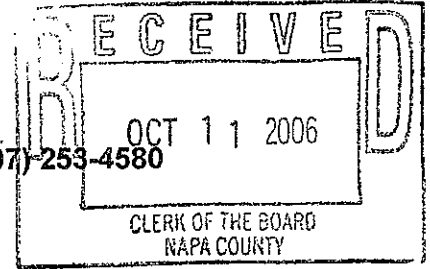




NAPA COUNTY
 CLERK OF THE BOARD'S OFFICE
 1195 Third Street, Room 310, Napa, California, 94559 • (707) 253-4580



APPEALS
 (Chapter 2.88 of Napa County Code)

TO BE COMPLETED BY APPELLANT*
 (Please type or print legibly)

Appellant's Name: Earth Defense for the Environment Now ("EDEN") c/o Law Office of Thomas N. Lippe

Telephone #: (415) 777-5600 Fax #: (415) 777-9809 E-Mail: lippelaw@sonic.net

Mailing Address: EDEN Address: 2945 Atlas Peak Rd. Napa, CA 94558; Lippe address: 329 Bryant St. #3D San Francisco, CA 94107
No. Street City State Zip

Status of Appellant's Interest in Property: Interested Member of the Public
project applicant, adjacent property owner, other (describe)

Action Being Appealed: Approval of Erosion Control Plan # 02253-ECPA and adoption of a Mitigated Negative Declaration

Permittee Name: Napa Canyon LLC Vineyards

Permittee Address: 23 Pinnacle Peak Napa, CA 94558
No. Street City State Zip

Permit Number: 02253-ECPA Date of Decision: 9/22/2006

Nature of Permit or Decision: Erosion Control Plan and Associated CEQA Approval

Reason for Appeal (Be Specific - If the basis of the appeal will be, in whole or in part, that there was a prejudicial abuse of discretion on the part of the approving authority, that there was a lack of a fair and impartial hearing, or that no facts were presented to the approving authority that support the decision, **factual or legal basis for such grounds of appeal must be expressly stated or they are waived.** (attach additional sheet if necessary):
See attached letter from Thomas N. Lippe dated October 10, 2006

If the basis of the appeal will be, in whole or in part, that the environmental determination under the California for each insignificant or less than significant impact identified in the initial study that the appellant contends maybe significant, a detailed legal and factual statement indicating why the project is not exempt, and a detailed statement supported by substantial evidence describing why the Negative/Mitigated Negative Declaration or EIR is inadequate.) (attach additional sheet if necessary)

See attached letter from Thomas N. Lippe dated October 10, 2006

Project Site Address/Location: 1201 American Canyon Road American Canyon CA 94503
Street City State Zip

Assessor's Parcel No.: 059-040-065

Thomas Lippe Signature of Appellant 10/11/2006 Date Thomas N. Lippe for EDEN TYPE OR PRINT NAME

TO BE COMPLETED BY CLERK OF THE BOARD
 Total Fee: \$ 690.80 Receipt Nos. 845326 Received by: Mary Jane McLaughlin Date: 10-11-06

* The following information, in addition to the information required by this form also needs to be provided as attachments hereto pursuant to County Code Section 2.88.050 (F-1): Title Insurance Report, Assessor's Map Book Pages, and Appeals Fee.

Law Offices of
THOMAS N. LIPPE

329 Bryant Street
Suite 3D
San Francisco, CA 94107

Telephone: 415-777-5600
Facsimile: 415-777-9809
email: lippelaw@sonic.net

October 10, 2006

Board of Supervisors
County of Napa
Attn: Clerk of the Board of Supervisors
1195 3rd Street
Napa, CA 94559

Hilary Gitelman, Director
Conservation, Planning and Development Department
County of Napa
1195 3rd Street, Room 210
Napa, CA 94559

Re: Appeal of the Planning Department's Approval of Erosion Control Plan # 02253-
ECPA and Adoption of a Mitigated Negative Declaration for the Proposed Napa
Canyon LLC Vineyards Vineyard Conversion Project.

Dear Ms. Gitelman and Members of the Board:

This office represents Earth Defense for the Environment Now ("EDEN") with respect to this appeal of the Director's approval of Erosion Control Plan # 02253-ECPA and adoption of a Mitigated Negative Declaration for the proposed Napa Canyon LLC Vineyards vineyard conversion project ("Project"). This letter is EDEN's Notice of Appeal of these actions and provides the information required by County Code § 2.88.050 for a Notice of Appeal. All correspondence or other communications relating to this appeal should be directed to this office.

A. The name and address of the permittee: Napa Canyon LLC Vineyards c/o Mark Power, 23 Pinnacle Peak, Napa, CA 94558. The assessor's parcel number for the property subject to the Erosion Control Permit is 059-040-065.

B. The name and address of the appellant: Earth Defense for the Environment Now (EDEN) 2945 Atlas Peak Road, Napa, California 94558, represented by the Law Offices of Thomas N. Lippe, 329 Bryant Street, Suite 3D, San Francisco, CA 94107.

C. This letter appeals the Napa County Conservation, Development and Planning Department's September 22, 2006 decision approving Erosion Control Plan 02253-ECPA for Assessor's Parcel 059-040-065 (approval letter mailed September 22, 2006; effective approval date is October 11, 2006) for the Napa Canyon Vineyard Conversion Project as well as the Director's adoption of a

Mitigated Negative Declaration pursuant to the California Environmental Quality Act.

D. A summarization of the facts on which the appeal is based: see "Basis for Appeal" set forth below.

E. The basis for this appeal is in part that the approving authority prejudicially abused its discretion by failing to adopt a legally valid Negative Declaration, by failing to require an Environmental Impact Report under the California Environmental Quality Act, and that the facts presented to the approving authority do not support the decision. See "Basis for Appeal" set forth below.

F. A list, certifying by name, address and assessor's parcel number, of all owners of real property located within three hundred feet of the real property which is the subject of this appeal is attached hereto as Exhibit 7.

G. Assessor's pages used in compiling the adjoining property owners list: attached as Exhibit 7.

H. The required fee for filing an appeal is submitted herewith.

BASIS FOR APPEAL

A. ENVIRONMENTAL BACKGROUND.

1. Since Napa County adopted its Hillside Ordinance in 1991, there have been drastic changes in the environmental setting in the Napa River drainage and surrounding region. Populations and habitat conditions for coho salmon and steelhead in this region have declined to the point where, in 1996 (coho) and 1997 (steelhead), the National Marine Fisheries Service ("NMFS") listed local ESUs of these species as "threatened" under the federal Endangered Species Act. In addition, the San Francisco Regional Water Quality Control Board identified the Napa River as "water quality limited" under § 303(d) of the federal Clean Water Act due to excessive sedimentation and nutrient loading.

