

CALIFORNIA COASTAL COMMISSION

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**RECORD PACKET COPY****Th13c & Th14a**

Appellate Jurisdiction (A-1-MEN-04-036)
 Filed: 6/17/04
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 Retained Jurisdiction (CDP No. 1-05-036)
 Submitted: 8/05/05
 Filed: 8/31/05
 (Application No. 1-03-038 withdrawn 1/20/05)
 Staff: M. Faust; V. Metz
 Staff Report: 9/01/05
 Hearing Date: 9/15/05
 Commission Action:

STAFF REPORT: RETAINED & APPELLATE JURISDICTIONS
SUBSTANTIAL ISSUE & DE NOVO & REGULAR PERMIT ITEMS

LOCAL GOVERNMENT: County of Mendocino
 DECISION: Approval with Conditions
 APPEAL NO.: **A-1-MEN-04-036**
 APPLICANT: California Department of Transportation

APPELLATE JURISDICTION PROJECT (as approved):

Construct new approximately 550 ft. long, 44 ft. wide Greenwood Creek Bridge on State Highway Route 1, and realign highway approximately 500 linear feet north, and south, to connect the bridge, undertake approximately 45,720 cu. yds. total grading (27,860 cu. yds cut, 10,200 cu. yds. fill, and 17,660 export) and up to 10,000 cu. yds. demolition debris, and construct 3 vertical concrete retaining walls totaling approx. 900 linear feet and rising to a maximum height of 30 feet above finished grade. New bridge to include two 12-ft.-wide traffic lanes and two 8-ft.-wide paved shoulders with no pedestrian separation, with taper back to 4-ft.-wide shoulders after short transition off bridge, with Type 80 concrete guard rail topped by galvanized bike rail on the bridge. Total approved project length estimated at approximately 1,550 linear feet of State Highway Route 1 (not shown on plans).

substantially lessen the significant adverse effects of the development on the environment, and because there are cumulative adverse impacts of the proposed project and related actions made necessary by the project (such as utility relocations and water line excavations) that have not been adequately disclosed nor the associated individual and cumulative environmental impacts on the environment evaluated; and

- (3) after public hearing, which the applicant requests be held at the same hearing as item (2) above, **deny the portion of the project as proposed that is located in the Commission's retained jurisdiction** on the basis that feasible alternatives and mitigation measures exist, but have not proposed by the applicant, that would render the project proposed by the applicant consistent with the applicable policies and provisions of the Coastal Act; and further, because feasible mitigation measures and/or alternatives exist which would substantially lessen the significant adverse effects of the development on the environment, and because there are individual and cumulative adverse impacts of the proposed project and related actions made necessary by the project (such as utility relocations and water line excavations) that have not been adequately disclosed nor the associated individual and cumulative impacts on the environment evaluated.

It is the opinion of staff that a range of feasible project alternatives (most importantly, variations of an alternative identified by Caltrans generally as Alternative 2) and feasible mitigation measures exist that could resolve the most significant concerns raised by the project, and minimize adverse environmental effects.

Notes

1. **Combined Exhibit Package**

To conserve resources, one set of Exhibits has been provided for Agenda Items Th13c and Th14a; however additional Exhibits will be presented in an addendum.

2. **Appeal Process**

After certification of Local Coastal Programs (LCPs), the Coastal Act provides for limited appeals to the Coastal Commission of certain local government actions on coastal development permits (Coastal Act Section 30603).

Section 30603 states that an action taken by a local government on a coastal development permit application may be appealed to the Commission for certain kinds of developments, including developments located within certain geographic appeal areas, such as those located between the sea and the first public road paralleling the sea or within one hundred feet of a wetland or stream or three hundred feet of the mean high tide line or inland extent of any beach or top of the seaward face of a coastal bluff. Furthermore, developments approved by counties may be appealed if they are not

4. Withdrawal of former CDP Application No. 1-03-038 January 2005 and submittal of new CDP Application No. 1-05-036 in August 2005

Retained jurisdiction (regular permit) hearing: The applicable test for the Commission to consider is whether the development is in conformity with the applicable policies of the Coastal Act.

Any interested party may testify before the Commission during the Commission's retained jurisdiction hearing concerning Coastal Development Permit Application No. 1-05-036.

Application review; background

Caltrans originally submitted an application to the Commission for the retained jurisdiction portion of the subject project on June 5, 2003. The County review was concurrent, the County approved the appellate jurisdiction portion of the project in June, 2004 and that project was appealed (A-1-MEN-04-036) as noted above.

The Commission staff review of the pending application indicated that the application lacked a complete project description, including adequate project and grading plans, and did not include an adequate or accurate delineation of wetlands or adequate baseline data on the extent of sensitive habitat and species within the project area, or analyze accurately the extent of temporary and permanent impacts that could be caused by the project if constructed as proposed. In addition, the staff concluded that the application lacked an adequate analysis of project alternatives, including an evaluation of the extent of environmental impacts that would be caused by various alternatives in comparison with Caltrans' proposed project.

These concerns were the subject of substantial correspondence and numerous meetings of Commission staff with Caltrans during the continuing review of the application, through September 2004. Then, without resolution of the staff concerns regarding the extent of information missing from the pending application, Caltrans staff made a request during a meeting with staff on September 21, 2004 for a hearing on the project as soon as possible. Staff advised Caltrans that a hearing would be scheduled but the likely recommendation would be denial of the proposed project, in part due to the significant lack of information that remained, and the resultant inability of staff to adequately review the project's potential impacts on coastal resources.

In response, Caltrans provided a letter dated October 17, 2004, requesting that the appeal and retained jurisdiction coastal development permit application remain together on a future hearing agenda and acknowledged that additional information was being prepared by Caltrans. The letter indicated that no further hearing request would be made by Caltrans before December 21, 2004. (Exhibit 13).

August 15, 2005 concerning a different pending Route 1 bridge project in Mendocino County that was previously identified as a "seismic retrofit project" that Caltrans anticipated urgency legislation by September 13, 2005 to reinstitute the seismic bridge program. (The previous seismic retrofit statute minimized the time for Commission review and action to 15 working days from submittal of a coastal permit application, afforded the applicant an appeal to an appointed state board that could overturn any Commission action--including removing imposed conditions, and rendered such projects CEQA-exempt).

On August 5, 2005 staff received a new coastal development permit application (Application No. 1-05-036, pending) accompanied by a cover letter dated August 3, 2005 requesting an August 2005 hearing. (Exhibit 13).

The new application acknowledged that the environmental impacts of Caltrans' proposed project significantly exceed the level of environmental impacts of one or more of the rejected alternatives that were not adequately evaluated previously. The application continues to propose the same alternative as previously proposed (construction of a new, wider section of State Highway Route 1 east of the existing section, or what was known as Alternative 3 in Caltrans' environmental review documents). The application concludes that developing new plans for a bridged project more closely aligned with the existing footprint (Alternative 2) would require 4 or 5 more years to complete and that using an inflation escalator for costs of the proposed project during the 5 year interval, the costs would increase by \$5 million thereby rendering the less environmentally damaging alternative "impracticable."

Thus, Caltrans estimates in the new coastal development application that even though environmental impacts would be lessened through construction of a different project alternative, 4-5 years would be required to develop new plans and applying an inflation escalator to present day costs (including, it appears, a \$1 million "cost" for public inconvenience due to traffic control measures assigned primarily to Alternative 2), would increase project costs by \$5 million compared to the present estimate of \$10 million for the project Caltrans proposes. The new application does not include a project description component for the extensive utility line relocations, and water district line relocations Caltrans has indicated that Alternative 3 will require, and suggests, but does not include in the project description, that Caltrans tentatively plans to dispose of demolition debris at a ranch southeast of the project site, in the coastal zone of Mendocino County.

However, adequate assessment of true mitigation costs for the substantially increased impacts to coastal resources that accrue toward Alternative 3 have not been calculated by Caltrans (see also discussion of mitigation costs in Exhibit 11). The new application does not include a mitigation plan for Alternative 3, other than revegetating disturbed areas on site after construction is completed. Thus, a true cost comparison of the feasibility of other project alternatives that could be weighed against Alternative 3 is not possible (though such an analysis was previously requested by Commission staff). Nevertheless, based on Caltrans' assumptions as stated in the new application, an

local action will become final and effective. The motion passes only by an affirmative vote of the majority of the appointed Commissioners present.

RESOLUTION TO FIND SUBSTANTIAL ISSUE:

The Commission hereby finds that Appeal No. A-1-MEN-04-036 presents a substantial issue with respect to the grounds on which the appeal has been filed under Section 30603 of the Coastal Act regarding consistency of the approved project with the Certified Local Coastal Program and/or the public access and recreation policies of the Coastal Act.

B. DE NOVO

MOTION:

I move that the Commission approve Coastal Development Permit A-1-MEN-04-036 for the development proposed by the applicant.

STAFF RECOMMENDATION:

Staff recommends a **NO** vote. Failure of this motion will result in denial of the permit as approved by the County of Mendocino and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the appointed Commissioners present.

RESOLUTION TO DENY CDP A-1-MEN-04-036

The Commission hereby denies a coastal development permit for the proposed development and adopts findings set forth below on the grounds that the development does not conform with the certified County of Mendocino LCP, is located between the sea and the nearest public road and does not conform with the public access and public recreation policies of Chapter 3 of the Coastal Act. Approval of the permit would not comply with the California Environmental Quality Act because feasible mitigation measures and/or feasible alternatives exist which could substantially lessen the significant adverse effects of the development on the environment.

C. RETAINED JURISDICTION REGULAR COASTAL DEVELOPMENT PERMIT:

MOTION: *I move that the Commission approve Coastal Development Permit No. 1-05-036 as proposed by the applicant.*

STAFF RECOMMENDATION of DENIAL:

Caltrans proposes to construct a new section of State Highway Route 1, including the Greenwood Creek crossing, at the south end of Elk in southwestern Mendocino County. The County's permit and related documents are set forth in Exhibits 5 and 6.

The appellants object primarily to the scale of the new highway section, the substantial landform alteration and vegetation removal necessary to achieve the widening and relocation proposed by Caltrans, and the proposed installation of concrete retaining walls along the newly cut slopes on the relocated highway shoulders, where forested and naturally vegetated slopes presently exist. The appellants contend that the project is oversized for the scenic, rural setting in which it is proposed and that the physical changes of the project will be out of character with the area and with the northern end of the affected Route 1 section which presently serves as the "gateway" to the entrance to the village of Elk and to the adjacent Greenwood Beach Creek State Park.

The appellants further object to Caltrans' choice of the proposed project alternative when one or more alternatives exist that the appellants contend would substantially reduce or avoid the need to undertake the significant landform alteration Caltrans proposes, and that would potentially avoid most of the construction of vertical concrete retaining walls.

The appellants note that the public notice provided by Caltrans prior to the County's approval of the project (Public Notice, Environmental Assessment, 2002, Exhibit 1A) only identified the project as the "Greenwood Creek Bridge Replacement Project in Mendocino County" and with the statements excerpted below minimized the extent of the non-bridged sections of the project. The appellants indicate that the project description only stated that:

"The California Department of Transportation (CALTRANS), and the Federal Highway Administration (FHWA), are conducting environmental studies and preparing the preliminary design to replace the Greenwood Creek Bridge. The bridge rails and shoulder width will be upgraded to enhance safety for bicycle traffic. In addition, retaining walls will be constructed along the approaches to minimize construction impacts."

The appellants note that the public notice also stated that:

"Caltrans and FHWA have studied the effects that the proposed project may have on the environment. The report that explains the project and our studies is called an Environmental Assessment/Initial Study/(EA/IS). Our studies show that the project will not significantly affect the quality of the environment within the project limits. Mitigation measures are proposed for minimal impacts. This notice is to inform you of the preparation of the EA/IS and its availability for your review from May 20, 2002 until June 20, 2002..."

The appellants further note that in a public workshop brochure distributed by Caltrans prior to the "Greenwood Creek Bridge Informational Workshop" June 6, 2002 at Greenwood Community Center in Elk (and provided to staff by appellants, Exhibit 1A), the following statements are made:

The appellants note that as set forth above, Caltrans states that Alternative 2 would only move the new bridge centerline 7 feet east of the existing bridge centerline (compared to a move identified in the workshop brochure of 40 feet east for the preferred Alternative 3) *yet requires the same amount of new highway construction, landform alteration and retaining wall construction to the north and south of the bridged portion.* The appellants also assert that Caltrans indicated that only an alignment to the west would have avoided the new highway sections with retaining walls but that this alignment would not be acceptable to State Parks and therefore was not identified as an alternative.

