BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In re:	)	
Dry Creek Rancheria	)	NPDES Appeal No.
NPDES Permit No CA 0005241	)	

PETITION FOR REVIEW

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INTRODUCTION

Pursuant to 40 C.F.R. § 124.19(a), the County of Sonoma and Sonoma County Water Agency ("Petitioners") respectfully petition for review of the conditions of NPDES Permit No. CA 0005241 ("the Permit"), which the U.S. Environmental Protection Agency, Region Nine ("Region") issued to the Dry Creek Rancheria Band of Pomo Indians ("Permittee") on April 30, 2007. The Permit authorizes the Permittee to discharge municipal wastewater from the Dry Creek Rancheria Wastewater Treatment Plant to a tributary to the Russian River and to unidentified spray fields. Petitioners contend that certain permit conditions are based on clearly erroneous findings of fact and conclusions of law. Specifically, Petitioners challenge the following permit conditions:

(1) Part I, Table 1: Outfall 001 Effluent Limitations and Monitoring Requirements, Maximum Allowable Discharge Limitations

(a) Flow

(b) Electrical Connectivity

(c) Total Dissolved Solids

FACTUAL AND STATUTORY BACKGROUND

A. The Project Site.

The Dry Creek Rancheria is located on a hillside just east of the Russian River in Sonoma County, California, near the community of Geyserville. Exh. A at 1; Exh. S at

1.[1] The Rancheria is located in wine country, and sits above private lands planted as vineyards. The Permittee has developed the Rancheria as a casino with 1,600 slot machines and 16 tables featuring Pai Gow Poker, Three Card Poker, and Blackjack. Exh. S at 1; http://www.riverrockcasino.com/gaming.html. The casino averages approximately 5,000 guests and employees per day. Exh. S at 1.

The Permittee constructed a plant in 2003 to treat wastewater generated by the casino. Exh. S at 1. The plant has an average daily design flow rate of 150,000 gallons per day (gpd) and a maximum treatment capacity of 200,000 gpd. Exh. S at 1. The casino generated an average daily flow of 15,000 gpd in 2003, 30,000 gpd in 2004, and 40,000 gpd in 2005. Exh. S at 1. The Permittee re-uses a fraction of the generated wastewater in toilets and urinals, and discharges the rest to five acres of landscape irrigation. Exh. S at 1; Exh. U at 1, Note 4. This irrigation exceeds the agronomic demand of the landscape sites, however. Exh. U at 1, Note 4.

B. The Application.

On February 17, 2005, the Permittee submitted an application for an NPDES permit to allow it to approximately triple discharges from its wastewater treatment plant, which would be operated by HydroScience Engineers, Inc.. Exh. A. The application

[1] The Region has compiled the documents that will comprise the administrative record, but has not paginated them for citation in this petition. Petitioners therefore cite the relevant documents directly, and have filed them as exhibits.

sought to allow the Permittee to discharge 112,00 gpd, with an average weekend flow of 141,000 gpd and a peak capacity of 200,000 gpd. Exh. F at 2. The Permittee proposed to discharge winter flows to Stream P1, a tributary to the Russian River. Exh. F at 2-3. In the summer, when discharge to the Russian River is prohibited by State law, the Permittee proposed to discharge to Stream A1, a surface fresh water impoundment that terminates on private property. Exh. F at 2-3. The Permittee also proposed to discharge flows to 16 acres of spray fields that it stated it planned to construct. Exh. A at Engineering Report, p. 3; Exh. F at 1.

The Region deemed the application incomplete on May 27, 2005. The Region advised the Permittee that the topographic map included with the application "does not clearly show the outline of the facility and the location of each of its existing and proposed intake and discharge structures," as required by 40 C.F.R. § 122.21(f)(7). Exh. B at 1. The Region requested that the Permittee "provide the location and all other required information for each land application site." Exh. B at 1.

The Permittee submitted additional information on June 30, 2005, including a figure depicting the planned sprayfields. Exh. C at Fig. 2A-1. The Permittee did not actually show the sprayfield sites on any topographic map, however, or otherwise explain how sprayfields could be planted on the Rancheria's severe slopes. Exh. C at Fig. 2S-1. Nor did the Permittee disclose the size of each land application site, or the average daily volume that it would apply to each site. The Region nevertheless accepted the revised

application as complete.

Petitioners commented on the revised application on March 21, 2006. Petitioners identified several areas of concern, and particularly noted that the application contained no water balance or other information necessary to determine whether the proposed sprayfields could safely absorb the Permittee's proposed summertime discharges. Exh. D at 3. Petitioners advised that this information was critical to ensure that the proposed discharges would not cause sheet flow or other runoff onto nearby vineyard properties, and requested that the Region provide this data prior to the issuance of any proposed permit. Exh. D at 3. Petitioners further noted that the Central Valley Regional Water Quality Control Board had recently documented 145 "serious violations" of wastewater pollution limits at a separate casino wastewater treatment plant also operated by HydroScience, increasing the need for complete information and safeguards. Exh. D at 5.

C. The Proposed Permit.

The Region issued a proposed permit and proposed statement of basis on June 29, 2006. Both documents contemplated winter discharges to Stream P1, and summer discharges to Stream A1 and the Permittee's sprayfields. Exhs. E and F. Neither document contained a water balance or other information regarding the adequacy of the proposed spray field discharges. The Region appears to have ignored Petitioners' request for this information.

