September 10, 2001

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Re: Comments on Draft Program Environmental Impact Report for the Draft Dairy Element of the Kings County General Plan

The Center on Race, Poverty & the Environment submits these comments on the Draft Program Environmental Impact Report ("PEIR") for the Draft Dairy Element ("Element") on behalf of the Association of Irritated Resident, an unincorporated association of Central Valley residents dedicated to improving air quality and environmental health in the San Joaquin Valley. The comments demonstrate that the PEIR violates the California Environmental Quality Act (CEQA), Cal. Pub. Res. Code § 21000 et. seq.

The purpose of Environmental Impact Reports, to meet the objectives of CEQA, is "to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided." Cal. Pub. Res. Code § 21002.1(a). The PEIR for the Element fails to meet the Legislature's command in nearly every respect.

CRPE sets forth the following comments specific to the relevant sections of the PEIR. Because the PEIR fails to comply with CEQA, it should be rewritten and recirculated for additional public comment. CEQA requires recirculation when "significant new information is added to an EIR." Cal. Pub. Res. Code § 21092.1. Significant new information changes the EIR in such "a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect." Laurel Heights Improvement Association v. Regents of the University of California (1993) 6 Cal.4th 1112, 1129-1130 (hereafter Laurel Heights II).

I. General Comments on the PEIR

Nature and Background of the Project and Purpose

The PEIR makes clear that the purpose of the Dairy Element and the PEIR is to streamline the dairy permitting process and eliminate future environmental review. Program EIRs can serve two possible functions: (1) as a "first tier" EIR, off which subsequent site specific EIRs and Negative Declarations will branch, or (2) as a single environmental document under which an agency can carry out an entire program without preparing a subsequent environmental document.1

The PEIR makes it clear that Kings County hopes this Program EIR will serve the later function as a single environmental document thereby foreclosing any opportunity for public comment in the future. However, under CEQA Guidelines § 15168, if a Program EIR is to eliminate the need for future environmental review, it must deal with the effects of the program as specifically and comprehensively as possible. Because CEQA is primarily concerned with providing the public with information and an opportunity to comment on proposed projects, courts look very carefully and demand a very detailed analysis of the specific consequence of a project when the lead agency seeks to do away with future public review.2 The subsequent sections of these comments indicate that the PEIR lacks this comprehensive and specific analysis as required by CEQA.

In addition, given the nature of the dairy industry it is uncertain whether a Program EIR


2Id. at 530
for the dairy industry will ever be specific and comprehensive enough to satisfy CEQA. The PEIR recognizes the importance of dairy management practices in preventing environmental impacts from dairies. Underscoring this importance are the number of site specific reports that dairy proponents need to prepare. These include: a geotechnical report, comprehensive nutrient management plan, comprehensive dairy process water disposal plan, hazardous waste material plan, manure treatment management plan, odor management plan, livestock management plan, irrigation management plan, integrated pest management plan, dead animal management plan, wildlife survey, and a fugitive dust emissions control plan. These plans allow analysis of impacts and mitigation to be deferred until after the plans are prepared and thus eliminate any public review of these impacts. Given the importance of site specific information in the process and the importance of public comment on the sheer number of reports, a PEIR that forecloses all future CEQA review for dairies is inappropriate.

Manure Transport

The PEIR does not identify, analyze, or mitigate the environmental impact of transporting manure from dairies in the Dairy Development Overlay Zone (DDOZ) to cropland in the Nutrient Spreading Overlay Zone. See Figure 3-2 at PEIR 3-7. The theoretical maximum herd size depends on dairies in the DDOZ applying manure in the NSOZ. How that manure gets from the dairies to the distant fields has not been identified, analyzed, or mitigated. Decision makers and the public need to be aware of difficult problems so that environmental impacts are not swept under the rug.

BACM Undefined

The Element excludes a definition of the term “Best Available Control Measures” (“BACM”) from appendix B of the Element. The Element uses BACM when discussing air quality impacts.

Enforcement

Vigorous enforcement ultimately is what really counts here. The Element will only work if used in conjunction with vigorous enforcement. The Kings County Planning Agency (“Planning Agency”) needs to have the financial resources and political will to enforce the Element. Thus far, the Planning Agency has shown a reluctance to enforce violations of conditional use permits.

For example, the Galhandro Dairy exceeded the total number of cows allowed in its CUP and over-applied manure to cropland. The Planning Agency knew of this condition for two years and failed to do anything. The ultimate solution to the problem was to help the dairyman get a
new permit and come into compliance. The County did not penalize, fine, or in any way reprimand the dairyman.

This “enforcement” saga speaks volumes about Kings County’s willingness to enforce the law. The County has shown little or no interest in enforcing existing County law, and there is no evidence in the record which shows an increased commitment to enforce the law. Given the lack of vigorous enforcement history, the policies on which the PEIR relies to prevent or reduce environmental impacts have no practical value whatsoever.

This is especially troubling given that the County hopes to bring existing dairies into voluntary compliance by 2006. The County has eliminated all language that described the consequences of existing dairies failing to come into compliance. In the December 2000 draft of the PEIR, DE 8.1c read “[a]ny dairy that is improperly located or has other specific characteristics that cannot be mitigated to current standards may become a nuisance and may, on those grounds, be required to take specific corrective action such as reducing its herd size, increase usable farmland, ceasing operation, etc.” The fact that this language was stricken from the current draft does not speak well of the County’s willingness to enforce the provisions of this PEIR on dairies in the County.

Buffer Zones

Policies 1.2g, 1.2h and 1.2i create buffer zones around schools, other dairies and residential areas, respectively. Yet, the policies do not limit the distance from dairies to other agricultural uses. Tulare County, in creating its policies, recognized that dairies in close proximity to other agricultural uses can have a negative impact. Kings County’s policies should include an appropriate buffer zone for these other agricultural uses.

II. Theoretical Maximum Herd Size

The PEIR bases numerous calculations and assumptions upon the theoretical maximum herd size for the county. Future dairy development under the Element will consider this herd size. Because the maximum herd size plays such an important role throughout the PEIR and the future planning of the Kings County dairy industry, it is imperative that the herd size estimation is accurately and truthfully calculated. Yet, the analysis does not use the dairy herd figures for

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3Letter from James Rader, Code Compliance Specialist, to Mr. and Mrs. Manuel Galhandro regarding Notice of Violation (March 23, 1998); Letter from Kings County Code Compliance to Mr. and Mrs. Manuel Galhandro regarding Notice of Violation – Final Warning (March 10, 1999); Letter from Lonnie Wass, Senior Engineer, Central Valley Regional Water Quality Control Board to Mr. Manuel Galhandro regarding Notice of Violation (March 24, 2000); Letter from James Rader, Code Compliance Specialist, to Manuel Galhandro regarding Notice of Violation and Order to Comply (April 10, 2000); Estimated Timeline for Conditional Use Permit No. 98-14 (Galhandro). Attached as Appendix A.
the year 2000. The note on DE-7 indicates that the figures were released in April 2001. The PEIR was circulated in May of 2001. The more current figures could have been used, but were not. The PEIR should be recirculated using the current information. Even using the outdated data, the comments in this section show the flaws in the herd size calculation. Because the public and decision makers need an accurate and truthful analysis of Kings County’s dairy capacity before an ecological point of no return, the EIR should be recirculated. As an informational document, the PEIR bases environmental impacts of future development upon a flawed maximum herd size.