In the version of the project approved by the County, over 40,000 cubic yards of total grading were proposed, and construction would include not only landform alteration, but the installation afterward of retaining walls that would replace formerly natural, forested slopes along almost 900 linear feet of the new highway divided among three wall sections that would rise to a maximum height of up to 30 feet above finished grade in some locations.² Finally, and although Caltrans did not finalize the environmental document until December 2002, the workshop brochure states:

"Caltrans and FHWA have studied the effects the proposed project may have on the environment. The report that explains the project and our studies is called an Environmental Assessment/Initial Study (EA/IS). **Our studies show that the project will not significantly affect the quality of the environment within the project limits.**"

The appellants note that it was not publicly disclosed by Caltrans prior to County permit approval, that the actual length of the realigned new highway necessary to match the bridged section under Alternative 3 (the project approved by the County) was actually almost 500 feet longer than disclosed, at each end of the project, for a total project length of over 2,000 feet (of which the bridged section is only approximately 540 linear feet), or that there would be paved shoulders as wide as 8 feet (or more) off the bridge, or widened maintenance parking turnouts on the northern inland-side shoulder up to 19 feet wide. The appellants state that Caltrans indicated that only a short distance of off-bridge taper would be required to reduce the proposed 8-ft.-wide paved shoulders to 4-ft.-wide shoulders. According to the appellants, and confirmed by County staff on request, no to-scale site plans, elevations, or grading plans were provided by Caltrans in support of the County application, or presented at the public hearings.

The appellants further note that "Alternative 2" as described above, which includes using the existing Route 1 alignment for a widened bridge is stated as also requiring the construction of the same extent of retaining walls called for in Alternative 3. The

² According to County staff, Caltrans did not provide to-scale plans to the County that showed that the total length of the alignments north and south of the approximately 540-ft. new bridged section would add as much as 2,000 additional linear feet of new highway construction to the point of conformity north and south of the project area, and significantly wider paved shoulders than Caltrans had represented at the time of County approval.

Special Condition One (1): Pursuant to permit procedures of the Mendocino County Air Quality Management District, Caltrans shall contact the District prior to undertaking any development to address the following issues: lead based paint, fugitive dust and the use of any stationary onsite internal combustion engines over 50 horsepower.

Special Condition Two (2): Caltrans shall apply and obtain a Flood Hazard Zone Development Permit for the project. The first portion of the application packet must be completed prior to commencing construction. Upon completion of construction the second portion of the permit must be completed. The second section with post construction certification must be submitted to the Department of Planning and Building Services for approval.

Special Condition Three (3): Retaining walls shall have an appearance similar to the top photograph of Figure D3 of the Environmental Assessment/Initial Study dated December 2002.

In its action on the project, the County's Coastal Permit Administrator approved the permit and certified the Negative Declaration, dated December 2002, and the Subsequent Negative Declaration, dated January 2004, both prepared by CALTRANS, based on his findings that impacts had been adequately mitigated below a threshold of significance, and that the development is consistent with the County's certified LCP (Exhibits 5 and 6).

A Notice of Final Local Action of the City's approval of the permit was received by Commission staff on June 15, 2004. The permit was appealed to the Coastal Commission in a timely manner by the appellants on June 17, 2004, within the requisite 10-working-day period after receipt by the Commission of the Notice of Final Local Action. A copy of the local record was received by the North Coast District Office on June 29, 2004. The applicants waived the 49-day deadline for the Commission to set a hearing on the appeal on June 22, 2004.

C. PROJECT LOCATION, SETTING AND DESCRIPTION

Project Location; Setting

This project concerns a Caltrans proposal to construct a new, wider bridged and non-bridged section of State Highway Route 1, on a new alignment including the Greenwood Creek crossing, in a highly scenic rural area, just south of the village of Elk, in southern Mendocino County. The proposed project is located immediately adjacent to and east of Greenwood Creek Beach State Park. The north end of the affected Route 1 section provides the scenic gateway to the picturesque village of Elk, where Route 1 remains the "Main Street" of the historic community.

The certified Mendocino County Local Coastal Program (LCP) designates the project area (both east and west of Route 1) as "Highly Scenic." Greenwood Creek Beach

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State Highway Route 1, including Greenwood Creek Crossing, Mendocino County
9/01/05

Views of the bridged section of Route 1 at the Greenwood Creek crossing are available at the Coastal Records Project website, which affords readers with internet access the ability to scan through adjacent images for views of adjacent stretches of Route 1:

Figure 1. Greenwood Creek Bridge, State Highway Route 1, at Elk, California.



Copyright 2002-2004 Kenneth & Gabrielle Adelman, California Coastal Records Project, quick search image 11798, to see this and adjacent areas of State Highway Route 1, see: <http://www.californiacoastline.org>

The "Mendocino County Coastal Conservation Plan" dated April, 2003, prepared by Mendocino County Land Trust with project funding by the California State Coastal Conservancy states,

"Mendocino County's coast exemplifies the state legislature's definition of the coastal zone as a 'distinct and valuable natural resource of vital and enduring interest to all people.' (From California Coastal Act of 1976) Famous for its spectacular rocky shoreline, commercial fisheries, and productive forests, the Mendocino coast is also home to other ecological riches, from un-dammed coastal streams supporting endangered anadromous fish, to an unusually high diversity of rare species, to celebrated panoramic views along scenic Highway 1.

... Resources of the Mendocino coast are primarily threatened by human activities. The most significant threats include:

- Timber and agricultural practices which result in the impairment of water quality and the decline of salmonid and other aquatic species.
- Reduction in Late Seral Redwood/Douglas fir forest habitat and the decline of wildlife and aquatic species dependent upon this forest successional stage.
- Poorly designed or maintained roads, resulting in water quality impairment and the decline of salmonid and other aquatic species.
- Inappropriate development, resulting in fragmentation of sensitive habitats, deteriorated cultural and historic sites and scenic resources, and the loss of opportunities to provide public coastal access and California Coastal Trail connections.
- Decline in forest cover, and conversion of agricultural and forested lands to residential and other land uses.
- Highly concentrated and/or improperly managed public coastal access, resulting in the reduction and/or degradation of sensitive coastal habitats and species.

The Coastal Conservation Plan also notes that the project area is a potential linkage point for the California Coastal Trail. In addition, the Coastal Conservation Plan identifies the open, mostly undeveloped scenic panoramic views available from Highway 1 – including views other than toward the coast—as "Critical Scenic Resources." The location of the project site immediately inland from Greenwood Creek Beach State Park further emphasizes the sensitive visual qualities of the project location.

Northbound travelers on the existing Route 1 come into view of the southern end of the village of Elk, a tiny Victorian-style village (population less than 600) surrounded by pastureland open spaces and forests, from the northern end of the Greenwood Crossing, which is located less than one-half mile north of the project site.

Project Purpose: Caltrans states that the purpose of the proposed project is to replace the existing Greenwood Creek Bridge located on State Highway Route 1 because the bridge has been rated scour critical, has substandard shoulder widths and requires a barrier upgrade and deck rehabilitation. Caltrans also indicates that the project would modernize the affected highway segment by providing greater sight distances for drivers, wider lanes, and wider shoulders, thus accommodating throughflow of vehicles at the higher speeds Caltrans finds modern drivers attaining while traversing the 1950s-vintage bridge (speed studies).

Summary description (See also Exhibit 8 for new CDP 1-05-36 application project description): Caltrans proposes to construct a new, widened approx. 2,000—2,500 linear-foot section of bridged and non-bridged State Highway Route 1 on a new alignment that includes the Greenwood Creek bridged highway crossing, and to demolish the existing highway to the point of conformity north and south.

The proposed project as approved by the County included up to 40,000 cubic yards of total grading, though preliminary new grading estimates submitted by Caltrans in August 2005 indicate that total grading may be 20,000 cubic yards. Construction of the vertical, faux-stone-finished concrete retaining walls were estimated at the time of County approval as comprising approximately 900 linear feet of wall divided among three retaining walls, with the highest wall rising to approximately 30 feet above finished grade. Presently Caltrans proposes approximately 650 linear feet of retaining walls rising to a maximum height of approximately 26 feet above finished grade.

Caltrans did not provide plans to the County indicating the width and length of paved shoulders off the proposed bridged crossing and along the approximately 1,500-2,000 linear feet of non-bridged new highway that would be constructed. Caltrans had notified Commission staff during past permit application review that the shoulders would range from 8 feet to 10 feet off the bridged section and on the non-bridged highway section, and that at the northern inland side of the northbound lane, a permanent maintenance turnout would be constructed of up to 19 feet in paved width, though this element may not be retained by Caltrans.

After the County's review, Caltrans also reduced the 10-ft.-wide paved shoulders adjacent to the vertical concrete retaining walls from 10 -ft.-wide as Caltrans proposed the shoulders in September 2004, to 8-ft.-wide. Caltrans would not reduce the paved shoulders further on the inland side and determined that the shoulders should be at least that width continuously between non-retained stretches as well. More recently, Caltrans did conceptually agree to reduce the 8-ft.-wide shoulders on the coastal side to only 4 ft. in width, but did not incorporate a pedestrian pathway on or off the bridged components that would provide a physical barrier between cars and pedestrians. Caltrans confirmed that the design speed for the proposed project is 55 miles per hour on the bridge, with reduced speed limits posted at the northernmost end for northbound traffic, remaining at 30-35 miles per hour, as with the existing bridged section. Caltrans declined to reduce the posted speed limits to that speed throughout the bridged section as an alternative to reduce new bridge increased widths somewhat.

proposed project; (c) the need to relocate the new highway section to a location directly below a high-voltage transmission line corridor owned by PG&E though Caltrans has not produced evidence to date that PG&E accepts this new alignment as compatible with the continued location of the transmission towers and power lines; and (d) many changes proposed by Caltrans to mitigation measures (such as rainy season grading restrictions) previously relied on by Caltrans in the 2002 Environmental Documents included in attachments supplied with the new CDP Application No. 1-05-036 submitted on August 5, 2005 (some of these changes are addressed within Exhibit 11).

D. SUBSTANTIAL ISSUE ANALYSIS

Section 30603(b)(1) of the Coastal Act states:

The grounds for an appeal pursuant to subdivision (a) shall be limited to an allegation that the development does not conform to the standards set forth in the certified local coastal program or the public access policies set forth in this division.

1. Appellant's Contentions That Are Valid Grounds for Appeal

The contentions raised in the appeal present valid grounds for appeal in that they allege the local approval's inconsistency with policies of the certified LCP.

Coastal Act Section 30625(b) states that the Commission shall hear an appeal unless it determines:

With respect to appeals to the Commission after certification of a local coastal program, that no substantial issue exists with respect to the grounds on which an appeal has been filed pursuant to Section 30603.

The term "substantial issue" is not defined in the Coastal Act or its implementing regulations. The Commission's regulations indicate simply that the Commission will hear an appeal unless it "finds that the appeal raises no significant question." (Cal. Code Regs., tit. 14, section 13115(b).) In previous decisions on appeals, the Commission has been guided by the following factors:

1. The degree of factual and legal support for the local government's decision that the development is consistent or inconsistent with the certified LCP and with the public access policies of the Coastal Act;
2. The extent and scope of the development as approved or denied by the local government;
3. The significance of the coastal resources affected by the decision;

the certified LCP protective of coastal visual resources. The appellants contend that construction of the approved new Highway 1 bridge, including new accompanying sections of Highway 1 north and south of the bridge, particularly if constructed on the eastward relocated alignment presently proposed, will cause significant but avoidable adverse impacts to public coastal visual resources, counter to the requirements of the LCP.

The appellants assert that in particular, the retaining walls that would be constructed along a highly scenic section of Highway 1, are out of character and scale with the rural, relatively remote, scenic setting of the subject project, and could be avoided through implementation of other project alternatives than the approved alignment east of the existing highway.

The appellants contend that the LCP requires that development in rural areas of the coast designated as Highly Scenic be subordinate to the setting in which such development is proposed, and that the project as approved is excessive in design, size, and location and thus is not subordinate to its setting as is required.

The appellants contend that a paved shoulder of four feet in width would be consistent with the LCP and would reduce the footprint of the bridged section of the crossing by a total of 8 feet, which combined with relocation of the footprint of the crossing to an alignment more consistent with that which presently exists, or somewhat to the west, would likely eliminate the need for substantial landform alteration and the construction of vertical concrete retaining walls. The appellants additionally assert that LCP Policy 3.6-20 and other LCP policies specifically establish the requirement for a maximum 4-foot paved shoulder on Highway 1.

The appellants also contend that Elk is called out in the LCP for special protection of its quaint, visitor-serving community character and that the proposed project would impose a significantly more urban solution to the bridge upgrade than is necessary, thereby altering the picturesque scenery of this section of Highway 1, which is the southerly gateway to the community, and thus damaging the community character of nearby Elk and incompatible with the surrounding natural setting within which Caltrans proposes the highway project.

The appellants further assert that alternatives and mitigation measures exist, but have not been fully evaluated or proposed, that would potentially reduce or avoid the impacts of the proposed project (Exhibits 3 and 4). The appellants state the certified LCP Policy 3.5-1 requires the weighing of alternative designs in the selection of a project that is "sited and designed" to protect visual resources and to fit in with the character of the setting within which it is proposed.

