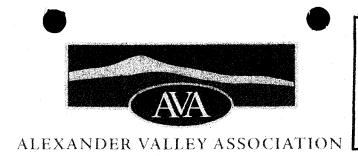
EKhibit H



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OCT 0 2 2006

County Counsel
COUNTY OF SONOMA

PO Box 1195 Healdsburg, CA 95448 . SONOMA COUNTY CALIFORNIA . website: www.ava.com info@ava.co

September 27, 2006

US Environmental Protection Agency Region IX, WTR-5 75 Hawthorne Street San Francisco, CA 94105-3901

Board of Directors Alexander Valley Association P.O. Box 1195 Healdsburg, CA 95448

Subject: Comments Concerning Proposed/ Draft USEPA NPDES Permit (CA 0005241), Dry Creek Rancheria Band of Pomo Indians (River Rock Casino Site)

Ladies / Gentlemen:

These comments concerning the referenced Permit are offered by the Board of Directors of the Alexander Valley Association (AVA) and supplement the verbal comments that were delivered by our representatives at the Public Hearing on September 7, 2006.

The AVA is a not-for-profit organization of more than 300 property owners in the Alexander Valley of Sonoma County, CA where the Tribe's Rancheria and Casino are situated. The proposed permit directly affects the interests of our Members because, among other things, the proposed discharges will impact surface and ground waters in the Valley as well as tributaries of the Russian River, all of which are receiving water bodies into which the proposed discharges would be made.

Our Association opposes issuance of this Permit as drafted for the reasons contained in this memorandum as well as those stated previously at the

Public Hearing by our representatives, Candy Cadd, Ralph Sceales, Pete Dayton and Bill Esselstein, all of whom are AVA Directors. The AVA also adopts and incorporates in its comments the written and verbal comments of the many other individuals and organizations that have entered objections in the record concerning shortcomings of the draft permit.

The general view of the AVA is that the proposed discharges are a bad idea. While some potential adverse impacts probably could be eliminated or mitigated if the discharges were adequately regulated, our experience with the Tribe's Casino enterprise is that even a very carefully conditioned permit poses substantial risks to persons, properties and resources off-site because the Tribe has shown from past experience it is unlikely to rigorously observe the Permit requirements. Moreover, while EPA has indicated it will not concern itself at this time with the Tribe's site development plans, it is undisputed public knowledge that the Tribe has firm intentions of developing the site as a destination resort which will generate vastly increased volumes of wastewater and storm water that are certain to greatly exceed the amounts anticipated under the present permit application. And, defoliation of the site for development already has and undoubtedly will continue to exacerbate the Tribe's ability to dispose of wastewater without imposing ever increasing impacts on its neighbors. We believe these are highly relevant factors that ought to be, but have not been taken into consideration with respect to the conditions of the draft permit.

But irrespective of those considerations, by authorizing the proposed discharges at all, the Tribe will have gained the ability, should it choose to do so, to discharge quantities and qualities of effluent that can violate permit conditions. We fear they are likely to do so unless vigorous and vigilant oversight and enforcement measures are undertaken by governmental authorities. The realities are, however, that even the most aggressive oversight and enforcement program can not prevent, nor can it fully remediate, the harmful consequences of unlawful discharges which once begun may, and often do, continue unabated for a significant time. Added to those concerns, common to any potential NPDES permit, is the circumstance that the Tribe has a long history of resisting, rightly or wrongly, any perceived impositions on its clams of sovereignty. It is well known that enforcement of NPDES permit requirements is never a simple task. In this case, it can be expected that any enforcement would be arduous and prolonged.

As discussed below, strong evidence already exists indicating that the Tribe has undertaken and is likely to continue, activities and practices on-site that are conducive to non-compliance. Understandably, this evidence, along with the Tribe's poor history of co-operation with governmental agencies in other contexts, contributes to our angst. While these justifiable concerns may not qualify as grounds for denial of the Permit, they compel us to urge in the strongest possible terms that even if the Permit does not presume the likelihood of non-compliance, it must not presume the likelihood of compliance either. At the very least, the terms, provisions, conditions and other permit requirements should be no more lenient, or any more permissive, than they would in the case of any other discharger.