2. On June 14, 2002, the San Francisco Bay Regional Water Quality Control Board ("Regional Water Board") released the Napa River Basin Limiting Factors Analysis. See Exhibit 4 to EDEN's January 17, 2005 comment letter. This report is Phase I of the TMDL study for the Napa River Basin. According to the Phase 1 report, sedimentation of gravel stream beds is reducing the survival of steelhead fry by 50% or more and additional study is required in order to further understand the sediment problems plaguing the Napa River Basin. In the meantime, the Phase 1 report recommends that "opportunities to prevent increased delivery of sediment to channels, and preferably reduce sediment delivery, should be pursued." (*Id.*, page ES-35.)

3. On June 28, 2005 the Regional Water Board issued its Napa River Sediment Total Maximum Daily Load Draft Technical Report (“Draft Technical Report”). See Exhibit 5 attached hereto. This report confirms and expands upon the conclusions of the Phase 1 report. Key findings of the Draft Technical Report include:

- “Channel incision, which occurs in Napa River and lower reaches of its tributaries, has greatly reduced the quantity and quality of spawning and rearing habitat for salmon, and appears to be the primary factor limiting chinook salmon reproductive success and smolt survival undercurrent conditions (Stillwater Sciences and Dietrich, 2002). Excessive amounts of fine sediment deposited at potential spawning sites for salmon and/or steelhead in Napa River and its tributaries causes high rates of egg and larval mortality during incubation. Although poor spawning habitat quality does not currently appear to be a primary factor limiting for steelhead, high mortality during egg incubation may further depress what appears to be a very small run. Other factors including poor flow persistence during the dry season and poor habitat access, appear to be the primary factors that limit steelhead productivity and survival in the Napa River watershed at present (Stillwater Sciences, 2002). We conclude that progress towards resolution of all factors limiting steelhead productivity and survival in the Napa River watershed is needed to conserve and recover steelhead populations. Therefore, we recommend actions to address sediment and additional management and research actions to address the above limiting factors, as a component of the sediment TMDL implementation plan.” Exhibit 1, p. 3.
- “Channel incision is a controllable water quality factor that results in a violation of the narrative water quality objective for population and community ecology (Table 1).” Exhibit 1, p. 7.
- The narrative water quality objective for population and community ecology is “The health and life history characteristics of aquatic organisms in water affected by controllable water quality factors shall not differ significantly from those for the same waters in areas unaffected by controllable water quality factors. Exhibit 1, p. 6.
- “Sediment loads vary depending on geologic terrain, land uses, and dams.” Exhibit 1, p. 13.
- “More than half of all sediment delivered to channels comes from grazing, vineyards roads, and erosion of the bed and banks of Napa River and lower tributary reaches.” Exhibit 1, p. 13.

- “30% of the watershed drains into dams, capturing a significant fraction of all sediment input to channels, nevertheless fine sediment load remains substantially elevated in Napa River.” Exhibit 1, p. 13.
- “In addition to being a significant sediment source, erosion of the river’s bed and banks is degrading aquatic habitat.” Exhibit 1, p. 13.
- “Sediment input from sheet wash erosion caused by grazing and/or vineyards may contribute a few hundred or more tonnes/km²/yr in the soft sandstone and clayey rock, and hard lava flow terrains.” Exhibit 1, p. 43.
- “Four significant categories of human caused sediment sources are: 1) grazing lands, 2) vineyards, 3) roads, and 4) erosion of the Napa River bed and banks.” Exhibit 1, p. 46 (emphasis added).
- “To protect chinook salmon and steelhead, rates of fine sediment supply and channel incision must be reduced in a manner that enhances aquatic habitat conditions.” Exhibit 1, p. 55

4. On June 30, 2006, the Regional Water Board released the Napa River Sediment Total Maximum Daily Load Staff Report, which is attached hereto as Exhibit 6. Key points made in this report include:

“• Fine sediment clogs spawning gravels and degrades rearing habitat contributing to decline of salmon and steelhead in the Napa River watershed. • Channel incision is the key factor in the decline of Chinook salmon. • Channel incision is a controllable water quality factor. • Low summer base flow and poor habitat access appear to be the most important factors in the decline of steelhead.” (Exhibit 6, p. 5.)

5. The above sources detail many of the causes for these changed circumstances. Additional causes are described in detail in the reports by Dr. Robert Curry (Napa Valley Hillside Vineyards: Cumulative Effects of Conversion of Upland Woodlands and Chaparral to Vineyards dated December 24, 2000 was previously submitted as Exhibit 5 to EDEN’s January 17, 2005 comment letter) and Dr. Robert Abbot and Dr. Robert Coats (Expert Witness Report: Cumulative Impacts on Fisheries Resources from Intensive Viticulture Practices in Napa County dated February 1, 2001, previously submitted as Exhibit 6 to EDEN’s January 17, 2005 comment letter.) The report prepared by Dr. Robert Abbot and Dr. Robert Coats demonstrates that existing significant impacts on anadromous fish species in the Napa River drainage are not adequately addressed by the standard review procedures for new hillside vineyards.

6. Standard erosion control planning for hillside projects, including vineyards on slopes over

5% and non-agricultural projects on slopes over 15%, in the Napa Valley, as regulated by the Napa County Planning Department and supervised by the Resources Conservation District, focuses on measures to prevent erosion of soils from hillside vineyard sites. While these efforts have had some degree of success, the standard approach fails to adequately account for increases in runoff due to project induced changes in the moisture infiltration capacity of the project soils. As explained by Dr. Curry, increases in runoff peak flows have the potential to generate downstream sedimentation by breaking down and sweeping away the bed and banks of streams below the project site, destroying riparian habitat and steelhead habitat. Dr. Curry observed that the use of soil maps is inadequate to judge the changes in soil moisture infiltration capacity of project site soils because the maps are drawn at too large a scale to reveal details about the characteristics of the soils located on the site.

7. The mechanisms of these impacts are explained in more detail in the December 2000 report prepared by Dr. Robert Curry that is attached as Exhibit 5 to EDEN's January 17, 2005 comment letter on this project. As Dr. Curry explained in his overview critique of the Conservation Regulations in 2000:

"The approach of the Napa County ordinances is fundamentally incorrect and cannot protect either public health and safety or long-term land productivity. The existing ordinances seem to assume that by attempting to capture sediments from upland vineyard conversion areas, downstream cumulative effects are reduced to insignificance. This is not correct. Increased upland sediment yields, while important, are less hazardous to Napa Valley than are the changes in runoff timing, volumes, and rates. Increased runoff does have cumulative downstream effects through changes in rates of runoff and frequency of runoff events of a given magnitude. These changes are likely to be a significant factor in changing sediment loads in the main Napa River through changes in stability of its side tributaries." *Id.*, p. 1.

