines, replacing them with willow cuttings, placed into the interstitial spaces

Exhibit 9
4-09-013 (Mariposa)
Amended Willow Planting Plan Memo

riprap, and into the soil where the soils is sufficiently moist on a permanent basis. Willow cuttings, which shall be at least one inch in diameter and six feet long, shall be planted at an average of one cutting per eight linear feet (63 - 65 cuttings), with some areas planted more closely than other areas to give a more natural appearance. The exact location of each willow cutting shall be determined by the project biologist.

All other parts of the "Vegetation Restoration Plan" remain unchanged. IF you have any questions, please call me at (805) 437-1900.

Sincerely,
Impact Sciences, Inc.

Larry Lodwick

Larry Lodwick
Associate Prinicpal

Cc: Grant Adamson
Daryl Koutnik

ex. 9

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 641-0142

EMERGENCY PERMIT

February 20, 1998

Applicant: **Grant Adamson (Mariposa Land Company)** **Permit No.: 4-98-024-G**

Project Location: **3728 Cross Creek Road (west bank of Malibu Creek)**

Work Proposed: **Placement of rock rip-rap along 450 feet of the west bank of Malibu Creek to protect property from erosion. The revetment will use 1,500 tons of .5 to 8 ton boulders and will be approximately 14 to 16 feet in height (2-4 foot toe below stream bed).**

This letter constitutes approval of the emergency work you or your representative has requested to be done at the location listed above. I understand from the information submitted that an unexpected occurrence in the form of severe stream bank erosion resulting in a threat to a parking area and property requires immediate action to prevent or mitigate loss or damage to life, health, property or essential public services. 14 Cal. Admin. Code Section 13009. The Executive Director hereby finds that:

(a) An emergency exists which requires action more quickly than permitted by the procedures for administrative or ordinary permits and the development can and will be completed within 30 days unless otherwise specified by the terms of the permit;

(b) Public comment on the proposed emergency action has been reviewed if time allows; and

(c) As conditioned the work proposed would be consistent with the requirements of the California Coastal Act of 1976.

The work is hereby approved, subject to the conditions listed on the reverse.

Very Truly Yours,

Peter M. Douglas
Executive Director

Chuck Damm

By: Chuck Damm
Title: Senior Deputy Director

Exhibit 10
4-09-013 (Mariposa)
Emergency CDP 4-98-024-G

CONDITIONS OF APPROVAL:

1. The enclosed form must be signed by the property owner and returned to our office within 15 days.

2. Only that work specifically described above and for the specific property listed above is authorized. Any additional work requires separate authorization from the Executive Director.

3. The work authorized by this permit must be completed within 30 days of the date of this permit.

4. Within 60 days of the date of this permit, the permittee shall apply for a regular Coastal Permit to have the emergency work be considered permanent. If no such application is received, the emergency work shall be removed in its entirety within 150 days of the date of this permit unless waived by the Director.

5. In exercising this permit the applicant agrees to hold the California Coastal Commission harmless from any liabilities for damage to public or private properties or personal injury that may result from the project.

6. This permit does not obviate the need to obtain necessary authorizations and/or permits from other agencies.

7. The regular coastal development permit application shall include an analysis of all other alternatives for shoreline, bluff, or stream bank protection prepared by a qualified engineer.

IMPORTANT

Condition #4 indicates that the emergency work is considered to be temporary work done in an emergency situation. If the property owner wishes to have the emergency work become a permanent development, a coastal permit must be obtained. A regular permit would be subject to all of the provisions of the California Coastal Act and may be conditioned accordingly.

If you have any questions about the provisions of this emergency permit, please call the Commission Area office.

Enclosures: 1) Acceptance Form; 2) Regular Permit Application Form

cc: Local Planning Department

File: gm/98-024g

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, GOVERNOR

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400

January 7, 2009

TO: Deanna Christensen, Coastal Program Analyst

FROM: Lesley Ewing, Coastal Engineer.

SUBJECT: CDP# 4-98-024; Lower Malibu Creek West Bank Revetment

I have reviewed the Preliminary Engineering Design Study (Pacific Advanced Civil Engineering (PACE), May 25, 2007) and the Malibu Creek Survey (Grimes Surveying and Mapping, Inc. surveyed September 15, 2008) and had discussions about this project with both Commission staff and Mr. Dave Jaffe, PACE Project Engineer.

It is my understanding that in 1998 rock was placed along the western bank of the lower Malibu Creek as an emergency measure to address a situation of on-going erosion during a high-flow event, likely in association with one of the severe El Niño storms. The property owner has been attempting to make permanent some form of bank stabilization that will protect the bank from future erosion. And, while the need for bank stabilization has been demonstrated, staff has been requesting that the applicant develop some alternative permanent bank stabilization alternatives that will allow for the propagation of native vegetation to reduce some of the impacts from stabilized banks.

The as-built stabilization is quite steep, approaching 1:1 in some locations. The applicant's engineer asserts that the steepness of the bank stabilization is intended to mimic the natural bank cut that developed on the outer bank of the creek bend. However, this steepness does not readily allow for plants to colonize in the voids between the rocks and, from inspection of photographs of the stabilized bank it appears that most of the bank is void of vegetation.

The current bank and stabilization can feasibly be recontoured to achieve a less steep slope. This would require that the revetment be disassembled from the top, the bank be sloped back, and rock be placed again along the bank at a more gradual slope. The Preliminary Engineering Design Study by PACE (May 25, 2007) asserts that laying the top portion of the existing revetment back at a 2:1 (h:v) slope would result in increased turbidity. But, based the provided information, no evidence has been submitted to support this assertion. There is the potential for some temporary turbidity during construction; however this could be minimized through project scheduling, good work practices and implementation of best management practices. If the revetment were to be reconstructed along the bank at a more gradual slope, a bottom layer of filter fabric should be installed to reduce soil piping and reduce turbidity from high flow events. While it may be necessary to cut root holes into the filter fabric, the soil loss through these openings in the bottom layer would not be significant. Additionally, turbidity should be greatly reduced from the current revetment with rock covering a bare soil slope with no fabric filter layer

at all. The applicant would need to prepare a revised engineering design for the new revetment. Also management plans would be needed to control silt and turbidity and schedule the revetment rebuilding to minimize impacts to coastal resources. Based on all information provided by the applicant, it appears feasible that this slope can be rebuilt at a more gradual 2:1 slope.

I will be happy to further discuss this project with you at your convenience, or to discuss it with the applicant's engineers. I can be reached at the main office number above, by my direct line (415/904-5291) or by e-mail (lewing@coastal.ca.gov).

STATE OF CALIFORNIA -- THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER Governor

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 585-1800

MEMORANDUM

FROM: Jonna D. Engel, Ph.D.
Ecologist

TO: Deanna Christensen
Coastal Program Analyst

SUBJECT: Malibu Creek Vegetation Restoration Plan, CDP# 4-98-024; Lower Malibu Creek West Bank Revetment

DATE: January 9, 2009

Documents Reviewed:
Impact Sciences, Inc. August 2007. Vegetation Restoration Plan – Malibu Creek. Prepared for the Mariposa Land Company, Malibu, California.

I have reviewed Impact Sciences "Vegetation Restoration Plan – Malibu Creek" for the nearly 500 feet of rip rap placed, under emergency permit conditions, on the west side of Malibu Creek to address the severe erosion caused by the 1997-1998 winter and spring high stormwater flows. Approximately 0.25 acre of land was lost that winter, creating a steep cut bank. Rip rap was placed on the bank to prevent further erosion from impinging on Mariposa Land Company property. Impact Sciences estimates that the rip rap slope angle is approximately 1:1 and that it stands 15 in height. A primary goal of the restoration plan is to plant the rip rap that remains bare as well as the undeveloped area between Malibu Creek and the Cross Creek Shopping Center to create 0.585 acre of native riparian habitat. To plant the rip rap, fascines of willow cuttings are proposed to be fastened along the length of the revetment to begin to fill in the interstitial spaces in order to create overhanging vegetation adjacent to Malibu Creek. The restoration plan also states that "interstitial spaces will be filled with sand or fine gravel as a substrate for additional plantings (estimated to take place during year three)."

Direct observation and photos demonstrate that along the bank areas where there is a less than 1:1 slope angle, vegetation has been able to naturally recruit among the rip rap. However, plants are unable to establish on the majority of the rip rap which stands at a steep 1:1 slope angle. It is my opinion that the streambank restoration would be more successful if the proposed rip rap were to be laid back at a lesser slope angle, such as 2:1, which is more typical for vegetated rip rap bank stabilization designs.

Lesley Ewing, Commission Coastal Engineer, has reviewed this project and stated that it is feasible from an engineering standpoint to recontour the current bank and

Exhibit 12
4-09-013 (Mariposa)
Dr. Engel Memo

revetment to attain a less steep slope (e.g. 2:1) that will support native riparian vegetation[1]. Ms. Ewing also points out that placement of a bottom layer of fabric filter under the rip rap will reduce soil piping and turbidity from high flow events while acknowledging that root holes in the fabric filter may be necessary to facilitate plant establishment. I am in agreement with Ms. Ewing's opinion that fabric filter should be placed under the rip rap with root holes for plants. I also recommend that willow cuttings be stuck directly into the interstitial spaces within the rip rap throughout the area. and that interstitial spaces be partially filled with a fine gravel, sand, soil combination..

The plant palette for the upland area, surrounding the rip rap, is provided in Table 2 of the proposed restoration plan and consists of California sycamore, Freemont cottonwood, black walnut, Mexican elderberry, arroyo willow, mulefat, giant wild rye, deergrass, California wild rose, and California blackberry. In addition to these species, I recommend that mugwot, *Artemisia douglasiana* and yerba mansa, *Anemopsis californica* be added to the proposed plant palette for the rip rap and upland area in order to add to the species diversity within the riparian corridor.

Impact Science's vegetation restoration plan provides appropriate plans for mitigation site preparation, non-native plant control and eradication, irrigation, plant maintenance and weeding. Impact Science states that "the site shall attain 75 percent cover after three years and 90 percent cover after five years for the life of the project." In addition they state that "all plantings shall have a minimum of 80 percent survival the first year and approaching 100 percent survival at the end of the five-year monitoring period." The goals and objectives of the mitigation project will be met by adhering to these performance standards. Impact Science's plan includes a well designed monitoring program that will be conducted for five years and will include annual reports. They have taken into consideration unforeseen situations by including an adaptive management and contingency measures section in their report by which they will be able to address any problems that may arise.

In conclusion, it is my opinion that a less steep revetment slope than is proposed, in conjunction with incorporating filter fabric and willow stakes into the reconstructed riprap design, would be more likely to result in successful riparian restoration along this stretch of lower Malibu Creek bank.

[1] Ewing, L. January 7, 2009. CDP# 4-98-024; Lower Malibu Creek West Bank Revetment Memorandum to Deanna Christensen, Coastal Program Analyst.

ex. 12

August 11, 2008

Ms. Deanna Christensen
California Coastal Commission
89 South California Street, Suite 200
Ventura, CA 93001

RE: CDP Application Number 4-98-024

Dear Ms. Christensen,

It is a pleasure to write this letter in support of the existing creek bank stabilization effort and proposed mitigation of the west bank of Malibu Creek. In addition to numerous site visits to the lower Malibu Creek study area, I have extensively reviewed the "Lower Malibu Creek Emergency Revetment Geomorphic, Bank Erodibility, and Alternatives Analysis prepared by Pacific Advanced Civil Engineering, (PACE) and the Malibu Creek Vegetative Restoration Plan prepared by Impact Sciences. The studies identify the best action plan for flood- bank protection, creek hydraulic suitability, costs, re-vegetation and maintaining minimal environmental impacts. As a former faculty member of the Environmental Studies Program, University of California at Santa Barbara, I am qualified to review the mitigation measures presented herein.

The goals of the mitigation plan will substantially improve and:
- Protect the Western bank along Lower Malibu Creek from further erosion;
- Re-vegetate the area to create a native flora riparian habitat and;
- Improve the aesthetics of lower Malibu Creek.

The enhanced riparian corridor will include the installation of fascines of arroyo willow along the revetment perimeter to create overhanging vegetation adjacent to lower Malibu Creek. This action will likely attenuate the steep slope of the revetment and will be aesthetically pleasing.

Removing non-native species and planting a mixture of native shrubs and trees will improve the riparian habitat value. This action will increase the habitat area for the tidewater goby (Eucyclogobius newberryi), as the shaded areas of the creek are the preferred habitat of the tidewater goby. The extensive planting of native vegetation will dramatically improve the aesthetics of lower of Malibu Creek and support and provide a habitat for the native fauna.