The proposed permit indicated that the Region would not set a limit for a number of pollutants, including electrical connectivity, total dissolved solids, whole effluent toxicity (chronic), and priority pollutants. Exh. E at 2, 3 (Note 3). The draft statement of basis instead explained that "[d]ue to a lack of discharge data, it is unknown at this time if the discharge from the new WWTP will have reasonable potential to cause or contribute to an exceedance of water quality standards." Exh. F at 10.

Thirty-six groups and individuals provided written comments on the proposed permit, and 150 people attended a September 7, 2006 public hearing. Most notably, the State Regional Water Quality Control Board for the North Coast Region ("Regional Board") testified that the proposed discharges to Stream A1 "are in direct conflict with" the Water Quality Control Plan for the North Coast Region ("Basin Plan"). Exh. J at 1. The Regional Board explained that the Basin Plan prohibits point source discharges to "[a]ll surface fresh water impoundments and their tributaries," including Stream A1. Exh. J at 1-2. The proposed discharges to Stream A1 would thus violate both State and federal water quality standards. 40 C.F.R. § 122.44(d). As a result, the Regional Board, Petitioners, Congressman Mike Thompson, and others testified that the Region should eliminate the discharge to Stream A1 and recirculate a revised proposed permit. Exh. G at 1; Exh. I at 2 of 10.

Petitioners, the Alexander Valley Association ("AVA"), and others further commented that the removal of Stream A1 would require Petitioners to develop an

alternative summer discharge plan, and greatly increase the need for a basic water balance analysis demonstrating the feasibility of that plan. Exh. H at 4; Exh. I at 2 of 10. The AVA submitted a color figure and color photographs showing that the slopes on the Rancheria are steep and denuded of vegetation, and that any discharges would cause significant runoff, erosion, and siltation. Exh. H at 5-6 and last three pages. The Regional Board similarly explained that runoff from the Permittee's lands would result in the accumulation of pollutants over time, and could result in nuisance algal blooms and mosquito habitat. Exh. J at 2. Petitioners therefore requested that the Region require the Permittee to provide a water balance, independently review that information, and disclose both the water balance and the Region's analysis of it to the public. Exh. I at 3-4 of 10.

Petitioners and Congressman Thompson further requested that the Region voluntarily prepare a National Environmental Policy Act ("NEPA") document on the proposed permit, pursuant to USEPA's Policy and Procedures for Voluntary Preparation of NEPA Documents, 63 Fed. Reg. 58045-47 (Oct. 29, 1998). Exh. G at 2; Exh. I at Exh. B, pp. 1-3. Petitioners explained that the proposed permit met the five criteria outlined in USEPA's Policy, and would particularly allow for a comprehensive environmental review of the Permittee's extensive current development and major expansion plans, which include construction of a major new hotel and resort. Exh. I at Exh. B, pp. 1-3.

Petitioners and the AVA further questioned the absence of effluent limits for electrical connectivity, total dissolved solids, and other pollutants. Petitioners and the

AVA urged the Region to acquire the discharge data it purported to lack, conduct a reasonable potential analysis, and set appropriate permit limits. Exh. I at 4 of 10, Exh. H at 1.

D. Correspondence After the Close of the Comment Period.

The Region provided no water balance information before or immediately after the October 3, 2006 close of the public comment period.

On October 6, 2006, four members of the Region's staff participated in a conference call with Michelle Moss of the Office of Senator Barbara Boxer. Exh. K at 1. According to the Region's own summary of the call, Ms. Moss repeatedly raised the potential impacts of off-site runoff onto private vineyard lands. Exh. K at 2. She then asked "whether there are any ways" the Permittee could avoid discharging to Stream A1. Exh. K at 3. Mr. John Tinger, the Region's Clean Water Standards and Permit Officer, "explained that the [Permittee] does not think that it has other options." Exh. K at 3. Mr. Tinger explained that "[t]he [Permittee] is already recycling the water it currently uses onsite, and the area's hilly topography limits the [Permittee's] ability to dispose of additional effluent by irrigating fields with it." Exh. K at 3. The Region thus rejected as infeasible a discharge plan relying on irrigation to on-site sprayfields.

Sometime thereafter, however, the Permittee and Region reversed course. The Permittee requested that the Region withdraw discharges to Stream A1, and proposed to

instead discharge to 12 acres of on-site sprayfields. The Region does not appear to have required the Permittee to revise its application to identify its proposed land application sites, the size of each site, or the average daily volume that it would apply to each site.

The Region convened a meeting on April 17, 2007 with Petitioners, the AVA, the Regional Board, Congressman Thompson's office, and other parties who might appeal the final permit. The Region confirmed that Stream A1 had been withdrawn, and agreed it would be reasonable to impose a discharge limit of 200,000 gpd, the maximum treatment capacity of the Permittee's wastewater plant. The Region further provided the first bit of water balance information to date, a one-page chart purporting to show a large summertime irrigation demand for 12 unidentified acres of future sprayfields. Exh. L at 3. The Region disclosed that it was under pressure from the Permittee to issue the final permit by April 30, and said it hoped the chart would satisfy all outstanding concerns.

