

March 5, 2009

Mr. Ken Landau, Assistant Executive Officer
Ms. Diana Messina, Senior Engineer
California Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 100
Rancho Cordova, CA 95670-6144

Re: Tentative Waste Discharge Requirements (NPDES Permit #CA0081621) and Cease and Desist Order for the Donner Summit PUD Public Utility District Wastewater Treatment Plant

Dear Mr. Landau and Ms. Messina,

As a resident of Nevada City, I spend many days during the summer recreating along and in the South Yuba River. I am also a volunteer with the South Yuba River Citizens League and participate in the organization's citizen monitoring program. My site is just below the confluence of Humbug Creek and the South Yuba River. I have an intimate relationship with this beautiful river and advocate to ensure its health and vitality, not only for the beneficial use of humans but also for the river's aquatic life.

I request designated party status at the upcoming Regional Water Board proceeding in April.

While some of the following are not in question form, I presume that each of my comments will be addressed.

1. In Donner Summit PUD's previous Waste Discharge Requirements, Order No. R5-2002-0088 (pg. 6), the Regional Water Board recognized the South Yuba River as an ephemeral stream:

"The Board also finds that based on the available information and on the Discharger's application, that the South Yuba River, absent the discharge, is an ephemeral stream."

However, the current tentative order fails to reference this. While this omission may not qualify, in a legal sense, as "backsliding," it is an omission that is highly significant, particularly in the context of allowing dilution credits.

It is therefore imperative that this statement also be present in the current tentative permit.

2. **Dilution credits.** In January 2009, the Little Hoover Commission released the following report:

"Clearer Structure, Cleaner Water: Improving Performance and Outcomes at the State Water Boards"

The report levied strong criticism at the state and regional water boards regarding subjects that are critical to issues surrounding this tentative permit, most specifically the area of collecting and analyzing data:

“The state and regional boards lack mechanisms to collect and analyze data properly, use scientific research and cost-effectiveness reviews to drive decision-making and provide useful information to the public, policy-makers and other researchers. . .”

It also said that “Underlying many of the conflicts facing the boards is a lack of data and scientific research as well as poor information technology systems. This has led to continued conflict among boards and stakeholders over information.”

The report recommended that “The state **must** improve and increase its use of data, scientific research and planning to better inform the public, response to current and future water quality problems and focus more on accountability.”

Other recommendations spoke to issues directly related to this permit. They emphasized the need for increased focus on clean-water outcomes, and on collaboration, creativity and problem-solving to address current water quality problems. Included in this recommendation was also an emphasis on dealing with issues of watershed health.

I believe it is important to be aware of the Little Hoover Commission’s report when assessing this permit. Because the Commission’s findings speak to the heart of why the permit’s allowance for dilution credits is highly flawed--and why these should not be approved by the Regional Water Board.

Currently, **There is no stream flow gauge at or close to the discharge location.**

Which means there is a total lack of relevant receiving water flow data for a true and accurate scientific assessment of the river’s capacity for dilution at the point of discharge in the river.

Furthermore, using data from a gauge 10 miles downstream at Cisco Grove does not provide accurate and relevant data for assessing dilution credits 10 miles upstream at the discharge point.

I respectfully request that the final order require installation of a flow gauge at the discharge location along with implementation of a flow study.

I also request that the final order remove dilution credits for all constituents until adequate flow data has been accumulated, whereupon a knowledgeable, scientific decision on the future of dilution credits for this permit can be made.

3. Discharger’s Dilution Study/Cross Stream Diffuser. While using data from a stream gauge 10 miles downstream does not make for accurate and scientific stream flow data at the discharge point, I would also question using the Discharger’s dilution study data from the discharge location (study cited in their March 2007 Report of Waste Discharge and also referenced on page F-17 of the tentative order) in assessing and allowing any dilution credits in the permit.

The tentative permit is requiring the Discharger to install a new cross-stream diffuser. A new mixing zone study cannot take place until the cross-stream diffuser is installed. Based on the fact

the dilution ratio in the tentative permit is based on faulty data, the Discharger's dilution study is rendered unacceptable.