I strongly support the proposed mitigation plans for the west bank of Malibu Creek, prepared by PACE and Impact Sciences. If you require additional information, please do not hesitate to contact me [jhatherill@delmar.edu].

Sincerely,

Dr. J. Robert Hatherill
Professor

AUG 14 2008

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ONE CYCLOTRON ROAD | BERKELEY, CALIFORNIA 94720 | TEL: 510.486.4000

Exhibit 13
4-09-013 (Mariposa)
Correspondence

State of California • The Resources Agency
Arnold Schwarzenegger, *Governor*

DEPARTMENT OF PARKS AND RECREATION • P.O. Box 942896 • Sacramento, CA 94296-001
Ruth G. Coleman, *Director*

Angeles District
1925 Las Virgenes Road
Calabasas, CA 91302
(818) 880-0350

November 14, 2008

Deanna Christensen
Coastal Program Analyst
California Coastal Commission
89 South California Street, Suite 200
Ventura, CA 93001

Re: **Vegetation Restoration Plan for the Mariposa Land Property at Malibu Creek City of Malibu, California**

Dear Mrs. Christensen,

The California Department of Parks and Recreation, Angeles District, has reviewed the above referenced Restoration Plan and offers the following comments for your consideration.

This property has a long history and several proposals have been reviewed by State Parks. As with past plans, we have two concerns with the current proposal. First, leaving the rip-rap in place with its current 1:1 slope configuration is not a solution to mitigating the erosion problem next to the Mariposa Land Property. Second, using willow fascine and minimally erodible component to fill in interstitial spaces in between rip-rap is not a known or proven restoration method. Each concern is discussed in detail below.

Rip-rap Configuration

The placement of the rip rap was granted as an emergency permit during the1997-1998 wet season. It is known that hardened structures on stream banks change the hydrology of the creek. Evidence of this is apparent with the current emergency project, as well as the grouted rip-rap and chain link fencing upstream of the project. The unconsolidated nature of the boulders and their un-engineered placement has continued to contribute to an unstable site for vegetation development. This is evident by the absence of vegetation along the 500-foot stretch of rip-rap adjacent to the Mariposa Land property.

Now that the emergency has passed, it is justifiable that the applicant take the time to design a sustainable bio-engineered project. We suggest the rip-rap be removed to create a sustainable soft bio-engineered slope. If rip-rap can not be removed it should be modified with vegetation and other materials to create a soft bio-engineered slope. Using vegetation and other materials to soften the land-water

interface is known to improve ecological features without compromising the engineered integrity of the shoreline (Best Management Practices for Soft Engineering, U.S. Fish and Wildlife Services July 9, 2008).

Design considerations should include tying into the top of the existing slope with a slope that is 3:1. A 3:1 slope will widen the creek channel; thus, reducing water velocities along the edges of the creek. Reduced velocities will in turn encourage deposition of suspended sediment and help begin the process of establishing a soil matrix for vegetation growth. In addition, slopes that are 3:1 can be stabilized with riparian vegetation which provides shade for aquatic species and filters urban runoff.

Willow Fascines & Filling Interstitial Spaces

We are concerned with the proposed attachment of willow bundle fascines to rip-rap as a way to establish willows at the rip-rap water interface. Additionally, the suggestion to later fill in interstitial spaces (after 2-3 years) with minimally erodible material to establish vegetation cover is also a concern. To our knowledge, neither of these approaches is a proven restoration methodology.

As discussed above, we suggest utilizing a soft engineering approach to re-design the slope. This technique should combine live and dead vegetation with other materials to create a slope that can be planted with willow stakes (*Salix spp.*) and other native plants. Unlike the proposed willow bundle fascines, many examples of stream bank stabilization projects that utilize willow stakes can be found in California. Planting of willow stakes is a known method to reduce erosion, encourage deposition of suspended sediment, and improve wildlife habitat associated with the immediate streambank.

Overall, our suggestions focus on eliminating and/or reducing impacts from the current rip-rap configuration while providing natural bank stabilization. Hard structures are known to have a high failure rate and are difficult areas to re-establish vegetation. Softer bio-engineered solutions are now recognized as more sustainable than rock rip-rap. If you have any questions or need any clarification of the information in this letter, please call Environmental Scientist, Kristi Birney, at the number listed above, extension 104. She can also be reached by email at kbirney@parks.ca.gov .

Thank you for your consideration of these comments in this matter.

Sincerely,

Ron P. Schafer

Ron Schafer
District Superintendent

ex. 13

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February 3, 2009

California Coastal Commission
South Central Coast Area
89 South California St., Suite 200
Ventura, CA 93001
Via fax: (805) 641-1732

Re: Opposition to CDP Application No. 4-98-024 to permanently retain 500 linear feet of rock rip-rap revetment on Malibu Creek at 3728 Cross Creek Road

Dear Coastal Commissioners:

Heal the Bay has reviewed Application No. 4-98-024, submitted by the Mariposa Land Company, which requests permission to permanently retain approximately 500 linear feet of rock rip-rap revetment along the west bank of lower Malibu Creek. After thorough review, Heal the Bay urges the Coastal Commission to deny this application. The proposed project is in direct conflict with numerous policies in the California Coastal Act, as well as the City of Malibu's Local Coastal Program ("LCP"), as it will negatively affect habitat that is designated environmentally sensitive habitat area ("ESHA"). Additionally, we believe the methods presented for revegetation of the impacted riparian zone will not achieve the stated goal of restoring upland and riparian habitat and will further exacerbate erosion and sediment loading of the Malibu Creek and Lagoon. Due to the proximity of this site to the ecologically important Malibu Lagoon, an environmentally responsible long-term, "soft" bioengineered solution is needed.

As stated in the staff report, this application is based on a previously issued emergency permit (Emergency CDP No. 4-98-024-G) and development, which has been unlawfully retained for the past 10 years. This permit was granted for an emergency situation during an El Niño year and was never intended to help the applicant permanently harden this stretch of the lower Malibu Creek and avoid meeting the conditions of the Coastal Act. As stated in the staff report, to obtain a full Coastal Development Permit, an application must be within 60 days of issuance of the emergency permit; otherwise, the emergency work shall be removed within 150 days of the emergency permit date.

Heal the Bay's Stream Team has over 10 years of experience in research and restoration of native riparian and scrub habitats in the Malibu Creek Watershed. The Malibu Creek and Lagoon are sensitive habitats that face disturbance from water quality impairments, hardened stretches upstream in the creek, and other factors in the watershed. The Malibu Creek and Lagoon are listed on the Clean Water Act section 303(d) list of Impaired Water Bodies for sediment, bacteria, and nutrients. Efforts are currently underway by the California Coastal Conservancy and State Parks to restore the ecologically significant Malibu Lagoon based on a restoration plan Heal the Bay helped develop.

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The Malibu Creek and lagoon also are home to important species. The Malibu Creek is listed by the National Oceanic and Atmospheric Administration as critical habitat for the southern California steelhead trout (*Oncorhynchus mykiss*), according to the Federal Register (Vol. 70, Number 170), and for tidewater goby (*Eucyclogobius newberryi*), according to Federal Register: January 31, 2008 (Volume 73, Number 21). Both of these species are federally listed as endangered.

Heal the Bay submitted a letter in 2005 to the City of Malibu opposing the Negative Declaration submitted for this project. We have provided that letter as an attachment, as most of our initial concerns are still valid and have not been adequately addressed in this application. We also address additional concerns, which are further detailed in this letter:

The following issues are of major concern to Heal the Bay in regards to the current application:

- The proposed project does not consider or has rejected environmentally superior alternative scenarios, as required by the City of Malibu LCP;
- The proposed project is in direct conflict with the California Coastal Act and City of Malibu LCP ESHA policies;
- The proposed project fails to address the fencing area, storage buildings, and the grouted rip-rap armoring directly upstream of the site, which contribute to stream bank erosion and habitat degradation;
- The streambank slope should be recontoured to better protect the area from further erosion; and
- The revised revegetation plan will not adequately restore upland and riparian habitat and it will exacerbate impacts from streambank hardening.

1. The proposed project does not consider or has rejected environmentally superior alternative scenarios, as required by the City of Malibu LCP.

The proposed project will have serious negative impacts to sensitive habitat areas designated as ESHA in the lower Malibu Creek system, including Malibu Lagoon. The presence of concrete rip-rap in the stream and riparian ecosystems negatively impacts and changes the stream's natural morphology, hydrologic balance, sediment regime, habitat provision, species composition, and natural chemical and biological processes.[1] A "soft" bioengineered solution, instead of one reliant on stream bank hardening, would create less impact to ecologically sensitive features at the site and downstream, and has not been adequately proposed or assessed.

[1] J. Craig Fischenich, 2003, "The Effects of Riprap on Riverine and Riparian Ecosystems" a report published by the US Army Corps of Engineers, Engineer Research and Development Center.

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As we outlined in our previous letter (Discussion Point #2), the presence of rip-rap as a permanent measure to redesign the stream bank for flood control measures is not a workable long-term solution and will have significant negative impacts onsite and downstream. A "soft" bioengineered solution is not only preferable, but it is mandated in section 3.32 of the Malibu LCP (Discussion Point #5). As further discussed below, the proposed project does not adequately demonstrate the feasibility of a "soft" bioengineered solution at this site.

Relying on the hardening of a stream bank for bank stabilization, where there are feasible non-hardening alternatives, is inconsistent with Chapter 3, section 3.2 of the LCP, which states, "Channelizations or other substantial alterations of streams shall be prohibited except for...2) flood protection for existing development where there is no other feasible alternative,...Any channelization or stream alteration permitted for one of these three purposes shall minimize impacts to coastal resources..., and shall include maximum feasible mitigation measures to mitigate unavoidable impacts." The project applicant has failed to demonstrate that a bioengineered bank stabilization project is adequate at this site. A "soft" bioengineered solution would meet the project goals of protecting existing structures, flood control, and habitat protection, and it would be compliant with Coastal Act and LCP policies (see Discussion Point #3 in the attached letter).

For example, alternative #6 proposed in the staff report, which features the construction of a concrete floodwall and revegetation of creek bank, is a viable alternative that is consistent with Coastal Act and LCP policies. Rejection of this alternative was based largely on cost, which is not an adequate reason under the Coastal Act, especially considering the impacts of the preferred alternative to the Malibu Creek and Lagoon and its associated aquatic life, including the federally endangered southern steelhead trout, a state-listed threatened species, and the tidewater goby, which are detailed in the attached letter (Discussion Point #2). Alternative #6 was also rejected based upon the potential erosional effects this alternative "could" have at the stream bank; however, sufficient evidence supporting this conclusion was not provided in the staff report.

We urge you to deny this application and instead recommend the removal of the existing rip-rap paired with a "soft" or bioengineered solution to stabilize the stream bank (such as that provided in Alternative #6), as this approach is consistent with the Coastal Act and LCP. Implementing a bioengineered solution at the site will effectively restore native riparian and upland trees, shrubs, and other vegetative components of the riparian zone, while preventing additional erosional impacts and sediment loading downstream that are associated with hardened revetments.

2. **The proposed project is in direct conflict with California Coastal Act and City of Malibu LCP ESHA policies**

The proposed project will result in further degradation to environmentally sensitive habitat area ("ESHA") at this location. Downstream scour and sediment loading from the existing rip-rap at this site already impact the lower Malibu Creek and Lagoon. The Malibu Creek is designated as

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ESHA. The staff report states that although Malibu Creek itself meets the definition of an ESHA, the disturbed west bank does not. We disagree with this conclusion. According to the Coastal Act and City of Malibu LCP, the west stream bank of lower Malibu Creek and the adjacent riparian buffer zone are designated and protected as ESHA. As such, it is the responsibility of the applicant and the Coastal Commission to ensure that this environmentally sensitive area is protected, according to law, and that impacts to this area and the contiguous areas of Malibu Creek and Malibu Lagoon are minimized and mitigated to the fullest extent possible.

According to the City of Malibu LCP the disturbed west bank should be considered ESHA. The City of Malibu Local Implementation Plan ("LIP"), Chapter 4.3.B.2, defines ESHA as, "Any habitat area that contributes to the viability of plant or animal species that are designated or are candidates for listing as rare, threatened, or endangered under State or Federal law." The Malibu Creek and Lagoon are critical habitat for the federal endangered southern steelhead and tidewater goby, and therefore, should be considered ESHA based on requirements under the LIP.

