CALIFORNIA COASTAL COMMISSION
South Coast Area Office
200 Oceangate, Suite 1000
Long Beach, CA 90802-4302
(562) 590-5071

W 11b

ADDENDUM

TO: Commissioners and Interested Persons

FROM: South Coast District Staff

SUBJECT: Application No. 5-10-238(Buck Gully Canyon, City of Newport Beach), Item No. W 11b, Scheduled for hearing on Wednesday August 10, 2011 in Watsonville.

Letter of Public Support
One letter of support was received for the project.

Revisions to Staff Report
Revise the staff report as follows. Deletions are marked in ~~strike-out text.~~ Additions are marked in **bold, underlined text**.

On page 4 of the staff report, modify Special Condition 2, Part (A) (1) as follows:

> **2. Construction Staging Area**
> **A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the permittee shall submit a revised construction and staging plan for the review and approval of the Executive Director which indicates that the construction staging area(s) and construction corridor(s) will avoid impacts to public access, to beach areas and to sensitive habitat areas.
> **1.** The plan shall demonstrate that:
> **(a)** Construction equipment or activity shall not occur outside the staging area
> **(b)** Public parking areas shall not be used for staging or storage of equipment
> **(c)** Beach and trail areas shall not be used as staging or storage areas
> **(d)** The staging area for construction of the project shall not obstruct vertical or lateral access to the beach. ~~or access to the public restroom facility~~
> **(e) The staging area shall not obstruct access to the public restroom facility, unless temporary restroom facilities which will remain open throughout construction are provided at a location easily accessible from Little Corona Beach.**
> **~~(e)~~ (f)** No upland areas vegetated with native plants shall be used for staging or storage areas.

On page 21 of the staff report, modify the first paragraph as follows:

> Construction access to the canyon will be provided by the existing access road leading to the restroom facility for Little Corona beach, and from there will travel down a 12' wide temporary access road leading down into the canyon. The proposed construction staging plan would not result in impacts the public's ability to access the beach. The project will take place outside of the peak summer period, with an estimated project start date in September. However, the project as currently proposed would result in the obstruction of the public's ability to access the

restroom facility adjacent to the proposed staging area. This restroom facility is the only available public restroom for Little Corona Beach. The next closest public restroom is located approximately ½ a mile to the northwest. Therefore, the Commission imposes Special Condition 2 requiring the submittal of a revised construction staging plan, which **requires pedestrian access to the public restrooms to be maintained unless temporary restroom facilities are provided for visitors to Little Corona Beach.** ~~provides a pedestrian access to the public restroom facility from Little Corona beach.~~

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216 Jasmine Avenue
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CALIFORNIA COASTAL COMMISSION

To Whom It May Concern:

RE: ITEM NO. W11b

RE: Permit Number 5-10-238, Applicant – City of Newport Beach, Attn: Ms. Iris Lee

We would like to support the project in Buck Gully, Newport Beach (Orange County). We own property on the Gully at the location of one of the proposed stepped gabion grade control structures. We believe that the proposed improvements are in the best interests of preserving the Gully and controlling sedimentation.

We have observed the results of a similar project in upper Buck Gully and have noted the positive results.

Please move ahead with this project.

Thank you for your consideration.

Gari Andreini
Milli Andreini

Milli and Gari Andreini
Property owners at 332 Hazel Drive
Corona Del Mar, CA 92625

CALIFORNIA COASTAL COMMISSION

South Coast Area Office
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Filed:	Feb. 18, 2011
180th Day:	August 17, 2011
Staff:	John Del Arroz-LB
Staff Report:	July 27, 2011
Hearing Date:	August 10-12, 2011
Commission Action:	

W11b

STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-10-238

APPLICANT: City of Newport Beach

AGENT: RBF Consulting

PROJECT LOCATION: Buck Gully Canyon, Newport Beach, Orange County

PROJECT DESCRIPTION: Stream restoration and sedimentation control project consisting of installation of three stepped gabion grade control structures, two sub surface flow wetlands, and five bendway weirs, revegetation with native plants, and 10,000 cubic yards of balanced cut and fill.

SUMMARY OF STAFF RECOMMENDATION:

The proposed project is located in Buck Gully Canyon in Newport Beach, to the east of the entrance to Newport Bay. The subject site is located in the lower reach of Buck Gully Canyon, to the west of Evening Canyon Road, east of Hazel Drive, and south (seaward) of Pacific Coast Highway. The stream discharges at Little Corona Beach, a popular public beach. The primary issue areas identified with the proposed development include 1) alteration of natural streams; 2) protection of biological resources; and 3) impacts to public access. Staff has reviewed the proposed development and found that the project would: 1) result in the minimum amount of stream alteration necessary to restore habitat; 2) would result in the restoration of Environmentally Sensitive Habitat Area; and 3) would not result in impacts to public access, if conditioned to ensure access to a public restroom facility is not obstructed by the staging area for the site. Therefore, staff is recommending the Commission **approve** the proposed project subject to **eight (8)** special conditions regarding 1) conformance with geotechnical recommendations; 2) submittal of a revised construction staging plan; 3) Best Management Practices during construction; 4) submittal of a final restoration and monitoring program ; 5) submittal of evidence of agency approvals; 6) submittal of a maintenance plan for the proposed structures; 7) the applicant's assumption of the risk of the development; and 8) future development on the site.

SUBSTANTIVE FILE DOCUMENTS: City of Newport Beach certified Land Use Plan; City of Newport Beach Initial Study / Mitigated Negative Declaration
Coastal Development Permit 5-05-221 (Morning Canyon Restoration)

LIST OF EXHIBITS:
1. Vicinity Map
2. Site Plan
3. Drop Structure Plans
4. Bendway Wier Plans
5. Subsurface Flow Wetland Plans
6. Memorandum from Dr. Jonna Engel, staff ecologist

I. APPROVAL WITH CONDITIONS

STAFF RECOMMENDATION:

Staff recommends that the Commission **APPROVE** the permit application with special conditions.

MOTION:

I move that the Commission approve Coastal Development Permit No. 5-10-238 pursuant to the staff recommendation.

Staff recommends a **YES** vote. Passage of this motion will result in approval of all the permits included on the consent calendar. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION:

I. APPROVAL WITH CONDITIONS

The Commission hereby **APPROVES** a coastal development permit 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.

II. 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.

III. SPECIAL CONDITIONS:

1. Conformance with Geotechnical Recommendations

A. All final design and construction plans, grading and drainage plans, shall be consistent with all recommendations contained in the Limited Geotechnical Investigation for Lower Buck Gully Restoration Project, prepared by Allwest Geoscience, dated July 12, 2004

B. **PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit, for the Executive Director's review and approval, evidence that an appropriate licensed professional has reviewed and approved all final design and construction plans and certified that each of those final plans is consistent with all of the recommendations specified in the above-referenced engineering evaluation approved by the California Coastal Commission for the project site.

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

2. Construction Staging Area

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit a revised construction and staging plan for the review and approval of the Executive Director which indicates that the construction staging area(s) and construction corridor(s) will avoid impacts to public access, to beach areas and to sensitive habitat areas.

1. The plan shall demonstrate that:

(a) Construction equipment or activity shall not occur outside the staging area

(b) Public parking areas shall not be used for staging or storage of equipment

(c) Beach and trail areas shall not be used as staging or storage areas

(d) The staging area for construction of the project shall not obstruct vertical or lateral access to the beach or access to the public restroom facility

(e) No upland areas vegetated with native plants shall be used for staging or storage areas.

2. The plan shall include, at a minimum, a site plan that depicts:

(a) Limits of the staging area(s)

(b) Construction corridor(s)

(c) Construction site

(d) Location of construction fencing

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

3. General Construction Responsibilities

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

1. Prior to commencement of any work approved by this permit, a temporary barrier or work area demarcation (such as but not limited to flagging, staking or plastic mesh fencing) shall be placed along the edges of the construction areas and to prevent disturbance to areas that are not part of the project. All temporary flagging, staking, fencing shall be removed upon completion of the development.
2. All areas disturbed and/or denuded by the project shall be stabilized using non-vegetative erosion controls such as mulching or fiber rolls/ground cover as well as native vegetation.
3. No construction materials, debris, or waste shall be placed or stored where it may encroach upon or enter the stream or any storm drain.

4. Construction materials, chemicals, debris and sediment shall be properly contained and secured on site or upon adjacent existing paved areas to prevent the unintended transport of material, chemicals, debris, and sediment into habitat areas and coastal waters by wind, rain or tracking. Best Management Practices (BMPs) and Good Housekeeping Practices (GHPs) designed to prevent spillage and/or runoff of construction-related materials, and to contain sediment or contaminants associated with construction activity, shall be implemented prior to the on-set of such activity. BMPs selected shall be maintained in a functional condition throughout the duration of the project. A pre-construction meeting shall be held for all personnel to review procedural and BMP/GHP guidelines.
5. Disposal of debris and excess material. Debris and excess material shall be disposed or recycled at a legal disposal/recycling site. 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 required. No debris or excess material shall be placed on or within the canyon or stream.
6. Debris and sediment shall be removed from the construction areas as necessary to prevent the accumulation of sediment and other debris which may be discharged into habitat areas and coastal waters.
7. Any and all debris resulting from construction activities shall be removed from the project site within 24 hours of completion of construction.

4. <u>Final Restoration and Monitoring Program</u>

A. PRIOR TO ISSUANCE OF THIS COASTAL DEVELOPMENT PERMIT, the applicant shall develop, in consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service as appropriate, and submit for review and written approval of the Executive Director, a final detailed restoration and monitoring program designed by a qualified wetland biologist for restoration and monitoring of the project reach of Buck Gully Canyon. The restoration and monitoring program shall at a minimum include the following:

1. Plans for site preparation and invasive plant removal;

2. Restoration plan including planting design, plant palette, source of plant material, plant installation, erosion control;

3. Provisions for implementation of the City of Newport Beach's Cowbird eradication program

4. Final Success Criteria. The restoration will be considered successful if the overall species composition and the vegetative cover of the dominant perennial species are similar to relatively undisturbed vegetation of the same type in nearby reference areas. The Army Corps of Engineers "50/20" rule shall be used to determine dominance. Species composition shall be considered similar if all the dominant species and at least 80% of the non-dominant species at the reference site are present at the restored site. The vegetative cover of dominant species at the restoration and reference sites will be compared with an appropriate statistical test.