At the same time, how can the Regional Water Board know the allowance of a specific mixing zone in the absence of a flow gauge? It would seem a flow gauge must also be installed simultaneously to render a mixing zone study accurate and reliable.

I respectfully request that the outcomes of future flow studies to determine the possibility of any future dilution credits should be subject to scientific and public review.

4. It is my understanding that virtually no other wastewater treatment plant in this watershed is receiving dilution credits--that dilution credits are not routinely found in NPDES permits in our region. So why, given the South Yuba River's status as an ephemeral stream coupled with the lack of reliable flow data, is the Regional Water Board even considering dilution credits in this tentative permit?

5. The previous permit (R5-2002-0088) states on page 6 that "The ephemeral nature of the South Yuba River means that the designated beneficial uses must be protected, but that **NO CREDIT FOR RECEIVING WATER DILUTION IS AVAILABLE.**"

The ephemeral status of the river has not changed. In fact, flows at certain times of the year are now often non-existent.

We know from citizen monitoring and neighborhood observation that flows in the river, especially during warmer months, have dropped during the past 10 years. And more precipitously in the past 5 years.

That being said--and given the fact the CVRWQCB clearly stated in the 2002 permit that **no dilution credits were available because of the ephemeral nature of the river, how can the CVRWQCB write a permit allowing dilution credits at this time?**

6. Basin Plans. I also question whether there is sufficient and accurate data to support the Regional Water Board's "new interpretation" of a narrative water quality objective as set down in the "Basin Plan."

In fact, the Little Hoover Commission's report states that "Basin plans, the key regulatory document dictating most regional board processes, are out of date in most regions."

When was the "Sacramento and San Joaquin River Basins" plan last evaluated? (I see that the "Water Quality Control Plan" for this Basin Plan was revised in 2006--but what does that mean?). **How is this plan applicable to a high Sierra ephemeral stream watershed area?**

7. Climate Change. During a meeting on 9 September 2008 with Kenneth Landau, assistant executive officer with the Central Valley Water Board, I asked if his unit considers climate change as a factor when writing permits, especially where dilution credits are at issue. He informed me that his unit would **NOT** be considering climate change as a factor when writing the permit for DSPUD.

I respectfully want to point out that the State's own Department of Water Resources (DWR) recognizes the seriousness of climate change as it affects California's diminishing water

resources. Last fall, the DWR issued a white paper entitled “Managing an Uncertain Future: Climate Change Adaptation Strategies for California’s Water”:

<http://www.water.ca.gov/climatechange/articles.cfm>

The report suggests that regional and local entities implement a diverse portfolio of water management techniques to better address uncertainties of changing water patterns. It also strongly suggests that statewide water management systems also adapt as the climate changes. Such strategies including preserving water quality.

In addition to the DWR’s acknowledgment of climate change, we can also look to the governor’s office and actions at the legislative level, such as AB 32, for further mandates on recognizing and dealing with climate change within our state. Perhaps most compelling has been the attitude of the Attorney General’s office toward the issue of climate change.

Even the discharger has observed changes in climate patterns on Donner Summit in the past two years. In the “minutes” section from the 18 November 2008 meeting of the DSPUD board of directors, Jim King, Chief Plant Operator, makes references in his “Sewer and Water Department” report (see attached) to:

“Later than normal snow falls and mild weather late into the winter along with early snow melts and warmer than normal weather earlier in the spring. . .”

The National Oceanic and Atmospheric Administration (NOAA) has done extensive climate modeling and is currently working with states like Florida on the role of climate variability and water management.

It is irresponsible not to consider climate change as a major factor when considering waste discharge requirements, particularly dilution credits, which will affect an ephemeral stream in California near its headwaters.

I ask that the Regional Water Board includes climate change as a factor when assessing the possibility of dilution credits (following installation of the flow gauge and implementation of a flow study).

8. Land Discharge (pg 13). There needs to be a more aggressive requirement in the final order that calls for the preferential practice of spraying to begin earlier and longer when at all possible. Slopes in the Soda Springs area which serve as sprayfields for DSPUD have been devoid of snow and dry out much earlier in the year. Earlier spraying would help to avoid potential biostimulation events such as the one which occurred in June 2008. And extended spraying in the fall could help solve the Discharger’s BOD loading issues later in the winter.