LCP Policies and Provisions: VISUAL RESOURCES (cited in pertinent part)

Coastal Element Policies: Visual Resources; Special Community Character

buildings designed for level sites; (4) concentrate development near existing major vegetation, and (5) promote roof angles and exterior finish which blend with hillside. The visual impacts of development on terraces shall be minimized by (1) avoiding development in large open areas if alternative site exists; (2) minimize the number of structures and cluster them near existing vegetation, natural landforms or artificial berms; (3) provide bluff setbacks for development adjacent to or near public areas along the shoreline; (4) design development to be in scale with rural character of the area. The visual impact of development on ridges shall be minimized by (1) prohibiting development that projects above the ridgeline; (2) if no alternative site is available below the ridgeline, development shall be sited and designed to reduce visual impacts by utilizing existing vegetation, structural orientation, landscaping, and shall be limited to a single story above the natural elevation; (3) prohibiting removal of tree masses which destroy the ridgeline silhouette. Nothing in this policy shall preclude the development of a legally existing parcel.

Other LCP policies and provisions providing standards for Highway 1

The Coastal Access section of the LCP requires paved 4-foot shoulders along Highway 1 unless significant environmental effects would result:

- 3.6-20: **Paved 4 foot shoulders should be provided by Caltrans along the entire length of Highway 1 wherever construction is feasible without unacceptable environmental effects.** [emphasis added.]
- 3.8-6 **It shall be a goal of the Transportation Section to achieve, where possible and consistent with other objectives of The Coastal Act and plan policies for Highway 1, a road bed with a vehicle lane width of 16 feet including the shoulder to achieve a 32 foot paved roadway (12-foot vehicle lane and 4-foot paved shoulder). The minimum objective shall be a 14-foot vehicle lane width (10-foot vehicle lane and 4-foot paved shoulder). New widening projects shall be allocated, first to safety and improved capacity needs and secondarily to paved shoulders.** [emphasis added.]

The appellants contend that the County's approval of a coastal development permit for the proposed project, including 8-foot-wide paved shoulders, is inconsistent with the limitations on the intensity of development of Route 1 set forth in the certified LCP. The certified LCP discusses development limitations on Highway 1, in Section 3.8 (Transportation, Utilities, and Public Service), and incorporates Section 30254 of the Coastal Act (which limits rural State Highway Route 1 to a scenic two-lane road).

The certified LCP, page 108 (below) offers the following guidance for improvement to State Highway Route 1 throughout unincorporated Mendocino County, while acknowledging that maximum highway capacity cannot everywhere be achieved without unacceptable levels of adverse environmental impacts, such as landform alteration. Moreover, Caltrans reports, and the certified LCP states, that the subject section of Route 1 within which the proposed project is located, is one of the least heavily traveled, remote sections of Highway 1 in Mendocino County. Thus, achieving maximum highway capacity in a section where no statistically elevated accident rates are reported by

When all applicable certified LCP policies and provisions are read together, the certified LCP establishes a 12-foot-wide lane, and a 4-foot-wide paved shoulder as the guiding standard for improvement to sections of State Highway Route 1, particularly in rural scenic areas, and provides that this width shall be provided wherever construction is feasible without unacceptable environmental effects.

Pertinent examples from the certified LCP:

4.3 Little Valley Road to Fort Bragg Planning Area (includes Cleone)

..."The present condition of Highway 1 is a major constraint to development in this area. Highway 1 just north of Pudding Creek currently is operating at maximum capacity, or Service Level E, during peak hours. **The Land Use Plan recommends widening the 10-foot lanes to 12 feet, with additional 4-foot bike lanes.**

4.3-1 Caltrans shall be directed to prepare a plan for widening the present alignment of Highway 1 from the north city limits of Fort Bragg to the north limits of Cleone rural village. **Lane width shall be 12 feet, shoulder width 4 feet.** This plan shall include provisions for pedestrian, bicycle and equestrian paths in Cleone rural village and at the entrance to MacKerricher State park and provisions for landscaping and replacement of trees. Road widenings shall minimize encroachments on existing residences.

4.8 Van Damme State Park to Dark Gulch Planning Area (Little River Planning Area)

..."**The Land Use Plan prescribes improvement of Highway 1 to 12-foot vehicle lanes and 4-foot shoulder – little more than what exists today.** Several permit applicants have recorded offers to dedicate a 25-foot easement along the west side of the highway for a pedestrian and bicycle path in lieu of providing shoreline access.

4.8-2 **Previously adopted policies relating to improvement throughout the Highway 1 area providing for 12-foot road strips and 4-foot shoulders, where possible, should be pursued in this particular area...**

4.12 Iverson Road to Sonoma County Line Planning Area (Anchor Bay-Gualala)

"... Potential highway capacity is one constraint on development in the planning area. The potential for improving the highway varies significantly within the planning area. The sharp turn at Fish Rock Gulch and the nearby 9-foot lanes cannot be improved much and thus will continue to limit improvements. **At other points, the roadbed can be widened to permit 12-foot lanes with a 4-foot shoulder on each side; south of Anchor Bay the full 32-foot section including 12-foot vehicle lanes and 4-foot bicycle lanes, can be built.** With additional improvements such as protected left turn lanes, the volume of traffic currently passing through Gualala could be increased by 75 percent.

Commission staff conferred with Mendocino County staff regarding the County's implementation of the highway improvement guidance in the LCP; County staff could

in scale with rural character, and prohibiting removal of tree masses which destroy existing ridgeline silhouettes.

The appellants contend that the extent of hillside grading and vegetation removal, and construction of artificial concrete retaining walls will alter the natural landscape in a manner that will cause permanent adverse impacts on the scenic resources of the area, adversely alter views from Greenwood Creek Beach State Park, and adversely change the character of the scenic, rural approach this section of Highway 1 creates at the entrance to the village of Elk (north end of the project area). The appellants contend that these changes are not in keeping with the rural scale and character of the landscape into which Caltrans seeks to place them, and that alternatives exist that would minimize or eliminate many of these adverse impacts, but which Caltrans has rejected and which the County did not review in its approval of the subject coastal development permit.

The alteration of natural landforms includes grading and vegetation removal, and replacement of natural slopes with vertical concrete retaining walls does not minimize loss of natural landforms if alternatives exist that would avoid the need for such landform alteration in the first place. One of the many possible versions of "Alternative 2" (generally using the existing alignment, or slightly east or west of existing in addition to existing) would substantially reduce hillside grading and vegetation/tree removal compared to the proposed Alternative 3 (See Exhibit 11) and ensure that the project is accommodated, but in a way that fits it into the existing landscape and thereby makes the project more subordinate to the character of the surrounding area.

In addition, the widened footprint of the highway proposed by Caltrans adds to the amount of hillside grading otherwise necessary to achieve the realignment. Caltrans has informed Commission staff that every 4 feet in project width to the east (compared to the existing bridge location) equates with an approximately 10 percent reduction in the length and width of the three concrete retaining walls Caltrans proposes to construct, and an unspecified reduction in total grading and vegetation removal. Thus, the inclusion by Caltrans of two 8-foot-wide paved shoulders instead of the 4-foot-wide shoulders consistent with the provisions of the certified LCP, increases the height and length of the retaining walls and associated landform alteration by 20 percent over what would otherwise be required, even if the eastward alignment were implemented as proposed, but with reduced paved shoulders..

Whether additional pavement width is constructed for a lane or a paved shoulder, the wider the corridor, the greater the impression that a rural, two-lane road is being replaced by a more urban configuration. Moreover, since the subject project location is just one segment of rural Route 1, and shoulders and lane widths narrow considerably just outside the project area, it is not clear that building the new paved road bed to the width Caltrans presently proposes in the project area will afford the suggested safety benefits unless Caltrans intends to widen the entire Route 1 corridor to this standard,

The appellants contend that in approving the coastal development permit for the project then proposed by Caltrans, the County failed to evaluate a range of alternatives that would reduce the adverse visual impacts of the proposed project and render the project more compatible with the character of the surrounding area. These alternatives (generally described as Alternative 2, or generally as a western alignment) are discussed more specifically in the Commission's finding *de novo* and are also set forth in Exhibits 3 and 4.

COASTAL ACCESS AND RECREATION

The certified Mendocino County LCP specifically provides for the California Coastal Trail:

- 3.6-17 Caltrans shall be required to improve or construct view turnouts designated on the Land Use Maps as part of adjoining highway improvement projects when such improvements involve widening or improvements of the highway.
- 3.6-18 Along sections of the highway where development intensity will result in pedestrian use, or where this is the siting of the County designated coastal trail, a 15-foot accessway measured from the right-of-way of Highway 1 shall be offered for dedication as a condition of permit approval if the topography is deemed suitable for pathway development. Coastal trail includes trails identified in Table 3.6-1 and portions of Highway 1 and Usal Road that are necessary to connect these trail segments. All such access offers that have been recorded shall be offered to Caltrans for acceptance. Prevailing acquisition methods for acquiring public right of way by Caltrans shall apply to this section.

Along intensively developed sections of Highway 1, (such as between Cleone and Albion or in Gualala) Caltrans shall be requested to build a separate pedestrian, equestrian path parallel to the highway where pedestrian traffic warrants and physical conditions permit.

Paved 4-foot shoulders should be provided by Caltrans along the entire length of Highway 1 wherever construction is feasible without unacceptable environmental effects.

- 3.6-21 The County of Mendocino coastal trail shall be integrated with the coastal trails in the cities of Fort Bragg and Point Arena, and with Humboldt County to the north and Sonoma County to the south so as to provide a continuously identifiable trail along the Mendocino County Coast.
- 3.6-22 In carrying out the coastal access policies of this Coastal Element, the county or other appropriate designated management agency shall consider and encourage the utilization of innovative access management techniques including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

In addition, the Chapter 3 policies of the Coastal Act concerning coastal access state in pertinent part:

depending on the facts and circumstances in each case including, but not limited to, the following:

- (1) Topographic and geologic site characteristics.
 - (2) The capacity of the site to sustain use and at what level of intensity.
 - (3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.
 - (4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.
- (b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.
- (c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

The proposed project as approved by the County raises not only local issues, but issues of regional and statewide significance. State Highway Route 1 is specifically identified in the LCP and Coastal Act as especially important to the character of the coast. The law recognizes that driving Highway 1 is a distinct and special coastal experience. The LCP and Act intend for Highway 1 to be maintained as a two lane road in the project area, because widening the roadway would reduce the value of the overall experience of California's signature coastal road.

The LCP and Coastal Act additionally recognize the provision of public coastal access generally as a guiding principal. The California Coastal Trail is to pedestrian coastal visitors what Highway 1 is to drivers, and in the location of the approved project, the Coastal Trail is located on Highway 1 through that segment.

Greenwood Creek Beach State Park and the village of Elk are within easy walking distance of the proposed Greenwood Creek crossing replacement. The existing highway crossing contains narrow elevated pedestrian walkways on each side of the bridge. These walkways will be removed, and in the proposed project, paved 8-foot-wide shoulders on each side of the bridge would be provided, including additional 8-foot-wide shoulders off the bridge on most of the inland side (adjacent to the northbound traffic lane). While the paved shoulder would be wider, it would be shared with bicycles

Section 30251 of the Coastal Act 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 subordinated to the character of its setting.

Section 30254 (Public works facilities) of the Coastal Act states:

New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

Sections 30210 and 30211 of the Coastal Act mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Likewise, Section 30212 of the Coastal Act requires that adequate public access to the sea be provided and to allow use of dry sand and rocky coastal beaches.

All development located between the first public road and the sea must be reviewed for compliance with the public access and recreation provisions of Chapter 3 of the Coastal Act, even if such development occurs in an area with a certified LCP, based on the access, recreation, and development sections of the Coastal Act, the Commission has required public access to and along the shoreline in new development projects and has required design changes in other projects to reduce interference with access to and along the shoreline.

Caltrans proposes to construct a new bridged section of State Highway Route 1 approximately 50 feet east of the existing bridged crossing of Greenwood Creek, and to realign approximately 1,000 linear feet of new highway to the point of conformity north and south of the bridge connections. Caltrans also proposes to widen the roadway substantially as compared with the existing section of Route 1 that would be replaced by the new eastward alignment.

highway in locations that are presently occupied by forested, naturally-vegetated slopes, a portion of Bonee Gulch Creek, and several other tributary streams, as well as seep wetlands, rare plant habitat, and other resources identified by Caltrans in August 2005.

No elevated accident statistics exist to suggest that the existing alignment is troublesome. Much of rural State Highway Route 1 snakes around tight curves and narrow shelves along hillsides, and drivers seek out Route 1 as much for the experience of negotiating the quaint sections of the rural highway as for the stunning coastal views and sparsely developed open spaces that punctuate the route.

Along State Highway Route 1, the legislature placed a specific statement of intent concerning the protection of Route 1 in Policy 30254 of Chapter 3 of the Coastal Act:

it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. (bold emphasis added)

The legislature foresaw that development pressure would eventually arise, along with demands to widen Route 1, but offered special protection to the route as a signature coastal resource, a driving destination of unparalleled visual quality of statewide importance. Like the State Parks through which U.S. Highway 101 passes, the preservation of the special character and visual resources of some places is protected even from the goal of assuring the highest possible safety standard at the expense of the area's character.

Thus, through Coastal Act Section 30254, the legislature, well aware that rural Route 1 was winding and narrow, called for it nevertheless to remain much the same. The County's certified LCP adds the refinement that 4-foot-wide paved shoulders should be provided for the sake of bicyclists, and encourages the connection of the California Coastal Trail where it traverses Route 1 in Mendocino County. As noted, Caltrans' District 1 Route 1 Concept Report acknowledges the need to provide for the Coastal Trail on Route 1 and further acknowledges that improving Route 1 to Caltrans' standards would in many locations not be consistent with the Coastal Act and could cause substantial adverse environmental impacts.