Random sampling of the restoration and reference sites will be done with sufficient replication to detect a 10% absolute difference in cover with 90% power with alpha=0.10. The cover of dominant species will be considered similar if there is no statistical difference (P>0.10) in the average cover of each dominant species between the two sites; or, if there is a statistically significant difference, it is no greater than 10% absolute cover;

5. The sampling design to be employed, an estimate of the sample variance, and a statistical power analysis to estimate the necessary number of samples to meet the requirements specified above. Power analysis software is available commercially and on the world wide web (e.g, http://www.stat.uiowa.edu/~rlenth/Power/index.html).

6. Provisions for assessing the initial biological and ecological status of the "as built" restoration site within 30 days of establishment of the site in accordance with the approved restoration program. The assessment shall include an analysis of the attributes that will be monitored pursuant to the program, with a description of the methods for making that evaluation.

7. Provisions for monitoring and remediation of the restoration site in accordance with the approved final restoration and monitoring program for a period of five years or until it has been determined that success criteria have been met or have failed to be met, whichever comes first.

8. Provisions for submission of annual reports of monitoring results to the Executive Director for the duration of the required monitoring period, beginning the first year after submission of the "as-built" assessment. Each report shall include copies of all previous reports as appendices. Each report shall be a cumulative report that summarizes all previous reports. Each report shall document the condition of the restoration with photographs taken from the same fixed points in the same directions. Each report shall also include a "Performance Evaluation" section where information and results from the monitoring program are used to evaluate the status of the stream/wetland restoration project in relation to the performance standards.

9. Provisions for submission of a final monitoring report to the Executive Director at the end of the final performance monitoring period. Final performance monitoring shall take place after at least three years without remediation or maintenance other than weeding. The performance monitoring period shall either be five years or three years without maintenance or remediation, whichever is longer. The final report must be prepared in conjunction with a qualified wetlands biologist. The report must evaluate whether the restoration site conforms to the goals, objectives, and performance standards set forth in the approved final restoration program. The report must address all of the monitoring data collected over the monitoring period.

B. If the final report indicates that the restoration project has been unsuccessful, in part, or in whole, based on the approved performance standards, the applicant shall submit within 90 days a revised or supplemental restoration program to compensate for those portions of the original program which did not meet the approved performance standards. The revised restoration program, if necessary, shall be processed as an amendment to this coastal development permit.

C. The permittee shall monitor and remediate the stream/wetland restoration site in accordance with the approved monitoring program, including any revised restoration program approved by the Commission or its staff. Any proposed changes to the approved restoration and monitoring program shall be reported to the Executive Director. No changes to the approved restoration and monitoring program shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

5. Resource Agency Approvals

PRIOR TO ISSUANCE OF THIS COASTAL DEVELOPMENT PERMIT, the permittee shall provide to the Executive Director a copy of a permit, or letter of permission, or evidence that no permit or permission is required for the project by the following entities: California Department of Fish and Game; U.S. Fish and Wildlife Service; Regional Water Quality Control Board. The applicant shall inform the Executive Director of any changes to the project required by the California Department of Fish and Game; U.S. Fish and Wildlife Service; Regional Water Quality Control Board. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

6. Materials, Maintenance and Monitoring of Proposed Grade Control Structures

A. The permittees shall maintain the grade control structures in good condition throughout the life of the development. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit a Maintenance and Monitoring Plan, for the review and approval of the Executive Director. The permittee, and their successors in interest shall be responsible for carrying out all provisions of the approved Maintenance and Monitoring Plan for as long as the grade control structures, bendway wiers, and subsurface flow wetlands remain in place. The maintenance and monitoring plan, at a minimum, shall provide for:
   (1) Regular inspections by a licensed engineer. These inspections shall be performed at least every year for the first 12 years after the grade control structures have been installed, and following every storm event generating flows in excess of the 25-year event, or at least every three years thereafter.
   (2) The inspections shall examine the exposed portions of the grade control structures (to the streambed) for signs of weakness or possible failure, including, but not limited to cracking, bending, splitting, splintering, or flaking. All weak or potential failure areas shall be marked on an as-built plan of the grade control structures, and there shall be photographs and text to explain the nature and extent of each weakness. The inspections shall examine the adjacent stream banks and the streambed for signs of erosion, scour, flanking or other channel damage that may indicate future instability of the drop structures.
   (3) Inspection reports shall be prepared and conveyed to the Executive Director within 30 days of the inspection work. These reports shall provide information on and photographs from the date of the inspection, the name and qualifications of the person performing the inspection, and an overall assessment of the continued integrity of the grade control structures. If the inspection identifies any areas where the grade control structures have been damaged, the report shall identify alternatives to remedy the damage.

B. In the event that any areas of the stream channel should erode, scour, flank or indicate other signs of instability or if sections of the grade control structures are damaged or flaking, the permittees shall notify the Commission within 10 days; and in such event, within 30 days of such notification, submit to the Commission a complete application for any coastal development permit amendment, or new permit, necessary for the repair or replacement of the grade control structures or repairs to the integrity of the stream channel. The permittee shall carry out the work approved in any such permit or amendment in a timely manner.

7. Assumption of Risk, Waiver of Liability and Indemnity

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from slope creep, soil movement and erosion; (ii) to assume the risks to the applicant and landowners and the properties that are 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.

8. Future Development

This permit is only for the development described in Coastal Development Permit No. 5-10-238. Pursuant to Title 14 California Code of Regulations Section 13253(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610(b) shall not apply to the development governed by Coastal Development Permit No. 5-10-238. Accordingly, any future improvements to the development authorized by this permit, including but not limited to repair and maintenance identified as requiring a permit in Public Resources Section 30610(d) and Title 14 California Code of Regulations Sections 13252(a)-(b), shall require an amendment to Permit No. 5-10-238 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

IV. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. Project Description

Background:
Buck Gully Canyon is located in the southern part of Newport Beach, between Corona Del Mar and Crystal Cove State Park. Buck Creek runs through the canyon, and has a watershed of approximately two square miles. Historically, Buck Creek was an ephemeral creek. However, since the 1990s, the hillsides of the watershed have been developed with single family residences and the Pelican Hill Golf Club. Irrigation associated with this

development has resulted in additional inputs of water to the creek, so that now the creek runs perennially, with flows equaling approximately 17 million gallons per month during the dry season.

The project site is located on the lower portion of Buck Gully Canyon, seaward of Pacific Coast Highway and between the residential streets Hazel Drive on the north, and Evening Canyon Drive on the south (Exhibit 1). Single family residences are located on both edges of the canyon, and their lots extend down to the middle of the canyon. The City has secured a temporary work easement for work within the project footprint, and a permanent easement over the areas where structural improvements are proposed. The creek runs in a southwest direction, and flows out onto Little Corona Del Mar State Beach, which is within the Robert E. Badham State Marine Conservation Area, a designated Marine Protection Area.

The transition from ephemeral to year-long flows and a reduction in contributions of sediment due to development of the canyon edges has resulted in significant alterations to the hydrology of the stream within the project site, including significant erosion and degradation of the canyon. The increased flows have scoured out the canyon bottom, leading to the lowering of the elevation of the stream. One dramatic example of this erosion is a 10 foot downcut which migrated 200 feet upstream between 2000 and 2005. A rock outcropping prevented further erosion until 2010; however it recently failed and the erosion is now again progressing upstream. Other examples of erosion on the site include another downcut with a width of 6-10 feet and a steepened slope and deep pool caused by increased bank erosion. Other effects include deposition of large amounts of sediment in the canyon bottom, split stream flows, incised channels, flows shifting away from the center of the canyon and stagnation of open waters.

Change in the pattern and volume of flows has been mirrored with a change in the habitat that the creek provides. Increased flows have resulted in the replacement of native species adapted to drier conditions with many non-native and invasive species adapted to wetter conditions. Erosion has disturbed the canyon bottom, leading to disturbed morphology and habitat characteristics at the site. Existing native trees are low in abundance and have stunted morphology, and the understory at the site is unnaturally thick. Invasive species and non-native species are located throughout the project site, and biodiversity as a whole at the site is reduced.

A similar project was approved in 2005 by the Commission in the upper reach of Morning Canyon, located approximately 1700 feet to the east (CDP 5-05-221). The Morning Canyon project allowed the installation of seven gabion grade control structures to protect the slopes of the canyon. The gabion drop control structures used in Morning Canyon are substantially similar to the proposed gabion drop control structures for Buck Gully. Prior to the project, Morning Canyon was predominantly vegetated with non-native species. The 2010 monitoring report, which was performed 3 years after completion of the project, states that the project site has 87% coverage of native species, 3% of non-native species, 0% invasive species, and 90-100% coverage in the mule fat scrub and coastal sage scrub

areas. Therefore, the Morning Canyon project resulted in substantial improvements to habitat while at the same time stabilizing the canyon slopes.

Description of Project:
The proposed project would result in the installation of 5 gabion bend-way weirs, 3 gabion drop structures, and two subsurface flow wetlands(Exhibit 2). The bend-way weirs are approximately 6 feet tall and 35 feet wide, and made from rock filled wire baskets, called gabions (Exhibit 4). The weirs will be placed on the northern portion of the project site adjacent to a steep, eroding slope along a curve in the stream. Bend-way weirs are placed along bends in a stream and result in lower erosion as the weirs slow down flows and redirect them away from the channel banks. The weirs will be placed into the hillside and covered with soil to recreate a natural bank.

The drop structures are roughly U shaped structures which are placed below and surrounding the channel(Exhibit 3). Three of these structures will be placed on the seaward portion of the project site. Each drop structure will be made from gabion baskets, and be approximately 80 feet wide, and 65 feet long, and have a 5 foot vertical drop height. The banks of the gabion structures vary from 10 to 12 feet in height and are designed to contain the flow from a 100-year frequency storm event. The drop structures will be covered with earth, and will be planted with native vegetation. The drop structures will reduce the erosive potential of the stream by restoring a more natural channel profile, and will prevent further bed erosion and downcutting.

Finally, the project will result in two subsurface flow wetlands, which will be located between the 1st and 2nd and the 2nd and 3rd drop structures(Exhibits 2, 5). Sub surface flow wetlands are constructed wetlands, systems that have been designed to use natural wetland processes and microbial activity to provide treatment of water and improve water quality. Each subsurface flow wetland will be constructed from propylene ecorain tank structures which are filled with a mixture of sand, gravel, and soil, and wrapped with filter fabric. The subsurface flow wetlands will be 40 feet wide, 2 feet deep and will be planted with wetland vegetation.