Furthermore, according to the City of Malibu Land Use Plan ("LUP"), lower Malibu Creek and its corresponding riparian area are considered part of ESHA. Section 3.1 of the LUP states, "The ESHAs in the City of Malibu are riparian areas, streams, native woodlands, native grasslands/savannas, chaparral, coastal sage scrub, dunes, bluffs, and wetlands, unless there is site-specific evidence that establishes that a habitat area is not especially valuable because of its special nature or role in the ecosystem." The area considered in the proposed project contains both stream and riparian habitat, and should be protected as ESHA under the LUP.

The project area is also mapped as ESHA in the City Malibu LCP. Section 3.6 of the LUP states "Any area mapped as ESHA shall not be deprived of protection as ESHA, as required by the policies and provisions of the LCP, on the basis that habitat has been illegally removed, degraded, or species that are rare or especially valuable because of their nature or role in an ecosystem have been eliminated." Coastal Commission staff contend in their report that, "Work will take place along a bank that has obviously been disturbed over the years, both by the erosive forces of Malibu Creek and by disturbance from adjacent development in the floodplain. As such, the subject bank is not considered ESHA." Under the LUP, degradation of habitat is not sufficient justification for loss of ESHA protections.

Moreover, Section 30240 of the Coastal Act requires that both ESHA and ESHA buffers be protected from development and activities that cause degradation.[2] Armored stream banks are one of three major causes of downstream bank erosion and sedimentation, based on Heal the Bay's Stream Team mapping efforts in the Malibu Creek Watershed. In addition to the hardened stream bank, the proposed project also features permanent submerged rip-rap within Malibu

[2] California Coastal Act section 30240 (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (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.

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Creek, which Coastal Commission staff already recognizes as ESHA since it is a blue-line stream. Approval of a permanent hardened revetment in Malibu Creek is inconsistent with the ESHA policies of the Coastal Act and the City of Malibu LCP, as it will cause further degradation of stream and riparian habitat in this area.

3. **The proposed project fails to address the fencing area, storage buildings, and the grouted rip-rap armoring directly upstream of the site, which contribute to stream bank erosion and habitat degradation.**

The contribution of upstream fencing, storage buildings, and rip-rap armoring to stream bank erosion and habitat degradation was discussed extensively in our previous letter (Discussion Point #3, Discussion Point #5 e. Bullet 8), yet it is still not addressed in the current proposal. The cumulative effects of these structures, which are contiguous to the project area, on both flood control and habitat impairment, must be addressed in this proposal and staff report. As outlined in our previous letter, both the fencing and storage area were illegally built in the riparian buffer zone, on the subject parcel, upstream of the subject stretch of riprap. These structures, in combination with the proposed downstream rip-rap revetment, will contribute to further bank erosion, failure of the bank downstream, and sediment loading to the stream and lagoon. Finally, the combined negative effects of these structures on the project area make it impossible to correctly assess the actual impacts of the described alternatives, as they may contribute to the failure of any of the proposed alternatives. The applicant has a long history of violating the Coastal Act and even now, while requesting Coastal Commission approval, has neglected to to remove these structures and restore the area. The presence of these structures must be addressed and included in the design of an environmentally superior alternative, and the illegal structures (fence and storage facilities) must be removed.

4. **The stream bank slope should be recontoured to better protect the area from further erosion.**

In a November 14, 2008 letter to the Coastal Commission, The California Department of Parks & Recreation (the owner and manager of downstream, impacted Malibu Lagoon State Park) recommends that a slope of 3:1 would be more suitable to habitat restoration at the site. However, under Special Condition #2, the staff report recommends recontouring the stream bank to a 2:1 slope. Insufficient evidence is provided in the staff report to substantiate the effectiveness of recontouring at a 2:1 slope. We urge the Commission to deny this project, and instead recommend a solution that is consistent with the Department of Parks & Recreation recommendation, as this would better support rehabilitation of native riparian flora, while also helping to mitigate high velocity flow at the site, and thus onsite erosion.

Furthermore, more information is needed regarding the geotextile fabric proposed to be used in the stream bank stabilization effort. Although the use of a geotextile fabric filter might be necessary to prevent soil loss during revegetation efforts, the applicant does not describe what type of product will be used. We recommend that only biodegradable materials be considered for long-term placement, as the use of non-degradable plastic-based material could have negative impacts on the riparian floral and

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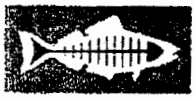
faunal communities, as well as to downstream recipients of possible degraded materials. The long-term placement of plastic-based materials would further hinder the growth of vegetation at the site. Plastic-based filter fabrics are designed for uses such as for placement under permeable concrete, and not for habitat restoration purposes. A full analysis of the material to be used on the slope would be needed to further address potential impacts to the ecosystem.

Moreover, depending on the material used for the geotextile fabric filter, it is possible that the filter fabric will create an artificial layer on top of the soil, under which plant and animal life will not be able to thrive. The high possibility of this effect is acknowledged in the applicant's restoration plan itself, where it is stated that holes will need to be cut in the filter fabric to accommodate the willow plantings.

5. **The revised revegetation plan will not adequately restore upland and riparian habitat and it will exacerbate impacts from stream bank hardening.**

The restoration goal within this project is "to create approximately 0.59 acres of riparian and upland habitat," however, the proposed restoration activities will simply not result in adequate habitat restoration. In the attached letter we address the faulty of design of the revegetation plan for this project (Discussion Point #4). We also find that the added revisions by Coastal Commission staff and per recommendations of scientists at Impact Scientists, do little to better the plan from an ecological viewpoint. For example, the plant list included in this application is limited to very few species. No habitat in Southern California consists of only nine species of plants, and we recommend more plant diversity be built into a proposed restoration at this site. Furthermore, the effects of disturbance to the rip-rap from the planted willows when they reach a mature size and overgrow the width of spacing between rip-rap blocks has not been addressed in the staff report. Heal the Bay's Stream Team has documented numerous rip-rap plantings that have failed throughout the watershed. Future concrete breakage and other impacts from mature willows associated with the proposed project should be considered in the staff analysis.



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Conclusion

Heal the Bay opposes this project and strongly urges the Coastal Commission to deny this application, which would result in the permanent hardening of this lower reach of the Malibu Creek. In fact, we have testified previously urging the Commission to move forward on enforcement action against the applicant because of the egregious violations of the Coastal Act. Rather than moving forward on enforcement, Commission staff unconscionably went against the recommendations of State Parks, City of Malibu LCP policies and ESHA requirements to recommend a severely flawed streambank stabilization project. The application is not supported by sound ecology, and it is in direct conflict with the Coastal Act and City of Malibu LCP. The emergency rip-rap located at this site has detrimentally impacted the natural resources and water quality in the Malibu Creek and Lagoon for the past ten years. Approval of this project will have long-term negative impacts from stream bank erosion and sediment loading on the Malibu Creek and Lagoon and will potentially compromise future habitat restoration efforts in these areas. Significant financial investments have been made by the State Coastal Conservancy and the City of Malibu to improve water quality and enhance habitat at Malibu Lagoon and Surfrider Beach. Restoration of Malibu Lagoon, at considerable taxpayer expense, will begin soon and this project will likely negatively impact this restoration. As one of the few remaining coastal wetlands in Los Angeles County, it is critical that the Malibu Lagoon be protected and restored.

We urge the Commission to recommend a "soft" bioengineered solution at this location, which would restore riparian habitat and some floodplain connectivity in this region. Restoration is preferable to continued degradation. A "soft" bioengineered solution would also be more cost effective, as it would not require regular maintenance and repair. We appreciate the opportunity to comment on this staff report; please contact us if you have any questions.

Sincerely,

/s/	/s/	/s/
Alison J. Lipman, Ph.D. Stream Team Manager Heal the Bay	Sarah Abramson Sikich Director Coastal Resources Heal the Bay	Mark Gold D.Env. President Heal the Bay

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August 4, 2005

City of Malibu Planning Division
Attn: IS No. 03-003
23815 Stuart Ranch Road
Malibu, Ca 90265

Submitted via email to Raneika Brooks-McClain rbrooks@ci.malibu.ca.us

Re: Opposition to the Mitigated Negative Declaration (MDN) No. 04-002 for 3738 Cross Creek Road (APN 4452-011-036)

Dear Raneika Brooks-McClain,

Heal the Bay has reviewed the Mitigated Negative Declaration No. 04-002 for 3738 Cross Creek Road (APN 4452-011-036) ("MDN") and vigorously opposes its certification. The MDN is in direct conflict with numerous policies in the City of Malibu's Local Coastal Plan (LCP), LCP Land Use Plan, and LCP Local Implementation Plan.

First of all, this issue is currently an open enforcement case for the California Coastal Commission and thus it is not appropriate for the City to issue the MDN at this time. Second, the MDN is not compliant with the LCP as it fails to present or consider an environmentally superior alternative or any viable alternatives for that matter, and thus is not consistent with applicable laws. This is inconsistent with the principles of CEQA as well. Third, not only will the proposed mitigation and solution to this recurring problem set forth in the MPN not work, it does not utilize current design criteria for installing planned rip-rap to prevent failure. Heal the Bay strongly disagrees with numerous assertions made by City planning staff and the applicant regarding the significance of impacts associated with the loose boulder rip-rap in Malibu Lagoon. Due to the sensitive nature of the resources in the immediate area, a full EIR that incorporates a long-term environmental alternative should be required for this project. We are at a loss as to why the City of Malibu would review a mitigated negative declaration for a project that falls under Coastal Commission jurisdiction and which has been in violation of the Coastal Act and without a valid Coastal Permit since at least September of 1998. Indeed, this project is currently an open enforcement case for the Coastal Commission. In short, the overall plan as proposed is inconsistent with existing coastal policies and plans, will not function properly and will lead to further degradation of water quality and habitat over the long term.

I. Discussion

The following issues were of major concern in our review of the proposed mitigated negative declaration:

- Non-compliance with their Coastal Permit from September 1998 to present; no mitigation to correct violations;

ex. 13

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- Failure to design a sustainable [illegible]ally sound project or alternatives analysis;
- Failure to address fencing [illegible]ed rip-rap armoring directly upstream
- Proposed planting of existing rip-[illegible]
- Inadequate mitigation to address [illegible]and no assessment of downstream impacts.

1. Non compliance with Emergency [illegible]from September 1998 to present; no mitigation or attempt to correct violations.

The emergency permit ("Permit") was granted by the Coastal Commission to protect structures during an emergency situation (El Nino) and was never intended to help the applicant avoid meeting the conditions of the Coastal Act. Moreover, the applicant did not even meet the conditions required in the Permit to make the emergency work permanent. The applicant is therefore in violation of their Permit conditions and has been since September of 1998. The intent of an emergency permit is not to allow for the permanent placement of structures that damage waters of the United States and fill wetlands, but to protect property during extreme conditions using temporary measures. This is clearly in the Permit dated February 20, 1998, Emergency Permit Application Number 4-98-024-G, in Attachment 7, Page 2, Bullet Point 4 and "Important" note.

> *Within 60 days of the date of this permit, the permittee shall apply for a regular Coastal Permit to have the emergency work be considered permanent. If no such application is received the emergency work shall be removed in its entirety within 150 days of the date of this permit unless waived by the director.*
>
> ***IMPORTANT***
> ***Condition # 4 indicates that the emergency work is considered to be temporary work done in an emergency situation. If the property owner wishes to have the emergency work become a permanent development, a coastal permit must be obtained. A regular permit would be subject to all the provisions of the California Coastal Act and may be conditioned accordingly.***

Bullet 7 on the same page states:

> *The regular Coastal Development permit application shall include an analysis of all other alternatives for shoreline, bluff, or stream bank protection prepared by a qualified engineer.*

The applicant did not submit an application for a new Coastal Permit to make the emergency work permanent. Nor did the applicant conduct an analysis of all other alternatives for stream bank protection. Instead, the applicant now, 7 years later, is trying to make the rip rap permanent through a mitigated negative declaration, which also contains so analysis of alternatives. This is not consistent with the Permit or the Coastal Act.