Attached to these comments, and previously entered m the record at the Public Hearing, is the engineering report of our consultant, Tom Grovhoug of Larry Walker Associates, dated August 9, 2006, commenting in detail on the proposed Permit. Once again we adopt and request responses to all of Mr. Grovhoug's comments and we urge EPA to require the applicant not only to supply and disseminate to the public the information listed at the end of the report but to accept revisions to the draft Permit to eliminate the deficiencies noted. [Note: While some additional information has been provided very recently, the close proximity to the end of the comment period has precluded anything but a very cursory review, which is not a reasonable outcome.]

Furthermore, with respect to the overall character of the Permit, we say as forcefully as we can, that there should be no "free passes" on standard permit requirements. As Mr. Grovhoug's report enumerates:

- Monitoring of existing discharges for temperatures, toxicity and toxic
 pollutants must be required of the applicant and data from that review
 should be released for public review and used to perform a reasonable
 potential analysis and to modify the permit and fact sheet accordingly
 before adoption of the permit.
- An engineering analysis showing the capability of the treatment facility to comply with receiving water limitations for temperature must be furnished by the applicant.
- Language in the permit documents that appears to indicate the discharges would be exempt from the Russian River Basin Plan

prohibitions and other limitations is unquestionably presumptuous and inappropriate, and it ought to be deleted.

Even more fundamental are the following matters:

First, before the permit is issued, the applicant must be required to provide adequate engineering and scientific justification for the proposed effluent disposal scheme; in other words, a basic "water balance" analysis is essential. From the current record, it cannot be determined how much wastewater will be generated or whether it is even theoretically possible to dispose of treated wastewater as planned. When the many, many apparent fallacies surrounding the proposed discharges to Stream A1 (see below) are added to these ambiguities, the entire effluent plan, especially for summer discharges, becomes suspect.

Second, the proposed discharges to Stream A1, as pointed out by my many speakers at the Public Hearing, are decidedly problematic and ought not to be allowed. Putting aside for these purposes the very interesting question of the Tribe's evident lack of any legal entitlement to discharge wastewater onto neighboring private properties (which this Permit certainly seems to be facilitating), the proposal to use Stream A1 as a discharge channel is, frankly, bizarre.

Notwithstanding that the Permit expressly and quite properly prohibits any sheet flows from either Stream P1 or Stream A1 to surrounding property, the Tribe itself has acknowledged in earlier filings with the federal government that sheet flow is the usual and invariable outcome of waters transported through Stream A1. We call EPA's attention to the "Dry Creek Rancheria Fee to Trust Project Final Environmental Assessment" dated August 2005, which was prepared by the Tribe's environmental consultants, ESA, for the US Department of Interior's Bureau of Indian Affairs. In that FEIS, a "Wetland Delineation Report," included at Appendix C, discusses at some length the characteristics of Stream A1. Of particular interest here is Figure 4-2, which depicts very clearly the sheet flow condition that is an inherent characteristic of this watercourse. Figure 4-2 candidly demonstrates that waters reaching its terminus will be discharged by sheet flow to the surrounding vineyards located on private property south and east of Highway 128. (A copy of Figure 4-2 is attached.)

To authorize a discharge that almost certainly will result in violations of permit conditions seems nonsensical, especially in the absence of reliable hydrologic evidence that the flows can be managed effectively under all conditions of use to preclude a violation. The preliminary "Adaptive Management Plan" (April 2006 by Curtis Lam) is, according to Tom Grovhoug, inadequate for these purposes. In an email message to AVA dated September 24, 2006 (excerpt attached), Mr. Grovhoug points out the unreliability of the approach taken. He also notes the anomalous circumstance, commented on by several speakers at the Public Hearing, that allowing the Tribe to postpone the field testing required for preparation of its final AMP until after issuance of the Permit almost certainly guarantees that the prohibition against sheet flows will be violated and impacts to vineyard operations will occur.

The foregoing comments highlight the very large hole in the record of any showing that the Tribe's effluent disposal plan will be able to appropriately dispose of effluent during the summer months when discharges to P1 are precluded. These concerns become magnified when recent events on the site are considered.