Grading consisting of 10,000 cubic yards will be balanced on site. The grading is required to install the structures and realign the stream within the canyon bottom. All non-native and invasive vegetation within the project footprint will be removed as part of the project, and replaced with native species appropriate to riparian or upland habitats.

The applicant has submitted a letter from the Army Corps of Engineers stating that the Corps will issue their permit upon approval of the project by the Commission, and copies of applications for approval from the other resource agencies. To ensure that the requisite approvals are granted, the Commission imposes Special Condition 5, requiring written proof that the project has been approved or that no approvals are required from the other resource agencies.

Access to the site will be taken through the existing beach access road leading from Ocean Boulevard to the restroom for Little Corona Beach. A 12’ wide access road will be

graded from the area adjacent to the public restroom to the canyon bottom, which will be revegetated upon completion of the project. Work within the canyon bottom will be accomplished by diverting water around the construction site through the use of a small cofferdam and plastic storm drain pipe to convey flows through the site, and settling basins to allow sediment to settle out before flowing to the adjacent beach and ocean.

B. Alteration of Natural Streams

Section 30231 of the Coastal Act states:

> 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.

Coastal Act Section 30236 states:

> Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects 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, 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:

> 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.

Coastal Act Section 30231 states that the biological productivity of streams shall be maintained, and where feasible restored, by controlling runoff, preventing substantial interference with surface water flow, maintaining natural vegetation buffers for riparian habitats, and minimizing alteration of natural streams. Coastal Act Section 30236 states that substantial alterations of streams shall incorporate the best mitigation feasible, and be limited to (among others) developments where the primary function is the improvement of wildlife habitat.

The forms of natural streams result from the specific circumstances of their watersheds. Prior to development within the canyon's watershed, the stream was small and ephemeral. After development, the amount of sediment delivered to the stream has decreased, and the amounts of water delivered to the stream from adjacent development has increased to the point where the stream has substantial amounts of water throughout the summer. These changes have resulted in the existing, altered stream morphology and the related impacts to the habitat at the site.

The erosion occurring on the site has resulted in continuing and significant impacts to the stream habitat. Specifically, erosion has resulted in changes to the areas and quality of different habitat types on the site. Erosion results in continual changes to the canyon floor as flows split, erosion progresses upstream, and sediment is removed in some areas and deposited in other areas. These disturbances remove native species from an area, and open the areas up to colonization by non-native or invasive species. The changes in hydrology associated with the increase in flows and loss of sediment supply have resulted in changes in stream morphology such as loss of pool and riffle habitat, loss of riparian habitat and replacement with shallow water habitat, and loss of habitat on the stream banks due to incision and small slope failures. Left unchecked, the aforementioned problems will continue and be exacerbated as sediment continues to be eroded away.

The proposed project would control runoff, alleviate erosion problems on the site and result in the restoration of riparian and upland habitats. The proposed project includes the installation of five bendway weirs, which will reduce the erosion of the western channel bank at the northern portion of the project site. This bank is currently oversteepened and largely denuded due to the continuing migration of the stream to the channel banks. The bendway weirs will redirect flows back toward the channel center and allow for more gradual slopes at that location, which will result in the slope being replanted with native vegetation. Finally, the weirs will slow flows through the bend, reducing erosion throughout the subject site. Three gabion drop structures are proposed in the lower portion of the project site. The drop structures will reduce the erosive potential of the stream by restoring a more natural channel profile. The bottom of the drop structures will prevent erosion of the stream bed, and the sides of the drop structures will prevent severe migration of the stream beyond the middle area of the channel. The gabion drop structures will be covered with earth, and will be planted with native vegetation, allowing for the creation of a stable riparian corridor and stable upland habitats on the peripheries of the canyon. The project will further improve habitat through removal of all non-native and invasive species within the project footprint and their replacement with native species appropriate to the habitat types. Finally, the proposed sub surface flow wetlands will improve water quality in the channel and at the adjacent beach and ocean.

The alternatives to the proposed project which were evaluated include the no build alternative, gabion grade control alternative (proposed project), grade control structures using rip rap or concrete, bio engineering, and upstream detention basins. The no-build alternative was rejected due to the continuing problems associated with erosion, sedimentation, and habitat impacts. Drop structures using rip rap or concrete would not be able to be revegetated, and would result in more long term environmental impacts.

Bioengineering (usage of vegetation to reduce flows) would not be possible at the site due to flow velocities. Upstream detention basins were rejected due to the amount of alteration to the stream that would be required, and lack of suitable locations. The chosen alternative, gabion drop control structures and bendway weirs, are the least impactful alternative, as they allow revegetation of the affected areas, require smaller equipment for installation, and have fewer long-term impacts.

The proposed project would minimize alteration of the natural stream system. The proposed project involves placement of substantial structural improvements within the stream system; however these are the minimum necessary to ensure that the proposed project meets the restoration goals. The drop structures are approximately 80 feet wide, which is the minimum width required to meet the 100 year flood event. If the structure was proposed to be smaller, large flows could result in undercutting of the gabion structure, leading to increases in erosion rates and further impacts to habitat associated with repairs or replacement of the structures. Smaller drop structures would also restrict the ability of the stream to naturally meander through the channel. Bendway weirs would be installed along a bend in the northern stretch of the project site. These structures are required to prevent further erosion of the slope, allow the revegetation of the slope, and prevent slope failures which will threaten the stability of the adjacent homes if left unchecked. The weirs are placed into the banks of the stream and result in reduced impacts when compared to the placement of rip rap or concrete. The drop structures and weirs will be covered with earth and revegetated, and will be largely invisible upon completion of the project. The proposed project would result in the restoration of a more natural stream profile, and will slow flows and reduce the substantial erosion occurring throughout the project site. The applicant is proposing to temporarily divert surface waters around the construction site; however this diversion is necessary to avoid construction related impacts, including input of construction debris, sediment, and contaminants into the stream system.

Coastal Act Section 30253 requires that risks to life and property in hazard areas are minimized, assures stability and structural integrity, doesn't contribute to erosion, instability or destruction of the area. The proposed project involves significant amounts of grading, and installation of large gabion structures within the canyon floor. The applicants have submitted a preliminary geotechnical investigation from Allwest Geotechnical, dated July 12, 2004, which states that stabilization of the project site is considered geotechnically feasible, provided the recommendations contained in the report are followed. Adherence to the recommendations contained in the above-mentioned geotechnical investigation is necessary to ensure that the proposed project assures stability and structural integrity, and neither creates nor contributes significantly to erosion, geologic instability, or destruction of the site or surrounding area. The Commission therefore imposes Special Condition 1, which requires conformance with the geotechnical recommendations provided, and requires that a licensed professional approve the final plans.

Although adherence to the geotechnical consultant's recommendations will minimize the risk of damage from erosion, the risk is not eliminated entirely. Given that the applicant has chosen to implement the project despite potential risks from canyon erosion and

landslides, the applicant must assume the risks. Therefore, the Commission imposes **Special Condition 7** requiring the applicant to assume the risk of the development. In this way, the applicant is notified that the Commission is not liable for damage as a result of approving the permit for development. The condition also requires the applicant to indemnify the Commission in the event that third parties bring an action against the Commission as a result of the failure of the development to withstand the hazards.

Future erosion on the site may result in damage to the supports of the proposed weirs and drop structures, which may result in future impacts to native habitat within the canyon. Therefore, the Commission imposes Specal Condition 6, requiring the applicant to perform regular inspections of the proposed structures to assure stability of the stream. As conditioned, the proposed project would ensure that the proposed project meets the geotechnical constraints on the site, and would not result in future erosion or instability on the project site. Only as conditioned can the project be found consistent with Coastal Act Section 30253 requiring that geotechnical stability be assured.

The proposed project would result in the restoration of habitat within the project area, and minimizes the alteration of natural streams to the maximum extent feasible. The project, as conditioned, minimizes geotechnical risk and assures geotechnical stability. Therefore, only as conditioned does the Commission find that the proposed development is consistent with Sections 30231, 30236, and 30253 of the Coastal Act.

C. ESHA

Coastal Act Section 30107.5 states:

> "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.

Coastal Act Section 30240 states:

> (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.

Newport Beach's certified Land Use Plan (LUP) discusses areas which are environmentally sensitive in nature and lists Buck Gully Canyon as an area which may contain environmentally sensitive habitat area. Buck Gully Canyon is described as follows:

> *The lower (western) portion of Buck Gully is isolated from the upper Buck Gully by the Coast Highway. This area is closely confined by residential development on the south and north. The proximity to development, accessibility by local residents and their pets, and abundance of non-native ornamental plant species detract from the quality of habitat for wildlife species in this area. The upper (eastern) portion of Buck Gully is a broad, open, relatively undisturbed canyon. Coastal sage scrub and mixed chaparral dominate much of the area, except for the riparian corridor along the canyon bottom and the tops of the canyon, which are influenced by the adjacent residential development. Much of the native vegetation near the rim of the canyon has been removed to reduce wildfire hazard. Ornamental and non-native plant species from the adjacent residential development have encroached into Buck Gully, especially in the lower, narrow portions. Annual grasslands in Buck Gully consist of nonnative annual grasses and forbs. Some non-native inclusions were also observed in the Diegan coastal sage scrub, southern mixed chaparral, and southern willow scrub habitats.*

The City's Coastal Land Use Plan contains relevant policies as well, such as:

> *2.8.7-1. Conduct hydrological studies of Big Canyon, Buck Gully and Morning Canyon to develop methods to control water quality, sedimentation, erosion, and slope failure and to protect downstream areas from debris flows.*
>
> *4.1.3-1. Utilize the following mitigation measures to reduce the potential for adverse impacts to ESA natural habitats from sources including, but not limited to, those identified in Table 4.1.1:*
>
> C. Prohibit the planting of non-native plant species and require the removal of non-natives in conjunction with landscaping or revegetation projects in natural habitat areas.