B. THE IS/MND FAILS TO DESCRIBE THE ENVIRONMENTAL SETTING OF THE PROJECT

8. An accurate and complete description of the environmental setting is crucial to the assessment of environmental effects because it establishes a baseline against which to compare the projects effects. *San Joaquin Raptor v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 722-723; *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal. App. 4th 98, 117; *Kings County Farm Bureau* (1990) 221 Cal.App.3d 692, 722. The CEQA Guidelines clarify that such "environmental setting" must include, where appropriate, "a description of the environment in the vicinity of the project, as it exists before the commencement of the project, from both a local and regional perspective." 14 Cal. Code Reg. § 15125. *See also* § 15125(a). ("Knowledge of the regional setting is critical to the assessment of environmental impacts. Special

emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project.”)

9. As described in the Jackson letter (Exhibit 1), the IS/MND fails to provide several types of baseline data regarding hydrology of the area, including but not limited to the pre-project runoff discharge required to effectively implement Mitigation Measure HWQ-7. (See Exhibit 1, p. 9.)

10. As described in the Higgins letter (Exhibit 2), the IS/MND fails to provide several types of baseline data regarding steelhead habitat or populations that may be affected by the project. In fact, the IS/MND does not provide any baseline data regarding this species and its habitat in American Canyon Creek or the Napa River. Indeed, the County’s Response to Comments ignores Dennis Jackson’s previous comment that the Solano County Water Agency HCP (attached as Exhibit 4 hereto) provides evidence that steelhead are still present in American Canyon Creek. Moreover, the County’s Responses to Comments fails to support its assertion (at p. 14) that “American Canyon Creek is not a steelhead stream and does not support spawning riffles or migrating fish.”

11. As described in the Rombough letter (Exhibit 3) and the Jackson letter (Exhibit 1), the IS/MND fails to provide several types of baseline data regarding CRLF, including but not limited to degree of movement of CRLF between the project area and the proposed CRLF preserve area and the locations utilized by CRLF. See e.g. Exhibit 3, p. 2 (“Lack of specification on survey effort and timing contributes to an inability to assess whether survey resolution was sufficient to determine the exact areas that California red-legged frogs use for breeding, foraging, overland migration, and resting” and “...prevents assessment of whether the project may have a significant effect or whether project effects may be mitigated by the plan.”)

C. THE IS/MND FAILS TO ADEQUATELY DESCRIBE THE PROJECT

12. “An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.” *County of Inyo v. City of Los Angeles* (1977) 71 Cal. App. 3d 185, 199. “A curtailed, enigmatic or unstable project description draws a red herring across the path of public input. (Citation).” *Endangered Habitats League, Inc. v. State Water Resources Control Bd.* (1997) 63 Cal. App. 4th 227, 242.

13. As described in the Jackson letter (Exhibit 1), the IS/MND fails to describe whether the “energy dissipator” shown as No 5 or the energy dissipator shown as No 11 (known as a “T-spreader”) on page 3 of the approved ECP plans will be used for outfalls D-G and G-H.

14. As described in the Jackson letter (Exhibit 1), the IS/MND fails to describe the School District drainage facilities on which this project relies to ensure that it does not cause significant sedimentation of American Canyon Creek. This represents an unlawful segmentation of the project for purposes of environmental review, and leaves the environmental review of parts of the project

to another agency at a later time. *See e.g., Laurel Heights Improvement Association v. Regents of the University of California* (“*Laurel Heights I*”) (1988) 47 Cal.3d 376, 395-396; *Del Mar Terrace Conservancy, Inc. v. City Council of the City of San Diego* (1992) 10 Cal.App.4th 712, 729-737; *City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1452-1453; *McQueen v. Board of Directors of the Midpeninsula Regional Open Space District* (1988) 202 Cal.App.3d 1136, 1144; *City of Carmel-By-the-Sea v. Board of Supervisors* (1986) 183 Cal.App.3d 229, 241-243; *Citizens Association for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 165-166; *Bozung v. Local Agency Formation Commission* (1975) 13 Cal.3d 263, 283-284.

15. As described in the Jackson letter:

“It is not clear how the NVUSD Storm Drainage Facilities will, ‘...accept the conveyed project runoff.’ The applicant has not been clearly directed to extend the storm drain piping from the vineyard to the NVUSD storm drainage facilities and directly connect to it. The alternative to directly connecting the vineyard storm drainage pipes to the NVUSD storm drainage facilities is to allow the vineyard storm drainage pipes to discharge the runoff into an energy dissipator and allow the runoff to travel by overland flow to the NVUSD facilities.

It is not clear if the requirement to convey project runoff to the NVUSD drainage system, quoted above, applies to both the storm drainage pipe that services Vineyard Blocks C, D and G which discharges to the north of the NVUSD property (Discharge Point 1) and to the storm drainage pipe that services Vineyard Blocks E, F, G, and H which discharges directly south of Block G (Discharge Point 2). See Figure 1 for the locations of the Discharge Points.” (Exhibit 1, p. 3.)

16. The project description fails to describe the likely types, amounts or frequency of application of chemical pesticides that the project proponent anticipates using on this vineyard. In the report entitled “*Cumulative Impacts on Fisheries Resources from Intensive Viticulture Practices in Napa County, CA*” submitted as Exhibit 6 to EDEN’s January 17, 2005 comment letter, Dr. Robert Abbot and Dr. Robert Coats discuss how the use of agricultural chemicals and pesticides can impact steelhead and other aquatic species.

D. THE PLANNING DEPARTMENT’S APPROVAL IS UNLAWFUL BECAUSE THE DEVELOPMENT OF MITIGATION MEASURES IS DEFERRED.

17. It is unlawful under CEQA to defer until after project approval the development of mitigation measures needed to substantially reduce potentially significant impacts. *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307. The *Sundstrom* Court held that an agency may not rely on mitigation measures of unknown efficacy to conclude that a project’s potentially significant impacts will be reduced to a “less-than-significant” level. *Id. See also, Quail Botanical Gardens*

Foundation, Inc. v. City of Encinitas (1994) 29 Cal. App. 4th 1597, 1606 (“[T]he City cannot rely upon postapproval mitigation measures adopted during the subsequent design review process. Such measures will not validate a negative declaration.”); *Oro Fino Gold Mining Corp. v. County of El Dorado* (1990) 225 Cal. App. 3d 872, 884 (“There cannot be meaningful scrutiny of a mitigated negative declaration when the mitigation measures are not set forth at the time of project approval.”)

18. There are limited exceptions to this general rule in circumstances (1) where developing the mitigation measures for the kinds of impacts at issue is infeasible, or (2) where developing the measures is feasible but practical considerations prohibit the formulation of those measures before approval and achievable performance standards are specified. *Sacramento Old City Assn. v. City Council* (1991) 229 Cal. App. 3d 1011, 1028-1029.