The coastal trail and bikeway both follow on Highway 1 at the Greenwood Creek crossing. An ideal configuration of shoulders, depending on associated environmental impacts that might arise, would be two 12-foot traffic lanes flanked by two 4-foot paved shoulders (perhaps with wider turnouts at the bridge ends for vehicles in difficulty) and a separate path for pedestrians.

Design features along the Coastal trail are central to the consideration of the proposed project, because Caltrans proposes to secure a higher safety standard through widening the roadway in a manner that is the equivalent of a road with three or possibly more lanes in some segments of the project, and to additionally change the alignment of the section altogether by moving it inland and opening up the curved portion that

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 Biological productivity; water quality

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 Water supply and flood control

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 30240 Environmentally sensitive habitat areas; adjacent developments

(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 30253 Minimization of adverse impacts

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.

significantly degrade such areas;

- It shall be compatible with the continuance of such habitat areas by maintaining their functional capacity and their ability to be self-sustaining and to maintain natural species diversity; and
- Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel. Mitigation measures, such as planting riparian vegetation, shall be required to replace the protective values of the buffer area on the parcel, at a minimum ratio of 1:1, which are lost as a result of development under this solution.

3.1-31 Structures or projects involving a diversion of water from streams appearing as dotted or dashed blue lines on 7.5 minute U.S.G.S. quadrangle maps shall be sited and designed to not impede upstream or downstream movement of native fish or to reduce stream flows to a level which will have a significant adverse affect on the biological productivity of the stream and its associated aquatic organisms.

3.1-24 Any development within designated resource areas, if not specifically addressed by other policies, shall be carefully reviewed and established in accord with conditions which could allow some development under mitigating conditions but would assure the continued protection of the resource.

3.1-25 The Mendocino Coast is an area containing many types of marine resources of statewide significance. Marine resources shall be maintained, enhanced and, where feasible, restored; areas and species of special biologic or economic significance shall be given special protection; and the biologic productivity of coastal waters shall be sustained.

3.1-10 Areas where riparian vegetation exists, such as riparian corridors, are environmentally sensitive habitat areas and development within such areas shall be limited to only those uses which are dependent on the riparian resources. All such areas shall be protected against any significant disruption of habitat values by requiring mitigation for those uses which are permitted. No structure or development, including dredging, filling, vegetation removal and grading, which could degrade the riparian area or diminish its value as a natural resource shall be permitted in the Riparian Corridor except for:

- Channelizations, dams, or other substantial alterations of rivers and streams as permitted in Policy 3.1-9;
- pipelines, utility lines and road crossings, when no less environmentally

waterways and riparian corridors of three of the tributaries, and the removal of vegetation (including wetlands and Coastal Coniferous Forest) in the location of the new roadway. These impacts arise primarily in the area of the Commission's appellate jurisdiction.

In addition, the August 2005 wildlife surveys conducted by Caltrans' consultants found that the coniferous forest on the project site provide habitat for Special Status species such as the Northern Spotted Owl and the Red Tree Vole. Caltrans acknowledged in the new August 2005 application that over 1,100 trees would potentially be removed in the project area and that 83 native Douglas Fir trees providing Red Tree Vole habitat would be removed in the project area. Of these, the biological survey submitted by Caltrans indicates approximately 15 are documented Red Tree Vole nesting trees. Caltrans has provided no evidence of consultation with the California Department of Fish and Game regarding the project's specific impacts to Red Tree Vole populations in the project area.

The application also states that California Natural Diversity Database (Calif. Dept. of Fish and Game, 2003) has designated some of the plant communities found on the site as "rare and worthy of consideration." Caltrans estimated that a total of 4.62 acres of Rare Plant Communities would be impacted by the project (0.77 acres permanently). However, no State or Federally Listed Endangered, Threatened, or Rare Plants (Calif. Dept. of Fish and Game) have been observed on the property.

In 2004, Mendocino County staff asked Caltrans to confirm that construction that will occur in the County permit area is located outside of any ESHA or ESHA buffer. Caltrans replied that "it is difficult to determine with certainty that there are no ESHAs located in the County's permit jurisdiction....Nonetheless, it appears that the wetlands and the animal habitats are located within the Coastal Commission jurisdiction."⁴ As such, the County in approving the local coastal development permit for the subject project attached no special conditions concerning sensitive habitat impacts, which the County appeared to believe based on Caltrans' submittal, would only arise in the more limited area of the project (the bridged portion within Greenwood Creek) in the Commission's retained jurisdiction. However, it is now known that the County's jurisdiction contains wetland and riparian ESHA, and four tributaries, all impacted in temporary or permanent ways by the proposed project.

Stream Impacts Analysis

As stated above, County LCP policies set forth in Section 3.1 (see above) and Coastal Act policies 30230, 30231, 30236, and 30240 specifically protect environmentally sensitive habitat, areas of special biological value, and coastal waters. Removal of riparian vegetation, culvertization of natural stream areas, and placement of fill within

⁴ April 28, 2004 Memo to Coastal Permit Administrator from Rick Miller (Mendocino County planner): Responses to CPA Questions/comments via email dated April 27, 2004. See Exhibit 11.

season, particularly in locations bounded by riparian corridors, is typically prohibited by the Commission in permit considerations, even for projects where the proposed development is an otherwise allowable use.

In a meeting with Caltrans on September 21, 2004 Commission staff asked Caltrans to consider project alternatives that would avoid fill of Bonee Gulch Creek (the extent of impact to other tributaries had not been disclosed at that time), including utilizing the existing alignment ("Alternative 2") rather than relocating the highway to the east ("Alternative 3" – the proposed project). Caltrans rejected that option, and staff asked (also in the September 21, 2004 meeting) if Caltrans would consider utilizing a vertical retaining wall in the proposed new section adjacent to Bonee Gulch Creek, so that placement of fill would be reduced (the surface area of the proposed fill slope, which could be similarly provided through use of a vertical wall, is far less than the extent of fill at the toe of a buttressed fill slope because of the ratio of horizontal to vertical necessary to achieve stability of the fill slope). Caltrans rejected the use of a vertical wall in lieu of a fill slope on the inland side of the new highway section at the Bonee Gulch crossing, stating that it presented "constructability issues" and that Caltrans relied on revegetating the resultant fill slope in Bonee Gulch for part of its revegetation credits.

As stated above, County LCP policy 3.1-9 and Coastal Act Section 30236 limit alteration of streams to very limited, specific kinds of projects.

LCP Policy 3.1-10, however, does include allowance for construction of:

... **"Pipelines, utility lines and road crossings, where no less environmentally damaging alternative route is feasible..."** [emphasis added.]

Exhibit 11 sets forth a detailed analysis of the level of adverse impacts posed by the proposed project as compared to other alternatives, prepared by a Commission staff biologist. Exhibit 11 concludes that the extent of adverse impacts to stream corridors posed by the project if constructed according to Caltrans' most recent submittal, could be significantly reduced through implementation of alternatives, and further explains why at least one alternative ("Alternative 2") appears feasible. As at least one less environmentally damaging alternative is feasible, the proposed project is inconsistent with LCP Policy 3.1-10 in this regard as well. Exhibit 11 also establishes that no significant mitigation plan has been presented to date for the extensive riparian corridor impacts posed by the project.

Therefore the Commission finds that the project as proposed by is inconsistent with LCP Policy 3.1-10 and must be denied.

Further, as described above and in Exhibit 11, the project as proposed will have significant, and substantially avoidable, adverse impacts on many forms of environmentally sensitive habitat, including rare plant habitat, and Red Tree Vole habitat, and the project as proposed is therefore inconsistent with the applicable policies

Section 30231 of the Coastal Act address the protection of coastal water quality and marine resources in conjunction with development and other land use activities. Section 30231 states:

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

The above policies set forth a number of different limitations on what development projects may be allowed in coastal wetlands. For analysis purposes, the limitations can be grouped into four general categories or tests. These tests are:

that the purpose of the filling, diking, or dredging is for one of the eight uses allowed under Section 30233;

that the project has no feasible less environmentally damaging alternative;

that feasible mitigation measures have been provided to minimize adverse environmental effects; and

that the biological productivity and functional capacity of the habitat shall be maintained and enhanced where feasible.

a. Alternative Analysis

One test of Section 30233(a) is whether there are feasible less environmentally damaging alternatives to the proposed project. Coastal Act Section 30108 defines "feasible" as follows:

'Feasible' means capable of being accomplished in a successful manner within a reasonable time, taking into account economic, environmental, social, and technological factors.'

The analysis of feasible alternatives to the proposed project is set forth in the memorandum of the Commission biologist dated August 31, 2005, contained in Exhibit 11, and is specifically incorporated by reference here. The Commission staff biologist concludes that at least one alternative to the proposed project is feasible.

Caltrans asserts that while "Alternative 2" (addressed in Exhibit 11) is the environmentally least damaging alternative that would meet the project goals, it is not a feasible alternative. Caltrans states that Alternative 2 is not feasible because "it would take at least 4 years" to prepare a new set of project plans to implement that alternative and they would prefer instead to build the project for which they presently have draft plans. Caltrans further states that, based on project inflation for the period of 4 years that Caltrans states would be needed to draft revised plans, the project costs will increase by \$5 million.

alignment, if undertaken, could force a relocation of a conflicting portion of a transmission line, which traverses highly sensitive habitat. The expense and environmental damage of utility relocations made necessary by the proposed project, but reduced in other alternatives that Caltrans dismisses as less feasible, must be included in any cost/feasibility comparisons.

Caltrans assigns a cost of \$1 million to traffic delays that would be experienced by the public if Alternative 2 is implemented, and charges that cost against the project. This cost is not borne by Caltrans, but is assigned as a "psychological" cost of loss of time due to the typical wait a motorist experiences during traffic management at road construction sites. On the other hand, Caltrans has not assigned a cost to the more concrete expenses of utility relocations that would be more directly passed on to utility ratepayers. Caltrans also assigns a cost to transportation management for Alternative 3, but as noted in Exhibit 11, Caltrans proposes in Alternative 3 to undertake grading and vegetation clearance within areas tributary to, or containing coastal streams during the winter rainy season, and other measures which compress the project timeline at the expense of potentially increased project impacts. These measures appear to shorten the duration of traffic management that accrues to Alternative 3, however it is likely that even if Alternative 3 were favorably considered, protection of coastal waters from sedimentation and other impact avoidance concerns would likely extend the construction period for Alternative 3 and increase traffic management costs in a way that should be considered in Caltrans' assessment and comparison of traffic management/driver delay costs.

Thus, the Commission concludes that a range of feasible alternatives exists that would reduce project impacts, including permanent wetland impacts, compared to the proposed project, as outlined in Exhibit 11 incorporated herein by reference as stated above. Exhibit 11 evaluates the comparative impacts to biological resources, landform alteration, coastal waters, and related coastal resources and substantiates that Alternative 2 is significantly less environmentally damaging than the proposed project.

In addition, previous sections of the staff report have analyzed the additional visual impacts caused by the proposal to build a new highway section through areas of existing sensitive habitat, including natural, vegetated slopes adjoining the highway that would be excavated and replaced with faux-stone concrete retaining walls. These impacts would largely be avoided by Alternative 2. Caltrans states that the use of the retaining walls is to reduce environmental impacts. Although the use of retaining walls reduces the extent of grading required to otherwise lay back a slope further, as needed to avoid retaining walls, in the case of the proposed project, it is only the eastward alignment of the new highway that requires most of the grading that creates the need for walls at all. Caltrans concedes that implementation of Alternative 2 would likely eliminate the need for most – if not all – of the proposed retaining walls that are only made necessary by the relocation of the highway to an area that is presently comprised of hillsides and stream corridors.

The previous sections also discuss policies and provisions of the certified LCP and the Coastal Act that protect the scenic integrity and character of rural, two-lane State Highway Route 1. In addition, project designs that afford physical protection of pedestrians utilizing the California Coastal Trail where joins Highway 1 in Mendocino County should be developed and should

staging, materials storage and other unnecessary impacts that increase the footprint of riparian corridor impacts (Caltrans engineers told Commission staff on request at a site visit on September 13, 2004 that equipment and materials storage and staging would not take place within the riparian corridor of Greenwood Creek but would instead occur offsite at a location that had not then been determined, yet staging areas are now shown beneath the existing bridge, in the middle of the riparian corridor, within an area marked as "Caltrans right of way."). No formal mitigation plan was provided with the August 5, 2005 submittal, and unless otherwise stated, the presumption is that any mitigation proposals in previous submittals to staff were withdrawn when CDP Application No. 1-03-38 was withdrawn by Caltrans January 20, 2005 if such mitigation was not specifically included or referenced as included, in the new application.