Further, the proposed MND fails to recognize the serious impacts caused to the ecosystem by the installation of the rip-rap in 1998 and the significant impacts that have occurred during the time in which the applicant has been in violation of their temporary Permit (September 1998 to date), as well as ignores the requirement to comply with the provisions of the Permit and to correct the situation. Allowing the rip-rap to become a permanent solution will degrade water quality and habitat downstream including critical

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habitat for the federally endangered steelhead trout and tidewater goby. Exhibit 1 shows Heal the Bay's map of this area; special notice should be paid to the stream bank erosion downstream of the rip-rap at issue. This is a continual source of sediment loading to Malibu Lagoon. Fine sediments are considered a significant source of phosphates in the summer months and contribute to eutrophication in the Lagoon (Malibu Lagoon Restoration and Enhancement Plan, June 2005). The existing rip-rap on site is already failing (toe undercut) and this lateral and downstream channel erosion further exacerbates sediment loading to Malibu Lagoon. Malibu Lagoon is on the State's 303(d) List of Impaired Water Bodies for algae, eutrophication, and sediment. The City should prevent further exacerbation of these already existing impairments to the Creek and Lagoon, both of which are important ecologically and economically to the City.

2. Failure to design a sustainable environmentally sound project or provide alternative analysis.

The current emergency solution (rip-rap) is neither sustainable nor sound. This is clearly evidenced by the fact that the existing rip-rap on site is already failing (toe undercut) and will need to be repaired and maintained in perpetuity. The applicant is aware of this problem, as they have requested, as part of the MND, to:

> "maintain the existing rock revetment including the recovery of migrated boulders that may be moved by future storm events, placement of additional rock only to replace migrated boulders when they can not be recovered."

However, every time boulders are replaced and the rip-rap repaired more degradation of water quality and habitat will occur. Heal the Bay has mapped over 70 miles of streams in the Malibu Creek Watershed and has documented 987 individual bank armoring projects, of which 62% were failing or had failed. Loose boulder rip-rap accounted for 403 of the mapped bank armoring projects and had a failure rate of 74.9%, and grouted or concreted boulder rip-rap accounted for 173 of the mapped bank armoring projects with a failure rate of 68.2%. Armored stream banks were one of three major causes of downstream bank erosion and sedimentation identified in the Draft State of Malibu Creek Watershed Report. Luce and Abramson, June 2005. The data analyzed in that report clearly demonstrated the ineffectiveness of bank hardening, especially rip-rap, as well as the damage that armored stream banks cause to downstream resources.

Due to the proximity of this site to Malibu Lagoon its sensitive resources, a sustainable environmentally responsible long-term solution is needed. Heal the Bay strongly urges the applicant and the City of Malibu to re-contour the stream banks and use soft bioengineered solutions to stabilize the banks for the long term. Bioengineered solutions will afford greater strength and protection against bank erosion and will promote vegetation to shade the stream and uptake pollutants. *See* Nelsen, Chirbas, and Myrowich, "Turf Reinforcement Mattings: An EPA-recognized stormwater BMP" in Stormwater at 64 (March/April 2005. A vegetated buffer zone would also intercept storm water runoff before it gets to the Malibu Creek and assist in meeting the upcoming TMDLs for nutrients and sediments. Any plan should create a vegetated buffer to stabilize the banks along the entire stream reach and should involve removing the fencing that is forcing stream flows into the bank instead of allowing energy dissipation through vegetated buffer overbank flows. This will ultimately increase the ecological benefits to the creek, eliminate the need for long term maintenance, and dissipate energy.

ex.13

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The alternatives evaluation in Attachment 10 of the MND is incomplete and grossly misleading. For example, to suggest an alternative to concrete channels like the Los Angeles River and then to compare that alternative to the proposed rip-rap alternative in an attempt to show that the proposed solution is more environmental is misguided and insulting to the public. No evaluation was done for bioengineering using soft materials, nor has this type of alternative been evaluated at any level of detail. Notably, such an evaluation is required by the LCP. The applicant has not demonstrated that bioengineering and restoration can not accomplish flood protection and would not be feasible. Heal the Bay has discussed this issue with numerous stream restoration experts, all of whom have concluded that bioengineering is feasible at this site. The applicant must consider and compare bioengineered alternatives in order to make a valid assertion that the proposed alternative is the more environmental solution.

In fact, during the development of the Malibu Lagoon Restoration and Enhancement Plan, completed in June 2005, a preliminary evaluation of the conditions at this site was performed by the consultants. They found that energy dissipation could be accomplished and could be integrated into the final design of the lagoon restoration if the applicant were willing to do so. To create a sustainable long-term solution, the applicant should consider an alternative that would re-contour the slopes of the entire reach up to the grouted rip-rap, restore riparian vegetation, and create the widest possible vegetated buffer zone. This would allow streamflows to overtop into a vegetated buffer area where scour velocity can be slowed and energy dissipated. This alternative would require laying back the slope of the existing bank and possibly installing a floodwall in front of the shopping center as far back as possible. These suggestions would be consistent with policies 3.8, 3.23, 3.32, 3.34 ,3.88 and 3.121 of the City of Malibu's LCP Land Use Plan and the Hydromodification section 17.9 paragraph B of the LCP Local Implementation Plan. Thus, there is a viable and feasible environmental alternative that could have been considered may be implemented. Yet the applicant did not even describe such an alternative in its analysis. This must be done before any MND can be approved.

3. Failure to address adjacent fencing and grouted rip-rap armoring directly upstream, which contribute to the stabilization problem.

The analyses in the MND fails to address or consider the impacts of the grouted rip-rap and fence placement directly upstream on the applicants property, both of which contribute to bank erosion and bank failure downstream. If all of three of these elements are not addressed together, existing erosion and bank failure problems will continue to occur, and the resulting maintenance activities will continue to jeopardize water quality and habitat in the lagoon.

The attached 1997 aerial photo (Exhibit 3) clearly shows that the upstream fencing did not exist prior to the bank erosion. If it had been built prior to the rip-rap, it would have been eliminated when the stream bank eroded. Thus it must have been built either at or after the construction of the rip-rap, and without a Coastal Permit. Further, a comparison of Exhibit 2 taken in 2004 and Exhibit 3 taken in 1997 clearly shows the loss of vegetation that occurred within the fenced area. The steep bank that supports the fencing forces higher volumes and velocity water to scour the stream bank contributing to its failure. As there is no mention of the fencing in the temporary Permit, and there is no other Coastal Permit allowing this fencing, it should be removed. Similarly, the grouted rip-rap upstream of the project (Exhibits 1 and 2) actually deflects flows toward the project stream bank and likely induces scouring of that bank.

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Clearly, if the fencing and upstream rip-rap [illegible] removed, there is an even higher likelihood that the proposed stabilization will continue [illegible]

4. Proposed planting of existing rip-rap.

The applicant's proposal to plant the existing [illegible] will not work. The current installation techniques for installing "planted rip-rap" [illegible] use of underlayment and surface matting, purposefully sized and spaced boulders to accommodate planting and retain soils, special soil amendments below and within the rip-rap, and integration of a planting plan as part of the design. The current rip-rap is already failing and was not designed to accommodate planting. The pore spaces proposed for planting will leak top soil and any soil amendments into Malibu Lagoon, contributing even more sediment and nutrients into already impaired waters. This same poorly conceived idea of simply burying rip-rap and planting the area above the water level was attempted just upstream at the new Serra Retreat Bridge; it failed spectacularly in the first month. In addition, Heal the Bay's Stream Team has documented numerous rip-rap plantings that have failed throughout the watershed. A real, sustainable, environmentally sound long-term solution needs to be designed for this site. In addition, any solution must address the source of bank scour such as steepened banks with fencing and the grouted rip-rap upstream.

5. Inadequate mitigation to address impacts and no assessment of downstream impacts.

Although Heal the Bay strongly urges the city to deny the MND in its entirety, for the sake of completeness we offer the following specific comments and recommendations on the document itself. In that regard, each of the following impact assessments and/or mitigation measures in the MND are fatally flawed.

a. Biological Resources

First, we strongly disagree with the assessment of the following impacts in Section D: Biological Resources of the MND and the evaluation of these impacts (pp.13-16). In fact, as each of these impacts will actually be potentially significant, the applicant's MND should be denied and a full EIR conducted.

Bullet 1. The MND states that the impact to steelhead trout and tidewater goby habitat are less than significant. As discussed above, the ongoing erosion caused by the rip-rap to the downstream banks and the channel down cutting that contribute fine sediments are major factors in the summer algal blooms and eutrophication in the lagoon. Tidewater goby prefer sand substrate for rearing and breeding. Malibu Lagoon Restoration and Enhancement Plan, June 2005. Further, low dissolved oxygen in the lagoon has been responsible for fish kills in the past and has the reasonable potential to cause future fish kills that could affect goby and/or steelhead trout. The project as proposed will do nothing to reduce downstream erosion or down cutting and does pose a potentially significant impact to both species.

Bullet 2. The existing rip-rap has and continues to prevent riparian vegetation growth. This was further exacerbated by the installation of the upstream fence well within the 100 ft buffer zone as well as the subsequent clearing of the property behind the fence for vehicle storage. The proposed project does not restore the previous extent of riparian buffer vegetation. Thus, it constitutes a potentially significant impact.

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Bullet 3. Continued downstream erosion [illegible] substantially degrade water quality and habitat in a federally protected wetland [illegible] lost connectivity of the floodplain, and the inability to infiltrate stormwater [illegible] continue to adversely impact the wetland habitat and water quality. Thus, Bullet 3 also [illegible] considered a potentially significant impact.

Bullet 4: Increased sedimentation of the [illegible] increase in fine sediment and loss of sandy substrate, has the reasonable poten[illegible]water goby breeding habitat and should be listed as a potentially significant impact.

Bullet 6. The current loose boulder rip-rap and fencing are in the riparian buffer ESHA and conflict with the following sections of Malibu's Local Coastal Plan/Land Use Plan:

> 3.23 State Development adjacent to ESHAs shall minimize impacts to habitat values or sensitive species to the maximum extent feasible. Native vegetation buffer areas shall be provided around ESHAs to serve as transitional habitat and provide distance (minimum 100ft.) and physical barriers to human intrusion.
> 3.32 Channelizations or substantial alterations of streams shall be prohibited except for flood protection of existing development where there is no feasible alternative and bioengineering shall be preferred for flood protection over rip-rap channels.
> 3.34 Bioengineering methods or "soft solutions" should be developed as an alternative to constructing rock revetments, vertical retaining walls or other "hard structures" along lower Malibu Creek. If bioengineering methods are demonstrated to be infeasible, then other alternatives may be considered. Any applications for protective measures along lower Malibu Creek shall demonstrate that existing development in the Civic Center is in danger from flood hazards, that the proposed protective device is the least environmentally damaging alternative, that it is sited and designed to avoid and minimize impacts to the habitat values of the riparian corridor along the creek and the recreational and public access use of State Park property along the creek, and that any unavoidable impacts have been mitigated to the maximum extent feasible.
> 3.88 Buffer areas shall be provided around wetlands to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of sufficient size to ensure biological integrity and preservation of the wetland they are designed to protect, but in no case shall they be less than 100 feet in width.
> 3.121 Alteration or disturbance of streams or natural drainage courses or human-made or altered drainage courses that have replaced natural streams or drainages and serve the same function, shall be prohibited, except where consistent with Policy 3.32. Any permitted stream alterations shall include BMPs for hydromodification activities.

This project also is in conflict with the City of Malibu, Local Implementation Plan, Section 17.9: Hydromodification, Paragraph B:

> Any channelization or stream alteration permitted for one of these three purposes shall minimize impacts to coastal resources, including the depletion of

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groundwater, and shall include [illegible] measures to mitigate unavoidable impacts. Bioengineering [illegible] alternative exists, is the only acceptable method of bank stabilization and flood protection for new development, and the preferred [illegible]. Where armoring of stream banks has failed [illegible] bioengineered structures, unless [illegible] alterations shall include BMPs such as [illegible] design, deflecting flow from eroding stream banks [illegible] eroding bank and establishing vegetation.

Clearly the applicant should state in Bullet 6 that the project will cause potentially significant impacts.

b. The MND Contains Non-Meaningful Conditions

Second, the third paragraph on Page 15 of the MND states that the project will be conditioned such that if the stream bank fails it will be replaced using bioengineered methods. As stated earlier, the rip-rap and adjacent fencing currently does not have a valid Coastal Permit. In addition, it is subject to the conditions and requirements of the LCP, which requires consideration of a bioengineered solution. Yet this MND application requests the ability to repair the structure in perpetuity, thus ensuring that bioengineering will never occur. So for all practical purposes, this condition is irrelevant and meaningless. This is clearly in conflict with City and State Coastal Programs and Policies and should be corrected. The applicant should be required to use bioengineering and restore the riparian buffer to the maximum extent practicable and be brought into compliance with the Coastal Act and Malibu's LCP. (Notably, this paragraph of the MND acknowledges the feasibility of using bioengineering at this site.)

c. Proposed Mitigation Measures

Third, the proposed mitigation measures on page 15 are flawed:

Bullet 1 requires monitoring for three years of the invasive removal program and vegetation restoration components. This is not long enough to establish success and we recommend that 5 years be the minimum monitoring requirement. Further, 5 years was the recommended monitoring and eradication time frame in the Attachment 10 report prepared for the applicant.