19. Here, the Project approval defers the development of a number of mitigation measures that are necessary to substantially reduce significant impacts.

a. Mitigation HWQ-6, required to dissipate storm flows, includes several steps that will not be analyzed or specified until after project approval. For example, the Owner is required to identify areas of excessive slope length and gradient, then the Engineer will develop feasible mid-slope flow dissipation strategy and adequate subsurface drain system. Because it is feasible and practical to conduct these measurements, analyses and plans *before* the project is approved, this mitigation measure does not come within any exception to the “*Sundstrom*” rule.

b. Mitigation HWQ-7 is intended to reduce the volume and rate of surface flow to the Napa Valley Unified School District parcel. The deferred mitigation requires that, *in the future*, the owner will modify the ECP to include appropriate and feasible measures to convey storm water runoff. Again, the exact requirements for this mitigation are deferred until after approval without any showing that it is infeasible or impracticable to design the mitigation measures before approval. Moreover, Mr. Jackson points out that this mitigation measure relies on an alleged performance standard (*i.e.*, not increasing the amount of water delivered to the School District property) that is illusory because the IS/MND never discloses the amount of pre-project runoff from the project site to the School District property. (Exhibit 1, p. 9.)

c. Mitigation BR-2 for burrowing owls states that the owner will *in the future* hire a biologist, survey for owls, and if found, determine if they are affected by project. The mitigation measure states specifically that “if it is determined that construction would affect occupied burrows during September through February, mitigation procedures shall be developed in consultation with the CDFG.” There can be no clearer example of *deferred* mitigation. Surveys for burrowing owls, the determination of impacts to those owls, and the design and implementation of mitigation measures is left until *after project approval*. There

is no performance standard, and there is no showing that it is infeasible to take these actions before approval. This is in direct violation of CEQA.

F. NAPA COUNTY MUST PREPARE AN EIR BECAUSE SUBSTANTIAL EVIDENCE IN THE RECORD SUPPORTS A “FAIR ARGUMENT” THAT THE PROJECT WILL CAUSE OR CONTRIBUTE TO SIGNIFICANT CUMULATIVE IMPACTS.

(1) Legal Standards

20. CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an Environmental Impact Report (“EIR”) except in certain limited circumstances. (*See, e.g.*, Pub. Res. Code § 21100.) For example, a negative declaration may be prepared instead of an EIR when, after preparing an initial study, a lead agency determines that a project “would not have a significant effect on the environment.” (*Id.*, § 21080(c).) However, such a determination may be made only if “[t]here is *no* substantial evidence in light of the whole record before the lead agency” that such an impact *may* occur. (*Id.*, § 21080(c)(1) (emphasis added).)

21. A negative declaration is improper, and an EIR is required, whenever substantial evidence in the record supports a “fair argument” that significant impacts may occur. The “fair argument” standard creates a “low threshold” favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. (*Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.)

22. CEQA Guidelines Section 15064(f)(1) describes the “fair argument” standard as follows:

“If the lead agency determines there is substantial evidence in the record that the project *may* have a significant effect on the environment, the lead agency shall prepare an EIR (*Friends of B Street v. City of Hayward* (1980) 106 Cal.App.3d 988). Said another way, if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR *even though it may also be presented with other substantial evidence that the project will not have a significant effect* (*No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68). [Emphasis added.]

23. As a matter of law, “substantial evidence includes ... expert opinion.” (Pub. Res. Code § 21080(e)(1); CEQA Guidelines § 15064(f)(5).)

24. It is well settled that where a project will exacerbate existing significant impacts, the project’s cumulative impacts must be recognized as significant for purposes of requiring preparation of an EIR. Thus, in a case involving air pollution in the Central Valley, the Court of Appeal ruled the EIR prepared for a co-generation plant was inadequate because it failed to judge the significance

of project impacts as a function of the project's small incremental impact in combination with existing significant impacts, stating:

"Appellants contend under the theory advanced in the EIR whenever an agency determines impacts specific to a particular project are not significant, corresponding cumulative impacts cannot be considered significant because the "incremental effects" of the individual project cannot be "considerable." They contend in assessing significance the EIR focuses upon the ratio between the project's impacts and the overall problem, contrary to the intent of CEQA. GWF contends the cumulative impacts analysis properly focuses upon the individual project's effects rather than the combined effects. According to GWF, the standard is defined by the use of the word "incremental," which means the analysis measures the amount by which the individual project adds to air quality problems, and since the project's emissions are relatively minor when compared with other sources, the EIR properly concluded the project would have no significant impact on air quality.

"We must interpret the Guidelines to afford the fullest possible protection to the environment. (*Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 259-260 [104 Cal.Rptr. 761, 502 P.2d 1049].) One commentator has addressed the purpose of the cumulative impacts analysis: "One of the most important environmental lessons evident from past experience is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant, assuming threatening dimensions only when considered in light of the other sources with which they interact...."

"CEQA has responded to this problem of incremental environmental degradation by requiring analysis of cumulative impacts. Because of the critical nature of this concern, courts have been receptive to claims that environmental documents paid insufficient attention to cumulative impacts...."

"This judicial concern often is reinforced by the results of cumulative environmental analysis; the outcome may appear startling once the nature of the cumulative impact problem has been grasped." (Selmi, *The Judicial Development of the California Environmental Quality Act* (1984) 18 U.C. Davis L. Rev. 197, 244, fn. omitted.)

"We agree with the foregoing assessment of a cumulative impacts analysis. We find the analysis used in the EIR and urged by GWF avoids analyzing the severity of the problem and allows the approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling. Under GWF's "ratio" theory, the greater the over-all problem, the less significance a project has in a cumulative impacts analysis. We conclude the standard for a cumulative impacts

analysis is defined by the use of the term "collectively significant" in Guidelines section 15355 and the analysis must assess the collective or combined effect of energy development. The EIR improperly focused upon the individual project's relative effects and omitted facts relevant to an analysis of the collective effect this and other sources will have upon air quality."

Kings County Farm Bureau v. City of Hanford (1990) 221 Cal. App. 3d 692, 720-721 (Cal. Ct. App. 1990)

25. A more recent decision reaffirmed this standard for assessing the significance of cumulative impacts. In *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal. App. 4th 98, the Court of Appeal held invalid a new CEQA Guidelines providing that "An EIR may determine that a project's contribution to a significant cumulative impact is *de minimis* and thus is not significant." The Court explained that the Guideline "would turn cumulative impact analysis on its head by diminishing the need to do a cumulative impact analysis as the cumulative impact problem worsens" because "the *de minimis* approach ...compares the incremental effect of the proposed project against the collective cumulative impact of all relevant projects." *Id.* at 118.