Petitioners and the AVA retained several significant concerns. First, the one-page water balance chart did not identify the potential sprayfields, did not disclose the formula or calculations used for the irrigation demand projections, and contained several prominent errors. Exh. L at 3. The chart still "assumed that 20,000 gpd would be discharged to Stream A1 between May 15 and September 30," even though Stream A1 had been withdrawn. Exh. L at 3, Note 6. It further disclosed that the Permittee had calculated irrigation demand based on California Irrigation Management Information System ("CIMIS") station #80, which the chart said was "located in Santa Rosa." Exh. L

at 3, Note 3. CIMIS station #80 is actually located in Fresno, California, which experiences less winter rain and significantly hotter summer temperatures than Sonoma County. The water balance chart thus appeared to significantly overstate local irrigation demand.

Second, Petitioners and the AVA remained concerned about enforcement of future violations by the Permittee or HydroScience. Petitioners and the AVA explained that the Permittee is unique among NPDES permittees because of its status as a federally recognized Indian Tribe and its willingness to assert sovereign immunity as a shield against private actions. *See* Exh. H at 2; Exh. G at 2. In response, the Region frankly acknowledged that it has only a handful of inspectors and "at least 50" greater problems in its jurisdiction. This raised significant concerns for Petitioners and the AVA; it appeared as though the Region was rushing to approve a wastewater disposal plan that would likely violate water quality standards, and for which the public would have little recourse.

Three days after the meeting, on April 20, the Region sent Petitioners a second draft of the water balance chart in which the Permittee had removed the reference to Stream A1. Exh. M. Curiously, none of the proposed irrigation discharges or demand calculations changed as a result. *Compare* Exh. L at 3 with Exh. M.

On April 25, 2007, the Region sent Petitioners yet a third draft of the water balance chart, in which the Permittee had changed the relevant CIMIS station from #80 in

Fresno to #103 in Windsor. Exh. N at 4. Again, neither the Permittee's proposed discharges nor any of its irrigation demand calculations changed as a result. *Compare* Exh. L at 3 with Exh. M and Exh. N at 4.

The Region also sent on April 25 a technical memorandum from the Permittee that for the first time explained HydroScience's irrigation calculations. The memorandum cited the formula for calculating evapotranspiration, $ET = ET_0 * k_c$, articulated in the California Department of Water Resources' *Guide to Estimating Irrigation Water Needs of Landscape Plantings in California* ("Guide"). Exh. N at 2. The Guide explains that ET_0 equals the reference evapotranspiration rates for the relevant CIMIS Station, and k_c equals the crop coefficient for turfgrass, which is either 0.6 or 0.8. Exh. Q at 2.

The memorandum then purported to calculate irrigation demands using a more complicated formula that included a factor for evapotranspiration, and a loss rate or leachate factor, *and* a second evaporation factor that "assumes that 20% of the applied irrigation water is lost to evaporation." Exh. N at 3. The memorandum and chart stated that running these factors through the formula would show an annual irrigation demand of 53.52 inches. Exh. N at 2, 4.

Petitioners commented on this new information on April 27, 2007. Petitioners explained the HydroScience had made a significant computational error that drastically overstated the irrigation demand. Exh. O at 1-2. Petitioners explained that even if one assumed the Permittee's formula and factors were correct, the resulting calculations

actually showed an irrigation demand of 22.51 to 24.55 inches per year, less than half of the 53.52 inches claimed by the Permittee. Exh. O at 1, 5. Petitioners further explained that the sprayfields likely could not absorb even this demand, since the Permittee had not identified the twelve acres for irrigation, not accounted for their slope or stability, used the higher of the two potential k_c values for turfgrass, and miscalculated the leachate factor. Exh. O at 2-4. Petitioners requested any clarifying information that the Permittee might provide, and an opportunity to discuss the situation with both the Region and Permittee before issuance of a final permit. Exh. O at 4.

E. The Final Permit.

The Region did not grant either request. It instead issued the final permit on the next business day, April 30, 2007. By way of a water balance explanation, the Region advised that the Permittee had decided that the k_c value of turfgrass cited in the Guide, 0.8, was actually incorrect. Exh. P at 1. The Region explained that the proper k_c value was actually 1.4. Exh. P at 1. Yet the Guide explains that 1.4 is not actually a k_c value, but a microclimate (or k_{mc}) factor. Microclimate factors are not used in estimating the irrigation demand for turfgrass, but are instead part of a three-variable formula to determine the landscape coefficient for landscape plantings. Exh. Q at 10, 22. In addition, 1.4 is the highest possible microclimate factor, and is reserved for "[p]lantings in wind tunnel locations and those receiving reflected light from nearby windows, cars, or

other reflective surfaces." Exh. Q at 22. The Rancheria is not located in a wind tunnel and does not receive significant amounts of reflected light. It is at worst "an open-field setting which is not exposed to extraordinary winds or heat inputs from nearby buildings, structures, or vehicles," an average microclimate. Exh. Q at 21. The Region thus appears to have relied on a microclimate factor that is not a k_c value, is used in a formula that does not apply here, and is incorrect even on its own terms.

Moreover, the final permit does not actually use the 1.4 value. The final permit instead relies on a revised draft of the technical memorandum, which used a k_c value of 1.15 Exh. U at 2. The record does not explain how HydroScience developed this value, or why it was used. Again, use of either a 1.4 or 1.15 k_c value did not change any of the Permittee's proposed discharges or irrigation demand calculations. *Compare* Exh. U at 4 with Exh. L at 3, Exh. M, and Exh. N at 4.