Cotton and Salt Uptake

The theoretical maximum herd size is based upon two limiting factors: salt and nitrogen. Dairy manure contains 927 pounds of non-nitrogen salts per 100 pounds of nitrogen.\(^4\) If plants do not remove an adequate amount of salt from the soil, salt loading occurs, causing a major threat to groundwater quality.\(^5\)

Cotton accounts for approximately 333,464,000 pounds of theoretical salt uptake per year (166,732 acres of cotton for manure disposal multiplied by the Tulare Lake Basin Plan single crop salt load maximum of 2,000 pounds acre/year). Element Table No. 5. The total salt uptake per year as set forth in Table 5 is 571,321,170 pounds. Cotton acreage therefore accounts for 58.4% of the total salt uptake.

However, the PEIR needs to analyze the cotton salt uptake in order to generate an accurate dairy herd size maximum. Cotton growers harvest the cotton fiber from the plants and till the plants back into the soil. The net amount of salt removed from the soil would only be the salt contained in the harvested cotton itself. Salt remaining in plant tissue would never leave the field. Thus, salt loading would occur in cotton fields creating a substantial threat to groundwater quality.

Nitrogen Calculation

Additionally, crops’ nitrogen uptake rates limit the dairy maximum herd size. The calculation of available nitrogen assumes all liquid manure remains stored in lagoons for more

\(^4\)Regional Water Quality Control Board Santa Ana Region, *Dairies and their Relationship to Water Quality Problems in the Chino Basin, California* (July 1990), at III-21 (hereafter “Chino Basin Study”). Attached as Appendix B; Borba Farms EIR at 4.3-9. Attached as Appendix C. “Non-nitrogen Salts” refers to Calcium (Ca), Magnesium (Mg), Sodium (Na), Potassium (K), Chloride (Cl), Sulfate (SO\(^4\)), and Phosphate (HPO\(^4\)).

\(^5\)PEIR 4.3-9 through 4.3-10; See also Chino Basin Study at I-24, I-26 (Chino dairies are responsible for either 88% or 60% of total agricultural salt loading in the Chino Groundwater Basin, depending on methodology employed).
than 60 days, thus leaving 50% of the total excreted nitrogen available for application to crops based on the assumptions laid out in the Element. Element, Table No. 5. Because nitrogen limits the maximum herd size, minimizing the amount of available nitrogen allows for more animals in the herd. The PEIR has set forth no justification for choosing between the 30% (<30 days storage), the 40% (30-60 days) and the 50% the (> 60 days) loss rates. Also, there is no justification for eliminating the 30% (<30 days storage), the 40% (30-60 day storage) and the 50% (> 60 days storage) loss rates.

Salt Uptake

The theoretical maximum herd size depends on the ability of crops to uptake salt. The herd size calculation uses the Tulare Lake Basin Plan's maximum salt loading figures of 2,000 pounds/acre/year (single-crop) and 3,000 pounds/acre/year (double-crop) to analyze salt loading. However, neither the Element nor the PEIR discloses the actual rates of salt uptake for various crops. Because some crops may uptake less than the Tulare Lake Basin Plan's figures, some salt loading may occur. Parts of Kings County already have severe levels of salt in the soil and groundwater. See PEIR Figure 4.3-4 at 4.3-10. The PEIR should analyze the anticipated amount of salt loading, including non-nitrate salts, from crop application. This information is critical to decision makers' ability to weigh the importance of protecting groundwater quality versus dairy development. The Natural Resource Conservation Service Agricultural Waste Management Field Handbook provides calculations necessary to estimate salt uptake. Because this information has been excluded, the PEIR should be recirculated.

Crop Nutrient Utilization

The PEIR does not account for crop uptake of phosphates (P<sub>2</sub>O<sub>5</sub>) and potash (K<sub>2</sub>O). The Natural Resource Conservation Service (NRCS) regards phosphorus (P) as a potential source of surface and groundwater pollution.

"If manure application based on [nitrogen] has occurred for many years, rapid build up of [phosphorous] levels in soils create the potential for [phosphorous] losses to surface waters through runoff. Although protecting groundwater from nitrate leaching and limiting ammonia volatilization are major concerns, the management emphasis has shifted to [phosphorous] in many areas of the U.S."" 24-14

The PEIR should evaluate phosphorous impacts to surface and groundwater. These

6Natural Resource Conservation Service, U.S. Dept. of Agriculture, Agricultural Waste Management Field Handbook at 6-19 to 6-21 (hereafter “Field Handbook”). Attached as Appendix D.

impacts will occur given the Element's decision to base nutrient loading on nitrogen. This is a major potential environmental impact that the PEIR failed to identify, analyze or mitigate. The PEIR should be recirculated.

The PEIR concludes that there will be a less than significant impact to groundwater under the Element. The Element establishes a maximum herd size for the County. The maximum herd size is based on nitrogen and salt limiting factors. The Element analyzes nitrogen through crop uptake (demand) and cow output (supply). The more demand for nitrogen, the more cows the County can have.

Nitrogen uptake figures, as expressed in pounds/acre/year, are set forth at Table 5 of the Element. The table claims that the nitrogen uptake figures are based on the U.C. Extension Service and the NRCS. The table claims a certain amount of nitrogen demand given a certain yield per crop. This table overstates the demand for nitrogen and, as a result, allows more cows in the maximum theoretical herd size.

CRPE calculated the nitrogen uptake of alfalfa and cotton\(^8\) using the methodology set forth in the NRCS Agricultural Waste Management Field Handbook. The results are set forth in the table below:

<table>
<thead>
<tr>
<th>Crop</th>
<th>Plant N Percentage(^9)</th>
<th>Yield (lb/acre/year)</th>
<th>N Uptake (lb/acre/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa</td>
<td>2.25%</td>
<td>18,000(^{10})</td>
<td>405</td>
</tr>
<tr>
<td>Cotton (lint)(^{11})</td>
<td>2.67%</td>
<td>1,500(^{12})</td>
<td>40</td>
</tr>
</tbody>
</table>

Using NRCS percentages to calculate Nitrogen uptake illustrates the fact that despite citation to the NRCS in general, the uptake figures used in Table 5 of the Element overstate the

\(^{8}\)Alfalfa and cotton account for 226,219 acres of the 360,024 available crop acres as used in Table 5 (62.8%).

\(^{9}\)Field Handbook at 6-19 to 6-21.

\(^{10}\)Element at Table No. 5.

\(^{11}\)Only cotton lint is set forth because cotton growers plow the plant stalk back into the ground after harvest. Nutrients in the plant therefore to not leave the field.

\(^{12}\)Merced County Comprehensive Nutrient Management Plan at Table 6. CRPE used this figure because it could not ascertain the weight of bales as used in the Table 5. Attached as Appendix E.
demand of Nitrogen and thus allow a larger maximum herd.

If this maximum herd number is used for analysis in the PEIR, then conclusions in the PEIR regarding threats to groundwater are not accurately based upon fact. It would be an abuse of discretion to rely on the data in Table 5, citing to the NRCS, when actual analysis under the NRCS Field Handbook yields a major decrease in the Nitrogen uptake figures.

III. Air Quality

Setting

The PEIR discloses the fact that the San Joaquin Valley Air Basin is currently in nonattainment for the Federal standards for ozone and particulate matter with an aerodynamic diameter less than or equal to ten microns (PM$_{10}$). PEIR 4.2-3 The PEIR does not disclose the degree of nonattainment (i.e. “severe” or “serious”), nor does the PEIR disclose ambient levels of criteria air pollutants or ammonium nitrate.