26. The Court in *Communities for a Better Environment* also noted that:

... "the relevant question" ... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether "any additional amount" of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] This does not mean, however, that any additional effect in a nonattainment area for that effect necessarily creates a significant cumulative impact; the "one [additional] molecule rule" is not the law. [footnote omitted] Moreover, the basic approach set forth in Guidelines section 15064, subdivision (i)(1) seems sound--that is, in assessing whether a cumulative effect requires an EIR, the lead agency shall consider whether the cumulative impact is significant and whether the proposed project's incremental effects are cumulatively considerable. ...In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant.

Communities for a Better Environment, supra, 103 Cal. App. 4th at 120.¹

¹CEQA Guidelines § 15064(h)(1) provides: "When assessing whether a cumulative effect requires an EIR, the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable. An EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when *viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable*

27. While the Courts have not explained exactly how many “molecules” are required for an addition to an existing significant effect to be considered “cumulatively considerable,” they have stressed the importance of determining significance in the context of the specific environmental setting of the project. *Kings County Farm Bureau v. City of Hanford, supra*, 221 Cal. App. 3d at 718 (“The significance of an activity depends upon the setting.”)

28. Here, as explained in more detail below, the IS/MND for the most part ignores the environmental setting of this Project. “If the local agency has failed to study an area of possible environmental impact, a fair argument may be based on the limited facts in the record. Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences.” *Sundstrom v. County of Mendocino* (1988) 202 Cal. App. 3d 296, 311.

29. Nevertheless, the record, especially the letters from hydrologist Dennis Jackson (attached as Exhibit 1), fish biologist Patrick Higgins (attached as Exhibit 2) and herpetologist Christopher Rombough (attached as Exhibit 3) present substantial evidence indicating this Project is likely to cause or contribute to significant adverse environmental impacts. Accordingly, Napa County is required by law to prepare an EIR to fully assess and disclose the impacts of the proposed project such that it can effectively avoid or reduce those impacts through the imposition of appropriate mitigation measures or project alternatives.

(2) Impacts on Watershed Resources Associated with Soil Erosion and Sedimentation

30. The Initial Study/Mitigated Negative Declaration (“IS/MND”) does not adequately evaluate the potential of this project to cause additional significant adverse sediment discharge impacts to American Canyon Creek and the Napa River, as a result of redirecting runoff outside the land’s natural drainage ways, and by increasing peak runoff. The mechanisms of these impacts are described in detail in the letter from Dennis Jackson dated January 15, 2005. In addition, Mr. Jackson has addressed the County’s responses to these comments in his letter dated October 9, 2006 and attached hereto as Exhibit 1.

(3) Impacts on Steelhead

31. The IS/MND does not adequately evaluate the potential of this project to cause additional significant adverse impacts to steelhead, by causing significant adverse sediment discharge impacts to American Canyon Creek and the Napa River and reducing summer base flows in American Canyon Creek. The mechanisms of these and other steelhead impacts are described in detail in the

future projects.” (emphasis added); *see also* CEQA Guidelines § 15065(c) regarding mandatory finding of significance for “environmental effects which are individually limited but cumulatively considerable.”.)

Higgins letter attached hereto as Exhibit 2.

32. In addition, the reports attached as Exhibits 8-17 to EDEN's January 17, 2005 comment letter discuss how pesticides (such as organophosphates including diazinon and chlorpyrifos) are likely causing adverse impacts to fish and the aquatic invertebrates that form the base of the aquatic ecosystem. While it is unknown whether the Project will use diazinon or chlorpyrifos, the attached studies and data are applicable to the numerous organophosphate pesticides typically used by vineyards as well a host of other pesticides. As stated in the summary work, "Disrupting the Balance:"

Most fish species and many species of zooplankton in the San Francisco Bay-Delta have experienced dramatic population declines in the last several decades. Multiple factors contribute to these declines, including toxic contaminants in waterways, dams diversions, exotic species, and reduction in food sources. Pesticides known to kill aquatic animals and plants, impair their reproduction, and reduce food sources for fish are thought to be one of the major stressors affecting aquatic organisms in the Bay-Delta ecosystem.

(Exhibit 8, p. 37.) The key to aquatic ecosystems are the tiny aquatic organisms, known as phytoplankton and zooplankton, which form the base of the food web for larger organisms such as fish, insects and amphibians. These organisms are crucial for supplying the food for larger aquatic species, particularly the young of a number of fish species. (*Id.* at pp. 37-39.)

33. The California Department of Fish and Game ("DFG") has established criteria for protection of aquatic life which account for the importance of invertebrate organisms in the aquatic ecosystem. For chlorpyrifos, Fish and Game has established a chronic aquatic life criteria of 0.02 ug/liter (parts per billion) and an acute aquatic life criteria of 0.07 ug/liter.² For diazinon, Fish and Game has established a chronic aquatic life criteria of 0.04 ug/liter and an acute aquatic life criteria of 0.08 ug/liter.³

34. DFG's report noted the likelihood of significant environmental impacts if a four day average pesticide concentration does not exceed the chronic aquatic life criteria level, and if a one hour average concentration does not exceed the acute aquatic life criteria every three years.⁴ Since the submitted studies indicate that these levels have been exceeded, significant impacts are likely.

²Exhibit 8 to EDEN's January 17, 2005 comment letter, p. 41, Table 3-1.

³Exhibit 8 to EDEN's January 17, 2005 comment letter, p. 41, Table 3-1.

⁴See e.g., Exhibit 12 to EDEN's January 17, 2005 comment letter, p. iii.

35. Numerous studies corroborate DFG's findings that these levels of chlorpyrifos and diazinon contamination are harmful to aquatic organisms, from small invertebrates such as *Daphnia* species to fish species listed under the federal Endangered Species Act. As discussed in several reports, the direct impacts to listed fish species from low levels of chlorpyrifos and diazinon contamination are significant, including reduced mobility, lowered immune response leading to disease, development abnormalities, endocrine disruption, and disruption of smell and taste.⁵ Moreover, chlorpyrifos and diazinon contamination indirectly has substantial impacts on fish species by harming or even eliminating smaller invertebrates on which juvenile fish feed.⁶ This impact is particularly significant given that many fish species use adjacent waterways as nesting grounds in which their young hatch and grow to adulthood. In fact, the U.S. Fish and Wildlife Service has indicated that pesticide contamination, including chlorpyrifos and diazinon, are a likely cause of the declines of several listed fish species in the Delta and adjacent waterways in the Sacramento River and San Joaquin River basins.⁷

36. As stated by the U.S. Geological Survey:

NAWQA findings for streams indicate that pesticides detected in water, most of which were in use during the study period, frequently exceeded aquatic-life benchmarks...The screening-level assessment indicates that the most widespread potential impact of pesticides on water quality is adverse effects on aquatic life and fish-eating wildlife, particularly in streams draining watersheds with substantial agricultural and urban areas. ... The widespread potential for adverse effects shown by the screening-level assessment—and the uncertainty in this potential because of the preliminary nature of the assessment and the complexity of pesticide exposure—indicate a continuing need to study the effects of pesticides on aquatic life and wildlife under the conditions of pesticide exposure that occur in the environment.⁸

37. A number of recent studies have also found that the class of pesticides known as pyrethroids, which many have considered more environmentally benign than organophosphates, also damage aquatic ecosystems. (See, Exhibit 10; Janet Raloff, A Little Less Green? Studies challenge the benign image of pyrethroid insecticides. Science News Online, February 4, 2006.)