THRESHOLD PROCEDURAL REQUIREMENTS

Petitioners satisfy the threshold requirements for filing a petition for review under Part 124, to wit:

1. Petitioners have standing to petition for review of the permit decision because they participated in the public comment period on the permit. *See* 40 C.F.R. § 124.19(a). Petitioners provided three comment letters on the permit, and testified at the September 7, 2006 public hearing. Exhs. D, I, and O.

2. The issues raised by Petitioners in this petition were raised during the public comment period and preserved for review. Exhs. D, G, H, I, J, and O.

ISSUES PRESENTED FOR REVIEW

1. Whether the Region's failure to set specific Permit limitations on summertime discharges warrants review.

2. Whether the Region's brief and conclusory responses to comments regarding summertime discharges warrants review.

3. Whether review is warranted to determine whether the Region should have recirculated a revised proposed permit after it replaced Stream A1 with a summertime irrigation plan.

4. Whether review is warranted by the Region's failure to limit discharges to the Plant's maximum treatment capacity.

5. Whether the Region's brief response to comments requesting a NEPA analysis warrants review.

6. Whether review is warranted by the Region's failure to impose appropriate effluent limitations for electrical connectivity and total dissolved solids.

STANDARD OF REVIEW

The Board "has broad power to review decisions under section 124.19." *In re Teck Cominco Alaska Inc.*, 11 E.A.D. 457, 472 (EAB 2004). The Board may grant review where a petition establishes that a permit condition is based on a clearly erroneous finding of fact or conclusion of law, or involves an exercise of discretion or an important policy consideration that the Board determines warrants review. 40 C.F.R. § 124.19(a); *In re City of Marlborough, Massachusetts Easterly Wastewater Treatment Facility*, NPDES Appeal No. 04-13, slip op. at 7 (EAB, Aug. 11, 2005), 12 E.A.D. ___.

NPDES regulations prohibit the issuance of a permit "[w]hen the imposition of conditions cannot *ensure* compliance with the applicable water quality requirements of all affected States." 40 C.F.R. § 122.4(d) (emphasis added); *City of Marlborough*, slip op. at 21, 12 E.A.D. ___. A "mere possibility of compliance" with state water quality standards "does not 'ensure' compliance" and does not suffice to uphold a permit. *City of Marlborough*, slip op. at 21-22, 12 E.A.D. ___.

In responding to public comments, the Region must specify the reasons for any changes to the draft permit, and must "articulate with reasonable clarity the reasons for its conclusions and must adequately document its decision making." 40 C.F.R. § 124.17(a)(1); *City of Marlborough*, slip op. at 14, 12 E.A.D. ___ (citing cases). Absent this explanation, the record cannot reflect the "'considered judgment' necessary to support the applicable permit determination." *City of Marlborough*, slip op. at 14, 12

E.A.D. ___ (citing *In re Austin Powder Co.*, 6 E.A.D. 713, 720 (EAB 1997)).

Persons seeking review of permitting decisions must demonstrate that any issues being raised were raised during the public comment period. 40 C.F.R. § 124.19(a). But the Board has "consistently recognized that issues pertaining to changes from the draft to final permit decision may be raised for the first time on appeal." *Teck Cominco*, 11 E.A.D. at 480 (citing cases).

ARGUMENT

I. The Region's Failure to Set Specific Permit Limitations on Summertime Discharges Is Not Sufficient to Ensure Compliance with Water Quality Standards.

NPDES regulations require the Region to set permit limits that will ensure compliance with all applicable water quality standards. 40 C.F.R. §§ 122.4(d), 122.44. NPDES regulations require the Region to include permit limits to ensure compliance with more stringent State requirements, including State narrative criteria for water quality. 40 C.F.R. § 122.44(d). NPDES regulations further prohibit the Region from issuing a permit unless the imposition of its conditions can "ensure compliance with the applicable water quality requirements of all affected States." 40 C.F.R. § 122.4(d). The Region may not issue a permit that offers a "possibility of compliance" but "does not 'ensure' compliance" with State standards. *City of Marlborough*, slip op. at 21-22, 12 E.A.D. ___.

Here, the Basin Plan prohibits discharges to surface fresh water impoundments,

prohibits discharges to the Russian River from May 15 to September 30, and imposes a number of other substantive water quality requirements. The Permittee's proposed sprayfield discharges have the potential to flow offsite to Stream A1, a surface fresh water impoundment; to a different surface water impoundment on the Rancheria; or to the Russian River via Stream P1. The discharges thus have the potential to violate State water quality requirements, and to cause significant erosion, sediment transfer, siltation, and other environmental impacts. The Region had a duty to investigate the Permittee's summertime discharge plan, and impose permit limits sufficient to "ensure compliance" with all State water quality requirements.

The Region did not satisfy this duty. The Region declined to impose specific permit limits on summertime discharges, conducted no independent water balance analysis, and relied entirely on the Permittee's shifting claims that its proposed sprayfields can safely absorb all discharged wastewater. This reliance was improper, for the following reasons:

- Neither the Permittee nor the Region identified the 12 acres of potential sprayfields, the size of each site, or the average daily volume that would be applied to each site, as required by 40 C.F.R. § 122.21(f)(7) and 40 C.F.R. § 122.21(j)(1)(viii)(C).
- The Region failed to account for the slopes, soil conditions, and runoff patterns of the proposed sprayfields. The Permittee and Region had already

rejected as infeasible a plan to dispose of summertime wastewater through irrigation because of the steeply sloped, denuded nature of the Rancheria. Exh. H at last 3 pages; Exh. K at 3. Indeed, the Region explained to Senator Boxer that "the area's hilly topography limits the [Permittee's] ability to dispose of additional effluent by irrigating fields with it" and necessitated the inclusion of Stream A1. Exh. K at 3. Yet when the Region removed Stream A1, it declined to independently investigate whether the "hilly topography" could actually accommodate the proposed discharges, and impose appropriate permit limits.