Moreover, the PEIR does not disclose the consequences to Kings County, the other counties in the Air Basin, and California if the San Joaquin Valley Air Basin does not achieve attainment under the Federal Clean Air Act. The PEIR should disclose the consequences of continued nonattainment to highway funds, businesses, and local governments through increased regulatory requirements and loss of Federal funds.

Health and Environmental Effects of Air Pollution

CEQA requires that the EIR identify and discuss the direct and indirect significant effects of a project with consideration to short-term and long-term effects. CEQA Guidelines § 15216.2(a). The PEIR estimates and describes thousands of tons of air pollutants that will be emitted under the terms of the Element. The PEIR devotes a few sentences to the discussion of the health and environmental effects associated with the project’s huge emissions. Nor does the PEIR attempt to describe the economic consequences of air quality impacts. While the PEIR talks about air pollution, it does not inform decision makers or the public what this air pollution means.

The PEIR fails to analyze ozone health impacts

The PEIR inadequately examines ozone’s effect on human health. ROG reacts with oxides of nitrogen to form ozone, also known as smog. The PEIR quantifies the amount of ROG generated from dairies, but does not disclose the amount of ozone generated. Furthermore, the PEIR does not discuss the health effects from ozone adequately. In one sentence, the PEIR discloses that ozone exposure “causes damage to lung tissue in humans.” PEIR at 4:2-14. Ozone

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is among the most dangerous of the common air pollutants. The PEIR must analyze impacts associated with this project and future dairy projects permitted pursuant to this PEIR. Ignoring impacts violates CEQA. A “legally adequate EIR must contain sufficient detail to help ensure the integrity of the process of decisionmaking by precluding stubborn problems or serious criticism from being swept under the rug.” Kings County Farm Bureau v. Regents of the University of California (1988) 47 Cal.3d 376, 405-405 (“[a]n EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project”).

Given the Air Basin’s nonattainment status and the severity of the ozone pollution in Kings County and the San Joaquin Valley, a one sentence acknowledgment of health effects is insufficient under CEQA. Decision makers and the public need to be able to put the project in a context so that they may critically evaluate the benefits and burdens of further dairy development. An analysis of R\OG emissions must do more than just quantify those emissions. It must inform decisionmakers and the public about what that pollution means.

Moreover, the PEIR fails to disclose the quantities of ammonium nitrate and hydrogen sulfide emissions. The County is required to make a reasonable effort to discover and disclose impacts in this environmental document. By sweeping this issue under the rug, the PEIR has precluded meaningful public participation by denying the public information about ammonia (ammonium nitrate) and hydrogen sulfide effects. The PEIR thus fails in its core function as an informational document.

The PEIR fails to meaningfully disclose documented particulate matter health effects

The PEIR fails to identify health impacts associated with particulate matter pollution. Ammonia reacts with oxides of nitrogen to form ammonium nitrate, a PM\textsubscript{10} particulate. The setting section identifies PM\textsubscript{10} and PM\textsubscript{2.5} yet explains their health effects in one sentence. See PEIR at 4:2-11, 12. The PEIR discloses that PM\textsubscript{10} aggravates respiratory conditions such as asthma and PM\textsubscript{2.5}, has been linked to “asthma, bronchitis, acute and chronic respiratory systems... and premature death.” PEIR 4:2-13. Given the severity of the potential health effects, this is analysis is woefully inadequate.

The PEIR’s failure to discuss health impacts associated with particulate matter pollution precludes meaningful public participation: when the PEIR limits disclosure, the public is denied a meaningful opportunity to comment upon the project’s other health impacts – increased risk of death, for example. The DEIR should be recirculated with information detailing particulate matter health impacts.

While the PEIR discloses that PM\textsubscript{2.5} causes premature death, it does not explain what that

\textsuperscript{13}American Lung Association, State of the Air: 2002 at 21. Attached as Appendix F.
means and how many people and expect to be affected nor does it discuss the similar health related effects of PM_{10}. PEIR 4:2-11,12. A recent study published in the NEW ENGLAND JOURNAL OF MEDICINE concluded that levels of particulate matter with an aerodynamic diameter of ten microns or less (PM_{10}) are directly related to death rates overall, and to cardiovascular and respiratory death rates in particular. The study found that with each increase of 10 μg per cubic meter of PM_{10}, the relative rate of death from all causes rises by .51%. The study further found that with each increase of 10 μg per cubic meter of PM_{10}, the relative rate of death from cardiovascular and respiratory causes rises by .68%. The study concludes by stating that the "analyses provide evidence that particulate air pollution continues to have an adverse effect on the public’s health and strengthen the rationale for limiting levels of respirable particles in outdoor air."17

Particulate matter pollution, especially fine particulate matter (PM_{2.5}), has a major health impact. Those most at risk are the very young, the elderly, and those with pre-existing cardiopulmonary illness. Particulate pollution’s long term health consequences on otherwise healthy adults shortens life expectancy by 2.5 to 3.1 years.19 The PEIR needs to discuss the health related effects of particulate matter pollution. Its failure to do so precludes informed decisionmaking and public participation: decisionmakers and the public have no idea what health impacts this project will have both currently and in the future as more dairies are built in Kings County pursuant to the PEIR.

Piecemealing

The PEIR must view the project as a whole, analyze, and mitigate impacts. CEQA prohibits “piecemealing” of the project. See CEQA Guidelines § 15165. “[E]nvironmental considerations do not become submerged by chopping a large project into many little ones, each


15Id. at 1744.

16Id. at 1745.

17Id. at 1748.


with a potential impact on the environment, which cumulatively may have disastrous consequences." Burbank-Glendale-Pasadena Airport Authority v. Henster (2d Dist. 1991) 233 Cal.App.3d 577, 592 (hereafter "Henster").

The PEIR, in effect, piecemeals project-related PM$_{10}$ emissions. Specifically, the project would generate PM$_{10}$ from construction-related emissions (Impact 4.2-1), construction equipment emissions (Impact 4.2-2), operational fugitive dust (Impact 4.2-3), operational dairy equipment exhaust emissions (4.2-4), and associated operational vehicular exhaust emissions (Impact 4.2-10).

The PEIR also piecemeals project-related ROG emissions. Implementation of the Element would generate ROG from construction equipment emissions (Impact 4.2-2), operational dairy equipment exhaust emissions (4.2-4), manure decomposition (Impact 4.2-6), and associated operational vehicular exhaust emissions (Impact 4.2-10).

Implementation of the Element would result in massive PM$_{10}$ and ROG emissions from the combined sources identified above, yet the PEIR chops up the sources of emissions into innocuous less-than-significant chunks. This practice offends the letter and spirit of CEQA. A new PEIR should be drafted which considers and mitigates the impact of the Element as a whole, rather than individual parts.

**Impact 4.2-1: Construction-Related PM$_{10}$ Emissions**

The PEIR does not quantify construction-related PM$_{10}$ emissions. Further, the PEIR claims that with control measures specified by Element Policy 5.1d, the impact will be reduced to a less-than-significant level. PEIR at 4.2-52. The PEIR reaches this conclusion without data and without analysis. The PEIR sets forth no baseline emission figure nor a discussion of the reduction measures contained in Policy 5.1d would have. This constitutes a prejudicial abuse of discretion.