During the summer, it is reasonable to assume that land application of effluent through on-site irrigation and spraying will be a very significant component of the Tribe's effluent disposal plan because of the inherent limitations on other forms of reuse, the lack of significant on or- off-site impoundment capacity, the probation on discharge to Stream P1, and the already mentioned shortcomings of discharges to Stream A1. The reuse of effluent for land application depends to a great extent on the availability of landscaping and naturally occurring vegetation to absorb the water; otherwise erosion, which the Permit obliges the applicant to control through best management practices, will be encouraged with likely adverse impacts on receiving waters. [Note: AVA believes that a comprehensive storm water management and erosion control plan for new construction on the entire Rancheria site should be required by USEPA, either under this permit or under a separate storm water discharge permit.]

With this sort of scenario, one assumes that the Tribe would do all that it could to maintain the natural character of the site so as to promote absorption of land applied effluent. The actual facts are to the contrary. Attached are copies of very recent photographs which demonstrate that not only is the natural character of the site not being preserved, large portions of

the remaining natural open space are being denuded of all vegetation. As this year's rainy seasons gets underway in the next month or so, it is hardly to be doubted that erosion will occur on steeply sloped areas and that Steams P1 and A1, as well as other watercourses on the site will become conveyances of large quantities of silt and other materials detrimental to the Russian River and other downstream receiving water bodies. [Note: As stated previously, these conditions merit attention by EPA to ensure, through appropriate Permit conditions, that future development activities are conducted in conformance with approved plans to avoid exacerbation of erosion of soils that can be transmitted off-site to receiving waters.]

This occurrence reveals several important "truths" about the Tribe's Permit application:

- The probable effectiveness of the Tribe's effluent management plan must be evaluated in relation to actual conditions and in the context of the Tribe's previous and intended actions on the site. No such evaluation appears to have been done.
- The environmental consequences of the plan need to be accurately assessed. It is foolhardy to issue this Permit without regard for obvious environmental implications of known conditions. It may be one thing to exempt compliance with environmental regulations where there is no indication that significant environmental impacts are expected. It is another when those impacts are known and likely. A thorough environmental assessment must be demanded and released for public review.
- In evaluating this application, it is unreasonable to assume the Tribe can be counted on to voluntarily disclose relevant information. Factual information necessary to properly fashion a satisfactory permit cannot be based on assumptions; EPA must ensure, one way or another, that all pertinent information is available. One available tool is a comprehensive site inspection which, in the light of recent events reported above, may need to be repeated, given recent changes to conditions on site, if one was performed previously.

At the Public Hearing speakers commented on several aspects of this Permit that deserve serious consideration. We list some of them for completeness but without extensive elaboration.

- There is a reasonable probability that the discharges to Streams P1 and A1 could contain and deposit off-site materials that may, especially over time, contaminate nearby wells and/or damage adjoining vineyards (e.g.; boron deposits; ponding during non-dormant growing seasons; etc.).
- To the extent Tribal sovereignty is pertinent to this application, it is important to remember that only the Rancheria property on which the Casino enterprise is located qualifies for that status. The Tribe's recently acquired "Dugan" parcel, adjacent to but separate from the Rancheria, does not. Obviously, nearby properties owned by others but somehow being subjected to these discharges without their owners' consent, do not qualify either.
- It is an arguable environmental and economic consequence of the proposed discharges to Streams P1 and A1 that their proximity to long established premium grape producing vineyards could depreciate the value of the underlying lands to the point that these properties are no longer economically viable for their best use.
- The use of "on-call" wastewater treatment plant (WWTP) operators as a principal element of the WWTP operations plan is highly questionable. The Permit should mandate an arrangement that will ensure 24 hours per day/7 days per week responsiveness by individuals who are in immediate proximity to the site and by virtue of training and experience are qualified to make prompt, appropriate derisions in emergencies.
- The Permit should affirmatively require full compliance with all of the particulars of Title 22 of the California Administrative Code for treatment and discharge of recycled water as is expected of any other California permittee.
- Ongoing compliance monitoring and reporting for typical wastewater constituents and conditions (e.g. temperature, toxicity, etc.) are lax or even nonexistent in some respects in comparison with other similar permits. Adequate compliance monitoring must be added to the

permit for all parameters with effluent or receiving water limitations to ensure that the requirements and protections in the permit are being achieved. Absent substantial justification, not found in the record, there is no reason to excuse the Tribe from such standard permit monitoring and compliance provisions.