- The Region and Permittee relied on a formula to determine monthly average unit irrigation demand that lacked a citation to any established methodology, and improperly double-counted for the effects of evaporation.
- The Region improperly allowed the Permittee to shift between three separate k_c values without ever changing the resulting irrigation demands. Every one of the Permittee's water balance charts acknowledges that the Permittee will plant its sprayfields in turfgrass. Exh. L at 3; Exh. M; Exh. N at 4; Exh. U at 4. The State *Guide to Estimating Irrigation Water Needs*, upon which the Permittee relied, states that the k_c value for turfgrass is either 0.6 or 0.8, depending on the species. Exh. Q at 6. The Permittee and HydroScience thus used a k_c value of 0.8 throughout the entire permit process, until hours before

Permit issuance. Exh. N at 2.

On that day, April 30, 2007, the Region suddenly averred that the proper k_c value was 1.4, while the Permittee claimed 1.15. Exh. P at 1; Exh. U at 2. Neither value has any basis in fact. The 1.4 figure is not a k_c value at all, but is instead a microclimate factor that (1) is part of a formula that does not apply here; (2) has no utility and cannot be applied as a k_c value outside that formula; and (3) does not accurately describe the Rancheria in its own right. Exh. Q at 22 (reserving the 1.4 value for a "planting next to a southwest wall which is composed of reflective glass and is exposed to extraordinary winds"). The 1.15 figure lacks any justification whatsoever, and is nowhere explained in the administrative record.

It appears that the Region allowed the Permittee to fudge the numbers to meet its desired results, rather than conduct a objective, good-faith analysis of irrigation demand. The Region never asked the Permittee why its use of two different CIMIS stations and up to three different k_c values never altered any of its irrigation demand projections or proposed discharge volumes. This approach contradicts the spirit and intent of the NPDES program, and does not ensure compliance with applicable water quality requirements.

- The Region failed to account for existing oversaturation of irrigation lands. The Permittee has acknowledged that it currently discharges 22.96 acre-feet

of water to 5 acres, and that this rate exceeds the agronomic demand. Exh. U at 4, Note 4. The Permit now authorizes the Permittee to discharge 50.15 acre-feet to 12 acres. This is approximately the same rate of release, and should similarly exceed the agronomic demand. Exh. O at 2, footnote 2.

- The Region and Permittee improperly relied on a leachate factor of 1.2. The Permittee's technical memorandum states that approximately 10% of applied water would leach through the grass root zone and be lost. As a result, the leachate factor should be 1.1 rather than 1.2. Exh. O at 3.

As a result of these errors, "it is simply unclear from the record before us whether this Permit will ensure compliance with water quality standards." *In re City of Marlborough*, slip op. at 25, 12 E.A.D. ___. Although the Permit itself states that discharges "shall not cause a violation of any applicable water quality standards for receiving waters" (Exh. R, Permit Condition 1.C.13), the record does not indicate whether this limitation, by itself, will meet the State's water quality standards. *In re City of Marlborough*, slip op. at 21, 12 E.A.D. ___. To the contrary, the record indicates that the Permit would allow summertime discharges at more than twice the agronomic demand, resulting in runoff to surface impoundments and potentially the Russian River, as well as significant erosion, sediment transfer, and other environmental impacts.

The Region has not met its duty of ensuring compliance with all applicable water quality standards, and the Permit should be remanded. 40 C.F.R. §§ 122.4(d), 122.44; *In*

re City of Marlborough, slip op. at 23, 12 E.A.D. ___ (remanding permit where the Region failed to demonstrate that the permit would "ensure" compliance with applicable Massachusetts water quality standards); *In re Teck Cominco*, 11 E.A.D. at 493 (remanding permit where the Region failed to satisfy its duty of ensuring compliance with applicable water quality standards). On remand, the Region should be directed to either demonstrate that the Permit will ensure compliance with water quality standards, or make appropriate modifications, including limitations on summertime discharges. *In re City of Marlborough*, slip op. at 23, 12 E.A.D. ___.

II. The Region's Response to Public Comments Failed to Meet Regulatory Requirements.

NPDES regulations require the Region to respond to all significant comments on the draft permit, and specify the reasons for any changes in the final permit. 40 C.F.R. § 124.17(a). The Region must also ensure the administrative record "reflect[s] the 'considered judgment' necessary to support the Region's permit determination." *In re Austin Powder Co.*, 6 E.A.D. at 720 (citing *In re GSX Services of South Carolina, Inc.*, 4 E.A.D. 451, 454 (EAB 1991)). Specifically, the Region "must articulate with reasonable clarity the reasons for [its] conclusions and the significance of the crucial facts in reaching those conclusions." *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417 (EAB 1987) (citing *In re Carolina Power & Light Co.*, 1 E.A.D. 448, 451 (Act'g Adm'r 1978)).