The proposed development is located along Buck Gully Canyon in Corona del Mar. As cited above, the City's certified LUP identifies Buck Gully Canyon as an area that may contain environmentally sensitive habitat area (ESHA). The City contracted BonTerra Consulting to perform biological surveys of Buck Gully Canyon. BonTerra surveyed for special status species including protocol California Gnatcatcher, *Polioptila californica californica*; Least Bell's Vireo, *Vireo bellii pusillus*; Southwestern Willow Flycatcher, *Empidonax traillii extimus*; and southwestern pond turtle, *Actinemys marmorata pallida*; surveys. None of these species were observed during their respective surveys. Yellow warblers, a CDFG Species of Special Concern, were observed in the southern arroyo willow forest in April and May. However, they were not observed in June or July and therefore this species was assumed by the consultant to be migrants.

BonTerra mapped coastal freshwater marsh, southern arroyo willow riparian habitat, coastal bluff scrub, and ornamental habitat within the project site. They found that all of the habitats were invaded to a greater or lesser degree by non-native and invasive plants. They identified three special status plant species, Santa Catalina Island desert-thorn, *Lycium brevipes var. hassei*; California box-thorn, *Lycium californicum*, and wooly seablite, *Suaeda taxifolia*; all located within coastal bluff scrub habitat located outside of the project footprint, and which will not be impacted by the proposed project.

The Commission's staff ecologist, Jonna Engel, visited the project site on July 1st, 2011, and has written a Memorandum (Exhibit 6) regarding the site which states that the project 1) contains ESHA, and 2) would result in the restoration of the project site. The memorandum states:

> "Although no listed species were found in the riparian habitat, southern arroyo willow riparian habitat is designated rare by the California Department of Fish and Game, Biogeographic Data Branch, California Natural Diversity Database. In addition, southern arroyo willow riparian habitat is easily disturbed and degraded by human activities and development as evidenced by the current degraded condition of this habitat within Buck Gully. Based on its rarity and susceptibility to disturbance, the southern arroyo willow riparian habitat does rise to the level of environmentally sensitive habitat (ESHA). While the habitat is degraded and riddled with non-native and invasive species, it still supports valuable ecosystem services and native species….
>
> Restoration is a resource dependent, allowable use in ESHA. The Buck Gully restoration and protection project will return the Buck Gully stream corridor to a more natural southern arroyo willow riparian habitat by removing non-native and invasive plant species, restoring native habitat, managing and maintaining the stream channel and flows, and improving water quality. Without intervention, lower Buck Gully will remain constantly disturbed and limited to an early successional stage (pioneer) community best suited to opportunistic (weedy) species. The Buck Gully restoration and protection project will stabilize the stream bed and remove non-native and invasive species so that natural ecosystem processes and functions can proceed and a more natural and biologically diverse southern riparian community can become established. In addition to restoring the riparian corridor, the restoration and protection project will also improve the coastal sage scrub habitat along the upper hillsides of Buck Gully by removing non-native and invasive species. Another outcome and ecological benefit of the project will be a stronger distinction between the upper and dryer (xeric) coastal sage scrub community and the lower and wetter (mesic) southern arroyo willow riparian community. Finally, restoration of the coastal sage scrub and southern riparian habitat is also important in terms of providing appropriate habitat for rare species such as California gnatcatchers, least Bell's vireos, southwestern willow flycatchers, and southern pond turtles. And while southern steelhead, *Oncorhynchus mykiss*, have not historically been recorded in Buck Gully Creek, the Buck Gully restoration and protection project will create more suitable steelhead habitat."

The Commission's staff ecologist has determined that the southern arroyo willow riparian habitat located on the site qualifies as ESHA. Although no listed species were found to be present within the project area, the southern arroyo willow riparian habitat is designated as a rare habitat by the California Department of Fish and Game, Biogeographic Data Branch, California Natural Diversity Database. In addition, the southern arroyo willow riparian habitat is easily disturbed and degraded by human activities and development as evidenced by the current degraded condition of this habitat within Buck Gully. While the habitat is degraded and riddled with non-native and invasive species, it still supports valuable ecosystem services and native species. Streams in Southern California are rare but ecologically important habitats, and are often threatened by adjacent development.

The proposed project qualifies as restoration, which is an allowable uses within ESHA. Buck Gully Canyon is currently degraded due to the erosion which has altered the canyon bottom, eliminated riparian habitat, and caused an increase in the populations of non-natives and invasive species. The proposed project would result in the restoration of channel grades, stabilization of riparian and upland habitats, and result in the eradication of non-native and invasive species within the project footprint. The proposed project will result in impacts during construction, but these impacts are ultimately necessary in order to carry out the restoration of habitat throughout the project site

The project would result in the revegetation of the project site. The Commission therefore imposes Special Condition 4, which requires the applicant to submit a stream restoration and monitoring program, which establishes success criteria and a monitoring plan with the goal of increasing habitat value. As part of this restoration program, the applicant has agreed to implement a Cowbird eradication program. A maximum of 16 brown-headed cowbirds (*Molothrus ater*) have been surveyed on the project site by Bon Terra Consulting. Cowbirds do not build their own nests but instead lay their eggs in the nests of other species, usually to the detriment of the host birds' own eggs or young. The presence of cowbirds at the site is likely impacting the survival rates of other native birds at the subject site, and would result in impacts to any listed species which may occupy the site in the future. The applicant has agreed to implement a cowbird eradication program at the subject site, to help improve populations of native birds in the project area. This eradication program is included in the habitat restoration program required in Special Condition 4.

The proposed project includes work within a stream corridor. To ensure that the proposed restoration project does not result in water quality impacts, the Commission imposes Special Condition #2, which outlines construction responsibilities intended to prevent adverse impacts to the canyon. These responsibilities are discussed further in Section E. The proposed development is located within a sensitive habitat area. To ensure the applicant does not undertake future improvements which impact sensitive habitat, the Commission imposes Special Condition #8, the future development special condition, to ensure that the applicant applies for a Coastal Development Permit, or an amendment to this permit, for all future development on the site. Due to its location within a drainage course, the project also requires review from the Department of Fish and Game (DFG) and Special Condition #5 requires the applicant to provide the approval of the DFG prior to

issuance of this CDP. The proposed project, as conditioned to ensure the restoration and protection of ESHA and native habitat on the site, is therefore consistent with Coastal Act Sections 30231, 30236, and 30240.

D. Visual:

Coastal Act Section 30251 states:

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

The project is located in the bottom of Buck Gully Canyon. The two primary public vantage points for this site are Pacific Coast Highway, and Little Corona Beach and the adjacent access road. Due to the distance from the site, topography, and existing vegetation, the proposed development is not expected to be visible from Coast Highway. During construction, portions of the project will be visible from the access road to the beach. However, upon completion of the project, the gabion structures will be covered with soil, and the whole of the area within the project footprint will be planted with native vegetation. Once revegetation of the site has been completed, the proposed structures are not expected to be visible from significant public vantage points . Therefore, the Commission finds that the proposed project is consistent with Coastal Act Section 30251 regarding preservation of visual resources.

E. Marine Resources & Water Quality

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:

> 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 30232 of the Coastal Act states, in pertinent part:

> Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials.

The City's Certified Coastal Land Use Plan states (in relevant part):

> *4.1.3-1. Utilize the following mitigation measures to reduce the potential for adverse impacts to ESA natural habitats from sources including, but not limited to, those identified in Table 4.1.1:*
>
> *L. Control upstream pollution sources from Buck Gully, Morning Canyon and storm drain runoff from local streets to the maximum extent practical to reduce sediment, nutrient, fecal coliform, and toxic pollutant loads.*

Storage or placement of construction materials, debris, or waste in a location which may be discharged into coastal waters via runoff carried by the storm water system would result in adverse impacts upon the marine environment that would reduce the biological productivity of coastal waters. For instance, construction debris entering coastal waters may cover and displace soft bottom habitat. In addition, the release of lubricants or oils from machinery may be toxic to marine life. Sediment discharged to coastal waters may cause turbidity which can shade and reduce the productivity of eelgrass beds and foraging avian and marine species' ability to see food in the water column.

Sedimentation could also have adverse impacts upon rocky intertidal resources known to be present at the beach at the mouth of Buck Gully Canyon. In order to avoid adverse construction-related impacts upon marine resources, Special Condition #2 outlines construction-related requirements to provide for the safe storage of materials and the safe disposal of construction debris. The condition ensures that debris will not be allowed to enter the drainage course within Buck Gully Canyon.

The applicant has applied for the necessary permits from the California Regional Water Quality Control Board (RWQCB), the California Department of Fish and Game (DFG) and the U.S. Army Corps of Engineers. Special Condition #5 requires the applicant to provide the approvals of the RWQCB and the DFG prior to issuance of this CDP.

After construction, the streambed within Buck Gully Canyon will be restored and stream flow will continue unaltered. No post-construction impacts to water quality are proposed or anticipated; rather, the proposed project includes the installation of subsurface flow wetlands, which are designed to treat stream water flow and improve water quality within the stream, and adjacent beach and ocean. Only as conditioned for implementation of construction BMPs does the Commission find that the proposed development is consistent with Sections 30230, 30231 and 30232 of the Coastal Act.

F. Public Access and Recreation

Coastal Act Section 30210 states:

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

Coastal Act Section 30211 states:

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

Coastal Act Section 30213 states (in relevant part):

> Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

Coastal Act Section 30221 states:

> Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Coastal Act Section 30240 of the Coastal Act states (in relevant part):

> (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.

Construction access to the canyon will be provided by the existing access road leading to the restroom facility for Little Corona beach, and from there will travel down a 12' wide temporary access road leading down into the canyon. The proposed construction staging plan would not result in impacts the public's ability to access the beach. The project will take place outside of the peak summer period, with an estimated project start date in September. However, the project as currently proposed would result in the obstruction of the public's ability to access the restroom facility adjacent to the proposed staging area. This restroom facility is the only available public restroom for Little Corona Beach. The next closest public restroom is located approximately ½ a mile to the northwest. Therefore, the Commission imposes Special Condition 2 requiring the submittal of a revised construction staging plan, which provides a pedestrian access to the public restroom facility from Little Corona beach.

The project is compatible with the adjacent beach and ocean. The project will continue to allow sediment to flow through the project site and will not impact the sediment supply to the beach. The proposed subsurface flow wetlands will improve water quality at the adjacent beach. This may result in a reduction in the number of days that beaches in this area are closed due to poor water quality. The proposed development, as conditioned, will not adversely affect the public's ability to gain access to, and/or to use the coast and nearby recreational facilities. Therefore, the development, as conditioned, is in conformity with Sections 30210 through 30214, Sections 30220 through 30224, and 30252 of the Coastal Act.