Herbicides should not be applied this close to the lagoon. We recommend mechanical removal at the time the stream bank is recontoured and hand removal throughout the 5 year period. Additionally, the Attachment 10 report recommends removal or treatment of invasive vegetation twice a year. Heal the Bay has extensive experience in hand removing exotic invasive vegetation in this area and we strongly suggest a minimum of 6 removal visits each year for the 5 year duration. Additionally, before and after photos taken at permanent photo points should be integrated into the monitoring and reporting program.

Bullet 3: We recommend that a certified botanist or native plant expert be onsite during all construction activities and vegetation removal activities.

Bullet 9: We recommend that all plant stock be acquired through State Parks and locally harvested by State Parks Resource Ecology Personnel. This is critical to maintain the genetic diversity within Malibu

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Lagoon State Park. In addition, we believe [illegible] is grossly inadequate and needs to be prepared in conjunction with the Resource [illegible] State Parks to ensure appropriate plant materials and revegetation techniques are utilized.

Bullet 12: We recommend extending [illegible] that a certified botanist or native plant expert [illegible] photo point monitoring from permanently established photo points.

d. Geology and Soils

Fourth, the analysis in MND Section F Geology and Soils is incomplete and flawed:

Bullet 2: The project does and will continue to result in substantial soil loss through downstream bank erosion and channel down cutting. The project as proposed does little, if anything, to rectify this problem. In addition, if topsoil is placed in the current rip-rap spaces that were not engineered to accommodate plantings this dirt will fall through the holes or be washed away into Malibu Lagoon. These constitute potentially significant impacts, which are ignored completely in the impacts discussion in section F. They must be addressed.

No mitigation has been proposed for soil loss by erosion or soil dumping into the creek during installation. The applicant must state how erosion and sediment loading will be eliminated and /or mitigated during the installation process.

[illegible] that the revegetation plan is [illegible] reviewed by a biologist at State Parks [illegible]

e. Hydrology and Water Quality

Fifth, Section H: Hydrology and Water Quality is incomplete and flawed:

[illegible] on site during all removal activities, and requiring [illegible]

Bullet 3 and 4: The grading associated with rip-rap installation, the rip-rap, the removal of vegetation and compaction of soils for vehicle and other storage in the fenced area, and the elimination of riparian buffer all reduce the capacity for stormwater infiltration and intercept of polluted stormwater runoff. These cumulatively have substantially altered the drainage pattern on site and decreased the ability to dissipate energy during storm events. In addition, the rip-rap has created downstream bank erosion by transferring energy downstream and channel down cutting has occurred due to increased volume and scour velocities associated with these alterations. The Lagoon is already impaired for sediment and eutrophication, which are being received as a result of this project. The proposed "fix" does little, if anything, to rectify these problems. Bullets 3 and 4 should both state the project would cause potentially significant impacts. These impacts and their mitigation are not adequately addressed in the MND.

Bullet 8: The fencing and equipment storage area, which were illegally installed without a Coastal Permit, is within a 100 year flood hazard area and does redirect flood flows. It is these structures that have eliminated riparian vegetation and buffer area which contribute to the higher scour velocities and larger volumes of water that are causing the current rip-rap to fail. This constitutes a potentially significant impact. The applicant should discuss this impact and appropriate mitigation in Bullet 8.

II. Conclusion

[illegible] is incomplete and flawed.

[illegible] rip-rap installation, the rip-rap, the removal [illegible] storage in the fenced area, and the elimination [illegible] infiltration and intercept of polluted [illegible] substantially altered the drainage pattern on site and decreased the

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We urge the City
for this site is wholly inadequate and is in direct conflict with
Act and Malibu's own Local Coastal Plan Land Use Plan and Imp- term sustainable solution to
problem. In fact during the creation of the Lagoon Restoration and Enhancement
team research and present other
remaining coastal wetlands
have been spent and will be spent in the near future by the State and the City of Malibu to improve water quality and enhance habitat at Malibu Lagoon and Surfrider Beach. Further, this site was considered one of the highest priority restoration sites to enhance Malibu Lagoon throughout the 6 year planning, facilitation, and design process that culminated in June 2005 with the Malibu Lagoon Restoration and Enhancement Plan. This 6-year effort involved diverse
homeowners, homeowner associations, government agencies and environmental groups. The proposed project will not work and will continue to degrade water quality and critical habitat for the federally endangered tidewater goby and southern steelhead trout. In addition, the rip-rap will require maintenance and repair in perpetuity, each time further degrading habitat and water quality. A bioengineered solution that restores some floodplain connectivity and restoration of riparian vegetation would be more cost effective and would be consistent with the Coastal Act and Malibu's Local Coastal Plan as well as with the overall restoration effort for Malibu Lagoon and Surfrider Beach.

Heal the Bay has worked closely with the City of Malibu on numerous wastewater, stormwater, Malibu Lagoon, and Surfrider Beach water quality issues. Presently, as a demonstration of our good faith Heal the Bay supported the Civic Center conceptual wastewater and stormwater management plan and we worked very closely with the city on their urban runoff treatment facility. In addition, Heal the Bay spearheaded the effort to complete the Malibu Lagoon Restoration and Enhancement Plan. Any action other than the denial of the project proponent's MND will be detrimental to our mutual efforts to clean up and restore Malibu Lagoon and Surfrider Beach. The emergency rip-rap bank stabilization has already had a detrimental impact on Malibu Lagoon's natural resources and water quality for seven years. At this point, the City shouldn't consider any project short of a full-blown stream bank and riparian buffer restoration plan with a mitigation component for historic damages caused by the emergency rip-rap bank modification.

We appreciate the opportunity to comment on this MND.

Sincerely,

/s/ /s/ /s/

Mark Abramson	Heather Hoecherl Esq.	Mark Gold D.Env.
Stream Team Manager	Director Science and Policy	Executive Director
Heal the Bay	Heal the Bay	Heal the Bay

ex. 13

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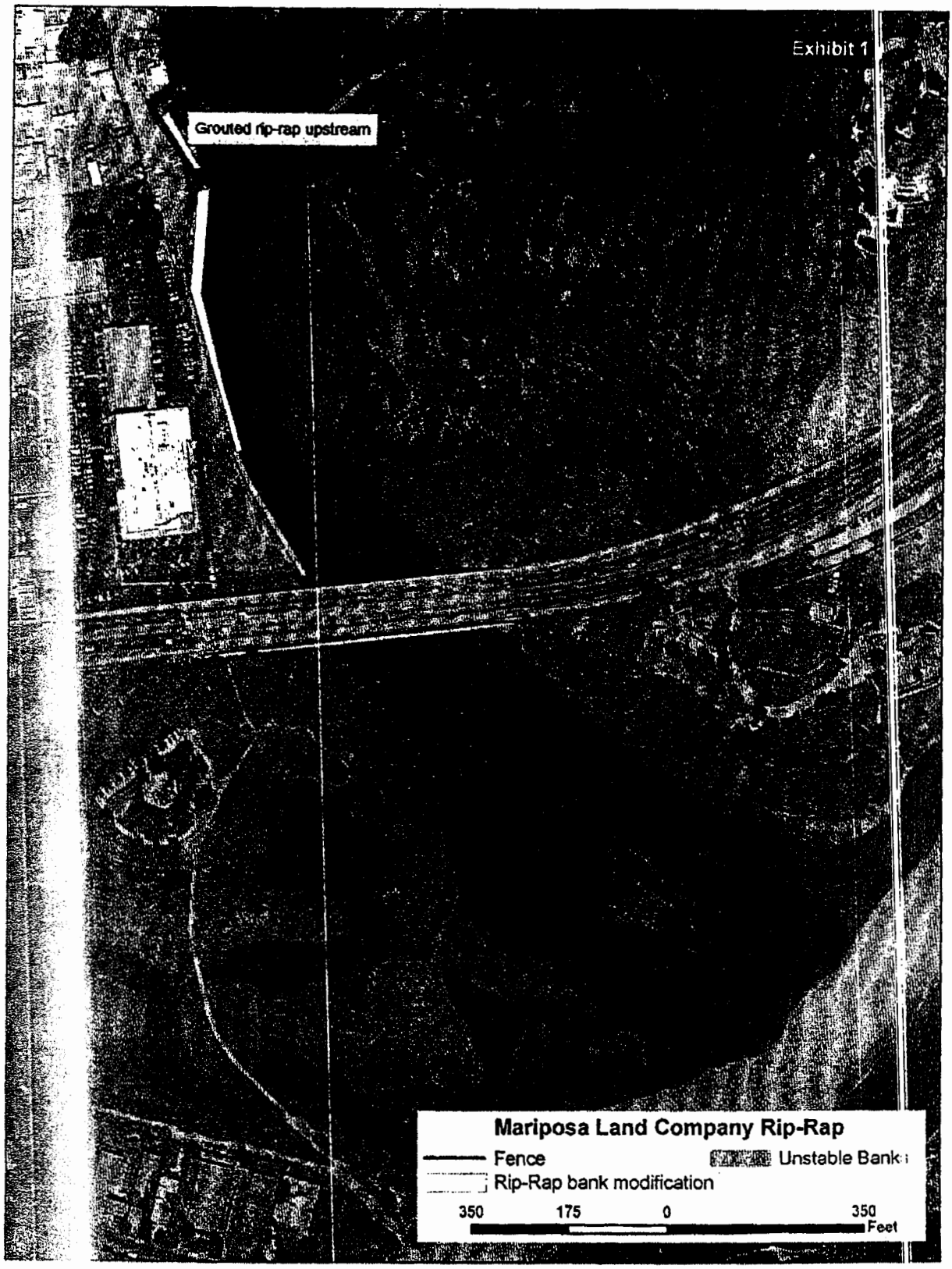

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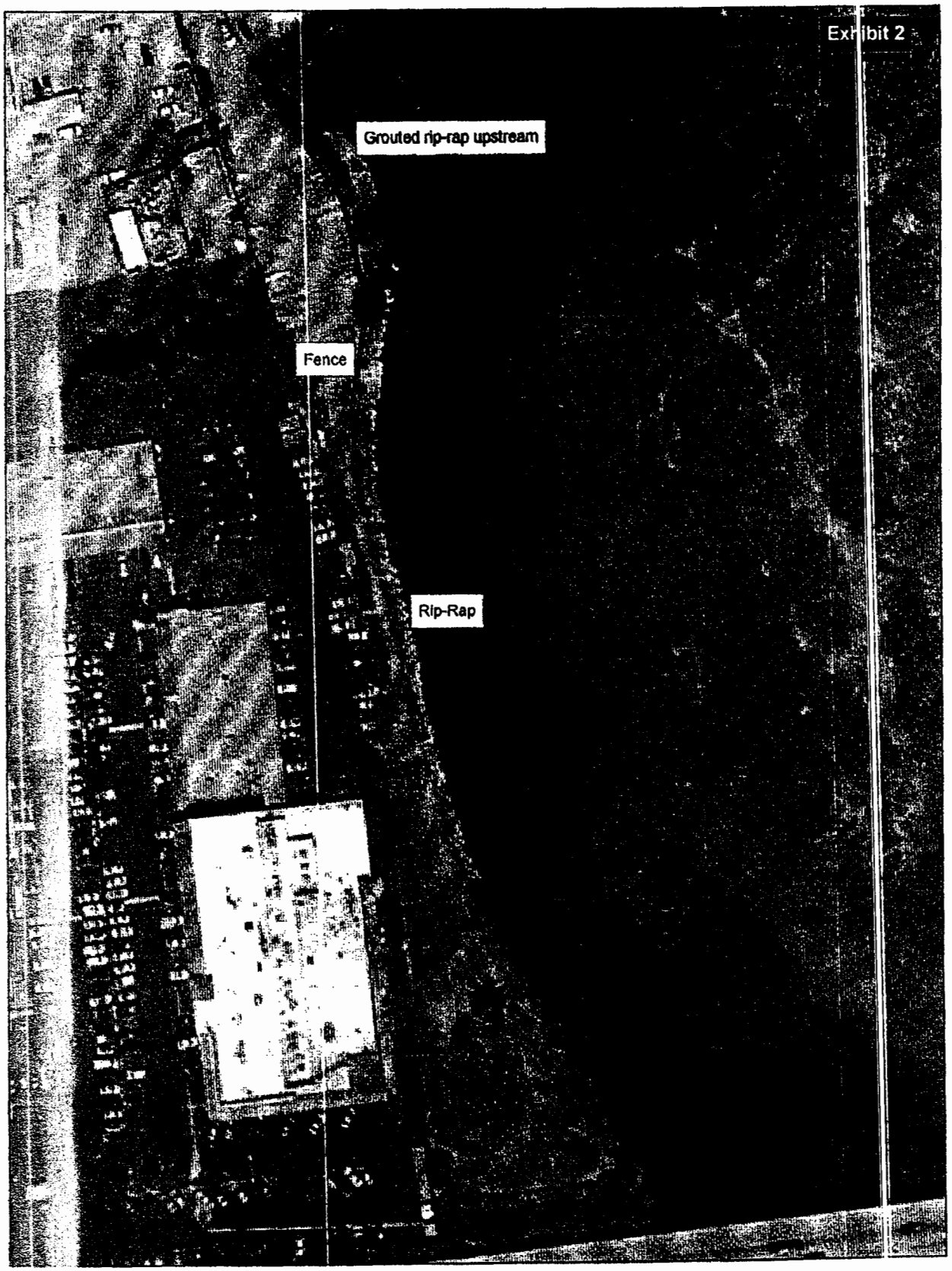