The Region did not meet those standards here. The Region's Responses to Comments Document includes no independent analysis of water balance issues, and does not articulate reasons for issuing a Permit without specific discharge limits. It merely quotes from a response provided by the Permittee, without stating whether the Region considers the response accurate. Exh. T at 23. This is insufficient. *In re City of Marlborough*, slip op. at 14, 12 E.A.D. ___ (remanding permit where "the Region has failed to explain why it apparently agreed" with a comment); *In re Amoco Oil Co.*, 4 E.A.D. 954, 980 (EAB 1993) (remanding permit where the Region's mere concurrence with a comment failed to provide an adequate explanation for a final permit term). Absent an explanation from the Region, the record does not reflect the "considered judgment" necessary to support the Permit determination. *In re City of Marlborough*, slip op. at 14, 12 E.A.D. ___; *In re Austin Powder Co.*, 6 E.A.D. at 720.

Nor is a "considered judgment" reflected elsewhere in the record. The only other record evidence is an e-mail sent on the day of Permit issuance from Mr. Tinger, the Region's Clean Water Standards and Permit Officer. Mr. Tinger stated that he believed the Permittee "has the ability" to meet Permit requirements, either through sprayfield discharge or "better long-term solutions" such as selling the water, additional recycle/reuse, or "reduced flow rates." Exh. P at 1-2.

This explanation is inadequate. The Region does not appear to have reviewed the final water balance, which used a k_c value of 1.15. Exh. U at 2. Mr. Tinger's message

instead states that he reviewed a water balance with a k_c value of 1.4. Exh. P at 1.

In addition, a finding that the Permittee "has the ability" to meet Permit limits does not satisfy the Region's duty to "*ensure* compliance with the applicable water requirements." *In re City of Marlborough*, slip op. at 21-22, 12 E.A.D. ___ (remanding where the Permit conditions indicated only a "possibility of compliance"). If a reduced summer flow rate is a "better long-term solution," as Mr. Tinger acknowledged, then the Region should have imposed that reduced flow rate in the first instance. The Region could not simply find that "it is the permittee's responsibility" to comply with Permit limits, and that the Region may "assure compliance . . . thru the required monitoring & reporting requirements" once violations occur. Exh. P at 1-2. NPDES regulations instead required the Region to ensure compliance in the first instance. *In re City of Marlborough*, slip op. at 22-23, 12 E.A.D. ___ (rejecting Region findings that it would be in the Permittee's interest to comply, and that the Region would determine whether additional treatment was necessary upon Permit expiration).

On remand, the Region should be directed to demonstrate that the Permit will ensure compliance with water quality standards, or make appropriate modifications. *In re City of Marlborough*, slip op. at 23, 12 E.A.D. ___. The Region should also be directed to fully respond to public comments, and to articulate with reasonable clarity the reasons for its conclusions and the significance of the crucial facts in reaching those conclusions.

III. The Region's Failure to Recirculate a Revised Proposed Permit Violated Regulatory Requirements, and Involves an Exercise of Discretion that Warrants Board Review.

NPDES regulations require that applications for Publicly Owned Treatment Works ("POTWs") disclose whether wastewater would be applied to the land, and identify:

(1) The location of each land application site;

(2) The size of each land application site, in acres;

(3) The average daily volume applied to each land application site, in gallons per day; and

(4) Whether land application is continuous or intermittent.

40 C.F.R. § 122.21(j)(1)(viii)(C); Exh. T at 6, 24 (acknowledging that the Permittee's plant is a POTW).

This information became particularly important after the Region agreed to remove Stream A1, and to approve a wastewater disposal plan in which all summer effluent would be applied to land. Yet the Region does not appear to have required the Permittee to revise its application to meet the requirements of 40 C.F.R. § 122.21(j)(1)(viii)(C). The application includes a figure showing a variety of potential land application sites, but does not identify the specific locations that would be irrigated. 40 C.F.R. § 122.21(j)(1)(viii)(C)(1). It does not identify "[t]he size of each land application site, in acres." 40 C.F.R. § 122.21(j)(1)(viii)(C)(2). And it does not identify the "average daily volume applied to each land application site, in gallons per day." 40 C.F.R. §

122.21(j)(1)(viii)(C)(3).

The Region thus appears to have processed an incomplete application in violation of NPDES regulations. On remand, the Region should be directed to obtain the information required by 40 C.F.R. § 122.21(j)(1)(viii)(C), and to independently assess the feasibility of the Permittee's new summer discharge plan.

The Region also should have circulated a revised draft permit and reopened the public comment period upon the removal of Stream A1. The Region's replacement of Stream A1 with a summertime irrigation plan constituted significant new information that "raise[d] substantial new questions concerning" the proposed permit. 40 C.F.R. § 124.14(b). Indeed, the Region itself understood the likely infeasibility of land application, and had explained to Senator Boxer that "the area's hilly topography limits the [Permittee's] ability to dispose of additional effluent by irrigating fields with it." Exh. K at 3. As a result, when it removed Stream A1, the Region should have prepared a new draft permit and statement of basis, and reopened the comment period to give interested persons an opportunity to comment on the information. 40 C.F.R. § 124.14(b)(1)-(3).

The Region's failure to do so violates NPDES regulations and raises transparency and due process concerns warranting review by this Board. On remand, the Board should direct the Region to prepare a new draft permit and statement of basis, reopen the comment period, and allow the public to provide both oral and written comment.

IV. The Region's Response to Comments Requesting a NEPA Analysis Failed to Meet Regulatory Requirements, and Involves an Exercise of Discretion that Warrants Board Review.