G. Local Coastal Program (LCP)

Section 30604(a) of the Coastal Act provides for the issuance of Coastal Development Permits directly by the Commission in regions where the local government having jurisdiction does not have a certified local coastal program. The permit may only be issued if the Commission finds that the proposed development will not prejudice the ability of the local government to prepare a Local Coastal Program which conforms with the Chapter 3 policies of the Coastal Act.

The Newport Beach Land Use Plan was effectively certified on May 19, 1982. The certified LUP was updated on October 13, 2005. The City currently has no certified Implementation Plan. Therefore, the Commission issues Coastal Development Permits within the City based on the development's conformance with the Chapter 3 policies of the Coastal Act. The LUP policies may be used for guidance in evaluating a development's consistency with Chapter 3. As conditioned, the proposed project will conform with Coastal Act Section 30220 regarding protecting the recreational value of coastal waters and Sections 30230 and 30231 regarding protection of marine resources and water quality, and 30250 regarding avoidance of cumulative impacts.

The proposed development, as conditioned, is consistent with Chapter 3 policies of the Coastal Act and with the LUP. Therefore, approval of the proposed development will not prejudice the City's ability to prepare a Local Coastal Program for Newport Beach that is consistent with the Chapter 3 policies of the Coastal Act as required by Section 30604(a).

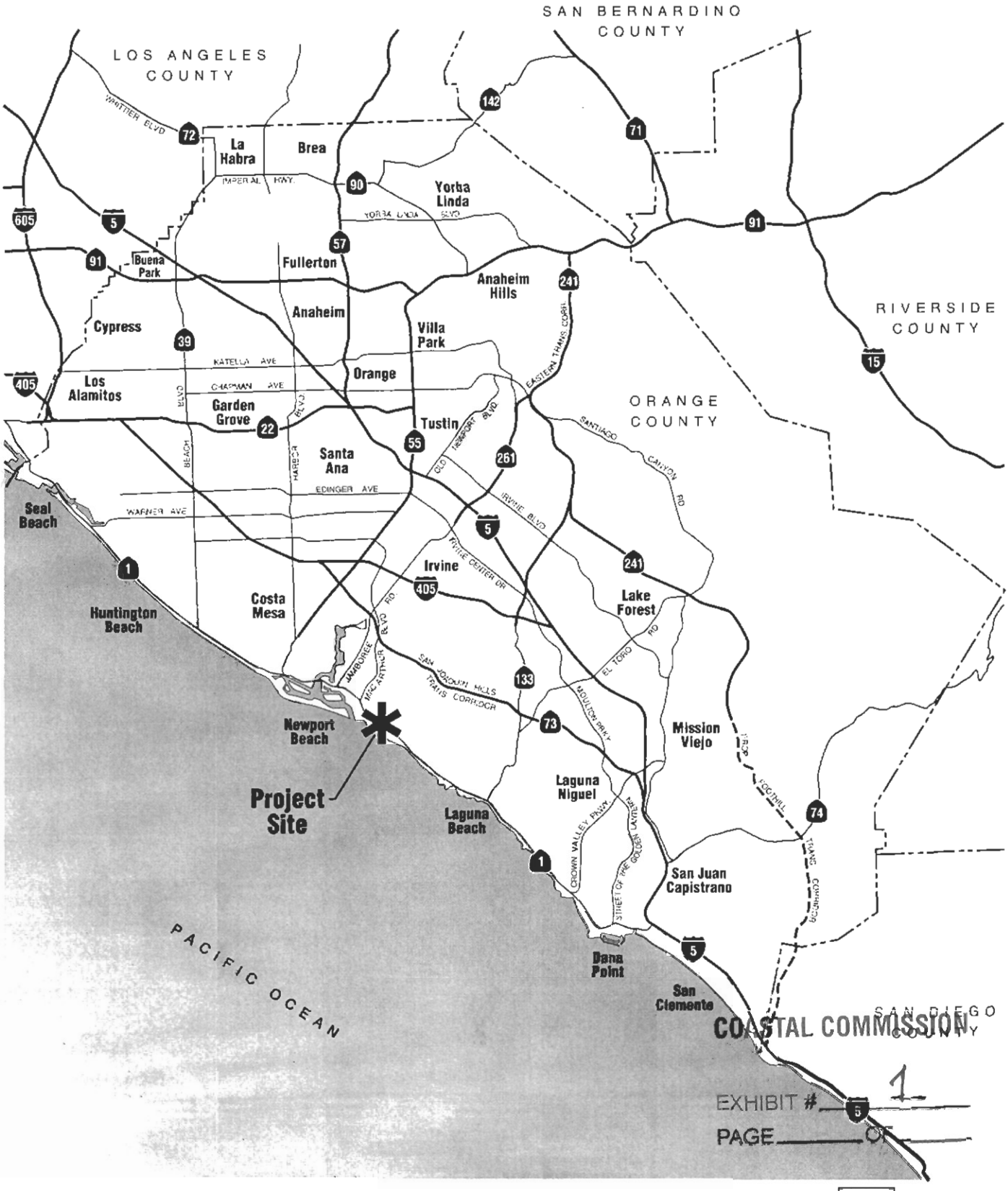
H. California Environmental Quality Act

Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The City of Newport Beach is the lead agency for purposes of CEQA compliance. A Final Mitigated Negative Declaration was prepared for this project in October 2010 pursuant to the provisions of CEQA. Mitigation measures included a measure to minimize any impacts to air quality, biological resources, cultural resources, hazardous materials, noise, and traffic impacts. As mitigated, the City found that the project would not have any significant effects on the environment.

The proposed project is located in an area surrounded by residential development. The proposed project has been conditioned in order to be found consistent with the resource protection policies of the Coastal Act. As conditioned, the proposed project has been found consistent with the marine resources, sensitive habitat, water quality and public access policies of the Coastal Act. Mitigation measures to minimize adverse effects include: **1)** conformance with geotechnical recommendations; 2) submittal of a revised construction staging plan; 3) Best Management Practices during construction; 4) submittal of a final restoration and monitoring program ; 5) submittal of evidence of agency approvals; 6) submittal of a maintenance plan for the proposed structures; 7) the applicant's assumption of the risk of the development; and 8) future development on the site.

As explained in the findings, the proposed project, as conditioned, is the environmentally preferable alternative. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified effects, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.



COASTAL COMMISSION

EXHIBIT # 1

PAGE ____ OF ____

* Project Site

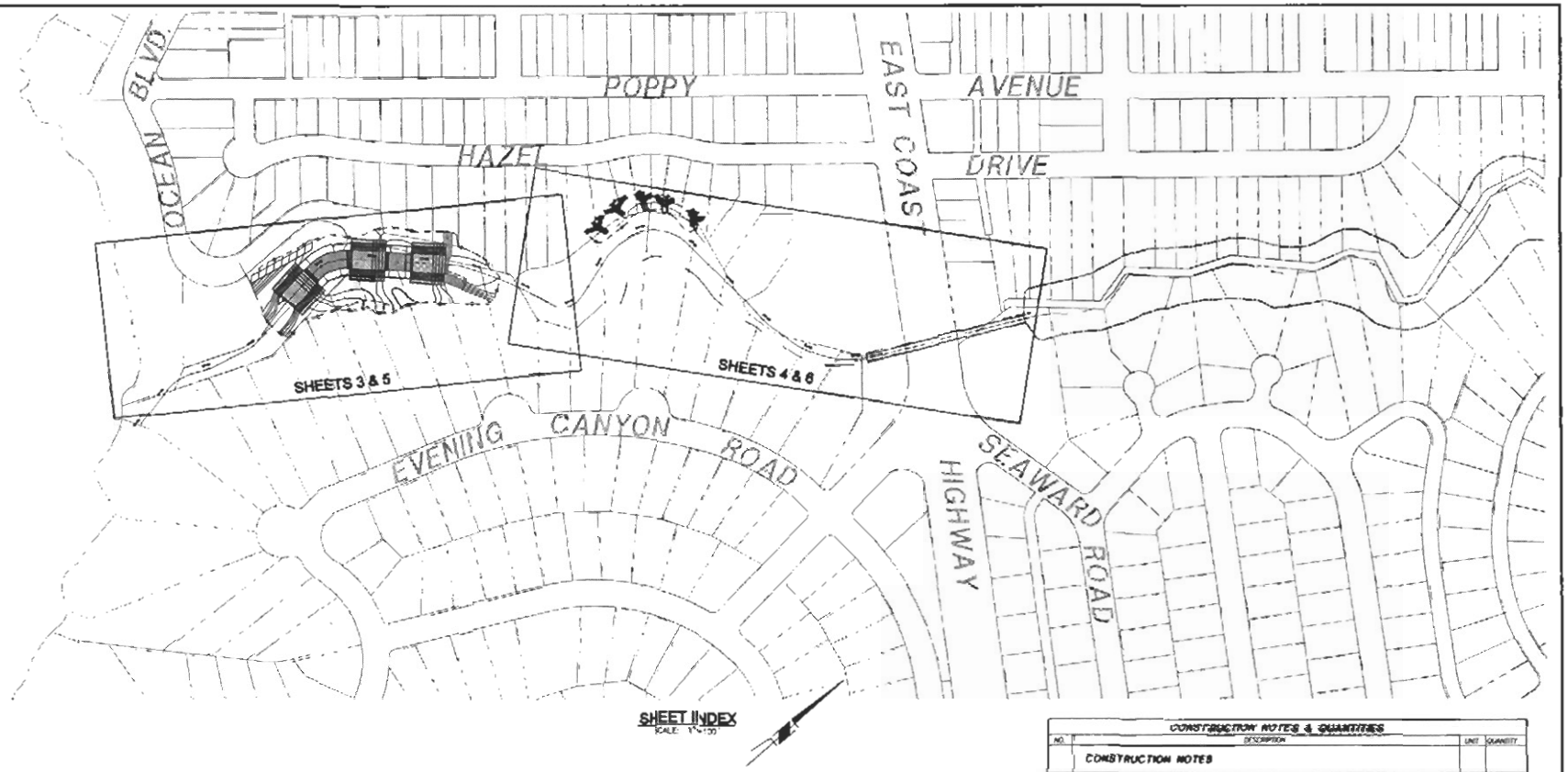
not to scale

5/7/09 JN 10-104485-15348 MAS

BUCK GULLY RESTORATION PROJECT • IS/MND

Regional Vicinity

Exhibit 1



CONSTRUCTION NOTES & QUANTITIES

NO.	DESCRIPTION	UNIT	QUANTITY
	CONSTRUCTION NOTES		
1	CONSTRUCT GRADE CONTROL STRUCTURE PER PLAN, PROFILE, AND DETAIL ON SHEET 7	EA	3
2	CONSTRUCT BENDWAY WEIRS PER PLAN, PROFILE, AND DETAILS	EA	3
3	GRADE CHANNEL PER LIMITS SHOWN	CY	4829
4	CONSTRUCT 6" PVC PIPE	LF	108
5	CONSTRUCT 6" PVC WITH 1" PERFORATIONS	LF	94
6	CONSTRUCT GRAVEL FILTER SYSTEM PER DETAIL ON SHEET 12	CY	574
7	CONSTRUCT MONITORING AREA WITH GRAVEL FILTER SYSTEM PER DETAILS ON SHEET 12	CY	46
8	INSTALL ECORAIN TANK UNITS BY ECORAIN SYSTEM INC OR EQUIVALENT AND PER DETAILS	CY	630
9	CONSTRUCT 6" DCCP MD. & GRAVEL BACKFILL PER PLAN, PROFILE, AND DETAIL HEREIN	CY	74
10	CLEAR AND GRADE CONSTRUCTION ACCESS ROAD AND REPAIR & REPLACE VEGETATION UPON COMPLETION	EA	1