⁵See Exhibits 8-17.

⁶*Id.*

⁷Exhibit 8, Determination of Threatened Status for the Sacramento Splittail, 64 FR 5963 at 5974.

⁸Exhibit 9, The Quality of Our Nation's Waters: Pesticides in the Nation's Streams and Groundwater, 1992-2001, USGS Circular 1291, 2006, pp. 8-9.

38. In light of the numerous and varied adverse impacts to aquatic species identified herein, coupled with the fact that steelhead in the Napa River and American Canyon Creek have suffered alarming declines, it is imperative that the County require specific information regarding the planned use of pesticides in order to complete proper environmental review.

39. The County approved this project without ever knowing what pesticides will be used on the vineyard. The County, in its Response to Comments relies on the regulatory program for pesticide products implemented by the California Department of Pesticide Regulation as substitute for assessing the impacts of pesticide use by the new vineyard. This is unlawful. *See, Californians for Alternatives to Toxics v. Department of Food & Agriculture* (2205) 136 Cal. App. 4th 1, 16 (“DPR’s registration does not and cannot account for specific uses of pesticides in the PDCP, such as the specific chemicals used, their amounts and frequency of use, specific sensitive areas targeted for application, and the like.”) Indeed, it is well-settled under CEQA that lead agencies cannot use compliance with another regulatory standard as a substitute for a fact based assessment of whether project impacts are significant. *Communities For a Better Environment v. California Resources Agency* (2002) 103 Cal. App. 4th 98, 110-114 (Court invalidated CEQA Guideline that would allow agencies to rely on a project’s consistency with a regulatory standard to conclude that a particular environmental effect is not significant); *Oro Fino Gold Mining Corporation v. County of El Dorado* (1990) 225 Cal. App. 3d 872, 881-882 (rejects contention that project noise level would be insignificant simply by being consistent with general plan standards for the zone in question).⁹

(4) Impacts on California Red-legged Frog

40. The IS/MND does not adequately evaluate the potential of this project to cause additional significant adverse impacts to California red-legged frog populations in the area, by increasing surface water ponding that will attract CRLF predators, by introducing chemical contaminants to CRLF habitat and by disrupting CRLF movement. The mechanisms of these and other CRLF impacts are described in detail in the Rombough letter attached hereto as Exhibit 3.

41. In addition, Exhibits 6 and 8 -17 to EDEN’s January 17, 2005 comment letter provide greater detail regarding the effects of chemical pesticides on CRLF and other aquatic species.

G. CONCLUSION

⁹See also *City of Antioch v. City Council of the City of Pittsburg* (1986) 187 Cal. App. 3d 1325, 1331-1332 (EIR required for construction of road and sewer lines even though these were shown on city general plan); *Kings County Farm Bureau v. City of Hanford, supra*, 221 Cal. App.3d at 712-718 (“The agency had wrongly assumed that, simply because the smokestack emissions would comply with applicable regulations from other agencies regulating air quality, the overall project would not cause significant effects to air quality.”)

Board of Supervisors
Hilary Gitelman, Director
October 10, 2006
Page 16

42. Existing adverse impacts to these watershed resources, including steelhead and CRLF, from closely related past projects (e.g., vineyard conversions, urbanization, etc.) are significant. This project will contribute to and exacerbate these existing significant adverse impacts. Therefore, the County should prepare an EIR before deciding this permit application.

43. EDEN requests that the County prepare a programmatic EIR under CEQA analyzing the County's program of approving ECPs for hillside vineyard conversion projects in the County. A programmatic EIR is the only practical way to adequately analyze the cumulative impacts of this ongoing program.

44. EDEN reserves the right to supplement this statement of the factual basis for the appeal prior to the Board's hearing on this appeal.

Thank you for your attention to this matter.

Respectfully submitted,



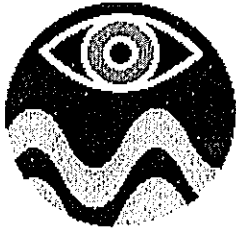
Thomas N. Lippe

LIST OF EXHIBITS

- Exhibit 1: Letter dated October 9, 2006 from Dennis Jackson, Hydrologist, to Tom Lippe.
- Exhibit 2: Letter dated October 7, 2006 from Patrick Higgins, Fisheries Biologist, to Thomas Lippe.
- Exhibit 3: Letter dated October 9, 2006 from Christopher Rombough, herpetologist, to Thomas Lippe.
- Exhibit 4: LSA Associates, Solano Multispecies Habitat Conservation Plan and Natural Community Conservation Plan, Working Draft 2.0, Solano County Water Agency, July 2004
[http://www.scwa2.com/hcp/Species%20Descriptions%20\(pictures%20included\)/Steelhead.pdf](http://www.scwa2.com/hcp/Species%20Descriptions%20(pictures%20included)/Steelhead.pdf)
- Exhibit 5: June 28, 2005 San Francisco Regional Water Quality Control Board Napa River Sediment Total Maximum Daily Load Draft Technical Report ("Draft Technical Report").

Board of Supervisors
Hilary Gitelman, Director
October 10, 2006
Page 17

- Exhibit 6: June 30, 2006 San Francisco Regional Water Quality Control Board Napa River Sediment Total Maximum Daily Load Staff Report.
- Exhibit 7: A list, certifying by name, address and assessor's parcel number, of all owners of real property located within three hundred feet of the real property which is the subject of this appeal and assessor's pages used in compiling the adjoining property owners list.
- Exhibit 8: Determination of Threatened Status for the Sacramento Splittail, 64 FR 5963 at 5974.
- Exhibit 9: The Quality of Our Nation's Waters: Pesticides in the Nation's Streams and Groundwater, 1992-2001, USGS Circular 1291, 2006, pp. 8-9.
- Exhibit 10: Janet Raloff, A Little Less Green? Studies challenge the benign image of pyrethroid insecticides. Science News Online, February 4, 2006.