Petitioners, Congressman Thompson, and others requested during the public comment period that the Region voluntarily prepare a NEPA document before approving the permit, consistent with the USEPA's Policy and Procedures for Voluntary Preparation of NEPA Documents, 63 Fed. Reg. 58045-47 (Oct. 29, 1998). (Exh. G at 1, Exh. I at Exh. B, pp. 1-3. Petitioners acknowledged that a NEPA analysis was not strictly required, but explained that USEPA's Policy calls for a NEPA analysis where it "can be beneficial in addressing Agency actions." 63 Fed. Reg. at 58046. The USEPA's policy requires consideration of the following criteria:

(a) the potential for improved coordination with other federal agencies taking related actions;

(b) the potential for using an EA or EIS to comprehensively address large-scale ecological impacts, particularly cumulative impacts;

(c) the potential for using an EA or an EIS to facilitate analysis of environmental justice issues;

(d) the potential for using an EA or EIS to expand public involvement and to address controversial issues; and

(e) the potential of using an EA or EIS to address impacts on special resources and public health.

63 Fed. Reg. at 58046.

Petitioners explained that these factors militated in favor of a NEPA analysis here.

Factor (b) particularly warrants a NEPA review, since the Permittee has already constructed extensive development, and caused large-scale traffic, geologic, visual, noise and other ecological impacts by placing buildings and nighttime light sources on a undeveloped hillside. Exh. I at Exh. B. Petitioners explained that the Permittee's inability to discharge additional wastewater is the limiting factor on its major expansion plans, which include construction of a major new hotel and resort, and that this expansion would cause significant direct and cumulative impacts to a wide variety of resource categories, including aesthetics, traffic and circulation, and land use compatibility. Exh. I at Exh. B. Petitioners further explained that the significant cumulative impacts of the Petitioners' development have never been properly addressed under NEPA, and the instant Permit represented the last best chance for doing so.

Petitioners further explained that preparation of a NEPA document would also meet the other four USEPA criteria. A NEPA analysis would expand public involvement and allow resource agencies to address the controversial issues caused by the Permittee's past development and proposed expansion plans, meeting Factor (d). Preparation of an EA or EIS would allow for improved coordination between the agencies with jurisdiction over the resources impacted by the proposed permit, including the Regional Water Quality Control Board, NOAA National Marine Fisheries Service, California Department of Fish and Game, and the County, meeting Factor (a). A NEPA document would also facilitate analysis of environmental justice issues (Factor (c)), and the likely significant

impacts of the Permittee's expansion plans on the public health and the Russian River, groundwater basin, scenic hillside, and other special resources (Factor (e)).

The Region responded by explaining that a NEPA analysis was not required here, a point that Petitioners had already acknowledged. Exh. T at 6. The Region then added just two more sentences:

> EPA believes that all comments on the proposed permit and concerns related to the discharge of wastewater as allowed by the NPDES permit have been adequately addressed through the public comment process for the NPDES permit. EPA does not agree that additional NEPA analysis is warranted.

Exh. T at 6.

This response is insufficient. The Region nowhere discussed the USEPA's Policy or the five factors subject to consideration, and nowhere explained why it had decided against a NEPA analysis. The Region simply asserted without explanation that a NEPA document was not warranted. The Region thus failed to "articulate with reasonable clarity the reasons for its conclusions" and "adequately document its decision making." 40 C.F.R. § 124.17(a)(1); *City of Marlborough*, slip op. at 14, 12 E.A.D. ___ (citing cases). Absent this explanation, the record cannot reflect the "'considered judgment' necessary to support the applicable permit determination." *City of Marlborough*, slip op. at 14, 12 E.A.D. ___ (citing *In re Austin Powder Co.*, 6 E.A.D. 713, 720 (EAB 1997)). The Permit should be remanded to require the Region to perform a NEPA review.

V. The Region's Failure to Limit Discharges to the Plant's Maximum Treatment Capacity Is Not Sufficient to Ensure Compliance with Water Quality Standards.

As noted above, Petitioners, the AVA, and others requested that the Region limit discharges to the Permittee's maximum treatment capacity of 200,000 gpd, to prevent the Permittee from discharging untreated effluent. The Region agreed to impose this limit, both at the April 17 meeting between the parties and during a later telephone call with Petitioners.

The final Permit does not include such a limit, however, potentially due to an oversight by the Region. The Permit does not limit discharges to the treatment capacity of the Permittee's plant, raising a reasonable potential for discharges in violation of federal and state water quality standards.

As noted above, the Permit includes other provisions designed to meet NPDES requirements. Without a limit consistent with the plant's maximum treatment capacity, however, the Region cannot meet its duty to "ensure compliance with the applicable water requirements." *In re City of Marlborough*, slip op. at 21-22, 12 E.A.D. ___. The Permit should be remanded to include the discharge limit promised by the Region.

VI. The Region's Failure to Establish Appropriate Effluent Limitations for Electrical Connectivity and Total Dissolved Solids Is Not Sufficient to Ensure Compliance with Water Quality Standards.

The Permit includes no effluent limitations for electrical conductivity or total dissolved solids, despite evidence that the permitted discharges will cause or contribute to violations of water quality objectives for these parameters.

The final Statement of Basis explains that United Nations studies have recommended a goal of 700 umhos/cm for electrical connectivity to protect the beneficial uses of water for agricultural purposes. Exh. S at 10. It further discloses that the California Department of Health Services has recommended a Secondary Maximum Contaminant Level ("SMCL") of 900 umhos/cm, with an upper level of 1600 umhos/cm and a short term level of 2200 umhos/cm. Exh. S at 10.