A potential mitigation measure for construction-related PM$_{10}$ emissions would be a requirement to purchase PM$_{10}$ offsets. The proponent would “offset” PM$_{10}$ emissions from the project using emission reductions from other nearby sources. Alternatively, the reductions could from within the project itself. The PEIR, as discussed above, identifies several pollutants from various activities on the dairy. By controlling emissions in one area to offset emission in another, the project could also move forward and reduce the air pollution impacts overall. The project and the non-project reductions would allow the project to go forward and reduce the overall air quality burden.\(^{29}\)

\(^{29}\) Letter from Cliff R. Scholle, Air Quality Scientist, to Tony Olivera, Vice-Chair, Kings County Board of Supervisors regarding the Chamberlain Ranch Project at 2 (March 24, 2000). (hereafter “Scholle Letter”). Attached as Appendix J.
Impact 4.2-2: Construction-Related Vehicular Exhaust Emissions

The PEIR does not quantify construction-related vehicular ROG, NOx, and PM\textsubscript{10} emissions. Further, the PEIR claims that with control measures specified by Element Policy 5.1g, the impact will be reduced to a less-than-significant level. PEIR at 4.2-53. The PEIR reaches this conclusion without data and without analysis. The PEIR sets forth no baseline emission figure nor a discussion of the reduction measures contained in Policy 5.1g would have. This constitutes a prejudicial abuse of discretion.

Using data from the Boswell EIR, CRPE calculated construction-related exhaust emissions from new dairy construction. The Four-dairy Chamberlain Ranch Project (Boswell) would have generated 2,076 pounds of ROG, 31,816 pounds of NOx, and 2,808 pounds of PM\textsubscript{10} during construction. Kings County’s remaining dairy capacity equals 542,928 cows (PEIR 6-6, Table 6-1).\textsuperscript{21} Therefore, future dairy expansion equals 11.38 Chamberlain Ranch-sized projects (542,928 divided by 47,700\textsuperscript{22}). Using these numbers, construction-related exhaust emissions under the terms of the Element would be 11.81 tons of ROG, 181 tons of NOx, and 15.97 tons of PM\textsubscript{10}.

These emissions exceed mandatory significance thresholds for ROG, NOx, and PM\textsubscript{10}. PEIR Table 4.2-4 at 4.2-44 (10, 10, and 15 tons, respectively). The PEIR illegally piecemeals the Element by separately analyzing and mitigating air emissions impacts for ROG, NOx, and PM\textsubscript{10} from different components of the element. Because the project as implemented would lead to a significant environmental impact from construction-related ROG, NOx, and PM\textsubscript{10} emissions, the PEIR must discuss feasible mitigation measures. See CEQA Guidelines § 15126.4. The PEIR’s less-than-significant finding constitutes a prejudicial abuse of discretion.

A potential mitigation measure would be a requirement that (1) diesel-powered construction equipment use the cleanest burning diesel fuel available; (2) only “clean diesel” equipped construction equipment may be used in the construction and grading of a new or expanded dairy operations; and offsets

Impact 4.2-3: Operational PM\textsubscript{10} Emissions

The most glaring omission in this discussion of PM\textsubscript{10} emissions is the absence of any discussion of health impacts from PM\textsubscript{10} emissions. Decision makers and the public need to know the impacts associated with dairy operation before those impacts occur. This PEIR should analyze health impacts associated with particulate matter pollution.

The PEIR considers that operational PM\textsubscript{10} emissions alone constitute a significant and

\textsuperscript{21}Boswell EIR at 4.2-28. Attached at Appendix K.

\textsuperscript{22}Boswell EIR at 2-1. Attached at Appendix K.

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unavoidable impact. Policy 5.1e recognizes that water or chemical stabilizers will have an efficacy rate of 50% to 75%. DE-37. The PEIR states that no “additional feasible mitigation measures are available.” PEIR at 4.2-60. However, the PEIR does not consider Best Available Control Measures (BACM)23 beyond the most recently adopted San Joaquin Valley Unified Air Pollution Control District (SVUAPCD) Regulation VIII. This regulation currently does not require dust control in corrals, nor does the proposed version of the rule.

A potential mitigation measure would be the requirement of BACM, accompanied by a definition, for reducing cattle generated corral PM_{10} emissions. As set forth in the PEIR, there is no Element Policy or mitigation measure which addresses this huge source of PM_{10} emissions.

A second potential mitigation measure would be a requirement that support stock be put to pasture, rather than confined in corrals. Milk Cows confined in freestalls generate “little to no fugitive dust.” PEIR at 4.2-54. Pasture would generate far less PM_{10} emissions than corrals. The pasture mitigation would also eliminate the water quality impact of corrals, infra, provide habitat to some species, and may be used to apply manure wastewater.24

An third potential mitigation measure for operational PM_{10} emissions would be the use of offsets. The proponent would “offset” PM_{10} emissions from the project using emission reductions from other nearby sources. The non-project reductions would allow the project to go forward and reduce the overall air quality burden.25

Impact 4.2-4: Operational vehicular emissions

The PEIR does not quantify expected emissions from dairy equipment. The section relies upon Policy 5.1j to claim that dairy exhaust emissions under the element would be reduced to a less-than-significant level. The PEIR accomplishes this feat by “piecemealing” the impact of the Element. CEQA prohibits piecemealing. See CEQA Guidelines § 15165. “[E]nvironmental considerations do not become submerged by chopping a large project into many little ones, each with a potential impact on the environment, which cumulatively may have disastrous consequences.” Hensler 233 Cal.App.3d at 592.

Policy 5.1j allows operational emissions to be piecemealed into individual new or expanded dairy projects implemented under the Element. A 5,000 milk cow dairy facility would not emit ROG, NOx, and PM_{10} in quantities that would exceed SVUAPCD significance thresholds. The PEIR must evaluate the impact of the program as a whole and not piecemealed

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23 The Element does not define BACM. Therefore, the public and decision makers do not know what the term means or requires.

24 Pasture land uptakes 192 lbs/acre/year of nitrogen. See Element, Table No. 5.

25 Scholle Letter.
into more manageable chunks.

Implementation of the Element would cause massive amounts of emissions from operational dairy equipment. A 5,000 milk cow dairy facility would emit 0.4, 4.6, and 0.3 tons of ROG, NOx, and PM10 per year, respectively. PEIR at 4.2-60. The Element allows for future growth of 257,312 additional milk cows. PEIR at 2-2. This means that the Element allows approximately fifty-one additional 5,000 milk cow dairy facilities (244,715 divided by 5,000 equals 51.5). Using simple math, the total emissions from operational dairy equipment at new and expanded dairies under the Element would be 20.6, 234.6, and 15.5 tons of ROG, NOx, and PM10 per year, respectively.

These emissions exceed mandatory significance thresholds for PM10, 15 tons per year, ROG and NOx, 10 tons per year each. PEIR Table 4.2-4 at 4.2-44. The PEIR illegally piecemeals the Element by separately analyzing and mitigating air emissions impacts for ROG, NOx, and PM10 from different components of the element. Because the project as implemented would lead to significant environmental impact from dairy equipment ROG and NOx emissions, the PEIR must discuss feasible mitigation measures. See CEQA Guidelines § 15126.4. The PEIR’s less-than-significant finding constitutes a prejudicial abuse of discretion.

A potential mitigation measure would be the requirement that all future new dairies and dairy expansions use natural gas powered vehicles and farm equipment. Dairies can even become their own supplier of fuel, if captured on-site methane is used as fuel.

Impact 4.2-5: Odor

The PEIR recognizes that manure treatment technologies (i.e. aerobic treatment systems or anaerobic digester systems) “are available to reduce odors generated by manure storage and collection systems.” PEIR at 4.2-63. The PEIR relies on a number of Element Policies in its conclusion that the Element when implemented would reduce dairy odor. PEIR at 4.5-64, 65, 66.