Dennis Jackson - Hydrologist

708 - 14th Avenue
Santa Cruz, CA 95062-4002
(831) 479-1265
djackson@cruzio.com

October 9, 2005

Tom Lippe
329 Bryant Street, Suite 3D
San Francisco, CA 94107

Re: Napa Canyon Vineyard - #02253 – Erosion Control Plan Agriculture

Dear Mr. Lippe:

You have asked me to comment on the Mitigated Negative Declaration for Erosion Control Plan Agricultural Application #02253 for Napa Canyon LLC Vineyards that was approved on September 22, 2006. The project is located approximately one-half mile east of the intersection of American Canyon Road and Flosden Road. The project is to convert 139-acres of grassland to vineyard, on a parcel covering 316.7 acres. The proposed vineyard is on slopes greater than 5% and so the preparation of an Erosion Control Plan Agricultural (ECPA) is required. The majority of the proposed vineyard drains to American Canyon Creek. The northern portion of the proposed vineyard drains to an intermittent stream to the north.

Napa County sent a *Response to Comments – Initial Study/Mitigated Negative Declaration Erosion Control Plan Application #P02253-ECPA for Napa Canyon LLC Vineyards* (Response to Comments) to the State Clearing House on September 22, 2006. The Response to Comments included

- a letter to Mark Power, Napa Canyon LLC Vineyards, dated September 22, 2006
- a Project Revision Statement, signed on June 3, 2005
- a Mitigation Monitoring and Reporting Program, signed on September 21, 2006
- County Code Section 18.108.135
- a Memorandum from ESA, dated September 22, 2006, giving the response to comment letters received by January 18, 2005

The letter to Mr. Mark Power, Napa Canyon LLC Vineyard, states that:

The approved plan consists of 3 sheets and a 3-page narrative and supporting documentation dated June 29, 2006 and March 17, 2006, respectively, prepared by Arvin Chaudhary (RPE #54006).

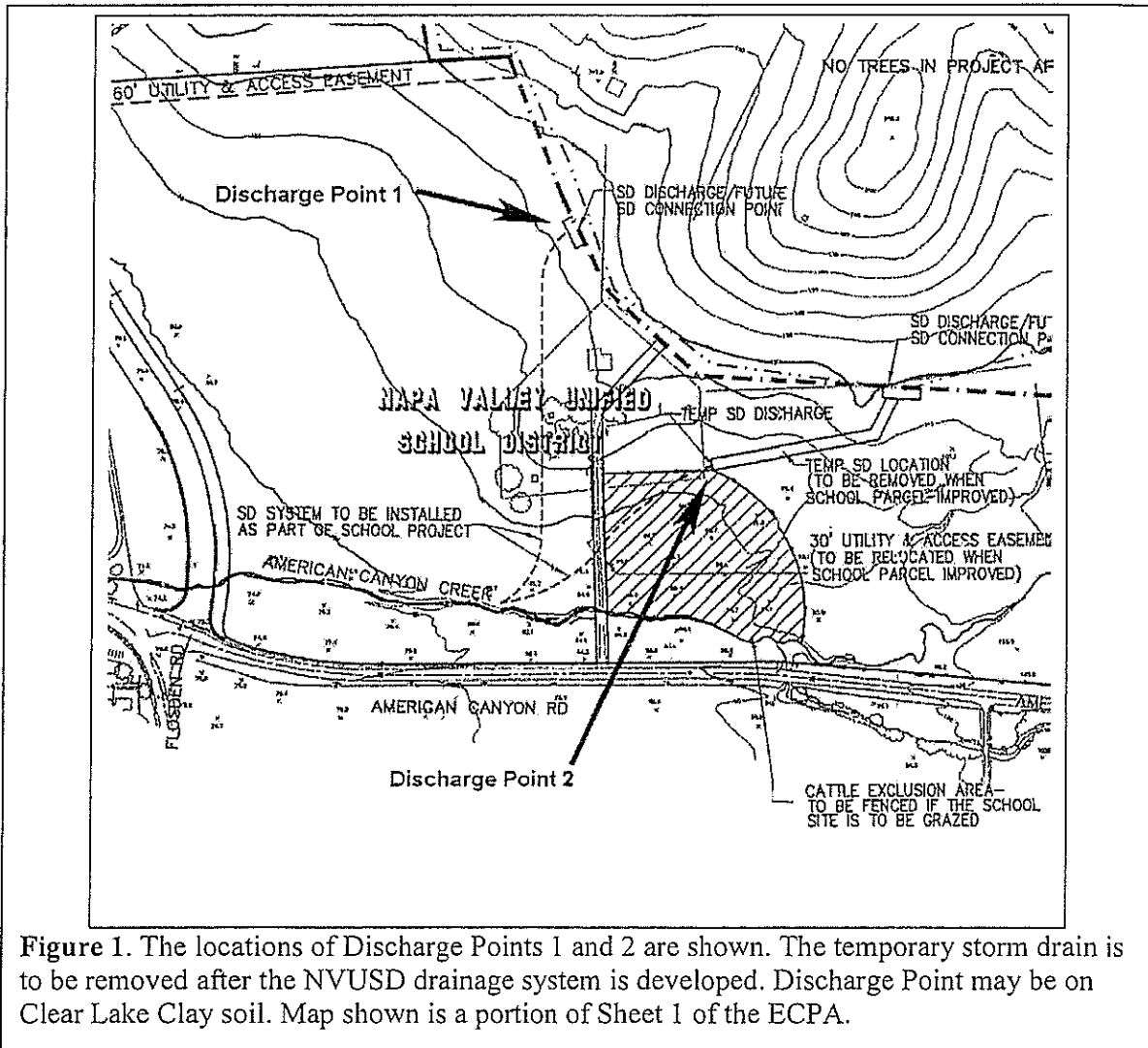
Napa County sent copies of the Narrative to your office including the 3 sheets of maps, dated June 29, 2006, which show the topography (Sheet 1), site plan (Sheet 2) and erosion control details (Sheet 3).

EX1

The erosion control details on Sheet 3 show two different energy dissipators to be at Blocks D-G and at Blocks G-H. Detail 5 shows the original energy dissipator which is a rectangular bed of 6" rock. The dimensions of the bed of rocks are: Length: 4.5 x Pipe Diameter; Width = 4 x Pipe Diameter. Detail 11 shows the T-spreader requested by Napa County RCD as mentioned in Response to Comment D-5 on page 7 of the Response to Comments (ESA 2006):

Further, at the time of this writing, the Napa County RCD has requested that #02253-ECPA specify horizontal T-spreaders (energy dissipation structure used to disperse discharge water over a wider area) rather than a rock-lined dissipation structure. Use of a T-spreader would dampen the energy of the stormwater discharges and distribute overland flow, thereby reducing the potential for stormwater flows to form gullies.