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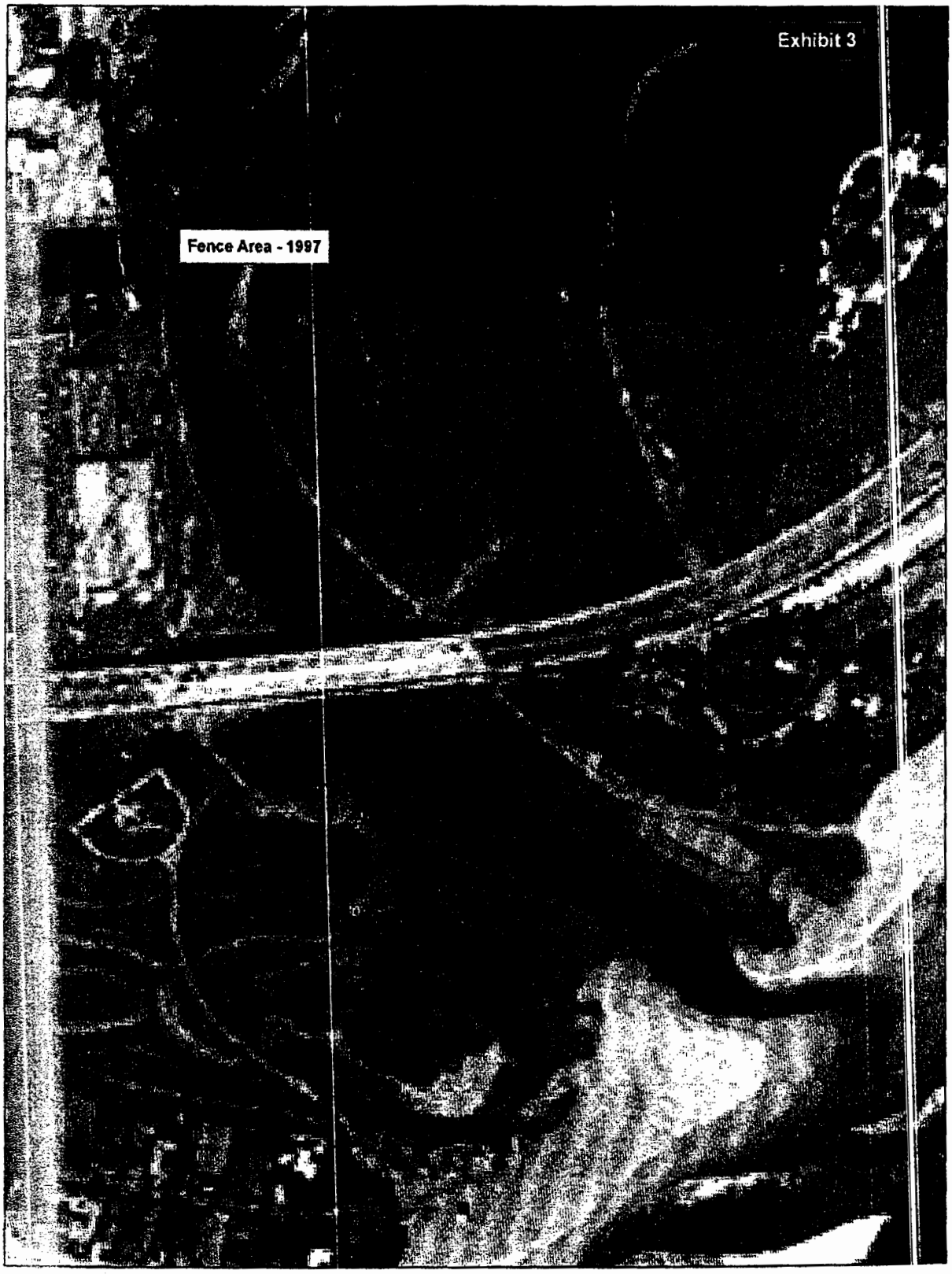

Malibu Surfing Association

A non-profit organization
Federal Tax ID 95-4459007

PO Box 2683
Malibu, California
90265-7683 USA

msasurfing.org

February 3, 2009

VIA FEDERAL EXPRESS

California Coastal Commission
South Central Coast Area
89 South California St., Suite 200
Ventura, CA 93001

Re: Agenda Item: Th2.6a
Application No.: 4-98-024

To Whom It May Concern:

Malibu Surfing Association was founded by members of the Malibu community more than 40 years ago and we are intimately involved with the past, present, and future of Malibu Lagoon and Surfrider Beach. Many of our members are residents of the City of Malibu and we are an entirely volunteer association. We speak on behalf of our members whose views represent those of the surfing community and the 1.5 million visitors to Malibu Surfrider Beach who should be able to use this recreational resource without fear of water borne illness.

This letter shall constitute our objection to the California Coastal Commission Staff Report and recommendations, related to the Mariposa Land Company Application (4-98-024) for a permit to make permanent the 500 ft. stretch of riprap along the west bank of lower Malibu Creek, at their site at 3738 Cross Creek Road.

We are joining in and concurring with Heal the Bay's comment letter which is being submitted contemporaneously. In particular, we believe that the Staff Report and recommendations still fail to address the following:

1. The project, and the Coastal Commission's review of it, still defends illegal hardening of a streambank of Malibu Creek, which is designated as riparian habitat ESHA (Ecologically Sensitive habitat Area) by all interpretations of the Coastal Act and Chapter 3 of the City of Malibu LCP Land Use Plan. Even if this area were not designated ESHA, it would still be well within the legally protected 100 ft. buffer of Malibu Creek;

2. The proposal of the plan to "create riparian habitat," even with revisions by the Coastal Commission, is a false one, for the following reasons:

    a. The proposed 2:1 slope is still too steep to create viable habitat;

Re: Agenda Item: Th2.6a
Application No.: 4-98-024

b. The idea that concrete riprap can support native riparian flora and fauna, many of which depend on a sandy substrate, is absurd;

c. The idea to use a "geotextile filter fabric" as an underlay to the riprap could cause potential additional problems to the environment, depending on material used (many are plastic-based); and

d. The inclusion of only a handful of plant species in the revegetation plan does not constitute "habitat".

3. The proposal still does not address the illegal fence and 400 ft. of riprap located upstream and contiguous to the site;

4. Both the Coastal Act and the City of Malibu LCP Land Use Plan clearly state that impacts to ESHA and buffer areas to protect existing structures are allowed only when there are no "feasible alternatives." There are feasible alternatives to this plan that have not been considered. One is the creation of a flood wall on the existing parking structure, to protect the entire property; and

5. The current proposed plan could necessitate further impact to the creek, due to described construction activities.

Thank you for taking the time to consider our comments.

Sincerely,

Joseph S. Melchione, Chairman
Environmental Committee
Malibu Surfing Association

JSM/so

SANTA MONICA
BAYKEEPER

February 3, 2009
California Coastal Commission
89 South California Street, Suite 200
Ventura, CA 93001

Re: Follow-up to Emergency Coastal Development Permit No: 4-98-024, Placement of Rock Rip Rap Along Lower Malibu Creek – DENY Permit Application

Dear Commissioners,

My name is Mark Abramson. I am the Director of Watershed Programs for Santa Monica Baykeeper. I have been monitoring water quality, biological communities, and restoring stream and wetland habitats throughout the Santa Monica Mountains for more than 12 years. I have also been commenting on this specific project for more than 10 years. This project remains relatively unchanged despite the fact that the Coastal Commission has recommended that the applicant restore the area and has denied the applicants previous Coastal Development Permits to leave the rip-rap on this site. The Santa Monica Baykeeper strongly urges the Commission to **deny** staff's recommendation on CDP ***Permit Application 4-98-024 with 13 special conditions to address the unpermitted loose boulder rip-rap on the applicant's property that was installed in 1998 as "an emergency permit".***

While the staff recommendations of the 13 special conditions improve the project they are wholly inadequate and do not restore the streambanks of Malibu Creek and Lagoon and will likely not work as staff intends. The staff report and proposed permit fails to address the 10 plus years of with the emergency permit and water quality degradation of Malibu Creek and Lagoon caused by the unpermitted rip-rap. The project as proposed is not compliant with the Coastal Act, the Malibu Local Coastal Plan LUP or LIP.

Additionally, staff has incorrectly stated that the project area in question is not ESHA. We vehemently disagree with this unfounded assertion. The disturbances on this site have been wholly caused by the property owner and the site has been maintained purposely in this unnatural state. Directly upstream and downstream of the project site Malibu Creek and Lagoon has intact riparian and wetland vegetation. If not for the activities of the landowner and the rip-rap installed on the site, this location would also have extensive riparian and wetland vegetation.

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Additionally, this area supports and is critical habitat for two federally endangered fish species: steelhead trout and tidewater goby. This deliberate degradation and destruction of ESHA should not be validated or encouraged as the staff is proposing here with its recommendation to approve the CDP.

In addition, the proposed permit does not address persistent Coastal Act violations that have occurred on the same parcel and constitute impermissible encroachment into the stream buffer area. These same violations exacerbate conditions that cause or contribute to streambank erosion and degrade water quality downstream. The staff report makes no recommendation to correct these violations.

The proposed staff solution to create planted rip-rap does not incorporate proper techniques or reflect current practices. Finally, the planting plan is woefully inadequate to restore riparian habitat and ESHA buffer back to this site.

In short, the overall plan as proposed is inconsistent with existing Coastal Act policies and the Malibu Local Coastal Plan; it will not function properly and will lead to further degradation of water quality and habitat over the long term.

I. Background:

Rip rap does a poor job of stabilizing stream banks and causes or contributes to downstream erosion and sediment loading. Based on my specific experience in the Malibu Creek Watershed I believe that the rip rap proposed by this project is a wholly inadequate approach to stream bank stabilization in the Lower Malibu Creek.

I have mapped over 70 miles of streams in the Malibu Creek Watershed and documented 987 individual bank armoring projects, of which 62% were failing or had failed. Loose boulder rip-rap accounted for 403 of the mapped bank armoring projects and had a failure rate of 74.9%, and grouted or concreted boulder rip-rap accounted for 173 of the mapped bank armoring projects with a failure rate of 68.2%. Armored stream banks were one of three major causes of downstream bank erosion and sedimentation identified in the Draft State of Malibu Creek Watershed Report. (Luce and Abramson, June 2005). The data analyzed in that report clearly demonstrated the ineffectiveness of bank hardening, especially rip-rap, as well as the damage that armored stream banks cause to downstream resources.

II. Noncompliance with Emergency Coastal Permit from September 1998 to present; no mitigation or attempt to correct violations.

The emergency permit ("Permit") was granted by the Coastal Commission to protect structures during an emergency situation (El Nino) and was never intended to help the applicant avoid meeting the conditions of the Coastal Act. Moreover, the applicant did not even meet the conditions required in the Permit to make the emergency work permanent. The applicant is therefore in violation of the Permit conditions and has been since September of 1998.

The intent of an emergency permit is not to allow for the permanent placement of structures that damage waters of the United States and fill wetlands, but to protect property during extreme conditions using temporary measures. This is clearly in the Permit dated February 20, 1998, Emergency Permit Application Number 4-98-024-G, in Attachment 7, Page 2, Bullet Point 4 and "Important" note.