Element Policy 5.1c requires the dairy proponent to prepare a manure treatment management plan (MTMP). This plan must include advanced treatment technology to reduce emissions of ROG and other air pollutants. The policy states that advanced treatment technologies include anaerobic digesters, aerobic treatment or a combination of the two. However, the policy does not specify what system is to be used or if these are the only systems that may be used. Rather, the PEIR defers odor mitigation measures to the future discretion of the proponent and the Dairy Monitoring Office based on a determination of what is “economically feasible.” The PEIR may not defer “the obligation to formulate and adopt mitigation until a specific development project is proposed.”

26 See Rio Vista Farm Bureau Center v. County of Solano (1st Dist. 1992) 5 Cal.App.4th 351, 376 (hereafter Rio Vista); Citizens for Quality Growth v. City of Mt. Shasta (3d Dist. 1988) 198 Cal.App.3d 433, 442; see also CEQA

26Remy at 388.
Guidelines § 15126.4(a)(1)(B).

The policy then goes on to require that MTMP demonstrate that the advanced treatment selected must achieve a 50% reduction in volatile solids within the treated manure and waste water. This policy is based on the assumption that when 100% of the volatile solids are removed from the manure, no additional gaseous compounds are released. PEIR 4:2-21. However, the PEIR provides no support for this assumption. In fact, the PEIR, states that the effectiveness of these manure treatment systems to control air pollution is not known. PEIR 4:2-27. Without supplying the documentation supporting its assumption, the County is preventing the public and decision makers from fully participating in the process.

Element Policy 6.1c supplements policy 5.1c by requiring the Dairy Monitoring Office to establish monitoring the implementation of the MTMP. Here again, this supposedly comprehensive PEIR defers regulation making and implementation to another agency. This is a violation of CEQA, as stated above. Policy 6.1f sets out some minimum requirements for this monitoring program. Policy 6.1f is nebulous. It states that “[i]n the event testing methods are developed for estimating ROG, NOx, hydrogen sulfide, ammonia, and methane emissions from the treatment process become available...” However, no criteria is established for determining when these methods are “available.” There is always disagreement about the appropriateness of testing methods. How will this be resolved to ensure that monitoring is performed in the County? The public and decision makers need this information to evaluate the project and participate in the process. Exclusion of this information is a violation of CEQA.

**Impact 4.2-6: ROG Emissions**

The PEIR fails to adequately discuss and require feasible mitigation measures for ROG emissions. For the reasons set forth for Impact 4.2-5, supra, the PEIR violates CEQA and should be recirculated.

Furthermore, the PEIR’s discussion of ROG emissions lacks sufficient analysis. In order to complete the required analysis, the lead agency is to “attempt in good faith to fulfill its obligation under CEQA to provide sufficient meaningful information regarding the types of activity and environmental effects that are reasonably foreseeable.” *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 206. In *Stanislaus*, the disputed EIR stated that there would be a “significant unavoidable impact,” but did not include the facts describing that impact, citing the lack of studies and lack of determination of the exact source of water for a housing development. The court stated that this kind of conclusory statement with no facts to assist in the decision-making process defeated the purpose of CEQA. Id. at 195.

As in *Stanislaus*, the PEIR here lacks facts and analysis concerning the impact massive ROG emissions would have on air quality in Kings County and the Valley. The San Joaquin Valley Air Basin is in nonattainment for ozone, yet the PEIR omits discussion on how increased ROG emissions would impact nonattainment status and region-wide efforts to achieve...
Impact 4.2-7: Ammonia Emissions

The PEIR quantifies ammonia emissions and discloses that ammonia reacts with sulfates and nitrates in the atmosphere to form ammonium nitrate, a PM$_{2.5}$. The PEIR does not attempt to quantify the amount of ammonium nitrate which forms in the San Joaquin Valley Air Basin as a result of ammonia emissions from manure decomposition. Because of the severe health issue surrounding PM$_{2.5}$ impacts, the PEIR should identify and analyze PM$_{2.5}$ emissions.

"The EIR has been described as the ‘heart of CEQA’; it is an ‘environmental alarm bell’ which has the objective of alerting the public and governmental officials to the environmental consequences of decisions before they have reached ecological points of no return." Rio Vista 5 Cal.App.4th at 368. The public and the decision makers need to know the implications of ammonia emissions and not just how many tons the cows of Kings County will generate. Fine particulate matter has a tremendous public health impact and this PEIR must analyze the issue. An EIR is an informational document; this PEIR provides no health analysis of ammonia impacts or ammonium nitrate.

Here, Kings County’s PEIR violates CEQA in the same way the EIR did in Stanislaus. The PEIR lacks facts concerning the amount of PM$_{2.5}$ generated from Kings County dairies and the impact that pollution will have on Valley residents. Kings County has not fulfilled its obligation under CEQA to provide sufficient, meaningful information on ammonia impacts. A glib finding of significant and unavoidable, without facts necessary to an informed decision, precludes informed decision making and public participation.

The PEIR also fails to adequately discuss and require feasible mitigation measures for ammonia emissions. For the reasons set forth for Impact 4.2-5, supra, the PEIR violates CEQA and should be recirculated.

Impact 4.2-8: Hydrogen Sulfide Emissions

The PEIR also fails to adequately discuss and require feasible mitigation measures for hydrogen sulfide emissions. The PEIR fails to quantify hydrogen sulfide emissions. Additionally, for the reasons set forth for Impact 4.2-5, supra, the PEIR violates CEQA. The PEIR should be recirculated.

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27Summary by Jeanne Panek, PhD. Attached as Attachment L.

28See Comments on Impact 4.2-6.
Impact 4.2-9: Methane Emissions

The PEIR also fails to adequately discuss and require feasible mitigation measures for methane emissions. For the reasons set forth for Impact 4.2-5, supra, the PEIR violates CEQA. The PEIR should be recirculated.

Impact 4.2-10: Increased Local Air Pollutant Emissions from Dairy-Related Vehicular Traffic

The PEIR identifies dairy-related vehicular air emissions. It lists the pollutants CO, ROG, NOx, and PM10 but does not quantify the emissions. Without analysis, the PEIR concludes that CO, ROG, NOx, and PM10 emissions will not exceed SJVUAPCD significance thresholds. Thus, the PEIR violates CEQA because the County has reached a less-than-significant impact conclusion without any analysis or evidence.

The Boswell EIR quantified dairy-related vehicular emissions. CRPE calculated dairy-related vehicular emissions for new or expanded dairies under the Element using the figures contained within the Boswell EIR. Dairy A for the Boswell Dairy Development was planned to contain 7,560 total cows. Dairy A's dairy-related vehicular emissions were estimated to be 0.19, 0.97, and 0.02 tons per year of ROG, NOx, and PM10, respectively. Kings County's remaining dairy capacity equals 542,928 cows. PEIR at 6-6. Thus, Kings County would develop an additional 71.8 dairies equivalent in size to Dairy A. Using Dairy A's figures, the future development of Kings County's dairy herd under the terms of the Element would generate 13.62, 69.6, and 1.4 tons per year of ROG, NOx, and PM10, respectively.

These emissions exceed mandatory significance thresholds for ROG and NOx, 10 tons per year each. PEIR Figure 4.3-4, Table 4.2-4 at 4.2-44. The PEIR illegally piecemals the Element by separately analyzing and mitigating air emissions impacts for ROG, NOx, and PM10 from different components of the element. Because the project as implemented would lead to a significant environmental impact from dairy-related vehicular ROG and NOx emissions, the PEIR must discuss feasible mitigation measures. See CEQA Guidelines § 15126.4. The PEIR's less-than-significant finding constitutes a prejudicial abuse of discretion because the County has failed to proceed in a manner required by law.