Therefore, the Commission finds that feasible mitigation measures are available that would lessen the proposed project's environmental damage but that these measures have in some cases either been withdrawn or modified by Caltrans since set forth in previous agreements or approvals with other agencies or in environmental documents previously prepared by Caltrans.

c. Conclusion

The Commission thus finds that the proposed project is not an incidental public purpose use, there are feasible less environmentally damaging alternatives available, that feasible mitigation is available and should be required for potential adverse impacts on coastal resources that will be caused if the project is constructed as proposed. Therefore, the Commission finds that the project is inconsistent with the applicable requirements of Section 30233 of the Coastal Act and with the equivalent requirements of certified Mendocino County LCP Policy 3.1-4 and must therefore be denied.

E. ALTERNATIVES

The Memorandum of staff biologist Vanessa Metz, Ph.D., dated August 31, 2005, and attached hereto as Exhibit 11 is hereby incorporated by reference in full in this section, and summary tables attached to the memorandum are additionally set forth below for reference.

Summary of Main Habitat Impacts of Alternatives 2 vs. 3,
Greenwood Creek Bridge Replacement Project

(Compiled by Vanessa Metz, Calif. Coastal Commission, from CDP Application data).

Alternative 2 = Replace and Widen Existing Bridge

Alternative 3 = Eastern Alignment (Proposed Project)

<u>PERMANENT Habitat Impacts</u>	<u>Alt. 2 (Replace)</u>	<u>Alt. 3 (Proposed)</u>
All Wetland Types	0.33 acres	0.61 acre
Freshwater Seep Wetlands	0.001 acre	0.01 acre
Non-Seep Wetlands	0.33 acre	0.60 acre

<u>Seep Wetland Impacts</u>	<u>Alt 2</u>	<u>Alt 3</u>
Total Seep Wetland Impacts	0.009 acres	0.04 acres
Permanent to Seep Wetland	0.001 acres	0.01 acres
Temporary to Seep Wetland	0.009 acres	0.03 acres
<u>Non-Seep Wetland Impacts</u>	<u>Alt 2</u>	<u>Alt 3</u>
Total Non-Seep Wetl. Impacts	2.82 acres	3.70 acres
Permanent Non-Seep Wetl.	0.33 acre	0.60 acre
Temporary Non-Seep Wetl.	2.49 acres	3.11 acres
<u>Creeks Impacts</u>	<u>Alt 2</u>	<u>Alt 3</u>
Total Creeks Impacts	0.22 acre	0.22 acre
Permanent Creeks Impacts	0.001 acre	0.01 acre
Temporary Creeks Impacts	0.22 acre	0.21 acre
<u>All Plant Communities Impacts</u>	<u>Alt 2</u>	<u>Alt 3</u>
Total All Plant Community Impacts	4.81 acres	7.61 acres
Permanent All Plant Comm.	0.81 acre	1.33 acres
Temporary All Plant Comm.	4.00 acres	6.28 acres
<u>Rare Plant Communities Impacts</u>	<u>Alt 2</u>	<u>Alt 3</u>
Total Rare Plant Community Impacts	2.96 acres	4.62 acres
Permanent Rare Plant Comm.	0.42 acres	0.77 acres
Temporary Rare Plant Comm.	2.54 acres	3.85 acres
<u>Coniferous Forest Impacts</u>	<u>Alt 2</u>	<u>Alt 3</u>
Total Coniferous Forest Impacts	1.26 acres	2.49 acres
Permanent Coniferous	0.33 acres	0.47 acres
Temporary Coniferous	0.93 acres	2.02 acres

The previous sections of the staff report have discussed a range of issues raised by the project as proposed by Caltrans. The proposed project would adversely affect a range of coastal resources protected by the policies of the certified Mendocino County LCP and by the Coastal Act. These resources include visual, public access and recreation, community character, scenic qualities of rural two-lane State Highway Route 1, coastal streams and wetlands, water quality, environmentally sensitive habitat and species.

In addition, the appellants have cited a range of alternatives that they believe would reduce the visual and community character impacts of the project.

The Commission finds therefore that feasible alternatives and mitigation measures exist that would lessen the adverse environmental impacts that will otherwise be caused if the project is constructed as presently proposed by Caltrans. The Commission further finds that if the project were revised to utilize the existing highway alignment, and to

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MEMORANDUM

FROM: Vanessa Metz, Ph.D.
Biologist/Water Quality Analyst

TO: Melanie Faust

SUBJECT: Environmental Impacts of Caltrans' Greenwood Creek Bridge
Replacement Project

CDP #: Application No. 1-05-36 and Appeal No. A-1-04-36

DATE: August 31, 2005

EXHIBIT NO. 11
1-05-036 & A-1-04-36
Grnwd. Crk. - CALTRANS
MEMO FROM
STAFF BIOLOGIST
(Page 1 of 33)

Environmental Documents Reviewed

- **Greenwood Creek Bridge Replacement: Coastal Development Permit Application and Report.** Caltrans. August 2005. Including the following attachments regarding environmental issues:
 - Appendix E. Erosion Control and Revegetation Plan,** Greenwood Creek Bridge Replacement. Caltrans. September 16, 2003.
 - Appendix E. Amendments to 9/16/2003 Revegetation Plan.** Caltrans Memorandum from Steven Nawrath (Caltrans Landscape Architect) to Lupe Jimenez (Caltrans Environmental Coordinator). October 6, 2004.
 - Appendix H. Environmental Assessment/Initial Study,** Greenwood Creek Bridge Replacement. Caltrans. December 2002.
 - Appendix J. Coastal Development Permit Application to Mendocino County,** Greenwood Creek Bridge Replacement Project. Caltrans. March 26, 2003.
 - Appendix J. Biological Assessment,** State Route 1- Greenwood Creek Bridge Replacement Project. Caltrans. July 2001. (Attachment to Coastal Development Permit Application to Mendocino County. March 26, 2003).
 - Appendix J. Natural Environmental Study Report,** State Route 1- Greenwood Creek Bridge Replacement Project. Caltrans. January 2002.
 - Appendix N. Coastal Commission Wetland Delineation Report,** Greenwood Creek Bridge Replacement. Caltrans. August 2005.

walls totaling 670 linear feet. The roadway realignment would require culvert extensions in four tributaries to Greenwood Creek, the placement of fill in the waterways and riparian corridors of three of the tributaries, and the removal of vegetation (including wetlands and Coastal Coniferous Forest) in the location of the new roadway.

Relevant Coastal Act and LCP Policies

Both the Mendocino County LCP and the Coastal Act include policies for protection of habitats found on the project site (including wetlands, riparian areas, streams, and sensitive plant or wildlife habitats). Two of the relevant policies are:

Section 3.1-10 of the Mendocino County LCP addresses riparian areas, and states in part (emphasis added):

“Areas where riparian vegetation exists, such as **riparian corridors**, are **environmentally sensitive habitat areas** and development within such areas shall be limited to only those uses which are dependent on the riparian resources. All such areas shall be protected against any significant disruption of habitat values by **requiring mitigation** for those uses which are permitted. No structure or development, including dredging, filling, vegetation removal and grading, which could degrade the riparian area or diminish its value as a natural resource shall be permitted in the Riparian Corridor except for: ...

- pipelines, utility lines and **road crossings, when no less environmentally damaging alternative route is feasible...**”

Section 30233 of the California Coastal Act addresses filling wetlands, and states in part (emphasis added):

“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...”

The staff report will analyze whether this project is one of the allowable uses under Coastal Act Section 30233. In this memo, I will address whether: 1) there is no feasible less environmentally damaging alternative; and 2) feasible mitigation measures have been provided to minimize adverse environmental effects.

status wildlife surveys.^{1, 2, 3, 4} Yet prior to the current application, adequate baseline environmental assessments had not been conducted, and thus it is not surprising that the environmental impacts of the project alternatives had not been properly analyzed.

Baseline Environmental Assessments

This application contains recently completed baseline environmental assessments of the project site, including a wetland delineation, a map of plant communities, a map of trees >2 inches diameter at breast height (dbh), and surveys for Special Status wildlife species (i.e., Marbled Murrelet, Point Arena Mountain Beaver, Red Tree Vole, California Red-Legged Frog, Tailed Frog, and Southern Seep Salamander). This information has greatly improved the knowledge of the natural resources on the project site, and has thus enabled a more accurate evaluation of the environmental impacts of the proposed project and potential project alternatives.

For example, during the August 2005 wildlife surveys, several Special Status wildlife species were observed at the project site, including Red Tree Vole, Purple Martin, Northern Spotted Owl, Foothill Yellow-legged Frog, and a Myotis bat). Caltrans Biologist Don Schmoltdt had previously stated⁵ that Caltrans did not need to conduct surveys for Special Status wildlife species that may occur at the site, because Caltrans staff would have spotted these species during staff's numerous site visits.

The project's wetlands and creeks were also poorly documented in the environmental documents prepared prior to this application, and thus in the CDP application to Mendocino County:

- Caltrans' Environmental Assessment (2002) stated the project would impact 0.02 acre of wetland (a freshwater seep), which was identified as the only wetland on the project site. Only one tributary (Bonee Gulch Creek) was documented in the project area.
- Caltrans' January 2005 California Coastal Commission Wetlands Delineation Report identified 3.7 acres of wetlands on the project site, and stated the project will impact 2.22 acres of wetlands. Three tributaries were documented in the project area, all of which will be impacted. But this delineation study was seriously flawed, and Commission staff recommended that Caltrans conduct a new delineation (see Attachment 2 for the evaluation).
- Finally, Caltrans' August 2005 Coastal Commission Wetlands Delineation Report ascertained that a large portion of the project site is wetlands, and stated the

¹ July 3, 2003 Comment Letter from Randall Stemler (Coastal Commission analyst) to Caltrans on their CDP application to Mendocino County.

² August 2004 to May 2005 Correspondence from Melanie Faust (Coastal Commission analyst) to Caltrans discussing outstanding project information needs.

³ March 25, 2005 Memo from Vanessa Metz (Coastal Commission Analyst): Information Needed from Caltrans to Evaluate Environmental Impacts of Greenwood Creek Bridge Replacement Project.

⁴ June 14, 2005 Memo from Vanessa Metz (Coastal Commission Analyst): Evaluation of Wetland Delineation Data Sheets and Maps for the Greenwood Creek Bridge Replacement Project.

⁵ Pers. Comm. at September 13, 2004 site visit attended by Coastal Commission and Caltrans staff.

jurisdiction.”⁶ However, it is now known that the County’s jurisdiction contains wetland and riparian ESHA, and four tributaries. Therefore, the CDP application to Mendocino County was deficient in that it did not evaluate the extent of potential ESHA on the site.

The Negative Declaration for the project (approved December 2002) was prepared before wetland delineations were conducted for the site, and thus before Caltrans recognized that the site has more than 0.02 acre of wetlands. The Negative Declaration determined that the project will have “no significant impact” on wetlands” (later revised to “less than significant impact”). Furthermore, Caltrans has made numerous modifications to the project since the environmental documents and agency approvals were prepared. This determination, along with the environmental permits from the resources agencies, should be revised based upon the current knowledge of the extent of wetland habitat, tributaries, plant communities, and wildlife species the project will impact.

Environmental Impacts of Project Activities

Although the August 2005 natural resources surveys greatly improved Caltrans’ baseline assessment of existing habitats, the impact of project activities on the site’s existing habitat has still not been detailed. Caltrans has outlined the temporary impact area and the permanent impact area on their project impact maps (see Attachments 3, 4, and 5), and has provided values for the total acreage of various habitats that will have temporary vs. permanent impacts (see Attachment 1). However, the application does not detail which specific project activities will occur in each of the impact areas, and does not describe the exact nature of the impact. For example, it is not stated which of the permanent impacts are due to placement of permanent structures such as bridge footings, as opposed to areas for construction staging and the siltation pond, which could potentially be relocated. A comprehensive project description is needed that describes in detail the nature and extent of the project’s activities in each of the impact areas, including the severity and duration of impact.

Caltrans should provide adequate justification for major project impacts, such as the removal of approximately 2.5 acres of riparian habitat for construction work under the bridge. This habitat area includes Douglas fir and grand fir trees, the primary habitat for the Red Tree Vole and foraging habitat for the Northern Spotted Owl, which are both sensitive species that have been observed on the project site. A range of potential modifications to the proposed project (such as narrower shoulders and a reduced speed) could potentially be less environmentally damaging. A reduction in the width of the bridge and highway would require less extensive roadway realignment and a smaller project footprint, and would reduce landform alterations and the resulting environmental impacts.

The length of roadway to be realigned for Alternative 2 (Replace) and Alternative 3 (Eastern) appears on the alternatives’ impact maps to be approximately the same length. It is unclear why the roadway realignment for Alternative 2 would need to be as extensive as for Alternative 3, as Alternative 2 shifts the bridge centerline by only 10

⁶ April 28, 2004 Memo to Coastal Permit Administrator from Rick Miller (Mendocino County planner): Responses to CPA Questions/comments via email dated April 27, 2004.

- 2) No work will be allowed at night, when Northern Spotted Owls would be actively foraging.

- But the current proposal allows work at night from August 15 and October 15. This window is based on FWS and NOAA Fisheries requirements.

My comment: Night-time construction activities have the potential to impact and Northern Spotted Owls foraging at the site, and Marbled Murrelets traveling over the site to their foraging area at sea. Night work should be avoided if possible.