I ask that the Regional Water Board amend the tentative permit to include a stipulation prohibiting discharge into river between July 1 and October 15.

9. Anti-backsliding Requirements. Without reliable streamflow data for the South Yuba River at the discharge location, calculations for dilution credits for nitrates and dichlorobromomethane are flawed. **Therefore, allowing less stringent limitations for nitrates constitutes backsliding.**

Please comment on this.

10. Interim ammonia limits. While meeting nitrate standards remains a problem for the Discharger, meeting final ammonia limits as set down in the tentative order appears to be attainable by the DSPUD facility.

Therefore, it is requested that ammonia be deleted from the Cease and Desist Order.

11. Other interim constituent limits. Extending over five years increased limits for ammonia, nitrate, aluminum, manganese, copper, cyanide, aldrin, alpha BHC, silver and zinc translates into unacceptable levels of pollution to the South Yuba River. The Discharger has known that compliance was required during the previous permit period beginning in 2002. They have also had an additional 18 months during the current renewal period to work on reducing the levels of these pollutants. In effect, the interim schedule constitutes backsliding, for there is no reason to relax the final effluent limitations.

In the face of these facts, **the Regional Water Board should consider a less lenient schedule and require compliance within 3 years.**

12. Pollution Prevention Plan and Treatment Feasibility Study (pg. 31). According to the schedules for these two requirements, plan and implementation would not be completed until as late as two and half years into the 5-year permit period. Again, given that the Discharger has had nearly 7 years since issuance of the last permit order and CDO (2002) to work on compliance for aluminum and manganese, the **schedules for both should be reduced to a period of no longer than 18 months.**

13. Biostimulation. The tentative order on page F-34 states under “t. Biostimulatory Substances” that “Discharger self monitoring consistently reports detectable concentrations of nitrogen compounds in the discharge, however sufficient data is not available to determine if the Facility discharge cause [sic] or contributed to the excessive algal growth observed in the receiving water.” It further states on page F-35 that “At this time it is not definitely known what, if any, impact the Facility discharge has on algal growth, so it is not possible to determine what steps are needed to reduce or eliminate any impact.”

Yet I would point out that NPDES Compliance and Enforcement Unit Senior Engineer Patricia Leary states in the 8 August 2008 Notice of Violation (NOV) against DSPUD that “There was algae growth below the effluent discharge point that appeared to be caused by the discharge, in violation of Receiving Water Limitation No. G.5.” (pg. 1).

In addition, the NOV further cites a statement by ECO:LOGIC on page 5 of a report dated 11 July 2008 that was sent to the Regional Water Board:

“Based on the field observations, it is a reasonable conclusion that the DSPUD effluent discharge was at least a **MAJOR** contributing factor. . .[t]he filamentous biofilm tracks fairly well to the effluent discharge point.”

There appears to be a conflict between what was stated in the NOV regarding DSPUD's culpability in the biostimulation event and the tentative order. Please explain.

14. Continuing on the subject of biostimulation, and again referring to page F-34, the tentative order says that while the Discharger self-monitors on a regular basis, "sufficient data is not available to determine if the Facility discharge cause [sic] or contributed to the excessive algal growth observed in the receiving water." So why is there not sufficient data to determine if DSPUD is, in fact, contributing to the algal growth?

If the Discharger claims to be consistently monitoring nitrogen levels--and we know they have, because reports indicate they have been out of compliance numerous times with this constituent--then why isn't the data conclusive? Are they conducting inspections at the output location along the river? Presumably, the Discharger's monitoring protocols would include site inspections at the location of the receiving water, given that the tentative order states that "similar **observations** of algal growth potentially associated with the Facility discharge have not been reported in the past."

I find the implication that the algal bloom is "unusual" misleading. I have been involved in a citizen's monitoring program along the river for over two years. Within that time, many monitoring sites along the South Yuba River have displayed increasing amounts of algae particularly during the warmer, low-flow months of the year.