SCALE: 1"=100'

C-3780

RBF CONSULTING

DATE	BY	DESCRIPTION OF REVISIONS	APP'D

DESIGNED: TAM DRAWN: CC CHECKED: JAM DATE: 08/30/2012

BUCK GULLY EROSION CONTROL
SHEET INDEX & CONSTRUCTION NOTES

CITY OF NEWPORT BEACH
PUBLIC WORKS DEPARTMENT

B-5355-S
SHEET 2 OF 20

COASTAL COMMISSION
EXHIBIT # 2
PAGE ____ OF ____

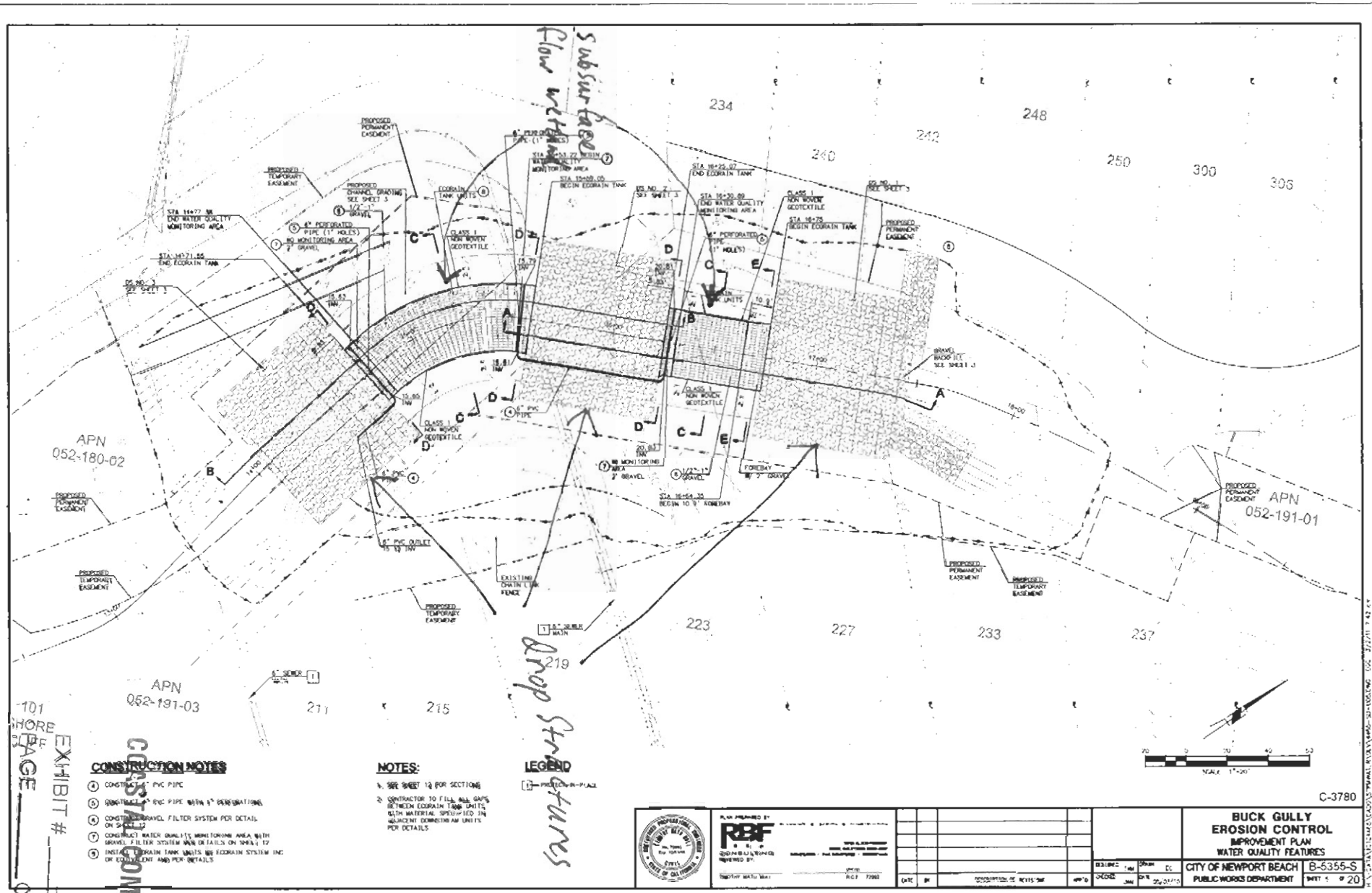
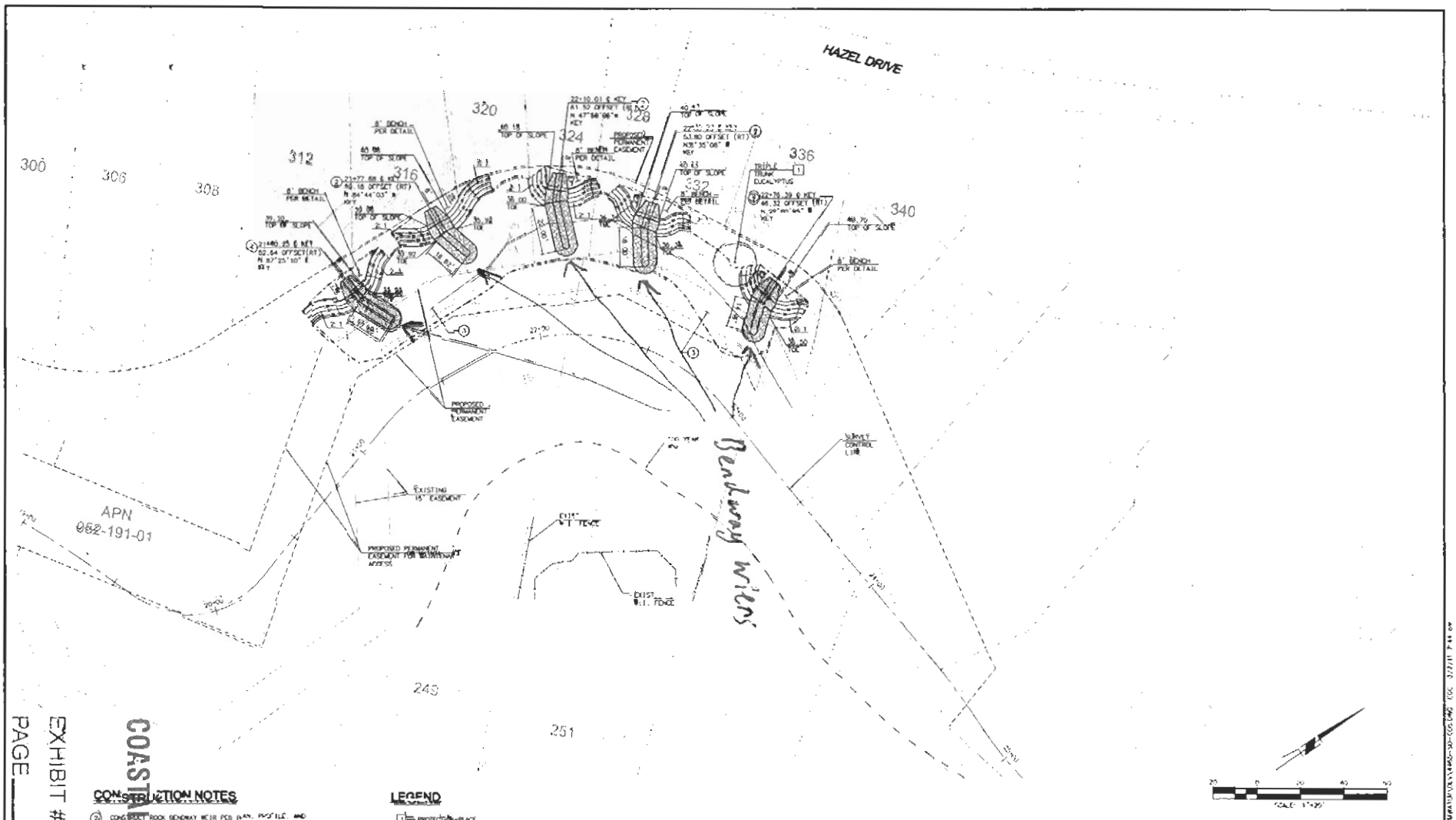


EXHIBIT # 3
PAGE 1 OF 1
COASTAL COMMISSION



CONSTRUCTION NOTES

② CONSTRUCT ROCK BENDWAY WEIR PER PLAN, PROFILE, AND DETAILS

⑥ [illegible]

LEGEND

1 — PROTECT-IN-PLACE

2 — REMOVE AND DISPOSE

3 — REMOVE AND REPLACE

SCALE: 1"=20'