- 3) Activities between 10 and 30 feet from top-of bank of Greenwood Creek will be restricted to a work window between July 10 and October 15, to minimize impacts to steelhead.

- But in the current proposal, the work window has been extended to between June 1 and October 15, because the pier and abutment construction will consist of the cast in drill hole (CIDH) method, which is quieter than pile driving. (The pile driving work window still starts on July 10.)

My comment: The work window should also take into account the potential impact to wildlife species.

- 4) A work window of July 10 to October 15 was established for work in the Greenwood Creek Riparian area, between 10 and 30 feet from top-of-bank, to protect Northern California steelhead.

- But the current proposal states that work can occur on the south side of Greenwood Creek, above the top of the south bank, year round, "since the river is buffered by riprap."

My comment: This is not a valid justification, as riprap in the creek does not help to "buffer" the creek from sedimentation and other polluted runoff. In addition, only a small stretch of the creek is riprapped. Construction activities that disturb soil in the riparian area should thus not be allowed to occur during the rainy season.

- 5) **A 10-foot buffer** from Greenwood Creek's top of bank will be in place, and construction activities will not take place in this buffer.

- But in the current proposal, the 10-foot buffer along the south bank of Greenwood Creek is eliminated, and construction activities can extend to top of bank, with no buffer. Caltrans states that this because the creek is "protected by riprap."

My comment: Riprap in the creek does not protect the creek from sedimentation and other polluted runoff. A 10-foot buffer from the top of bank of Greenwood Creek should be the minimal size buffer maintained on both sides of the Creek, and a larger buffer would be preferable.

Temporary vs. Permanent Project Impacts

Many of the project impacts that Caltrans has classified as "temporary" impacts instead appear to actually be permanent impacts. This has important ramifications for developing adequate mitigation plans, which often specify a higher mitigation ratio for permanent than for temporary impacts. For example, Caltrans notes in their Alternatives Impacts Matrix that the mitigation ratio will be 3:1 for permanent wetland impacts, and 1:1 for temporary wetland impacts. The erroneous classification of temporary vs. permanent impacts also has consequences for properly comparing the relative impacts and project costs of the project alternatives,

The project description in the application quantifies temporary vs. permanent impacts to various project habitats, but does not describe the nature and severity of these "temporary" impacts. For example, whether vegetation in an area will be trimmed or whether it will be bulldozed is not apparent. Thus, it is difficult to evaluate whether these impacts can properly be construed as temporary or not. However, I infer from the project maps and data tables that for any area that will be revegetated, Caltrans has classified the project impacts as "temporary" impacts, even if the original vegetation will be completely removed. Apparently, Caltrans only classified as "permanent" impacts those areas that will be permanently covered by structures (such as the roadway and pier footings). If this is indeed the case, this is an erroneous classification.

The category of "temporary impacts" should include only those impacts that will take less than a year to return to pre-impact condition, such as trimming trees or temporarily laying down riparian vegetation under tarps. Any activity that kills vegetation should be classified as a severe temporary impact or a permanent impact, depending on the time required for the plant community to reestablish. If it takes longer than one year to restore the plant community to pre-impact conditions, the impact should be considered a permanent impact. Removing large trees is thus a permanent impact. If the soil is significantly disturbed, this is also a permanent impact.

For example, one of the largest habitat impact areas will be the construction clearing under the bridge. The application states that: "Maximum vegetation removal will consist of clearing an area approximately 13.7 m (45 feet) upstream and 46 m (151 feet) downstream of the proposed bridge. It is anticipated that a bulldozer and/or backhoe will be used to remove the vegetation." The project impact maps show that this approximately 200-foot wide impact area extends along the entire length of the new 554-ft long bridge, resulting in a clearing covering approximately 2.5 acres of Greenwood Creek's riparian slopes.

Caltrans Biologist Don Schmoltdt stated in May 2005 that the project will require the "temporary" removal of a maximum of 5 acres of trees surrounding the bridge, consisting primarily of alders, but will include the removal of about 50 small to medium size Douglas fir" (emphasis added).⁷ At least a portion of this habitat impact should clearly be classified as a permanent impact; however, the application's project impact

⁷ Email correspondence from Gordon Gould (Calif. Dept. of Fish and Game) to Don Schmoltdt (Caltrans) on 05-06-05. Appendix S, Greenwood Creek Bridge Replacement CDP Application and Report, August 2005.

Replanting in-kind those areas in which vegetation has been removed is not adequate compensatory mitigation for permanent impacts to vegetation. Potential side effects to vegetation removal that may contribute to difficulties in revegetation include compacting soil with heavy equipment, damaging tree roots, destroying soil microorganisms, and altering natural drainage patterns. Despite good intentions and the best available techniques, recent studies have shown that wetland restoration efforts are often unsuccessful. A mitigation plan is needed that provides an appropriate mitigation ratio, identifies a suitable location for the mitigation site that is large enough to accommodate the plantings, and ensures the restoration of habitat functionality.

- Mitigation for Wetland Habitats

Caltrans' had previously submitted a Wetland Mitigation Plan (Sept. 2004) to Commission staff prior to this CDP application (see Attachment 6). However, this Wetland Mitigation Plan is wholly inadequate. The entire plan submitted to Coastal Commission staff consists of a 1-page diagram of cells to be excavated adjacent to an "existing mitigated area" which was not named. The Wetland Mitigation Plan lacks a comprehensive project description detailing the wetland function and acreage proposed to be lost, and the wetland function and acreage to be gained by the restoration. The Plan's notes describe excavation depth, and the stockpiling and replacement of topsoil, but no accompanying text was included to describe the methodology to be used for restoration and monitoring. In response to Coastal Commission staff's request for a more detailed Wetland Mitigation Plan, Caltrans just submitted additional diagrams of the cell excavation.

The Wetland Mitigation Plan (Sept. 2004) was also prepared before the wetlands on the project site were fully identified and delineated (August 2005). The Environmental Assessment (2002) identified only one 0.02 acre freshwater seep wetland on the project site, and stated that the proposed mitigation for filling the seep wetland "consists of grading an upland area adjacent to the affected area to allow the formation of a similar seep-generated wetland near the existing wetland, at a 1:1 ratio." This is an unacceptable procedure for mitigating permanent impacts to wetland habitat. Previous Coastal Commission actions have required that permanent impacts to wetlands be mitigated at a 3:1 ratio, with favorable consideration given to mitigation sites in, or as close as feasible to, the affected area. Greater ratios are appropriate if off-site mitigation areas are selected.

A complete Wetland Mitigation Plan is needed that includes a comprehensive description of the proposed mitigation for the 3.75 acres of wetland habitat (including 0.61 acres permanently impacted) that the August 2005 Wetland Delineation stated will be impacted. The nature and severity of the project's "temporary" impact to wetlands must be detailed, and appropriate mitigation for this temporary impact must be included in the mitigation plan.

Vole, California Red-legged Frog, Foothill Yellow-Legged Frog, Tailed Frog, Myotis bats, and Purple Martins).

Several Special Status species were observed on the project site during surveys conducted in August 2005: Red Tree Vole, Purple Martin, Northern Spotted Owl, Foothill yellow-legged frog, and Myotis bats. Northern rough-winged swallows were also observed nesting under the bridge, and may be impacted by the project, although this is not a special status species. Caltrans' should develop a Mitigation Plan that incorporates appropriate mitigation measures for temporary and permanent impacts to each of these species found to use the project site.

Caltrans has also not submitted a comprehensive plan for mitigating for the temporary and permanent impacts of the project on sensitive wildlife species. Although the CDP application does not include a Mitigation Plan, the project description does list a few mitigation measures for some species. The Environmental Assessment (2003) also lists some mitigation measures that Caltrans would take to minimize the environmental impact of the proposed project. However, these mitigation measures are minimal, and are inadequate for most species.

- Mitigation for California Red Tree Vole

California Red Tree Vole (*Arborimus pomo*) is a state species of Special Concern and a federal species of Concern. This species is endemic to Douglas-fir forests in coastal northern California, where they are found primarily in mature or old-growth coast Douglas-fir trees. The Red Tree Vole nests almost exclusively in the foliage of Douglas-fir trees, and their diet consists chiefly of coast Douglas-fir needles. Due to their reliance on Douglas fir and their arboreal existence, this species may be greatly affected by habitat fragmentation and alteration of canopy structure, which may impact its dispersal ability.¹⁰ This has important implications for the maintenance of genetic diversity in Red Tree Vole populations.

A formal protocol survey for this species was conducted in 2005, which documented Red Tree Vole activity (including nesting and foraging) in 24 Douglas fir and grand fir trees on the project site. All fir trees within the project area provide potential vole habitat; approximately 132 potential Red Tree Vole trees were documented within the project area.

Caltrans' Environmental Assessment was conducted before this survey took place, therefore before any voles were known to occur on the project site. The Environmental Assessment (2003) stated that the project may affect Red Tree Voles, and proposed mitigation for potential impacts to Red Tree Voles consisting of "avoiding removal of coniferous trees to the extent possible, especially Douglas fir (*Pseudotsuga menziesii*)" (emphasis added). This mitigation is insufficient, as Douglas-fir trees are long-lived and can be difficult to regenerate, and it will take a number of decades to replace the habitat value that the mature canopy provides for species such as Red Tree Voles and

¹⁰ California Department of Fish and Game. 1986. Mammalian Species of Special Concern in California, Red Tree Vole. In Williams, D. F. 1986. Mammalian Species of Special Concern in California. Wildlife Management Division Administrative Report 86-1.

Feasibility of Project Alternatives

Caltrans concluded in this CDP Application and Report (August 2005) that based on cost and delay factors, Alternative 3 (the proposed project) is the least environmentally damaging practicable alternative:

“While Alternative 2 – Replace and Widen Bridge is least environmentally damaging to wildlife species such as the Red Tree Vole and to all types wetlands, the cost is 50% higher than Alternative 3 (\$15 million instead of \$10 million). Additionally, the development of engineering and design plans for this alternative would delay the project by four years, increasing the risk to the public should the existing bridge be damaged during a flood or seismic event. Alternative 3 – Proposed Eastern Alignment is the least environmentally damaging practicable alternative.”

- **Comparative Cost of Alternatives**

Caltrans did not provide an adequate breakdown of the total project costs for the project alternatives, including mitigation costs. As Caltrans is asserting that a higher project cost for Alternative 2 (the least environmentally damaging alternative) compared to Alternative 3 (the proposed project) is one of the reasons Alternative 2 is not practicable, a detailed breakdown of the project costs is needed. The cost comparison Caltrans presents in the Coastal Commission Alternatives Impact Matrix table lists the total project cost for Alternative 2 (Replace and Widen) as \$15 million, and for Alternative 3 (Eastern Alignment) as \$10 million. It is unclear which of the other costs listed in the table are included in that figure.

The table states that the mitigation cost for Alternative 2 is 25-30% of the total project cost, so I assume this mitigation cost has been included in calculating the total project cost for this Alternative. This seems to be a high cost for mitigation, but because Caltrans did not submit a mitigation plan, it is difficult to evaluate whether this estimate is reasonable. Coastal Commission Ecologist John Dixon provided a generic estimate that mitigation costs to restore or create on-site 1.0 acre of Seasonal Wetlands habitat would be about \$133,486, as of January 2004. In addition to the cost of ground preparation, plants, and labor for planting, an estimate for mitigation costs should include the costs of planning, performance monitoring, maintenance, and land acquisition (if required). If land acquisition is a major part of the mitigation cost for this project, this may explain the high cost.

The total project costs for the Alternatives shown in this table are misleading, because the table apparently does not include the mitigation cost in the total project cost for Alternative 3 (the proposed project), although it apparently does for Alternative 2. Instead, the table solely states that the mitigation cost for Alternative 2 “would result in 85% of Alternative 3’s cost to mitigate temporary wetland impacts, and 55% of Alternative 3’s cost to mitigate permanent wetland impacts.” The table also states there is a “3:1 cost ratio for permanent impacts, and 1:1 cost ratio for temporary impacts.”

million. Thus the total project cost for Alternative 3 would be comparable to the \$15 million total project cost of Alternative 2 (which presumably includes mitigation costs).

Although mitigation for project impact to non-wetland habitats and to sensitive animal species will also likely be required, the proposed project (Alternative 3) will have greater impacts to all the impacted habitats surveyed, and to the Red Tree Vole, and thus any additional mitigation cost would be expected to be higher for Alternative 3 than for Alternative 2 (Rebuild). Alternative 3 also requires property acquisition for access and easements (which Alternative 2 does not), and thus the acquisition costs should be added to the total project cost for Alternative 3.

Caltrans also estimated a \$1 million cost to the public from vehicle delays in Alternative 2, vs. "minimal" costs for public delays in Alternative 3. It is unclear whether this cost of delay to the public was included in the total project cost for Alternative 2, but it does not seem appropriate to include this cost in calculating a project's total cost. In addition, a 3% per year cost escalation was added to the cost of Alternative 2. When all of these components of the total project cost are factored in, it may well be likely that the costs of these two Alternatives are comparable.