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29 Boswell EIR at 3-5. Attached at Appendix K.

30 The Boswell EIR did not estimate CO emissions. A recirculated PEIR should quantify CO emissions.
IV. WATER QUALITY

Surface Water Quality

The PEIR does not discuss the current state of Kings County's surface waters. "The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context." CEQA Guidelines, § 15125(c) (emphasis added). Individual and cumulative impacts must be evaluated against an environmental baseline. Kings County has made no effort to disclose the quality of its surface waters. The PEIR should be recirculated with information on surface water quality.

Groundwater Quality

The PEIR recognizes that groundwater quality in Kings County has been impacted. However, the PEIR only establishes the environmental baseline for groundwater quality impacts by referring to a 1995 U.S. Geological Survey report and a Tulare Lake Drainage District Report. PEIR at 4.3-9 through 4.3-12. The greatest dairy threat to water quality is contamination of groundwater. The Element makes policy decisions concerning how much nitrogen and salt loading will be acceptable, yet the PEIR does not even discuss the level of nitrates in Kings County Groundwater. Nor does the PEIR investigate current salt concentrations in the regions groundwater. Instead it relies on third party data generated more than five years ago.

Kings County must make a reasonable effort to find and disclose the current state of groundwater quality before it certifies a PEIR which charts the course of future dairy development. Kings County may not reach conclusions regarding the significance of impacts if it has not established an adequate baseline on which decision makers will weigh environmental impacts. See CEQA Guidelines 15125(c).

Impact 4.3-1: Construction Runoff

The PEIR discusses impacts generally, but does not quantify or analyze the impacts of construction runoff. The PEIR also does not analyze how implementation of existing regulations (e.g. Storm Water Pollution Prevention Plan) would reduce storm water runoff to a less-than-significant level. The PEIR is an informational document, and this section lacks information necessary for the public and decision makers to evaluate impacts.

4.3-4: Flood Impacts

The Element permits manure and wastewater application in flood zones, except during flooding or threat of flooding. The PEIR does not analyze or mitigate impacts to surface water quality when floodwaters inundate fields where manure was applied. The PEIR claims that treatment systems would mitigate any impacts to public water supplies. This mitigation only
protects people from flood related impacts. The PEIR does not identify or discuss feasible mitigation measures to mitigate impacts to ecosystems from manure contaminated flood waters. "A legally adequate EIR must contain sufficient detail to help ensure the integrity of the process of decisionmaking by precluding stubborn problems or serious criticism from being swept under the rug."

Kings County Farm Bureau, 221 Cal.App.3d at 733. This PEIR contains no information whatsoever regarding flood impacts. So long as the Element allows manure disposal in flood zones, it needs to inform decision makers and the public about likely consequences, as in the case of Hurricane Floyd, when floods caused massive discharges from North Carolina hog concentrated animal feeding operations.

Impact 4.3-5: Operational Impact to Surface Waters

A potential mitigation measure for impacts to surface waters would make phosphorus the limiting factor in the comprehensive nutrient management plans (CNMP). The PEIR identifies phosphorus as a threat and states that "the County should be particularly vigilant in controlling discharges of phosphorus to surface waters." PEIR at 4.3-20. Policy 4.1b does not discuss whether nitrogen or phosphorus will be the limiting factor in the CNMP. The NRCS recommends CNMPs budget for nitrogen, phosphorous, and potassium.31

The PEIR identifies atmospheric fallout of ammonia as an impact to surface water quality, but provides little analysis.32 The PEIR further dispenses with the issue by claiming that the "Air Quality section of the PEIR includes mitigation measures designed to reduce emissions of nitrogen-containing compounds, and these measures would be expected to reduce potential indirect impacts to surface water quality of distant water bodies to a less-than-significant level." PEIR at 4.3-21. The PEIR failed to adequately handle the impact of air emissions to surface water quality in two ways.

First, the PEIR failed to analyze the impact. It did not establish an environmental baseline of surface water quality and did not quantify or analyze the impact of nitrogen-containing compounds to Kings County surface water quality. The failure to include this relevant information constitutes a prejudicial abuse of discretion. Decision makers and the public lack information necessary to consider the environmental impact to surface waters. "A prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory


32The PEIR did not discuss the existing surface water quality baseline, section IV, supra. Any discussion of impacts must be weighed against a baseline. For example, what is the amount of nitrogen affecting surface water quality and how will the atmospheric fallout of ammonia impact surface water quality? The EIR has not made this analysis and therefore fails its core function as an informational document.
goals of the EIR process.” *Kings County Farm Bureau*, 221 Cal.App.3d at 712. The PEIR should be amended and recirculated so that decision makers and the public have an opportunity to evaluate airborne discharges of pollutants to surface water.

Second, the PEIR dispensed with the problem by claiming that mitigation measures in the Air Quality section would mitigate the problem. The flaws of Impact 4.2-7 are outlined above. The PEIR should be rewritten to provide the missing analysis and recirculated.

**Impact 4.3-6: Depletion of Water Resources**

The PEIR does not analyze whether a net increase in groundwater overdraft will occur. It evaluates water consumption differences between dairies and irrigated crop land and concludes that dairies save water. However, the PEIR ignores the issue of consumptive water sources and aquifer recharge. The question of dairy-related overdraft as a result of new and expanded dairies went unanswered. Rather, the PEIR and Policy 3.2h defers this analysis until a site specific review can be done at which time mitigation measures will be imposed. DE- 24-25. Thus, the PEIR is inadequate because it failed to analyze overdraft. *Kings County* may not, and should not, sweep this difficult issue under the rug. *See Kings County Farm Bureau*, 221 Cal.App.3d at 733.

**Impact 4.3-7: Operational Impact to Groundwater**

**Theoretical Herd Size**

Operationally, new and expanded dairies in Kings County will impact groundwater. The Element calls for a certain maximum dairy herd. As these comments point out, *supra*, the theoretical herd calculation is flawed; a herd size contemplated by the Element would lead to groundwater impacts.

**Groundwater Impacts**

Existing dairy regulations may not adequately protect groundwater quality. PEIR at 4.3-32. A Central Valley Regional Water Quality Control Board (CVRWQCB) study concludes that even well run dairies contaminate groundwater. From June 1993 to August 1994, the CVRWQCB conducted groundwater testing funded by the Federal Statewide Basin Planning Program. The CVRWQCB sank 44 shallow monitoring wells beneath five Stanislaus and Merced County dairies. Dairies were selected “to determine what usually occurs under typical well run dairies.”\(^{33}\) The size of the dairies monitored by the CVRWQCB ranged from 400-900 milk cows.

The dairies are typical in operation. All employed a closed-loop nutrient management plan, which uses dairy lagoon waste water for the irrigation of feed crops. Some of the dairies supplemented the waste water with commercial fertilizer.\textsuperscript{34}

The national maximum contamination level (MCL), which is the national maximum safe level for drinking water, of nitrate as nitrogen is 10 mg/l. Water samples at the dairies ranged from as low as .02 mg/l of nitrate as nitrogen to as high as 250 mg/l. The average sample contained 49 mg/l.\textsuperscript{35}

- Wells beneath corrals averaged 74 mg/l.
- Wells near waste water containment ponds averaged 45 mg/l.
- Wells beneath fields fertilized with waste water and fertilizer averaged 38 mg/l.
- Wells off-site consistently provided nitrate as nitrogen levels below the MCL.\textsuperscript{36}

The CVRWQCB study also documents severe salinity concentrations beneath the dairies. The federal MCL for TDS is 500 mg/l. Wells beneath fields averaged 925 mg/l. Wells beneath the wastewater lagoons averaged 1294 mg/l and wells beneath corrals averaged 1689 mg/l.