C-3780

PLAN PREPARED BY

RBF CONSULTING

DATE	BY	DESCRIPTION OF REVISIONS	APP'D

DESIGNED TAM DRAWN EC

CHECKED JAM DATE 05/03/12

BUCK GULLY EROSION CONTROL

IMPROVEMENT PLAN

BENDWAY WEIRS

CITY OF NEWPORT BEACH | B-5355-S

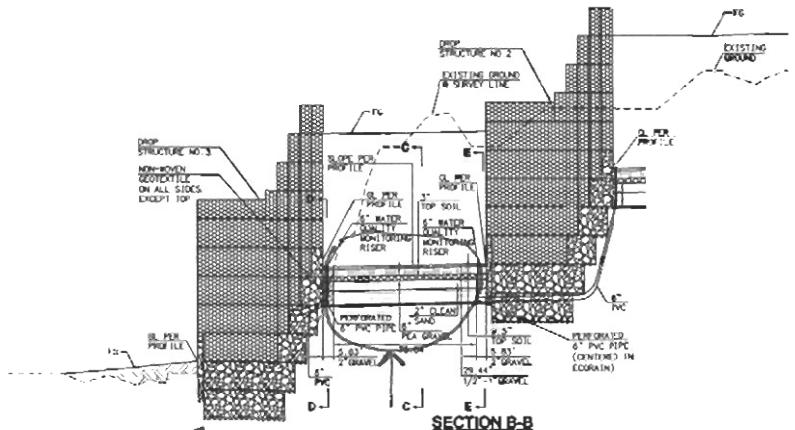
PUBLIC WORKS DEPARTMENT | SHEET 6 OF 20

COASTAL COMMISSION

EXHIBIT # 4

PAGE ___ OF ___

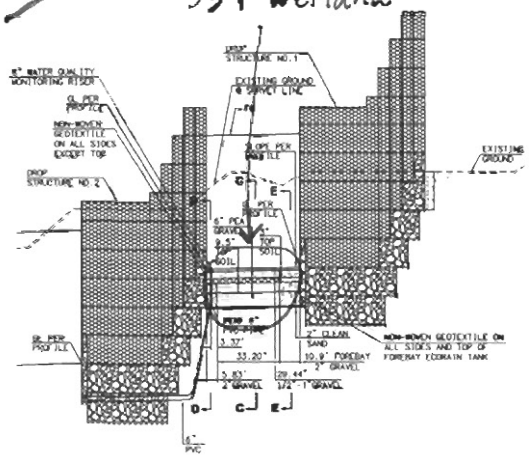
Wetland Cross Sections



SECTION B-B
STA 14+71.55 TO STA 15+59.05

SS F Wetland

gabion drop structures

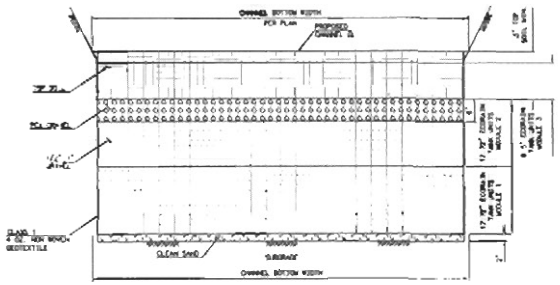


SECTION A-A
STA 18+25.07 TO STA 16+75
SCALE: NTS

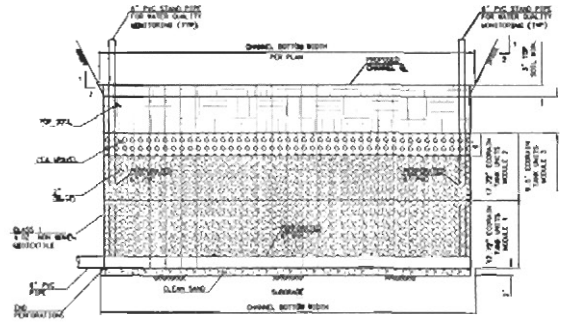
NOTES:
1. THE 2" LAYER OF CLEAN SAND OR GRAVEL MATERIAL SPECIFIED OVER SUBGRADE AS BEDDING MATERIAL SHALL BE FREE FROM LUMPS AND DEBRIS OR ANY OTHER SHARP MATERIALS.
2. PERMEABLE NON-WOVEN GEOTEXTILE SHALL FULLY COVER THE BOTTOM, ALL SIDES AND TOP OF THE FOREBAY SECTION OF THE ECORAIN TANK WITH ALLOWANCE FOR 1' LAPPED JOINTS.
3. THE PERMEABLE NON-WOVEN GEOTEXTILE SHALL ONLY COVER BOTTOM AND ALL SIDES OF THE OTHER SECTIONS OF THE ECORAIN TANK.
4. GRAVEL GRADATION SHALL BE PER SECTION 200 OF THE GREENBOOK. TOP SOIL MATERIAL USED SHALL BE NATIVE SOIL.

LEGEND

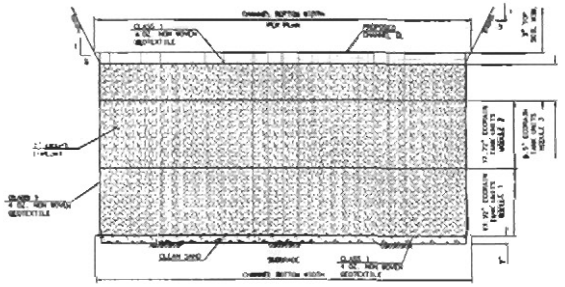
- PEA GRAVEL
- GABIONS (WIRE MESH)
- GABIONS (ROCK FILL)
- TOP SOIL
- 1/2"-1" GRAVEL
- 2" GRAVEL
- CLEAN SAND
- SUB GRADE



SECTION C-C



SECTION D-D



SECTION E-E

C-3780

WATER QUALITY DETAIL
SCALE: NTS

PLAN PREPARED BY: RBF CONSULTING
REVIEWED BY:

DESIGNED	DRAWN	CC
CHECKED	DATE	05/27/11

BUCK GULLY EROSION CONTROL
WATER QUALITY FEATURES SECTIONS & MISCELLANEOUS DETAILS
CITY OF NEWPORT BEACH | B-5355-S
PUBLIC WORKS DEPARTMENT | SHEET 14 OF 20

COASTAL COMMISSION
EXHIBIT # 5
PAGE ___ OF ___

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

M E M O R A N D U M

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

TO: John Del Arroz, Coastal Analyst

SUBJECT: Buck Gully Restoration and Protection Project

DATE: July 27, 2011

Documents Reviewed:

RBF Consulting. July 1, 2011. Development Permit Application: Subsequent Information, Buck Gully Restoration Project; for California Coastal Commission Coastal

RBF Consulting. Feb. 6, 2011. Buck Gully Restoration Project - Review of the Restoration Strategy and Protection Measures.

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California Department of Fish and Game, South Coast Region. Feb. 2, 2011. Final Lake of Streambed Alteration Agreement; Notification No. 1600-2010-0317-R5; City of Newport Beach, Buck Gully Restoration Project.

Bonterra Consulting (Ann M. Johnston, Principal, Biological Services and Amber S. Oneal, Senior Project Manger/Ecologist). Dec. 8, 2009. Results of Special Status Plant Survey for the Buck Gully Project Site in Corona Del Mar, , City of Newport Beach, Orange County, California . Letter report to Mr. Richard Beck, RBF Consulting.

Bonterra Consulting (Amber S. Oneal, Senior Project Manger/Ecologist and Sam C. Stewart, IV, Project Manager/Ecologist). Nov. 12, 2009. Results of Southwestern Pond Turtle Survey for the Buck Gully Project Site in Corona Del Mar, , City of Newport Beach, Orange County, California . Letter report to Mr. Richard Beck, RBF Consulting.

Bonterra Consulting (Amber S. Oneal, Senior Project Manger/Ecologist). Sept. 10, 2009. Results of Least Bell's Vireo and Southwestern Willow Flycatcher Survey for the Buck Gully Project Site in Corona Del Mar, , City of Newport Beach, Orange County, California . Letter report to Ms. Sandy Marquez, USFWS.

Bonterra Consulting (Amber S. Oneal, Senior Project Manger/Ecologist). June 11, 2009. Results of Coastal California Gnatcacher Survey for the Buck Gully Project Site in Corona Del Mar, , City of Newport Beach, Orange County, California . Letter report to Ms. Sandy Marquez, USFWS.

Bonterra Consulting (Ann M. Johnston, Principal, Biological Services and Amber S. Oneal, Senior Project Manger/Ecologist). February 14, 2008. Biological Constraints Assessment for the Guck Gully Project Site in Corona Del Mar, City of Newport Beach, Orange County, California. Letter report to Mr. Richard Beck, RBF Consulting.

Buck Gully Canyon is located in south Newport Beach, between Corona Del Mar and Crystal Cove State Park. It is bordered by the Pacific Ocean to the southwest and residential and commercial development to the southeast, northwest, and north. Pacific Coast Highway bisects the canyon. Buck Creek runs through the canyon within an approximately two square mile watershed that empties at Little Corona Beach. Historically, Buck Creek was seasonal and would dry up in the late spring and summer. However, irrigation associated with single family residences and a golf club built along the hillsides of the watershed in the 1990's has resulted in additional water input to the stream so that it now runs year round.

The shift of Buck Creek from ephemeral to perennial flow, along with a reduction in sediment contributions due to development of the canyon edges has caused significant alterations to the hydrology and physical character of the stream, including significant erosion and degradation of the canyon. Increased flows have scoured the canyon bottom, leading to downcutting, or lowering of the stream elevation. One dramatic example is a 10 foot downcut that migrated 200 feet upstream between 2000 and 2005. Until 2010 a rock outcropping prevented further erosion, however, that outcropping recently failed and the erosion is again progressing upstream. Other impacts include deposition of large amounts of sediment near the stream mouth, reduction in water quality and pervious areas, split stream flows, debris islands, incised channels, flows shifting away from the center of the canyon, and stagnation of open waters.