- Project Delay

Caltrans concluded that Alternative 2 (Replace and Widen) is not practicable due to higher project costs, and because it would take four more years to prepare new engineering plans for this Alternative. It is unclear why it would take so many years to design this Alternative, particularly because the baseline environmental assessments have already been conducted for this project. It's important to note that five years ago, Caltrans' 1999 Supplemental Project Scope Summary Report (Structure Replacement) presented Alternative 2 (widening the existing bridge) as the preferred alternative. This report stated that the increased environmental impact resulting from the required roadway realignment for Alternative 3 (Eastern Alignment) did not justify moving the bridge to a new alignment.

Caltrans had decided upon the current project proposal (Alternative 3, Eastern Alignment) years before they had completed an adequate baseline assessment of the project site's environmental resources. The project's wetlands delineation, plant community mapping, and surveys for sensitive wildlife species were not completed for the project until this month (August 2005). The project's earlier environmental studies (e.g., Environmental Assessment (2003), Biological Assessment (2003), Natural Environmental Study Report (2002), and wetland delineations performed earlier this year) were incomplete or inaccurate, and did not reveal the extent of the project's impact to natural resources. For example, as detailed earlier in this memo, the Environmental Assessment grossly underestimated the extent of wetlands on the project site, and failed to recognize three of the four tributaries that would be impacted by the project. Consequently, prior to August 2005, Caltrans' project documents incorrectly concluded that the proposed project (Alternative 3, Eastern Alignment) is the least environmentally damaging alternative.

Summary of Main Habitat Impacts of Alternatives 2 vs. 3,
Greenwood Creek Bridge Replacement Project

(Compiled by Vanessa Metz, Calif. Coastal Commission, from CDP Application data).

Alternative 2 = Replace and Widen Existing Bridge

Alternative 3 = Eastern Alignment (Proposed Project)

<u>PERMANENT Habitat Impacts</u>	<u>Alt. 2 (Replace)</u>	<u>Alt. 3 (Proposed)</u>
All Wetland Types	0.33 acres	0.61 acre
Freshwater Seep Wetlands	0.001 acre	0.01 acre
Non-Seep Wetlands	0.33 acre	0.60 acre
Creeks	0.001 acre	0.01 acre
Individual Trees Removed	893 trees	1107 trees
Fir trees (vole habitat)	48 trees	82 trees
Vole nesting trees	14 trees	15 trees
All Plant Communities	0.81 acres	1.33 acres
Rare Plant Communities	0.42 acres	0.77 acres
Coastal Coniferous Forest	0.33 acres	0.47 acres
<u>"TEMPORARY" Habitat Impacts</u>	<u>Alt 2</u>	<u>Alt 3</u>
All Wetland Types	2.50 acres	3.14 acres
Freshwater Seep Wetlands	0.01 acres	0.03 acres
Non-Seep Wetlands	2.49 acres	3.11 acres
Creeks	0.22 acres	0.21 acres
All Plant Communities	4.00 acres	6.28 acres
Rare Plant Communities	2.54 acres	3.85 acres
Coastal Coniferous Forest	0.93 acres	2.02 acres
<u>Culvert Extensions</u>	<u>Alt 2</u>	<u>Alt 3</u>
Total Culvert Extensions	15.5 linear feet	88.8 linear feet
Bonee Gulch Creek Culvert	none	48.0 linear feet
Tributary 1 Culvert	7.0 linear feet	15.0 linear feet
Tributary 2 Culvert	none	20.0 linear feet
Tributary 3 Culvert	8.5 linear feet	5.8 linear feet
<u>Fill in Tributaries</u>	<u>Alt 2</u>	<u>Alt 3</u>
Total Fill in Tributaries	none	0.0005 acre (21.5 ft ²)
Fill in Tributary 1	none	0.0003 acre (12.9 ft ²)
Fill in Tributary 2	none	0.0002 acre (8.6 ft ²)
Fill in Tributary 3	none	none

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MEMORANDUM

FROM: Vanessa Metz, Ph.D.
Biologist/Water Quality Analyst

TO: Melanie Faust

SUBJECT: Evaluation of Wetland Delineation Data Sheets and Maps for the
Greenwood Creek Bridge Replacement Project

DATE: June 14, 2005

Documents Reviewed:

Appendix A: Delineation Data Sheets for Seep; and Appendix B: Delineation Data Sheets for Coastal Commission Riparian Woodland Wetlands. Routine Wetland Delineation Data Sheets for the Greenwood Creek Bridge Replacement Project. Caltrans (submitted by Jeremy Ketchum, Chief Environmental Branch). Received March 28, 2005.

Habitat Map, Greenwood Creek Bridge Replacement. Large map from the "California Coastal Commission Wetlands Delineation Report for the Greenwood Creek Bridge Replacement Project." Caltrans (submitted by Jeremy Ketchum, Chief Environmental Branch). Undated; received March 28, 2005.

Figure 3, Wetland Delineation, Greenwood Creek Bridge Replacement. Large map from the "Jurisdictional Delineation Report for the Greenwood Creek Bridge Replacement Project." Caltrans (submitted by Jeremy Ketchum, Chief Environmental Branch). Undated; received March 28, 2005.

California Coastal Commission Wetlands Delineation Report for the Greenwood Creek Bridge Replacement Project. Caltrans (prepared by Don Schmoltdt, Associate Environmental Planner). January 5, 2005.

Jurisdictional Delineation Report for the Greenwood Creek Bridge Replacement Project. Caltrans (prepared by Jason Meigs, Associate Environmental Planner). December 1, 2004.

Purpose of this Memo

You have asked me to evaluate the data sheets and maps for the wetland delineation studies conducted by Caltrans for the Greenwood Creek bridge replacement project, to determine whether the wetland delineation analyses were conducted correctly. Two wetland delineation reports were submitted for this project, the *Jurisdictional Delineation Report* (December 2004), and the *California Coastal Commission Wetlands Delineation Report* (January 2005). However, in the copies of these two reports submitted to the Coastal Commission in January 2005, no data sheets were included in the *California*

Another problem that the data sheets and maps revealed is that only one sampling plot (Plot 7) was used to delineate the entire riparian wetland area of Bonee Gulch creek (a perennial stream), but the data collected at this plot is of dubious value. The investigator stated that he could not access this plot, and thus made his vegetation determination from "looking down-canyon"; no hydrology or soils data were recorded at this plot. As the project proposes to fill approximately 65 linear feet of this creek's riparian wetlands, it is important that an accurate delineation of this riparian area be performed. Complete data should thus be collected on site at sampling plots that are accessible in this riparian area.

- **Map of Wetlands Inconsistent with Data Sheets**

Many of the wetland determinations reported on the data sheets were inconsistent with the wetland delineation borders shown on the Habitat Map submitted with the data sheets. For example, the Habitat Map shows that the sampling plots within mapped riparian wetland areas are Plots 3, 4, 5, 7, and 11; however, the data sheets indicate that none of these five plots were determined to be within a wetland.

The data sheet for Plot 7 did not make a wetland determination, but recorded a "?" instead, stating that the investigator could not access this plot. The data sheets for the remaining plots mapped as wetlands (Plots 3, 4, 5, and 11) report the investigator's determination that each of these plots is not within a wetland. Furthermore, the data sheets for Plots 3, 5, and 11 show that all three wetland parameters (vegetation, hydrology, and soils) were determined to be negative for these plots, and yet these three plots were all shown on the Habitat Map as solidly within the riparian wetland.

It is unclear whether the investigator meant to indicate on the Habitat Map that Plots 1 and 2 are within the riparian wetland or not. The map shows these two plots located close to the border of the mapped riparian wetland, although the plot markers appear to be mostly within the riparian wetland. However, the data sheets for these two plots recorded the investigator's determination that these plots are not within a wetland (notwithstanding his determination that each of these two plots was positive for hydrophytic vegetation). The text of the *California Coastal Commission Wetlands Delineation Report* does not clarify the wetland determination status for any of the sampling plots.

The numerous discrepancies between the data sheets and the maps suggest that in mapping the wetland boundaries, the investigator disregarded the data he had collected. The two maps submitted were not at an appropriate scale, and lacked sufficient detail to identify sampling plots and wetland boundaries in relation to hydrological and landscape features. The text of the wetland delineation reports state that the wetland boundaries were determined by a vegetation change; however, the reports lacked photo documentation of these vegetation changes, and the data do not support the wetland boundaries as mapped.

- **Vegetation Parameter**

On all of the data sheets completed for the 13 sampling points in the two wetland delineation studies, Caltrans staff used an incorrect method to determine whether hydrophytic vegetation is present at the sampling point. The errors made in the

There are thus 3 dominant species, and 2 of the 3 species are hydrophytic (OBL, FACW, or FAC); thus 2/3 (67%) of the dominant species are hydrophytic. Because more than 50% of the dominant species are hydrophytic, the correct determination for the vegetation parameter should thus have been that this plot is positive for the presence of hydrophytic vegetation. However, the investigator incorrectly determined that 45% of the dominants are hydrophytic, and thus that this plot is negative for hydrophytic vegetation. Furthermore, the investigator also erroneously concluded that this plot is not a wetland. The vegetation parameter was also incorrectly determined at Plot 1 and Plot 7, which were erroneously determined to be hydrophytic.

- **Hydrology Parameter**

For three of the 13 sampling plots, no data was recorded for Field Observations of hydrology indicators (i.e., depth of surface water, depth to free water in pit, and depth to saturated soil). For nine of the 10 remaining sampling sites, the data recorded for the hydrology parameter was evidently erroneous.

Hydrology data should be recorded at each sampling plot; if a measurement is zero, this figure should be recorded rather than leaving the data line blank. For example, on the data sheet for "Plot #2 Upland" (Appendix A: Delineation Data Sheets for Seep), the investigator recorded "N/A" for each of the three hydrology Field Observations (i.e., depth of surface water, depth to free water in pit, and depth to saturated soil). The investigator's determination that the hydrology parameter was negative for wetland hydrology was based solely on aerial photos; he did not record any remarks to explain why the Field Observations were not made for this plot. In addition, the data sheets for Plot 7 and Plot 10 were left blank for the three hydrology Field Observations. The investigator did not explain why hydrology data was not recorded for Plot 10, but for Plot 7, the remarks section states "Could not access site."

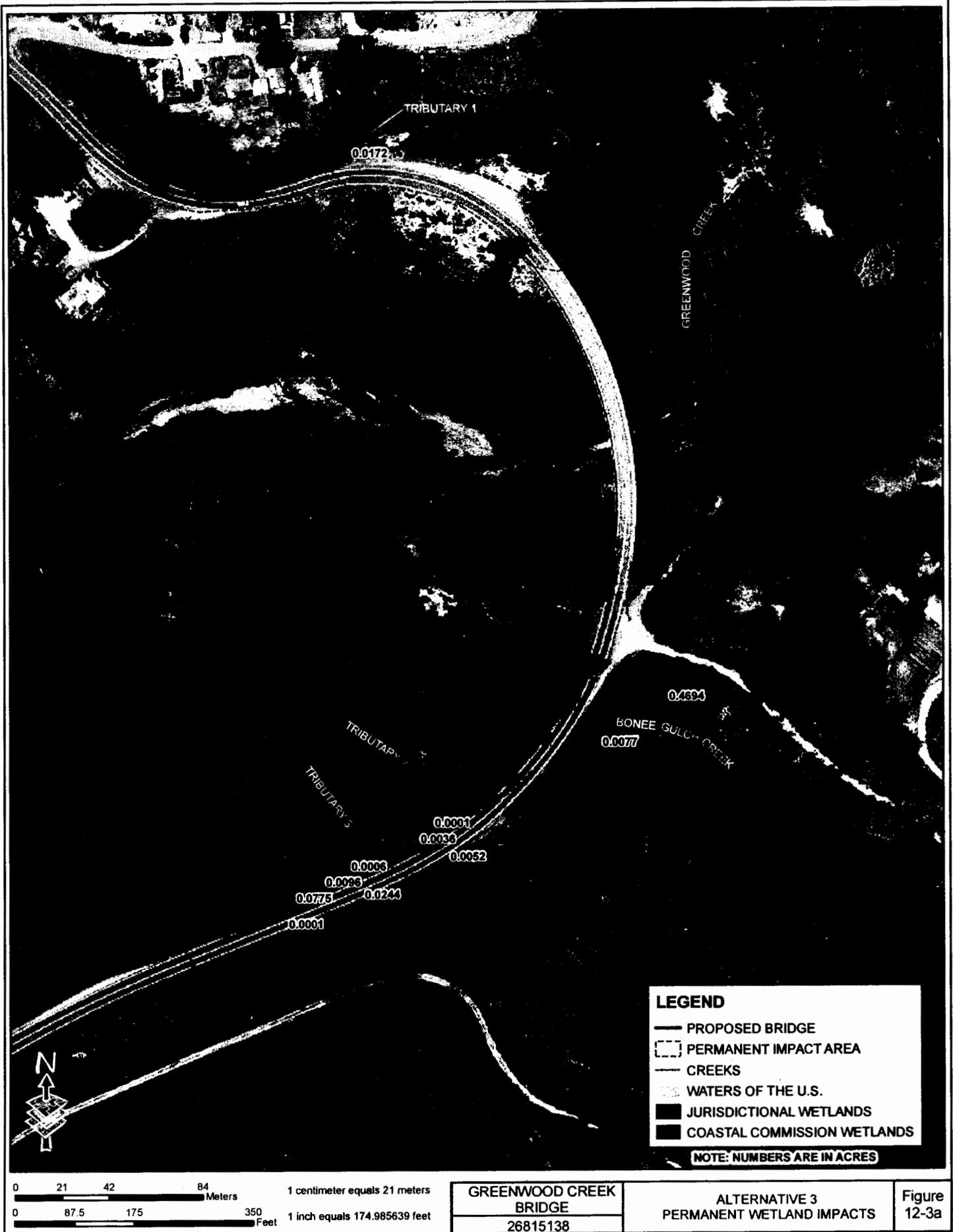
On the data sheets for nine of the 10 remaining plots (the exception is "Plot #1 Wet" in the seep wetland, which had standing water), the investigator initially recorded a slash across the data line for each of the hydrology Field Observations (i.e., depth of surface water, depth to free water in pit, and depth to saturated soil). The slash was then crossed out, and the following data was recorded for the hydrology Field Observations for each of these nine plots (Plots 1-6, 8-9, and 11, in Appendix B Delineation Data Sheets for Coastal Commission Riparian Woodland Wetlands):