The Regional Board uses the United Nations 700 umhos/cm goal to establish compliance with the Basin Plan's narrative water quality objective for the protection of agricultural supplies, which states that "[w]aters designated for use as agricultural water supply (AGR) shall not contain concentrations of chemical constituents in amounts which adversely affect such beneficial use." Basin Plan at 3-4.00. The Basin Plan further incorporates the SMCL levels by requiring that waters not contain concentrations in excess of the limits specified in California Code of Regulations, Title 22, Chapter 15, Division 4, Article 4, Section 64435 (Tables 2 and 3) and Section 64444.5 (Table 5). Basin Plan at 3-4.00. The Region has also specifically limited electrical connectivity in

the Russian River. The Basin Plan imposes a 90% upper limit of 320 umhos/com and a 50% upper limit of 250 umhos/com. Basin Plan, Table 3-1.

Yet the final Statement of Basis discloses that the Permittee may discharge total dissolved solids at an average daily concentration of 1117 mg/l, and a maximum rate of 1300 mg/l per day. Exh. S at 4. Electrical connectivity can be measured by multiplying total dissolved solid data by 1.6 or 1.7. Using a multiplier of 1.6 (the low end of the range), the Statement of Basis thus discloses that the Permittee's discharges would have an average daily concentration of electrical connectivity of 1787 umhos/com, and a maximum of 2080 umhos/cm. Exh. S at 4.

These discharges would exceed both the United Nations goal of 700 umhos/cm and the SMCL values of 900 and 1600 umhos/cm. As a result, the Region should have imposed an effluent limit for electrical connectivity of either 700 umhos/cm or 900 umhos/cm, depending on the use to be protected and potential dilution credits or other site-specific considerations.

The Region included no such limit, however. The Permit instead states that there is "[n]o limit set at this time." Exh. R at 3, Note 3. By way of explanation, the final Statement of Basis states that "[d]ue to lack of discharge data, it is unknown at this time if the discharge from the new WWTP will have the reasonable potential to cause or contribute to an exceedance of water quality standards." Exh. S at 10.

This explanation fails. Petitioners, the AVA, and others explained during the

comment period that discharge data was readily available, since the Permittee has operated its plant for the last several years. Exh. I at 4 of 10, Exh. H at Attachments, page 1. The Region thus could have (and should have) obtained the relevant data, subjected it to a reasonable potential analysis, and imposed appropriate permit limits. Remand is appropriate to require the Region to do so now.

CONCLUSION

The County of Sonoma and Sonoma County Water Agency respect and appreciate the changes ordered by the Region between the draft and final permit, including the removal of Stream A1. The removal of Stream A1 should not have been the end of the process, however. It instead should have triggered a revised application from the Permittee to comply with 40 C.F.R. § 122.21(j)(1)(viii)(C), a revised draft permit evaluating the Permittee' new summer discharge scheme, and a new round of public comment to further transparency and due process goals. It instead appears that the Region rushed to issue the final Permit, under pressure from the Permittee, without a proper review of its compliance with applicable water quality standards.

Petitioners therefore respectfully request that the Environmental Appeals Board grant their petition for review of NPDES Permit No. CA 0005241. In the alternative, Petitioners request that the Board remand the Permit to the Regional Administrator, so she can review and amend permit limits to ensure compliance with California water

quality standards, as required by the Clean Water Act and NPDES regulations.

County of Sonoma and
Sonoma County Water Agency,
By their attorney,

Dated: May 31, 2007

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LIST OF EXHIBITS

A. Permit Application and Engineering Report (Feb. 17, 2005).

B. Letter from Region to Permittee requesting additional information (May 27, 2005).

C. Letter from Permittee to Region with additional application information (June 30, 2005).

D. Letter from Petitioners to Region regarding the Permit Application (March 21, 2006).

E. Proposed Permit (June 29, 2006).

F. Statement of Basis for Proposed Permit (June 29, 2006).

G. Letter from Congressman Mike Thompson to Region regarding the proposed permit (Sept. 18, 2006).

H. Letter from AVA to Region regarding the proposed permit (Sept. 27, 2006).

I. Letter from Petitioners to Region regarding the proposed permit (Sept. 29, 2006).

J. Letter from Regional Board to Region regarding the proposed permit (Oct. 2, 2006).

K. Memo from Ginette Chapman, EPA Region 9 Office of Regional Counsel to record re conference call with the Office of Senator Barbara Boxer (Oct. 6, 2006).

L. Letter from Permittee to Petitioners with first water balance chart (April 17, 2007).

M. Second draft of water balance chart (sent from Region to Petitioners on April 20, 2007).

N. Technical memorandum and third draft of water balance chart (sent from Region to Petitioners on April 25, 2007).

O. Letter from Petitioners to Region re water balance information (April 27, 2007).

P. E-mail from Region to Petitioners re final water balance technical memorandum (April 30, 2007).

Q. California Department of Water Resources, *A Guide to Estimating Irrigation Water Needs of Landscape Plantings in California*, pages 1-22 (Aug. 2000)

R. Final Permit (April 30, 2007).

S. Final Statement of Basis (April 30, 2007).

T. Responses to Comments Document (April 30, 2007).

U. Final technical memorandum and water balance chart (included as Appendix 3 to Responses to Comments Document) (April 30, 2007).