In closing we offer two additional comments we believe have great importance.

First, for a number of good reasons some of which are mentioned above, we have no doubt that the effectiveness of an NPDES permit issued to the Tribe is likely to be dependent on whether oversight and enforcement in support of the permit will be vigilant and robust. We join with the many other commenters who have urged EPA to take advantage of the excellent resources available through our North Coast Regional Water Quality Control Board to enhance the performance of those functions. We submit that issues of sovereignty, comity and other conditions of governmental status are not a barrier to using RWQCB capabilities as an adjunct to EPA's own resources. Federal government frequently operates through agents and with the assistance of other public agencies, and the circumstance that the agent or assistance is afforded through an entity of the State should make no difference if the lines of direction and authority are appropriately defined. A strong case can be made that it would be to the advantage and convenience of all parties if the Tribe elected to be subject to State jurisdiction for these purposes, but the lack of such consent should not preclude EPA from utilizing any lawful available resource to carry out the mandates of the Clean Water Act as efficiently and effectively as possible.

Second, we have pointed out previously the gaps in the record with respect to certain items of essential information (e.g. development plans, projected wastewater volumes, effluent disposal plan (i.e. "water balance"), water quality data, treatment capabilities, etc.). None of the information sought is extraordinary in the context of an NPDES application, nor is it unduly burdensome for the applicant to provide. Without the information, all parties are inadequately advised concerning relevant circumstances, and issuance of a permit in that state of ignorance is both unnecessary and perilous to anyone affected by deficiencies that could and ought to have been avoided. Not only should EPA require submission of the information, but reason and fairness, together with the impact of this information on the permit itself, also demand public dissemination and a reasonable opportunity for further public

comment, both in writing and at second public hearing. The public hearing process has proven to be exceptionally valuable in developing a complete and accurate record for this Permit, and we believe that the time and effort entailed in conducting a further hearing is easily justified for the same reason.

We would appreciate your timely response to these comments and request, given the urgency and importance of this matter to our association.

Respectfully submitted,

Candace Cadd President Alexander Valley Association

Copies to:

Senator Diane Feinstein
Congressman Mike Thompson
North Coast Regional Water Quality Control Board of the State of
California, Attn. Catherine Kuhlman, Executive Officer
Sonoma County Supervisor Paul Kelley
Sonoma County Water Agency, Attn. Pamela Jean, PE
Office of the Sonoma County Counsel, Attn. Bruce Goldstein, Esq.
Thomas R. Grovhoug, President, Larry Walker Associates

Attachments

MEMORANDUM

To:

Ralph Sceales, Alexander Valley Association

From:

Tom Grovhoug, Larry Walker Associates

Date:

August 9, 2006

Subject:

Preliminary analysis of the proposed NPDES permit for the discharge of treated wastewater from the Dry Creek Rancheria to local surface waters

As described in Task 1 of our proposal, I have read the proposed NPDES permit and supporting Statement of Basis and have prepared the following preliminary analysis of the issues embodied in the proposed permit for the Dry Creek Rancheria and River Rock Casino. This memorandum is divided into three sections: (1) Significant Concerns, (2) Other Concerns and (3) Document Requests. This information is provided to support our initial discussions of the proposed permit and to assist in decision making regarding the future course of action.

Significant Concerns

Review of the proposed permit revealed the following significant concerns:

1. Effluent Limits for Priority Pollutants. The Statement of Basis for the proposed permit (page 7) states that no data on priority pollutants is available because monitoring was not previously required. In the absence of data, it is concluded that effluent limits are not needed for any priority pollutants. This conclusion is not well supported and is not appropriate. In fact, effluent limits for priority pollutants are common for tertiary facilities discharging to effluent dominated waters in California.