Depth of Surface Water: > 12"

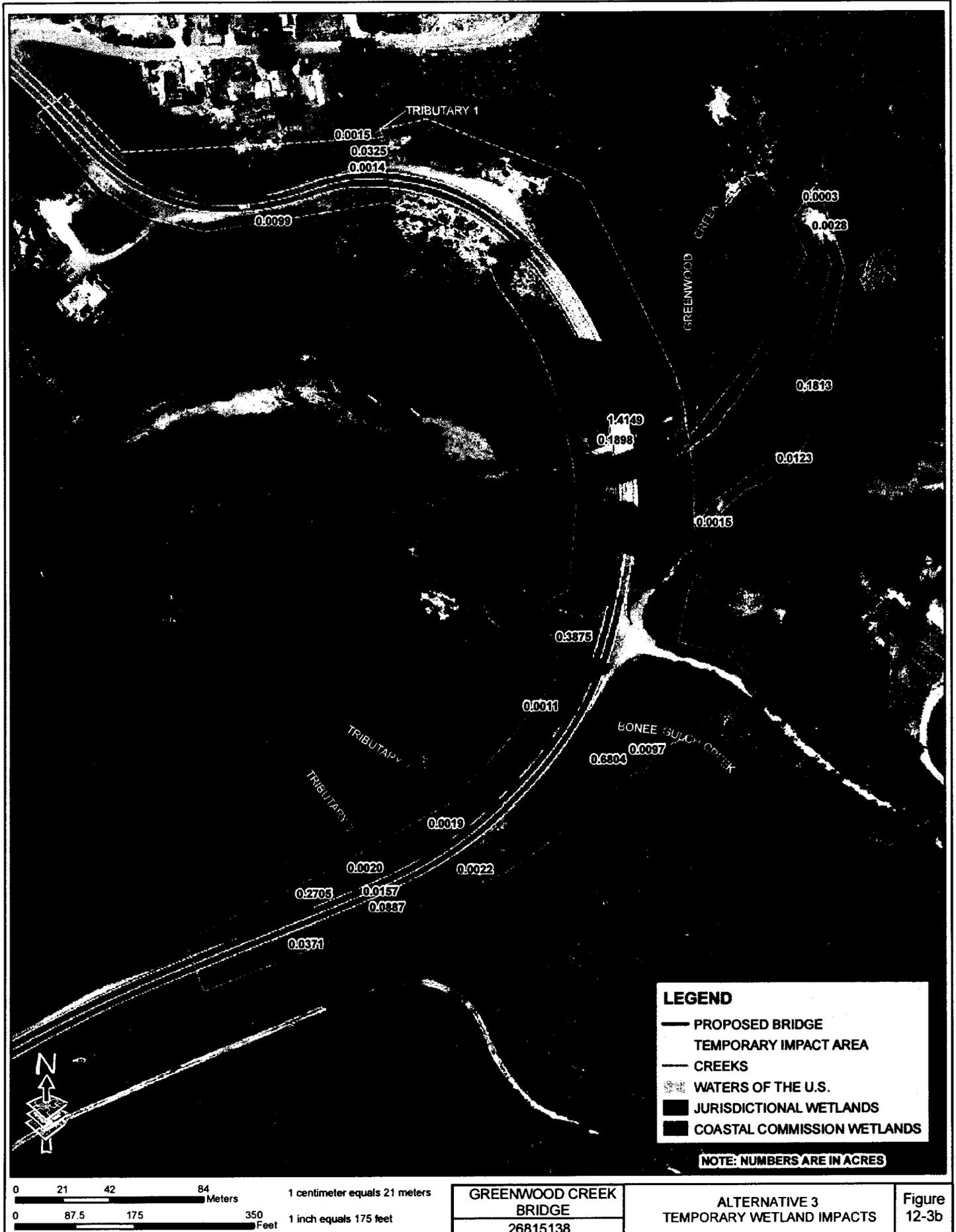
Depth to Free Water in Pit: None

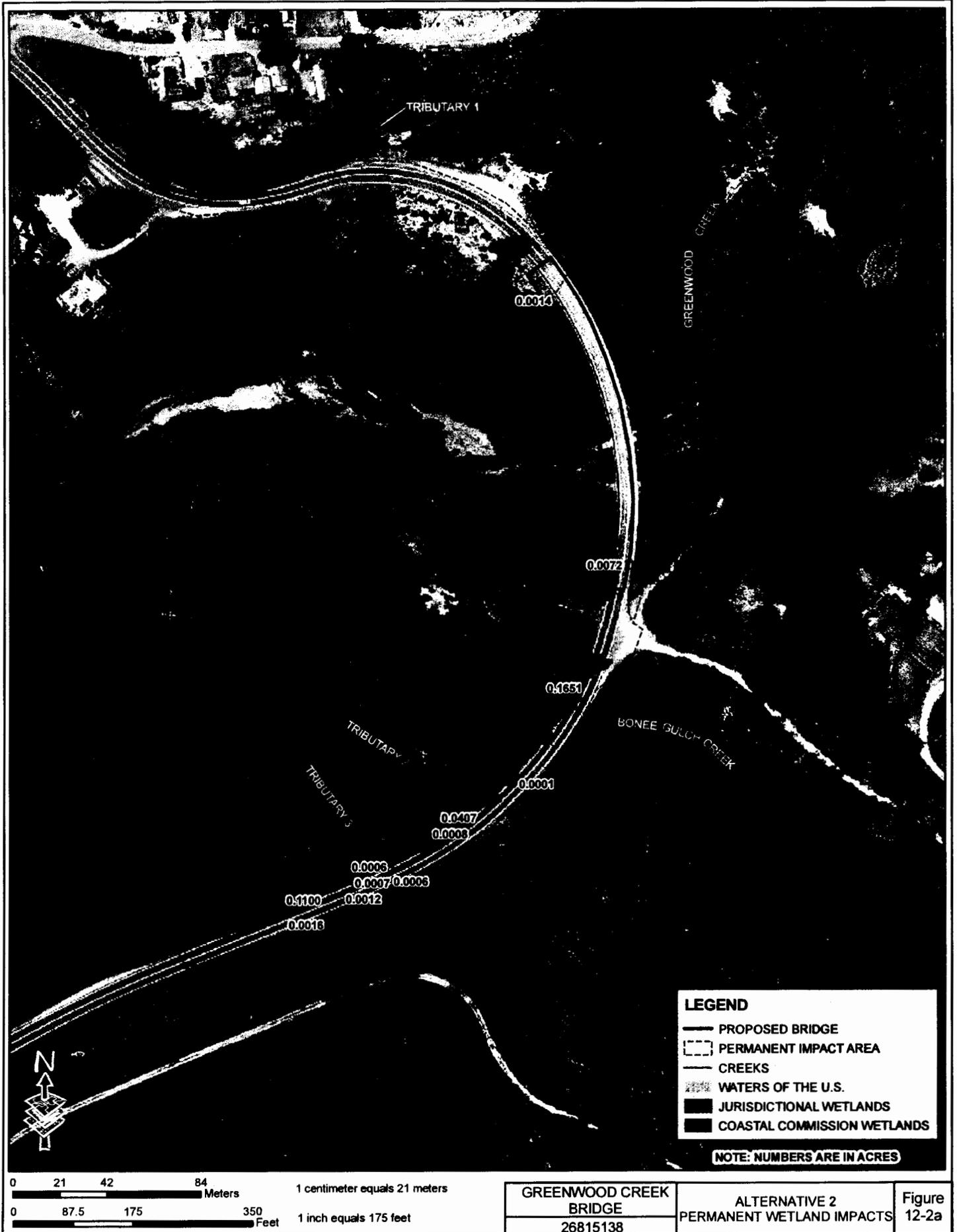
Depth of Saturated Soil: > 12"

This data recorded for the depth of surface water at these nine plots was evidently incorrect, as it is unlikely that any of these plots were actually inundated with greater than 12 inches of surface water, as stated on the data sheets. The investigator did not indicate in the Primary Hydrology Indicators section of the data sheets that these plots were inundated, and he concluded that wetland hydrology was not present at any of these nine plots. Because the original slash marks across the data lines were crossed out, and all the hydrology data subsequently recorded for these three indicators is



Attachment 3

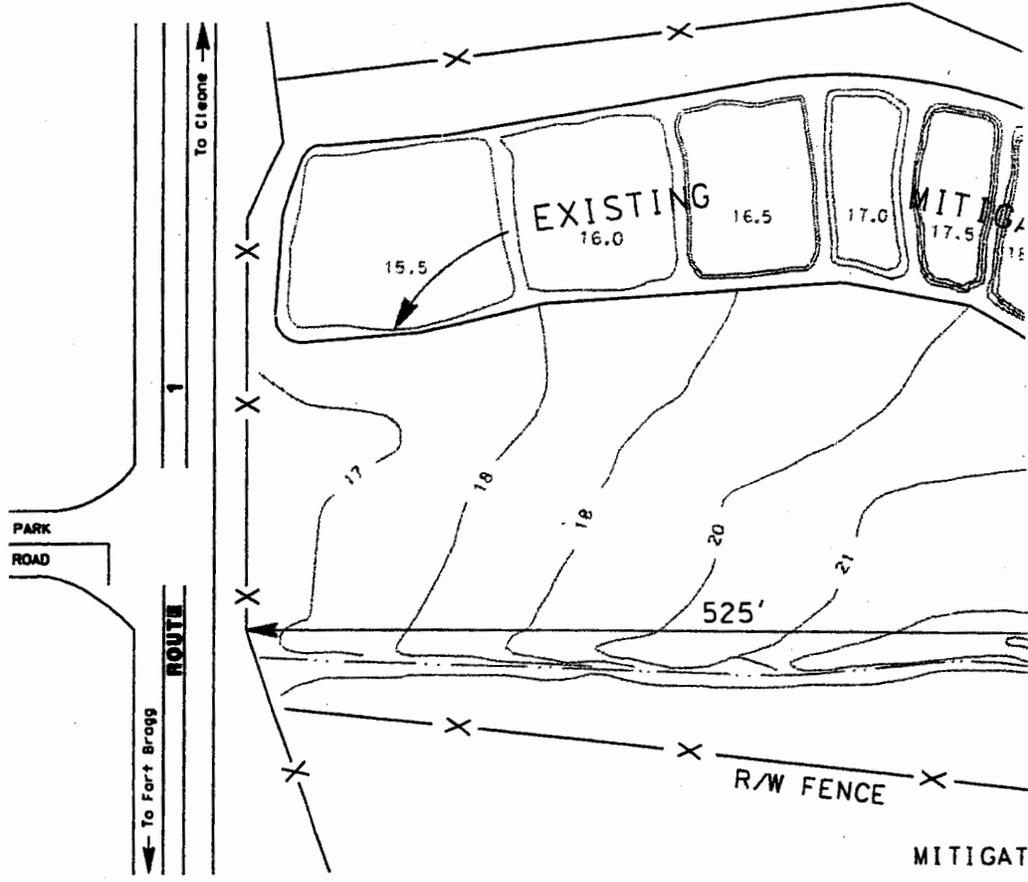




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Attachment 6, part 1 of 2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans	MINOR B BRANCH	PROJECT ENGINEER	CALCULATED/DESIGNED BY	DATE	REVISOR	DATE
		ALAN R. RADFORD	THOMAS G. CHARLEY			
			CHECKED BY		DATE REVISED	



NOTES:

1. REMOVE SOD IN AREA TO BE EXCAVATED.
2. REMOVE 0.3 m LAYER OF TOPSOIL & STOCKPILE.
3. EXCAVATE TO TOTAL DEPTH OF 0.9 m.
4. PLACE 0.3 m OF STOCKPILED TOPSOIL ON BOTTOM OF EXCAV
5. CONTOUR AND EXISTING CELL ELEVATIONS ARE FOR INFORMAT
NEW CELL ELEVATIONS ARE SHOWN IN BOLDER PRINT.
6. UNLESS DENOTED OTHERWISE, ALL DIMENSIONS ARE IN IMPERI

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