While Buck Canyon continues to support native habitat, the section below Pacific Coast Highway is significantly degraded because of the alterations described above as well as from incursion of non-native and invasive plants. The large increase in the amount of water flowing through Buck Canyon and the change in water flow patterns is mirrored by changes in the biological community. The City of Newport Beach LUP provides the following description for the portion of Buck Gully below Pacific Coast Highway:

> *The lower (western) portion of Buck Gully is isolated from the upper Buck Gully by the Coast Highway. This area is closely confined by residential development on the south and north. The proximity to development, accessibility by local residents and their pets, and abundance of non-native ornamental plant species detract from the quality of habitat for wildlife species in this area. The upper (eastern) portion of Buck Gully is a broad, open, relatively undisturbed canyon. Coastal sage scrub and mixed chaparral dominate much of the area, except for the riparian corridor along the canyon bottom and the tops of the canyon, which are influenced by the adjacent residential development. Much of the native vegetation near the rim of the canyon has been removed to reduce wildfire hazard. Ornamental and non-native plant species from the adjacent residential development have encroached into Buck Gully, especially in the lower, narrow portions. Annual grasslands in Buck Gully consist of nonnative annual grasses and forbs. Some non-native inclusions were also observed in the Diegan coastal sage scrub, southern mixed chaparral, and southern willow scrub habitats. Potential impacts to the natural habitats in this study area include erosion, contaminated urban runoff, increased human activity, ambient noise, invasive species, and uncontrolled public access.*

In order to restore native habitats, stabilize the bed gradient of lower Buck Gully, and reduce the potential for gradual or catastrophic failure of the adjacent canyon slopes, the City of Newport Beach is proposing a restoration and slope protection project similar to the one successfully completed in Morning Canyon which is immediately east of Buck Gully Canyon (CDP 5-05-221). The main goals of the Buck Gully restoration and protection project are to 1) re-establish the stream in its natural location near the center of the canyon, 2) stabilize canyon slopes by eliminating uncontrolled erosion, 3) stabilize the streambed and restore native habitats including the wetland community at the mouth of the canyon and the riparian habitat throughout, and 4) improve water quality within the stream and ocean.

To accomplish these goals the city is proposing to install six bendway weirs, three gabion drop structures, two subsurface flow wetlands, and remove non-native and invasive species and restore native habitats. The bendway weirs are designed to slow and redirect flow toward the center of the stream in order to reduce channel bank erosion. The weirs will be placed into the hillside, covered with soil, and planted with native riparian vegetation to mimic a natural stream bank. The gabion drop structures are designed to maintain a more natural stream channel, reduce stream energy, and establish a stable stream bed to address the current downcutting and severe stream channel migration problems. The drop structures will be covered with soil and planted with native vegetation. The subsurface flow wetlands are features of the project designed to improve water quality. They will be constructed between the drop structures and consist of a mix of sand, gravel, and soil wrapped with filter fabric. The subsurface flow wetlands will filter water and eventually become vegetated with native wetland/riparian plants. Once the bendway weirs, gabion drop structures, and subsurface flow wetlands are in place, the city will remove remaining non-native and invasive plants and restore native wetland, riparian, and coastal sage scrub habitats. A

Buck Gully restoration and monitoring plan must be submitted to the Commission for review and approval before the permit for the project is issued to the city.

The city contracted BonTerra Consulting to perform biological surveys of Buck Gully Canyon. BonTerra mapped plant communities, surveyed for special status plant species, and conducted protocol surveys for California Gnatcatcher, *Polioptila californica californica*; Least Bell's Vireo, *Vireo bellii pusillus*; Southwestern Willow Flycatcher, *Empidonax traillii extimus*; and southwestern pond turtle, *Actinemys marmorata pallida*. BonTerra mapped coastal freshwater marsh, southern arroyo willow riparian habitat, ornamental, and coastal bluff scrub habitat. They found that all of the habitats were invaded to a greater or lesser degree by non-native and invasive plants. They identified three special status plant species, Santa Catalina Island desert-thorn, *Lycium brevipes var. hassei*; California box-thorn, *Lycium californicum*, and wooly seablite, *Suaeda taxifolia*; within coastal bluff scrub habitat which will not be impacted by the Buck Gully restoration and protection project.

BonTerra conducted protocol surveys for California gnatcatchers, least Bell's vireos, and southwestern willow flycatchers, in April, May, June, and July 2009. They did not observe any of these species during their respective surveys. Yellow warblers, *Dendroica petechia*, a CDFG Species of Special Concern, were observed in the southern arroyo willow habitat in April and May. However, they were not observed in June or July so BonTerra assumed they were migrants. BonTerra conducted protocol southwestern pond turtle surveys in May 2009; no southwestern pond turtles were observed during their surveys.

On Friday, July 1st, 2011, John Del Arroz, Coastal Analyst, and I, visited Buck Gully Canyon with Robert Stein and Iris Lee from the City of Newport and Richard Beck and Wesley Salter from RBF Consulting. We entered the west side of the canyon via the public pathway to Little Corona Beach. Closest to the beach the canyon supports coastal bluff scrub dominated by native species including California buckwheat, *Eriogonum fasiculatum*; coast goldenbush, *Isocoma menziessii*; and large salt bush, *Atriplex lentiformis*. The canyon mouth where Buck Gully stream outflows is a wetland habitat dominated by, and nearly full of, cattail, *Typha sp*., with coyote bush, *Baccharis pilularis,* and non-native castor bean, *Ricinus communis*; nasturtium, *Tropaeolum majus*; common celery, *Apium graveolens*; and African umbrella-sedge, *Cyperus involucratus*, along the edges.

To enter the canyon we climbed a metal guard rail and crossed through degraded coastal sage scrub habitat that is mapped as "ornamental" by BonTerra. I identify the lower half of the area mapped as ornamental by BonTerra, closest to the beach, as "degraded coastal sage scrub", because it does support a significant amount of coastal sage scrub species. The area I was able to observe, below and south of the restrooms, is dominated by both native and non-native species including native coastal sage, *Artemesia californica*; lemonade berry, *Rhus integrifolia*; coyote bush, toyon, *Heteromeles arbutifolia*; California sunflower, *Encelia californica*; California buckwheat, and coast goldenbush and non-native myoporum, *Myoporum laetum*; acacia, *Acacia*

sp.; bougainvillea, *Bougainvillea spectabillis*; castor bean, fennel, *Foeniculum vulgare*; ice plant, *Carpobrotus edulis*; mustard, *Hirschfeldia incana*; and nasturtium.

The lower sides of the canyon and the canyon bottom support southern arroyo willow riparian habitat characterized by an extremely thick and invaded understory layer and a depauperate canopy layer. Although historically Buck Gully Creek would be dry in the summer, there was a lot of water flowing through the canyon during our site visit. This shift from an ephemeral to a perennial system, along with an influx of invasive plant species has created a significantly altered riparian habitat. Increased water availability has resulted in replacement of native species adapted to drier conditions with natives, non-natives, and invasive species, adapted to wetter conditions. The existing native trees are low in diversity, low in abundance, and stunted; the understory layer is unnaturally thick; and the creek is choked along much of the reach by native, non-native and invasive species. In addition, ornamental species have been introduced to both hillsides and the canyon bottom from backyard landscaping.

Currently the section of Buck Gully below Pacific Coast Highway supports a significantly altered and invaded southern riparian habitat and a stream that is causing serious hillside undercutting and canyon bottom erosion. Healthy southern riparian habitat would support a canopy layer consisting of sycamore, *Platuanus racemosa*; coast live oak, *Quercus agrifolia*; black cottonwood, *Populus balsamifera*; and arroyo willow, *Salix lasiolepis*. However, the lower section of Buck Gully only supports a few scattered and stunted sycamore trees that are crowded by dense thickets of arroyo willow, blackberry; *Rubus ursinus*; poison oak, *Toxicodendron diversilobum*; and non-native and invasive species including date palms; *Phoenix cnariensis*; myoporum, and giant reed, *Arundo donax*. Typical southern riparian understory habitat would include arroyo willow but at significantly lower densities as well as a more diverse and more evenly distributed array of natives. We had difficulty walking up stream because the vegetation was so thick. The stream itself is lined with some natives such as California bulrush, *Scirpus californicus* and rush, *Juncus sp.* as well as non-natives including nasturtium; periwinkle, *Vinca minor*; and English ivy, *Hedera helix*. The stream is also choked along much of the lower reach by non-natives including water cress, *Rorippa nasturtium-aquaticum*. The canyon bottom is a maze of thick vegetation, scoured out stream channels, piles of debris, and large mounds of deposited sediment. We stopped when the vegetation became too thick to continue and where a large rock and palm tree formed a waterfall and were temporarily blocking further canyon bottom erosion.

Section 30107.5 of the Coastal Act defines environmentally sensitive habitat as:

> *…any areas 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.*

Although no listed species were found in the riparian habitat, southern arroyo willow riparian habitat is designated rare by the California Department of Fish and Game,

Biogeographic Data Branch, California Natural Diversity Database. In addition, southern arroyo willow riparian habitat is easily disturbed and degraded by human activities and development as evidenced by the current degraded condition of this habitat within Buck Gully. Based on its rarity and susceptibility to disturbance, the southern arroyo willow riparian habitat does rise to the level of environmentally sensitive habitat (ESHA). While the habitat is degraded and riddled with non-native and invasive species, it still supports valuable ecosystem services and native species.

Coastal Act Section 30240 states the following:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such 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 such areas, and shall be compatible with the continuance of such habitat areas.*

Restoration is a resource dependent, allowable use in ESHA. The Buck Gully restoration and protection project will return the Buck Gully stream corridor to a more natural southern arroyo willow riparian habitat by removing non-native and invasive plant species, restoring native habitat, managing and maintaining the stream channel and flows, and improving water quality. Without intervention, lower Buck Gully will remain constantly disturbed and limited to an early successional stage (pioneer) community best suited to opportunistic (weedy) species. The Buck Gully restoration and protection project will stabilize the stream bed and remove non-native and invasive species so that natural ecosystem processes and functions can proceed and a more natural and biologically diverse southern riparian community can become established. In addition to restoring the riparian corridor, the restoration and protection project will also improve the coastal sage scrub habitat along the upper hillsides of Buck Gully by removing non-native and invasive species. Another outcome and ecological benefit of the project will be a stronger distinction between the upper and dryer (xeric) coastal sage scrub community and the lower and wetter (mesic) southern arroyo willow riparian community. Finally, restoration of the coastal sage scrub and southern riparian habitat is also important in terms of providing appropriate habitat for rare species such as California gnatcatchers, least Bell's vireos, southwestern willow flycatchers, and southern pond turtles. And while southern steelhead, *Oncorhynchus mykiss*, have not historically been recorded in Buck Gully Creek, the Buck Gully restoration and protection project will create more suitable steelhead habitat.