The CVRWQCB study demonstrates that even well-run dairies are capable of causing serious groundwater contamination, besides over-application of manure and wastewater to crops, dairies impact groundwater with discharges from corrals and wastewater lagoons.

Corrals

In the CVRWQCB study, the highest levels of nitrate and salt contamination occurred beneath corrals. In a modern, freestall dairy, support stock occupy corrals. A typical 1,000 milk cow dairy will have 1,110 support stock confined exclusively to corrals. Element at DE-9. These support stock defecate and urinate on the ground. Policy 5.1e calls for periodic removal of corral manure. Element at DE-37.

The PEIR claims that the corrals will not “contribute any more nitrates or salts to the subsurface than the adjacent cropland.” PEIR at 4.3-34. The CVRWQCB study directly refutes this contention. Moreover, a Visalia study revealed high concentrations of nitrates below some

\textsuperscript{34}Dairy Groundwater Testing at 2.

\textsuperscript{35}Dairy Groundwater Testing at 3.

\textsuperscript{36}Dairy Groundwater Testing at 4.
dairies, especially beneath the corrals and wastewater lagoons. The PEIR relies primarily on two studies to reach a less-than-significant impact conclusion. Both studies are weak and the County may not rely upon them since they do not support the PEIR’s conclusion.

First, the County claims that trampled manure creates a seal, preventing groundwater contamination. PEIR at 4.3-34. The PEIR further states that removal of the upper most inch of the layer breaks the seal and continued disturbance of the seal “may allow substantial infiltration of nutrients.” PEIR at 4.3-34. The Element calls for periodic removal of this special layer of manure: it requires the corrals to have manure scraped and removed. Element at DE-37. Therefore, the PEIR’s reliance upon the Sweeten study is misplaced: any protective seal will be removed when the corrals are periodically scraped, allowing seepage to groundwater.

Second, the PEIR relies upon a study from 1972 which claims that feedlots on silty soil contribute no more pollutants to groundwater than adjacent cropland. PEIR at 4.3-34. This study predates Title 27 regulations which govern dairy application of wastes to crops. The PEIR mistakenly relies upon the study for two reasons. First, the study pre-dated limits of manure applications to crops. Limiting manure to uptake would naturally reduce contamination from crops. The PEIR assumes that corral contamination would continue to equal field contamination after the imposition of application limits. Second, the study’s claims were based on feedlots on silty loam soils. The PEIR reveals that Kings County does not contain silty loam surface soils. PEIR at 4.1-5 through 4.1-7. Therefore, the Elliot study is irrelevant here.

The PEIR’s claim that no corral contamination would occur is not supported by substantial evidence. Neither of the two studies relied upon by the PEIR apply here. The CVRWQCB and the City of Visalia have both studied the corral issue and both conclude that corrals present a huge impact to groundwater quality. The PEIR should be revised and recirculated with analysis of corral-related groundwater impact, not misleading 30 year-old studies.

Two potential mitigation measures exist for corral-related groundwater contamination. Plastic liners could underlay the soil and channel pollutants to a collection system. Another mitigation measure would require support stock be put to pasture. Without corrals, there will be no severe threat to groundwater. This mitigation measure concomitantly addresses PM10 emissions from support stock, and odor control, while allowing wastewater application to pasture.

Lagoon Seepage

The CVRWQCB and Visalia studies document wastewater lagoons as sources of groundwater contamination. Policy 4.1a.B.2 of the element allows wastewater lagoon seepage at

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37 Tulare County Animal Confinement Facilities Plan Environmental Impact Report, Responses to Comments at 31. Attached as Appendix N.
a rate of $1 \times 10^{-2}$ cm/s. The PEIR identified policy 4.1.b.2 among policies which would reduce the impacts to groundwater quality to a less-than-significant level. The PEIR states that “calculations were prepared” and claims that results “indicate that salt loading rates at dairy facilities would be on the order of 500 to 1,000 pounds/acre/year.” PEIR at 4.3-33. The PEIR does not set forth these “calculations” for public review. The data relied upon by the EIR should be disclosed to the public and decision makers for review. Undocumented “calculations” are not substantial evidence.

The amount of seepage from only wastewater lagoons (this does not include the seepage from corrals) would be tremendous. An expert retained by the Sierra Club, Kathy J. Martin, prepared an analysis of the seepage from the twin Borba dairies in Kern County. Each dairy would house approximately 14,300 total cows for a project total of 28,572. The Borba dairies wastewater lagoons are planned to meet the NRCS standard of $1 \times 10^{-5}$ cm/s, the same standard set forth by Policy 4.1.a.B.2.

Martin calculated that each Borba dairy facility would discharge 65.7 million gallons of manure wastewater into the soil beneath the lagoons annually. Martin calculated that the discharge would lead to severe non-nitrate salt loading. Martin concluded that a lagoon constructed for a 14,200 total cow dairy would discharge 699,896 pounds of Bicarbonate salt per year, 262,650 pounds of Chloride salt per year, and 155,869 pounds of Sodium salts per year. Total non-nitrate salt loading per year would be 1,118,415 pounds.

The total future acreage of dairy facilities in Kings County will likely be 14,573 acres. The remaining capacity in the Kings County dairy herd for future growth is 542,928 total cows, PEIR at 6-6, requiring lagoon capacity equal to 37.9 Borba 14,300 cow dairy facilities. The PEIR claims that salt loading beneath facilities would be between 500 and 1,000 pounds/acre/year. This claim, unsupported by calculations, does not stand up to simple math.

These 37.9 new Kings County Borba style dairies would load a total of 42,387,928.5 pounds of non-nitrate salt per year (1,118,415 multiplied by 37.9). The total acreage of these facilities would be 14,573 acres. Total non-nitrate salt loading would be 29,08 pounds/acre/year (40,374,781.5 divided by 14,573 acres). This loading comes from only the lagoons and does not include salt loading as a result of corral discharges. It goes without saying that crops will not uptake any salt in the facility area.

The PEIR’s conclusion that the Element’s policies will reduce groundwater

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38Borba Dairies Project EIR at 3-5. Attached at Appendix C.


40Element, Table No. 5.
contamination to a less than significant level lacks any meaningful analysis and public disclosure. The core purpose of an EIR is informed decision making. An EIR's "purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392.

This PEIR makes conclusory statements regarding salt loading, unsupported by evidence, which actually understate the severity of the impact to groundwater. "A legally adequate EIR must contain sufficient detail to help ensure the integrity of the process of decision making by precluding stubborn problems or serious criticism from being swept under the rug." *Kings County Farm Bureau*, 221 Cal.App.3d at 733.

Furthermore, the County relies on Policy 6.1h to create a monitoring program to ensure compliance with County regulations. However, the policy defers formation of the implementation plan for water monitoring to the Dairy Monitoring Office which is yet to be established. The County cannot defer the formulation of this policy. Kings County should recirculate the PEIR once monitoring policies are formulated and with supporting authority on how it reaches its conclusion that there will be no groundwater impacts from salt when Kings County plans to add more than half a million cows to its dairy herd. Without this information, the PEIR fails its purpose as an informational document.