The T-spreader would disperse the storm runoff in a bed of gravel of *un-specified* width and either 100-foot long at the end of the pipe draining Blocks D and G (Discharge Point 1) or 150-foot long at the end of the pipe draining Vineyard Blocks E, F, G, and H which will be directly south of Block G (Discharge Point 2). The width of the gravel bed holding the T-spreader must be specified to ensure adequate design.



The energy dissipator shown in Detail 5 on Sheet 3 is inadequate and should be eliminated from Sheet 3. Use of the Energy Dissipator shown in Detail 5 of Sheet 3 of the ECPA for #02253 is likely to result in significant erosion. The T-spreader shown in Detail 11 of Sheet 3 is environmentally superior to the energy dissipator shown in Detail 5.

The County's letter to Mark Power, dated September 22, 2006, requires the project to:

NVUSD Storm Drainage Facilities: No earthmoving activities or other activities associated with the project shall commence until the NVUSD storm drainage facilities have been installed and are ready to accept the conveyed project runoff. The property owner shall provide the County written notification from NVUSD that the facilities are installed and operational. If the facilities aren't installed and another drainage system is proposed, the property owner shall prepare and submit to the County a modified ECPA to reflect the changes to be re-evaluated for compliance with the applicable Napa County Codes and CEQA.

The above requirement effectively makes the NVUSD storm drainage facilities a part of the Napa Canyon Vineyard project. The IS/MND did not consider the environmental consequences of the NVUSD storm drainage facilities either as an integral part of the vineyard project or in the cumulative effects section.

It is not clear how the NVUSD Storm Drainage Facilities will, "...accept the conveyed project runoff". The applicant has not been clearly directed to extend the storm drain piping from the vineyard to the NVUSD storm drainage facilities and directly connect to it. The alternative to directly connecting the vineyard storm drainage pipes to the NVUSD storm drainage facilities is to allow the vineyard storm drainage pipes to discharge the runoff into an energy dissipator and allow the runoff to travel by overland flow to the NVUSD facilities. There is no guarantee that storm runoff from the vineyard would move into the NVUSD drainage system. The latter method appears to be the way Napa County envisions the vineyard runoff being conveyed to the NVUSD drainage system.

It is not clear if the requirement to convey project runoff to the NVUSD drainage system, quoted above, applies to both the storm drainage pipe that services Vineyard Blocks C, D and G which discharges to the north of the NVUSD property (Discharge Point 1) and to the storm drainage pipe that services Vineyard Blocks E, F, G, and H which discharges directly south of Block G (Discharge Point 2). See Figure 1 for the locations of the Discharge Points.

Discharge Point 2 is located at the end of the temporary storm drain shown in Figure 1. The map shown in Figure 1 is a portion of Sheet 1 of the ECPA. The letter from the County to Mr. Power, quoted above, specifies that no vineyard construction can occur until the NVUSD storm drainage system is ready to accept storm runoff from the vineyard. By the terms of the County's September 22, 2006 letter to Mr. Power, there can be no temporary storm drainage pipe installed as shown on the portion of Sheet 1 of the ECPA displayed in Figure 1.

Failing to require that the vineyard storm drainage pipes connect directly into the NVUSD storm drainage facilities may result in erosion of the ground surface between the energy dissipators and the NVUSD drainage facilities or American Canyon Creek. Even if a T-spreader is used, as suggested by the Napa County RCD, erosion is likely to occur at or near the energy dissipator located at Discharge Point 2 because it appears the soil is Clear Lake clay and the ground is fairly flat (ground slope of about 1% - similar in grade to a parking lot) at the T-spreader. The discharged water will pond in the gravel bed and will take some time to seep into the Clear Lake Clay soil. Surface flow out of the gravel bed is likely to cause the surface of the Clear Lake Clay to saturate the ground surface. The ponded water or saturated

ground surface will create conditions for saturated overland flow, essentially preventing rainfall from infiltrating into the ground surface at the energy dissipator.

The energy dissipator, for the pipe that drains Vineyard Blocks E, F, G, and H, discharges about 25 meters from the property line, according to Figure 3 of the 2004 ESA analysis. The topographic map suggests that the resulting overland flow would tend to move south towards American Canyon Creek. This process is likely to carry sediment directly into American Canyon Creek.

If runoff from the vineyard storm drainage pipes eroded the ground surface between the energy dissipator and the NVUSD system the entrained suspended sediment would enter the NVUSD storm drain system and would presumably discharge into American Canyon Creek. A copy of the proposed NVUSD storm drainage system has not been made available for public review as part of the Napa Canyon Vineyard project, therefore, its environmental impacts can not be evaluated.

California Red-Legged Frog Habitat

Figure 2 shows the Napa Canyon Wildlife Habitats, Figure 5 from ESA 2004, overlain on the ECPA Site Plan, Figure 3 from ESA 2004. The 150-foot setback to protect CRLF habitat is shown cutting through the corner of the wetland (labeled *Unprotected Wetland* on Figure 2) in the small drainage that is between the tributary of American Canyon that drains the eastern portion of the property and the vineyard boundary. The small drainage appears to be part of the tributary of American Canyon that drains the eastern portion of the project. The IS/MND and the associated documents have not explained why CRLF do not use the wetland, marked as *Unprotected Wetland*, in Figure 2 below. Since the *Unprotected Wetland* is a part of the tributary that drains the eastern portion of the project, it can be considered viable CRLF habitat.

Figure 2 shows that most of the wetland and other waters of the U.S. in the small drainage are within 150 feet of the larger tributary to American Canyon. The *Unprotected Wetland* is close to known CRLF habitat and there are no obvious barriers that prevent CRLF from moving into the *Unprotected Wetland*, at least seasonally. Without credible evidence demonstrating that CRLF never use the *Unprotected Wetland* it must be assumed that they do use it. Consequently, the 150-foot setback should be measured from the western edge of the *Unprotected Wetland*.

Presently, there is a defined channel that drains the eastern portion of Blocks E and H. This defined channel runs due south through Vineyard Block E and H. A short distance after it exits Block H it turns towards the southwest and parallels the channel that contains the *Unprotected Wetland*. The proposed vineyard drainage system would route surface and subsurface runoff from Vineyard Block E, F, and H in a pipe along this drainage.

Subsurface flow from Vineyard Blocks E, F, and H probably contributes a significant proportion of the ground water that maintains the *Unprotected Wetland*. The *Unprotected Wetland* probably receives very little ground water flow from the main tributary to American Canyon Creek. Installation of the subsurface drain system in Vineyard Blocks E, F, and H will reduce the amount of ground water flow reaching the *Unprotected Wetland*. The reduced ground water flow from the vineyard may result in a decrease in the size and temporal extent of the *Unprotected Wetland*.