Within 60 days of the date of this permit, the permittee shall apply for a regular Coastal Permit to have the emergency work be considered permanent. If no such application is received the emergency work shall be removed in its entirety within 150 days of the date of this permit unless waived by the director.

IMPORTANT

Condition # 4 indicates that the emergency work is considered to be temporary work done in an emergency situation. If the property owner wishes to have the emergency work become a permanent development, a coastal permit must be obtained. A regular permit would be subject to all the provisions of the California Coastal Act and may be conditioned accordingly.

Bullet 7 on the same page states:

The regular Coastal Development permit application shall include an analysis of all other alternatives for shoreline, bluff, or stream bank protection prepared by a qualified engineer.

The applicant did not submit an application for a new Coastal Permit to make the emergency work permanent. Nor did the applicant conduct an analysis of all other alternatives for stream bank protection. Instead, the applicant now, 11 years later, is trying to make the rip-rap permanent with this application, which also contains no real analysis of alternatives. This is not consistent with the Coastal Act or the City of Malibu's LUP or LIP.

Further, the staff report fails to recognize the serious impacts caused to the ecosystem by the installation of the rip-rap in 1998 and the significant impacts that have occurred during the time in which the applicant has been in violation of their temporary Permit (September 1998 to date), as well as ignores the requirement to comply with the provisions of the Permit and to correct the situation. Allowing the rip-rap to become a permanent solution will degrade water quality and habitat downstream including critical habitat for the federally endangered steelhead trout and

tidewater goby. Exhibit 1 shows the map of this area; special notice should be paid to the stream bank erosion downstream of the rip-rap at issue. This is a continual source of sediment loading to Malibu Lagoon. Fine sediments are considered a significant source of phosphates in the summer months and contribute to eutrophication in the Lagoon (Malibu Lagoon Restoration and Enhancement Plan, June 2005). The existing rip-rap on site is already failing (toe undercut) and this lateral and downward channel erosion further exacerbates sediment loading to Malibu Lagoon. Malibu Lagoon is on the State 303(d) List of Impaired Water Bodies for algae, eutrophication, and sediment.

Santa Monica Baykeeper requests the Commission require the applicant to address the entire stream reach from the Civic Center Drain approximately 860 ft downstream to the Shell Drain (Exhibit 4). Addressing the entire streambank is essential to a successful stable final project. Additionally, we request that property owner be assessed significant fines and penalties for the years of non-compliance and environmental degradation caused by this non-compliance. The applicant has been in non-compliance for more than 10 years (over 3,650 days). Even if the Commission issued a minimum fine of $ 500.00 dollars per day, the applicant would owe at least $ 1,825,000 as of today.

III. Failure to address adjacent unpermitted fencing and grouted rip-rap armoring directly upstream contribute to the stabilization problem.

The proposed special conditions specifically exclude the grouted rip-rap and fence placement directly upstream on the applicant's property on the same parcel (Exhibits 1 through 3), both of which contribute to bank erosion and bank failure downstream. If all three of these elements are not addressed together, existing erosion and bank failure problems will continue to occur and the resulting maintenance activities will continue to jeopardize water quality and habitat in the lagoon.

The attached 2004 and1997 and aerial photos (Exhibits 2 & 3 respectively) clearly shows that the upstream fencing did not exist prior to the bank erosion. Further, a comparison of Exhibit 2 taken in 2004 and Exhibit 3 taken in 1997 clearly shows the loss of vegetation that occurred within the fenced area. The steep bank that supports the fencing forces higher volumes and velocity water to scour the stream bank contributing to its failure. As there is no mention of the fencing in the temporary Permit, and there is no other Coastal Permit allowing this fencing, it should be removed. Similarly, the grouted rip-rap upstream of the project (Exhibits 1 and 2) actually deflects flows toward the project stream bank and likely induces scouring of that bank. Clearly, if the fencing and upstream rip-rap elements are ignored, there is an even higher likelihood that the proposed stabilization will continue to fail.

We urge the Commission to require the property owner to address the entire stream reach from the outlet of the Civic Center Drain to the Shell Drain approximately 860 ft. (Exhibit 4). The restoration should include removal of the unpermitted fencing and all material storage in that area. The restoration should require the reestablishment of the riparian vegetation and stream ESHA buffer. Staff recommends laying back the streambank to a 2-1 slope. Creating a 3-1 slope is more appropriate and better reflects the slopes of streambanks upstream and downstream of the project site in this area. Additionally a 3-1 slope would allow for far superior energy dissipation of stream flows and re-vegetation of the site.

IV. The current loose boulder rip-rap, grouted rip-rap, and fencing are in the riparian ESHA and riparian buffer ESHA.

The existing unpermitted structures and proposed recommendations in the staff report conflict with the following sections of the Coastal Act, Malibu's Local Coastal Plan, Land Use Plan.

Sections 30230 and 30231 of the Coastal Act require that the biological productivity and the quality of coastal waters and streams be maintained and where feasible, **restored** through among other means, minimizing adverse effects of waste water discharge and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flows, maintaining natural buffer areas that protect riparian habitats, and minimizing alteration of natural streams. In addition, Section 30240 of the Coastal Act states that environmentally sensitive habitat areas must be protected against disruption of habitat values.

3.23 State Development adjacent to ESHAs shall minimize impacts to habitat values or sensitive species to the maximum extent feasible. Native vegetation buffer areas shall be provided around ESHAs to serve as transitional habitat and provide distance (minimum 100ft.) and physical barriers to human intrusion.

3.32 Channelizations or substantial alterations of streams shall be prohibited except for flood protection of existing development **where there is no feasible alternative** and **bioengineering shall be preferred for flood protection over rip-rap channels.**

3.34 Bioengineering methods or "soft solutions" should be developed as an alternative to constructing rock revetments, vertical retaining walls or other "hard structures" along lower Malibu Creek. If bioengineering methods are demonstrated to be infeasible, then other alternatives may be considered. Any applications for protective measures along lower Malibu Creek shall demonstrate that existing development in the Civic Center is in danger from flood hazards, that the proposed protective device is the least environmentally damaging alternative, that it is sited and designed to avoid and minimize impacts to the habitat values of the riparian

corridor along the creek and the recreational and public access use of State Park property along the creek, and that any unavoidable impacts have been mitigated to the maximum extent feasible.

3.88 Buffer areas shall be provided around wetlands to serve as transitional habitat and provide distance and physical barriers to human intrusion. Buffers shall be of sufficient size to ensure biological integrity and preservation of the wetland they are designed to protect, but in no case shall they be less than 100 feet in width.

3.121 Alteration or disturbance of streams or natural drainage courses or human-made or altered drainage courses that have replaced natural streams or drainages and serve the same function, shall be prohibited, except where consistent with Policy 3.32. Any permitted stream alterations shall include BMPs for hydromodification activities.

This project also is in conflict with the City of Malibu, Local Implementation Plan, Section 17.9: Hydromodification, Paragraph B:

Any channelization or stream alteration permitted for one of these three purposes shall minimize impacts to coastal resources, including the depletion of groundwater, and shall include maximum feasible mitigation measures to mitigate unavoidable impacts. Bioengineering, unless no feasible alternative exists, is the only acceptable method of bank stabilization and flood protection for new development, and the preferred method for redevelopment. Where armoring of stream banks has failed, streambanks shall be stabilized using bioengineered structures, unless no feasible alternative exists. Any permitted stream alterations shall include BMPs such as incorporating vegetation in structure design, deflecting flow from eroding stream banks, and reshaping the eroding bank and establishing vegetation.

V. Alternatives Analysis is inadequate and conflicts with Malibu's LCP and LUP.

It appears that all the alternatives analyzed were done either by Commission staff and or the environmental community and not the applicant. In fact, other than what the applicant has proposed the project engineers state that all other alternatives are not feasible and/or more environmentally damaging. Santa Monica Baykeeper is currently managing the Lagoon Restoration and Enhancement project on behalf of California State Parks and the State Coastal Conservancy directly downstream of the project site. We had offered to include the Mariposa Land Company's rip-rap area as part of our original design and engineering for the Lagoon project but the property owner refused. Our engineers stated from their initial review that a project could be designed using soft bio-engineering solutions at this location. No review (other

than the applicant's consultants statements) has been conducted that adequately excludes soft bio-engineering. Also many of the other hybrid alternatives i.e. using geo-textiles, using rip-rap in the low flow channel and re-vegetating the upper bank have been successfully used on larger rivers (Ohio River) with significantly higher stream velocities and scour. Finally, the staff recommendations to plant the spaces between newly placed rip-rap is wholly inadequate and will not work. There are specific techniques required when installing planted rip-rap to better ensure vegetation will grow and establish. These techniques have been employed on Las Virgenes Creek upstream in the watershed and on Las Flores Creek in an adjacent watershed. We strongly recommend that only soft bio-engineered approaches be employed at this site but even if the Commission determined that planted rip-rap was needed a firm that knows how to design and install this technique must be required. Additionally, we need to see an engineered plan showing how this technique will be employed. Just describing it in a staff report is inadequate and inappropriate.

We urge the Commission to require soft bio-engineering at the site. Natural vegetation exists without armoring directly upstream and downstream of this location. Further, we are not employing any armoring in the Lagoon project directly downstream of the project site. The floodwall/ soft bio-engineered alternative accomplishes both property protection and real streambank restoration even though we believe that the floodwall is unnecessary.

VI. The current design has not employed the use of large woody debris to deflect flows from the streambank.

Santa Monica Baykeeper would strongly recommend that large woody debris be installed along two locations adjacent to the streambank. The woody debris should be anchored to the bank using the techniques in the Salmonid Habitat Restoration Manual produced by the California Department of Fish and Game. Additionally, this woody debris should be placed facing upstream to deflect flows away from the streambank design and installation should follow the procedures outlined in the Salmonid Habitat Restoration Manual produced by the California Department of Fish and Game. This will have two beneficial effects: 1. It will help deflect flows away from the streambank while allowing the vegetation to become established and 2. It will provide instream habitat for steelhead trout and tidewater goby.

VII. The Commission should require a Hazard Analysis Critical Control Point Plan (HACCP) to prevent the transport of New Zealand Mudsanils (NZMS) to other streams and watersheds.

Malibu Creek was identified as having NZMS in 2005 benthic macroinvertebrate samples. Santa Monica Baykeeper and the Santa Monica Bay Restoration Commission have conducted annual NZMS surveys on Malibu Creek 2006-2008. NZMS have dramatically increased their density

and geographic distribution since they were first discovered. NZMS are easily transported to uninfected waterbodies by attaching themselves to clothing (especially footwear) and equipment and hitching a ride to a new waterbody. NZMS have been recorded in densities greater than 500,000 organisms per square yard and simply outcompete our native benthic macroinvertebrates, such as dragonflies, which are a critical food source for fish and other aquatic wildlife. NZMS reproduce asexually or through cloning; it only takes one snail to start a new colony.

It is strongly recommended that measures be implemented to prevent the spread of this noxious invader. Clothing and footwear should be frozen for 48 hours after having contact with the stream. Construction workers must be required to strictly follow this protocol. Additionally, any equipment that has contacted the stream including heavy equipment should be pressure washed, steam cleaned and allowed to thoroughly dry out for 72-hours before being transported to another site. Requiring all contractors to complete a HACCP plan that is then approved by the Commission who understand how NZMS are transported is essential. Santa Monica Baykeeper and the Santa Monica Bay Restoration Commission are happy to review any HACCP plans.

VIII. Conclusion

We urge the Commission to **deny** this permit. The CDP, even incorporating commission staff recommendations for this site, is wholly inadequate and is in direct conflict with the State Coastal Act and Malibu's own Local Coastal Plan LUP and LIP.

The project site is within Malibu Lagoon, one of the few remaining coastal wetlands in Los Angeles County. Significant financial resources and investment have been spent and will be spent in the near future by the State to improve water quality and enhance habitat at Malibu Lagoon and Surfrider Beach. Further, the project site was considered one of the highest priority restoration sites to enhance Malibu Lagoon throughout the 6-year planning, facilitation, and design process that culminated in June 2005 with the Malibu Lagoon Restoration and Enhancement Plan. In fact during the creation of the Lagoon Restoration and Enhancement Plan, the applicant **refused** to have the consulting team research and present other solutions for this site.