In fact, while the discharger may assert that they have not observed any algal growth at the discharge point in the past, DSPUD certainly **IS** observing more algal growth in the South Yuba River watershed. Again citing Chief Plant Operator Jim King's observations in the attached board minutes:

"Jim King also explained that in the past two years Lake Angela has seen major changes. Later than normal snow falls and mild weather late in the winter along with early snow melts and warmer than normal weather earlier in the spring has caused the source water to become **high in algae**. . ."

So to add to other questions and observations within this specific comment, if we know that algal blooms are occurring throughout the watershed and that current weather patterns appear to be making conditions on the river more conducive to algal blooms, then where a discharger is known to be in violation of its nitrate constituent--a known cause of algal blooms--it seems clear that **allowing for increased nitrate limitations is a very flawed practice**. Please advise.

15. Biostimulatory Substances Study (page 24). Because the issue of algal blooms appears to be quite contentious relative to this permit and Discharger, **this study should be conducted by a neutral party outside of DSPUD's regular group of contractors and consultants and be subject to scientific, peer and public review.**

16. Sampling for Coliform: Given that there have been past incidents of coliform outbreaks in the receiving water (as recent as November 2008 on the first day of seasonal discharge into the river), the minimum sampling frequency for fecal coliform organisms of 1/quarter is inadequate and should be **increased to at least 1/month**.

17. I recently discovered a letter dated 1 August 2008 from DSPUD General Manager Tom Skjelstad to a Mr. Valen Brost (see attached). In the letter, Skjelstad makes several references to an expansion project for the DSPUD facility. He even mentions design time (8-10 months) along with construction timeframes, with conclusion of the project stated to be in 2012 at the latest.

This letter concerns me because the current tentative permit states that the Average Dry Weather Flow (ADWF) shall not exceed 0.52 mgd. This figure has not changed since the previous 2002 permit where the three day average discharge flow was not to exceed 0.52 mgd. The previous permit **DID** include reference to an expansion project of the treatment facility and prohibited increased discharge flows until the project was “completed and certified by a Registered Civil Engineer with experience in the design and operation of wastewater treatment plants. . .” (pg 11.V, 2002 order)

This letter, and why there is no mention of any expansion project in the current tentative order, require explanation.

18. Average Dry Weather Flow (ADWF). Please explain why, when addressing the discharge flow limits, the 2002 permit terminology/verbiage (page 11.V) refers to “monthly average discharge flow,” whereas the current tentative order discusses the 0.52 mgd in the context of **“Average Dry Weather Flow.”** Does the ADWF represent a different valuation/protocol in how effluent flows are assessed currently versus the 2002 permit order?

Does the ADWF of 0.52 mgd as set down in the current tentative order represent a different discharge flow valuation?

19. Average Dry Weather Flow (ADWF) Effluent Limitations (pg 32). According to page F-9 (E I.b), the “Discharger is required to monitor groundwater to ensure the discharge does not degrade groundwater or cause and exceedence [sic] of water quality objectives. . .”

How does the Discharger know when groundwater is at or near normal? Has the Discharger been conducting such monitoring or is this a new requirement?

I can find no schedule in either the tentative order or the tentative CDO stipulating frequency of testing. Does this mean that the Discharger is not required to supply the state with monitoring data?

The final permit should stipulate a specific monitoring schedule, including monitoring stations above, near, and below the discharge location and require that the Discharger keep reports of all groundwater monitoring data. The permit should also require that DSPUD hire a professional hydrologist for purposes of groundwater monitoring.

20. The Basin Plan narrative toxicity objective states that “All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.” See also on page F-10 where the tentative order states “The Basin Plan also limits chemical constituents in concentrations that adversely affect surface water

beneficial uses.”