In applying for a new surface water discharge, it is the responsibility of the discharger to provide data from the existing treatment facility to allow for the evaluation of the need for effluent limits. The discharger should be required to furnish adequate, representative data to allow for a proper evaluation of the need for effluent limits for priority pollutants prior to adoption of the NPDES permit. In my judgment, this should include performance of a minimum of three priority pollutant analyses on the effluent, laboratory analysis for hardness to complement the trace metals analysis, completion of a "reasonable potential analysis" and derivation of appropriate water quality based effluent limits for inclusion in the proposed permit. Because the new discharge must immediately comply with such limits, the Statement of Basis for the proposed permit should also include an evaluation/demonstration of the ability of the proposed treatment plant to immediately comply with all effluent limits.

The above concern also applies to a number of non-priority pollutants, including, at a minimum, electrical conductivity (or optionally total dissolved solids), ammonia, aluminum, iron, and manganese, and temperature.

In summary, the permit should not be considered for adoption until the fore-mentioned work has been completed and documented in the publicly available draft permit and Statement of Basis.

- 2. Compliance with Temperature Limitations. The proposed NPDES permit includes receiving water limitations (D.10. on page 7) that limit the temperature effects of the discharge. The Statement of Basis should include an analysis that adequately demonstrates that the proposed treatment facilities can comply with these receiving water limitations. The proposed treatment facilities do not appear to be adequate to attain compliance with these effluent limits.
- 3. Hydrologic Characteristics of Stream A. On page 3 of the Statement of Basis for the proposed permit, it is stated that the US Army Corps of Engineers has determined that Stream A1 is not a tributary to the Russian River or other navigable waters of the United States. The analysis and documentation supporting this finding should be provided for public review, since it is an uncommon finding. Questions that exist are (a) whether that determination included consideration of the effects of proposed effluent discharge volumes and (b) whether the determination considered extreme wet weather rainfall and runoff conditions.
- 4. **Effluent Water Balance.** The spreadsheet calculations supporting the effluent water balance during extreme wet year conditions should be provided for public review. It is not at all clear whether the proposed effluent disposal/storage scheme is feasible during either typical or extreme wet years, given the proposed limitations on discharge to surface waters, the limited land area for effluent disposal and the uncertainties described in the proposed permit.
- 5. Adaptive Management Plan. The Adaptive Management Plan that is proposed to be developed after adoption of the permit should be released for public review prior to adoption of the proposed NPDES permit to ensure that the proposed discharge to Stream A1 is adequate and feasible. Inspection of the stream and downstream roadside ditch indicates that significant effluent discharges to Stream A1 will lead to flooding of private property and resulting unacceptable nuisance conditions to the property owner. Until the magnitude of flow volumes that can be discharged seasonally to Stream A1 are understood, a proper effluent water balance cannot be determined. The feasibility and reliability of the overall effluent discharge scheme must be established before an NPDES permit can be properly considered and adopted.
- 6. Surface Water Discharge Operations Plan. The operations plan described in Part II. Special Conditions. C. should be fully developed and considered prior to the commencement of discharge and prior to approval of the proposed NPDES permit. This plan must also be consistent with the Adaptive Management Plan and the effluent water balance to ensure that the proposed discharge is properly managed. The notion that this plan should be developed "on the fly", after adoption of the permit and during actual discharge events is an unusual and unnecessary approach. Typically, operations plans are developed in concert with facilities design and well in advance of the adoption of

permits. Such prior adoption is even more appropriate in this case, since the proposal is for a new surface water discharge.