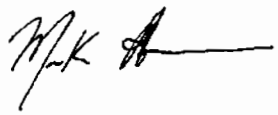
As proposed the project will continue to degrade water quality and critical habitat for the federally endangered tidewater goby and southern steelhead trout. In addition, the rip-rap will require maintenance and repair in perpetuity, each time further degrading habitat and water quality in the Lower Malibu Creek and Lagoon. A bioengineered solution will be the most protective of the streambank, restore some floodplain connectivity and restore riparian vegetation – all critically needed to restore stream function and natural processes in this area. Moreover, soft bioengineering will be more cost effective and is consistent with the Coastal Act and

Malibu's Local Coastal Plan, as well as with the overall restoration effort for Malibu Lagoon and Surfrider Beach.

The emergency rip-rap bank stabilization has already had a detrimental impact on Malibu Lagoon's natural resources and water quality for more than ten years. At this point, the Commission shouldn't consider any project short of a full-blown stream bank and riparian buffer restoration plan that encompasses the entire approximate 860 ft. stream reach (Exhibit 4) with a mitigation component and fines for the historic damages caused by the emergency rip-rap bank modification. The proposed project even with staff recommendations fails to accomplish this. Consequently, the application for CDP should be DENIED.

We appreciate the opportunity to comment on this CDP.

Sincerely,



Mark Abramson
Director of Watershed Programs
Santa Monica Baykeeper

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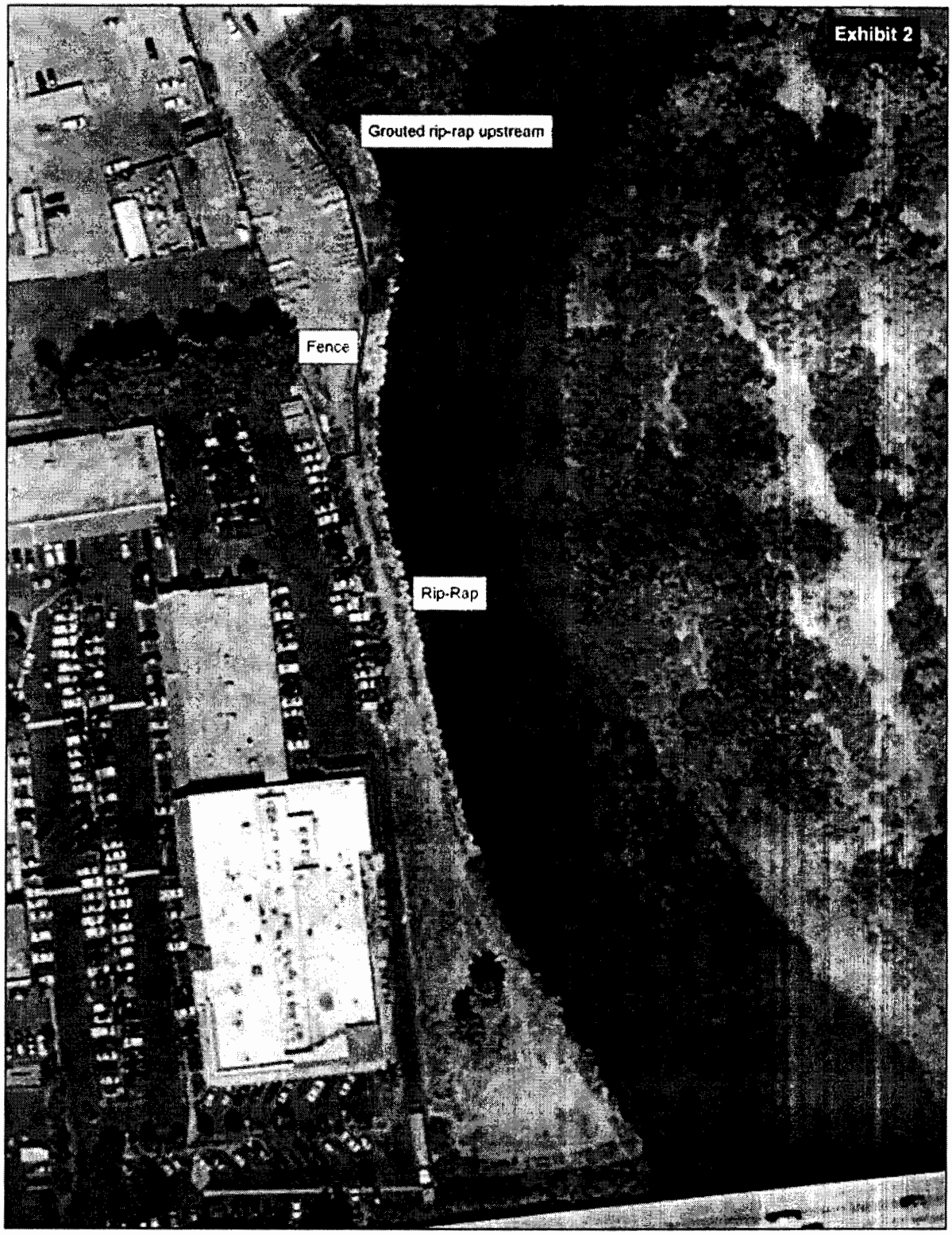

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ex. 13

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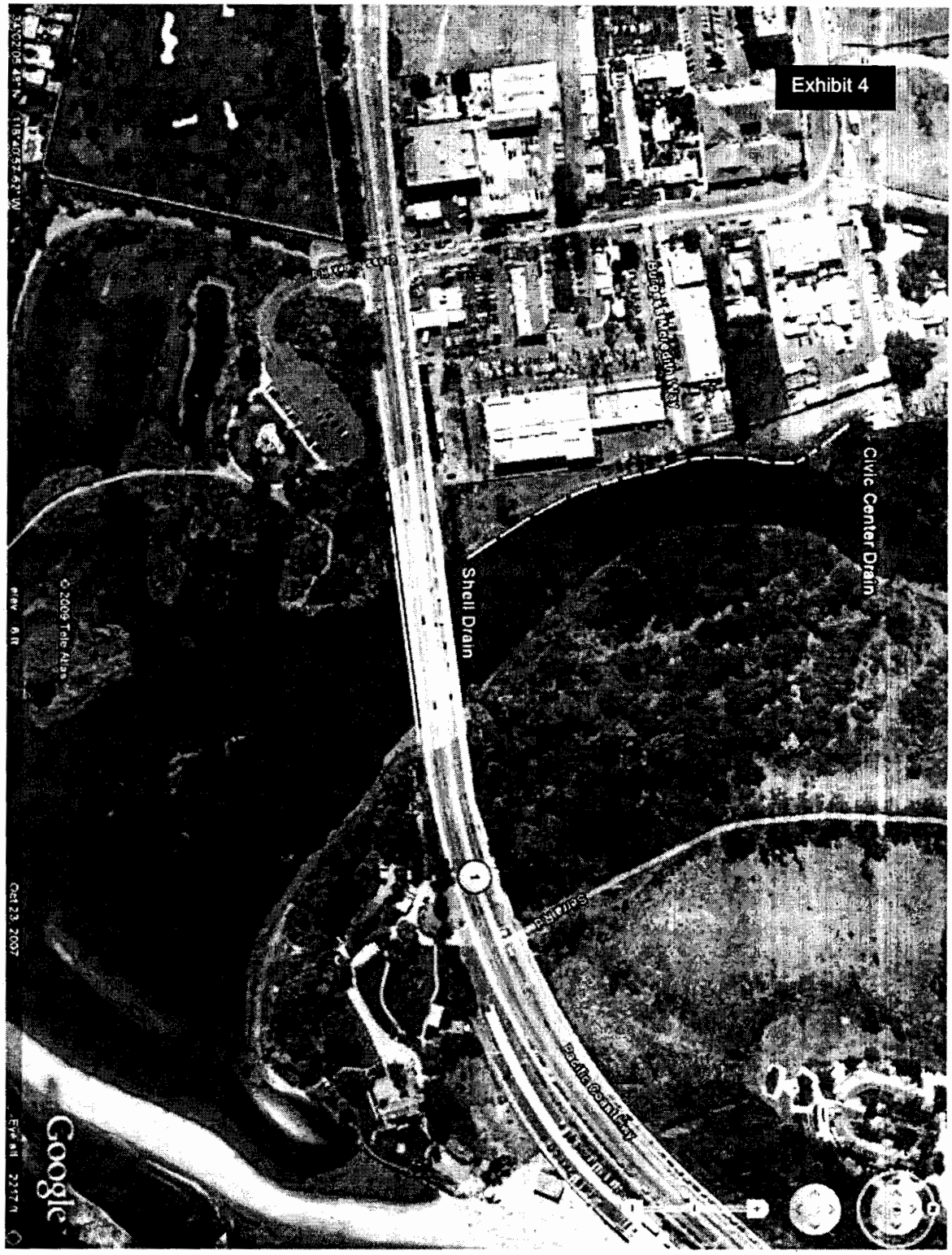
ex. 13



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FORM FOR DISCLOSURE OF EX PARTE COMMUNICATION

Date and time of communication:
(For messages sent to a Commissioner by mail or facsimile or received as a telephone or other message, date time of receipt should be indicated.)
January 29, 2009, 2:00 pm

Location of communication:
(For communications sent by mail or facsimile, or received as a telephone or other message, indicate the means of transmission.)
Conference Phone Call

Person(s) initiating communication:
Sherman Stacey, Gaines and Stacey

Person(s) receiving communication:
Bonnie Neely

Name or description of project:
Feb Coastal Agenda Items:
Th2.6a – 4-98-24 - Mariposa Land Co. Application, Malibu, LA County

Detailed substantive description of content of communication:
(If communication included written material, attach a copy of the complete test of the written material.)

Mr. Stacey, representing the applicant, explained that the project was a creek bank protection installed under emergency permit 10 years ago. Staff was recommending removing and reconfiguring the rock protection to a lesser slope by grading the bank but applicant objected because existing rocks gave better protection, there was an acceptable mitigation plan, and reconfiguring the slope would cause environmental damage over a large area. Stacey said the project has been approved by City, Army Crops, RWQCB, and Fish and Game. Staff recommendation would also split applicant's property without access. Removing and reconfiguring caused great damage for little benefit.

Date: January 29, 2009

Signature of Commissioner

If the communication was provided at the same time to staff as it was provided to a Commissioner, the communication is not ex parte and this form does not need to be filled out.

If communication occurred seven or more days in advance of the Commission hearing on the item that was the subject of the communication, complete this form and transmit it to the Executive Director within seven days of the communication. If it is reasonable to believe that the completed form will not arrive by U.S. mail at the Commission's main office prior to the commencement of the meeting, other means of delivery should be used, such as facsimile, overnight mail, or personal delivery by the Commissioner to the Executive Director at the meeting prior to the time that the hearing on the matter commences.

If communication occurred within seven days of the hearing, complete this form, provide the information orally on the record of the proceedings and provide the Executive Director with a copy of any written material that was part of the communication.

Coastal Commission Fax: 415 904-5400

Exhibit 14
4-09-013 (Mariposa)
Ex Parte Communications

FORM FOR DISCLOSURE OF EX PARTE COMMUNICATIONS

JAN 30 2009

Name or description of project, LPC, etc.: 4-98-024

Date and time of receipt of communication: 1/27/09 10:15am

Location of communication: 7727 Herschel Ave, La Jolla

Type of communication (letter, facsimile, etc.): Meeting

Person(s) initiating communication: Sherman Stacey

Detailed substantive description of content of communication:
(Attach a copy of the complete text of any written material received.)

Stacey represents applicant. Stacey explained that project was a creek bank protection installed under emergency permit 10 years ago. Staff was recommending removing and reconfiguring the rock protection to a 2 to 1 slope. Applicant objected because existing rocks gave better protection and reconfigured slope would have greater damage over a greater area. Staff recommendation would also split Applicants property without access.

1/28/09
Date

Signature of Commissioner

If the communication was provided at the same time to staff as it was provided to a Commissioner, the communication is not ex parte and this form does not need to be filled out.

If communication occurred seven or more days in advance of the Commission hearing on the item that was the subject of the communication, complete this form and transmit tit to the Executive Director within seven days of the communication. IF it is reasonable to believe that the completed form will not arrive by U.S. mail at the Commission's main office prior to the commencement of the meeting, other means of delivery should be used, such as facsimile, overnight mail, or personal delivery by the Commissioner to the Executive Director at eh meeting prior to the time that the hearing on the matter commences.

If communication occurred within seven days of the hearing, complete this form, provide the information orally on the record of the proceeding and provide the Executive Director with a copy of any written material that was part of the communication.

ex. 14