How does the CVRWQCB get around the “**known and willful**” clause of State and Federal water quality law when allowing the Discharger constituent limits that exceed more stringent water quality standards (F-8, IV) as well as the final limits set down in the tentative order? That is, the tentative order indicates that in-stream incursions above acceptable criteria can potentially occur as a result of too-high levels of aluminum, ammonia, chlorine residual, cyanide, manganese, and nitrite and nitrates. Protecting DSPUD from possible non-compliance violations by calling for interim constituent limits does nothing to protect the river, its aquatic life, or the people who recreate there. **The interim limits allow DSPUD to continue polluting the river with unsafe levels of constituents.**

How is this not only “known and willful” activity by the Discharger, but also “known and willful” on behalf of the Regional Water Board?

21. Claims of Confidentiality (D-VI.2). Does this section, as it pertains to **effluent data**, mean that the Discharger cannot withhold data from the public if so requested?

22. Anticipated Noncompliance (pg. D-9). The tentative order stipulates that the Discharger must give advance notice to the Regional Water Board or State Water Board of any planned changes in the facility or any activity that may result in noncompliance. However, there is no limit on how much time the Discharger is allowed before notifying the Regional Water Board.

The final order should include a timeframe under which the discharger must give notification.

23. While the new permit is theoretically written for five years, in reality this is only a 54 month permit. According to the tentative order, for renewal purposes, the Discharger must file a Report of Waste Discharge 180 days prior to the Order expiration date. I respectfully submit that once the permit renewal process begins, all attempts by the Discharger to continue efforts toward compliance, either through daily operations or facility upgrades, appear to cease.

I have sat through numerous DSPUD board meetings where I repeatedly heard the same statement: we can’t go forth with any upgrade plans to deal with noncompliance because we don’t know what the new permit will look like. And in the case of this Discharger, the permit renewal process has been nearly two years.

So I respectfully ask the Regional Water Board to consider this when writing and approving the final draft of this tentative order. The new order should not allow the Discharger incentives to postpone or delay compliance (as during the last permit period from 2002 to the present).

In summary, I respectfully ask that the tentative order and CDO be amended to reflect the following:

*Include verbiage that recognizes the ephemeral status of the South Yuba River.

*Require installation of a stream flow gauge at the discharge location and implement a receiving water flow study.

*Remove dilution credits for all constituents until adequate flow data has been accumulated, whereupon a knowledgeable, scientific decision on the future of dilution credits for this permit can be made.

*Require that flow studies to determine the possibility of any future dilution credits must be subject to scientific and public review.

*Require climate change be included as a factor when assessing the possibility of dilution credits (following installation of the flow gauge and implementation of a flow study).

*Require a stipulation prohibiting discharge into river between July 1 and October 15.

*Require that ammonia and more lenient limits for this constituent be removed from the Cease and Desist Order.

*Reduce the interim period for compliance on ammonia, nitrate, aluminum, manganese, copper, cyanide, aldrin, alpha BHC, silver, and zinc from 5 years to 3 years.

*Reduce the schedules for both the Pollution Prevention Plan and the Treatment Feasibility Study to a period of no longer than 18 months.

*Require that the Biostimulatory Substances Study must be conducted by a neutral party outside of DSPUD's regular group of contractors and consultants and be subject to scientific, peer and public review.

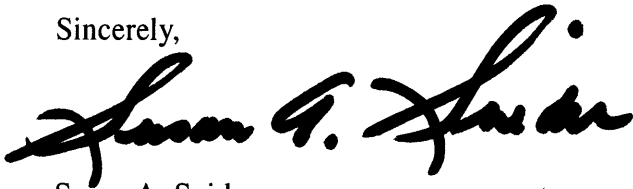
*Require coliform sampling to be increased from 1/quarter to 1/month.

*Require that the final permit include a specific schedule for groundwater monitoring for stations above, near, and below the discharge location. Further require that the Discharger send copies of these reports and all data to the Regional Water Board while maintaining copies at the wastewater facility for public review. Require that the Discharger hire a professional hydrologist for purposes of groundwater monitoring.

*Stipulate a timeframe under which the discharger must give notification for Anticipated Noncompliance.

Thank you for your consideration of these comments. Please feel free to contact me with any questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "Susan A. Snider". The signature is fluid and cursive, with a large initial 'S' and a distinct dot at the end.

Susan A. Snider

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