- 7. **Antidegradation analysis.** As part of an application for a new surface water discharge, an antidegradation analysis is required to address whether the proposed discharge is consistent with federal and state antidegradation policies. The analysis of antidegradation presented in the Statement of Basis is cursory in nature and does not include analysis of the increased pollutant loadings or incremental water quality changes that will occur as a result of the proposed discharge. Documentation (including assumptions and calculations supporting a water quality impacts analysis) should be provided for public review prior to the adoption of the proposed permit.
- 8. Exception to discharge limitation of one percent of Russian River flow. On page 14 of the Statement of Basis, it is stated that EPA has concluded that the proposed discharge would meet all of the five criteria required for an exception to the one percent of flow limitation. These criteria include:
 - Reliability
 - Protection of Beneficial Uses
 - Maximize reclamation
 - Meet antidegradation requirements
 - Prohibition on discharge between May 15 and September 30

For reasons stated previously regarding the absence of adequate effluent data to evaluate protection of beneficial uses, absence of effluent water balance information to evaluate whether reclamation has been maximized, and inadequate antidegradation analysis, AWA should request that the language that the discharge would qualify for an exception be removed from the Statement of Basis.

9. **Effluent and Receiving Water Monitoring.** Given the pristine nature of water quality in the Russian River watershed, the effluent and receiving water quality monitoring requirements for the proposed discharge should be adequate to ensure that violations of prescribed limits will be detected, that unacceptable impacts are not allowed to occur and that the complicated and relatively uncertain effluent management scheme is functioning properly. It is recommended that the following analyses be performed more frequently than shown in Tables 1 and 2 of the proposed permit to provide a proper level of assurance that the proposed facilities are being properly operated and are functioning as designed:

Acute and chronic toxicity Monthly (versus every other year)

Temperature Continuous (versus no requirement)

Priority pollutants Monthly (versus every other year)

Chlorine residual Continuous (versus weekly)

Hardness

Weekly (versus no requirement)

Turbidity

Continuous (versus weekly)

pН

Continuous (versus daily)

10. Inspection and Monitoring of the Proposed facilities and operations. Concern exists that the USEPA NPDES permit division is not adequately staffed to maintain appropriate levels of inspection and monitoring of the proposed treatment and disposal operation. It should be suggested that USEPA delegate the authority for routine inspection and monitoring to the Regional Water Quality Control Board, Region 1, who is more routinely involved and in greater proximity to adequately perform these functions.

Other concerns

The following additional comments on the proposed NPDES permit and Statement of Basis exist. These comments are organized according to their occurrence in the two documents rather than according to a priority of importance, and may be deemed to be significant upon further review and discussion with AVA representatives.

NPDES Permit

Page 3, footnote (1): The limit on discharge should specify that the discharge shall not exceed one percent of the Russian River flow at any time, and that, in no case, shall the discharge flow exceed the daily river flow measurement at the Cloverdale USGS gauging station. The language that would allow the one percent limit to be evaluated on a monthly average basis should be deleted.

Page 4, Table 2: Monthly average BOD and TSS limits should be 10 mg/l rather than 30 mg/l to allow compliance with Title 22 requirements.

Page 6, C.2. Second sentence: The receiving water monitoring should be performed prior to 9 AM to detect critical conditions for dissolved oxygen. The phrase "when feasible" should be deleted.

Page 6, D. Receiving Water Limitations: Language should be added to clarify the discharger's responsibility in determining causation for violations of receiving water limitations.

Page 10, Part II. Special Conditions. D, Reporting of Capacity Attainment and Planning: The permittee should be required to report within 30 days after average dry weather flow for any month exceeds 75 percent (rather than 90 percent) of the rated capacity of the treatment facility. This notification is needed to ensure that adequate capacity will be provided in advance of demand.

Page 11, Special Conditions, E. Reclaimed Water Limitations: The application of reclaimed water should comply with all of the requirements of Title 22, Division 4, Chapter 3 of the California Code of Regulations for disinfected tertiary recycled water. These requirements define water recycling criteria and address treatment requirements, acceptable recycled water uses, area use requirements, methods for testing and analysis, engineering reports and operational requirements, requirements for plant personnel, preventive maintenance requirements, operating records and reporting, design requirements, alarm requirements, emergency storage and disposal requirements and backflow prevention.

Additionally, requirements for tail water recovery or control should be included in the permit to provide physical facilities to ensure that uncontrolled runoff not occur.

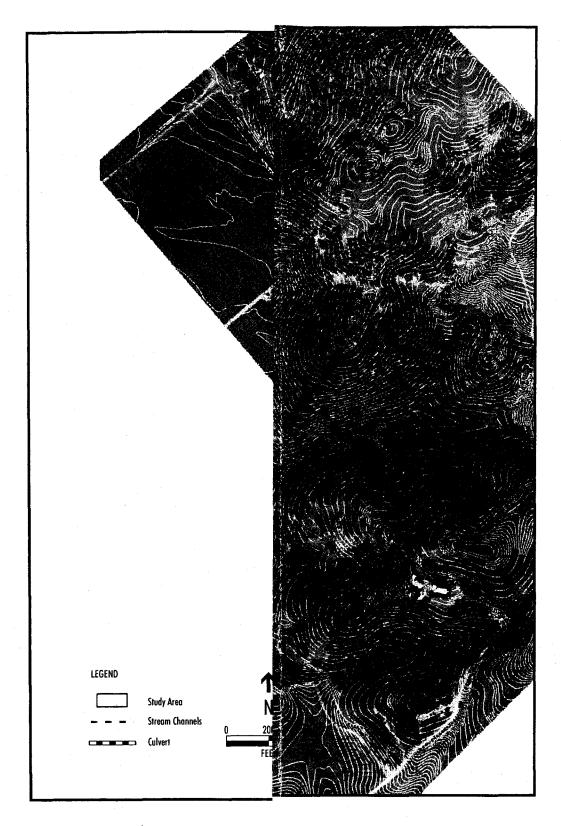
Statement of Basis

Page 15: The statement is made that operators are on-call 24 hours per day. Does this imply that there is no regular attendance at the treatment facility during the normal work week? The permit should require a minimum level of operator attendance at the treatment facility (e.g. 40 hours per week).

Document Requests

At a minimum, the following documents should be requested for review to allow proper evaluation of the proposed NPDES permit in advance of consideration of the permit for adoption.

- a. Complete description of the basis for future flow projections, including a description of any proposed new facilities that would lead to increased wastewater flows.
- b. An engineering analysis of the maximum/ultimate on-site wastewater effluent land disposal capacity.
- c. Effluent data for priority pollutants and hardness.
- d. Reasonable potential analysis and calculations for water quality based effluent limits.
- e. Proposed Adaptive Management Plan for Stream A1 prepared by Hydroscience Engineers in April 2006.
- f. Proposed Surface Water Discharge Operations Plan.
- g. Documentation for US Army Corps of Engineers finding that Stream A1 is not tributary to the Russian River.



Dugan Property Wetland Delineation / 202051 004 ■

SOURCE: Environmental Science Associates, 2004

Figure 4-2 Local Hydrology

William Esselstein

---- Original Message -----From: Tom Grovhoug

To: William Esselstein; Bruce Goldstein; Pete Dayton; Ralph & Janice Sceales

; <u>Tom Grovhoug</u>; <u>Candy and Larry Cadd</u> **Sent:** Friday, September 22, 2006 3:06 PM

Subject: RE: Document request

Bill – I reviewed the Adaptive Management Plan for Discharge to Stream A1 that was prepared in April 2006 by Curtis Lam. The empirical (i.e. trial and error) approach suggested by Mr. Lam suggests increasing discharges to Stream A1 at varying flow rates, starting at 10 gallons per minute, and monitoring over a one year period to observe whether sheet flow occurs from the roadside ditch along Highway 128. Observations, photos and rainfall data would be collected to attempt to determine a discharge rate that will prevent sheet flow from the roadside ditch.

The proposed approach is problematic for a number of reasons and would be unlikely to lead to a reliable operational scheme that will guarantee that sheet flows not occur to the vineyards. Problems with the approach include (1) difficulty in correlating discharge rates with acceptable stream flows, especially during rainfall periods, (2) the need to consider soil saturation resulting from antecedent rainfall conditions in the above correlation, (3) practical limitations that operators will encounter, including the need to monitor and predict rainfall and runoff quantities in the establishment of allowable discharge rates, etc. The likelihood that prohibited discharges to the vineyard would occur during the one year testing period has not been considered. The adaptive management plan itself would likely result in immediate permit violations and impacts to the vineyards.

Tom