V. BIOLOGICAL RESOURCES

Impact 4.4-1: Habitat Destruction

The PEIR claims that conversion of agricultural land to dairy facilities will not affect plant or wildlife resources. PEIR at 4.4-8. This conclusion lacks analysis. The PEIR itself recognizes that the San Joaquin Kit Fox uses agricultural fields as foraging habitat. PEIR at 4.4-4. The U.S. Fish and Wildlife Service considers development of dairy facilities on existing crop land to constitute harm to the Kit Fox.

The CEQA guidelines require a mandatory finding of significance where "the project has the potential to . . . reduce the number or restrict the range of an endangered species." CEQA Guidelines § 15065(a). The Endangered Species Act and its implementing regulations prohibit the "take" of a protected species under section 9 of the Act, 15 U.S.C. § 1538. The Miller Letter

41 See discussion in Impact 4:2-5.

42 Letter from Karen J. Miller, Chief, Endangered Species Division, U.S. Fish and Wildlife Service, Department of the Interior, Sacramento Fish and Wildlife Office to Kris Cardoza, Associate Planner, Kern County Planning Department (October 1, 1999) (hereafter "Miller Letter"). Attached as Appendix P.
expresses the opinion of the U.S. Fish and Wildlife Service that the development of dairy facilities constitute an illegal “take” under the Act.

The PEIR needs to consider habitat loss as an impact on the Kit Fox. Potential mitigation would include incidental take permits or actions pursuant to a habitat conservation plan.

Kit Fox and Tipton Kangaroo Rats will populate fallow agricultural fields. Plowing or leveling such fields will result in take. The Policy 3.3a of the Element only requires biological surveys for undisturbed habitat. Element at DE-24, 25. The PEIR should require biological surveys for all future dairies and dairy expansions.

Furthermore, the PEIR illegally defers mitigation measures to protect sensitive species. The PEIR vests discretion to mitigate impacts to species to individual biologists employed by facility proponents. The PEIR may not defer mitigation measures, nor may the lead agency confer its discretionary authority to impose mitigation measures, and the terms of those measures, to biologists employed by facility proponents. The PEIR should set forth a certain buffer zone and establish a standard mitigation measure when sensitive species are located.

Element Policy 1.2e states that “generally, dairies are prohibited on wetlands and undisturbed wildlife habitat. The PEIR and Element do not define “undisturbed.” The County should clarify whether dairies are unconditionally banned from building facilities on, or applying manure and wastewater to, undisturbed habitat, and wetlands.

A county with well over three-quarters of a million cows will need to have some habitat remaining for native plants and species. The county must consider mitigating dairy development impacts to sensitive species in Kings County, including prohibiting dairy development on undisturbed habitats and allowing “connective corridors” so that population groups do not become genetically isolated.

The Element is a regional program and a regional survey should be conducted to assess the baseline against which impacts should be judged. The PEIR has not sufficiently established a current baseline, relying on a 1975 habitat study. PEIR at 4.3-5. Data that are 27 years old cannot satisfy CEQA’s requirement that a draft EIR includes a description of the “physical environmental conditions . . . at the time the notice of preparation is published.” CEQA Guidelines § 15125(a) (emphasis added). Kings County may not reach conclusions regarding the significance of impacts if it has not established an adequate baseline on which decision makers will weigh environmental impacts. See CEQA Guidelines 15125(c). If current data is not reasonably available, the County must make some, albeit less exacting, effort to provide some

43Telephone conversation with Dr. Ted Murphy, California State University Bakersfield, January 22, 2000.

44See section III, supra.
Impact 4.4-2: Wetland Impacts

The Element does not define "wetland." Thus, it is unclear what "wetlands" Element Policy DE 1.2c will protect. The policy states that wetlands are "generally" protected yet the PEIR assures the public and decision makers that dairy development on wetlands will be prohibited. A clear statement of the wetlands policy needs to be made, and a mitigation measure inserted into the PEIR to prevent loss of wetlands. Moreover, the “wetlands” definition should include seasonal wetlands, vernal pools, and isolated wetlands which are not tributaries to waters of the United States.

VI. HUMAN HEALTH

Pathogen Baseline

The PEIR states that the KCEHS has contracted with Tulare County to perform tests on water wells in Kings County. PEIR 4.8-3. The PEIR does not provide any information on the results of those tests. Thus, the PEIR lacks a baseline against which the public and decision makers can measure and evaluate pathogen impacts. As stated in sections IV, V, and VI, supra, the PEIR must establish a baseline against which it evaluates impacts. The PEIR lacks data on current pathogen levels in Kings County Groundwater.

Pesticide and Insecticide Baseline

The PEIR lacks a baseline against which the public and decision makers can measure and evaluate pesticide and insecticide impacts. As stated in sections IV, V, and VI, supra, the PEIR must establish a baseline against which it evaluates impacts. The PEIR lacks data on current levels of dairy pesticide and insecticide use in Kings County.

Public Exposure to Pesticides

This section of the PEIR omits discussion of hazardous material impacts on the public. Pesticide drift may impact neighboring residents and communities. The PEIR should analyze this impact.

Antibiotics

The PEIR should analyze the impact of antibiotics use on human health. The Natural Resources Defense Council published a report documenting the relationship between the use of
antibiotics in food producing animals and antibiotic resistant disease agents. The Element calls for Kings County to host 805,978 cows. There is no discussion in the PEIR on antibiotic use at Kings County dairies or its potential health impact on humans.

Impact 4.8-1: Hazardous Material Exposures to Workers

The PEIR discusses the potential for health related impacts to dairy workers. The PEIR does not identify, analyze, or mitigate health impacts from pesticides, insecticides and hazardous substances. The PEIR is an informational document and should contain an analysis of impacts. Without this analysis, the PEIR fails its core function: informing the public and decision makers about the Element's impacts. There is no analysis of ammonia or hydrogen sulfide exposure to workers.

The PEIR claims this impact will be less-than-significant without analysis. The PEIR states that dairy workers potential for exposure would be similar to farm worker exposure in existing agricultural activities. PEIR at 4.8-7, 8. California's farm workers face a tremendous health impact from pesticides, including high death rates and pesticide-related illnesses. Element Policy DE 4.3a only ensures that dairies comply with existing hazardous materials laws and regulations. Farmworker exposure to pesticides occur despite the existence of a regulatory framework.

The PEIR does not include an analysis of increased use of insecticides to control flies and mosquitos. It makes a conclusory statement that net pesticide use would decrease without setting forth a baseline and identifying both dairy insecticide use and continued agricultural use.

Impact 4.8-4: Pathogen Impacts

The PEIR fails to analyze pathogen impacts through wastewater lagoon and corral seepage. For lagoons, the PEIR concludes that pathogen impacts will be reduced to a less-than-significant impact through the use of low permeability liners. The PEIR made this conclusory statement without analysis. CRPE has already set forth the fact that manure lagoons discharge millions of gallons of manure wastewater when constructed to NRCS standards. The PEIR did

\[^{45}\text{See Natural Resources Defense Council, America's Animal Factories: How States Fail to Prevent Pollution from Livestock Wastes, Chapter 1, Environmental and Health Consequences of Animal Factories, 1998. Attached as Appendix Q.}\]

\[^{46}\text{See generally Margaret Reeves, et al, Fields of Poison: California Farmworkers and Pesticides, 1999. Attached as Appendix R.}\]

\[^{47}\text{See generally, id.}\]

\[^{48}\text{See comments on Impact 4.3-7.}\]
not discuss orral seepage at all. The PEIR has failed to perform an adequate analysis of pathogen impacts and its conclusion of a less-than-significant impact lacks substantial evidence.

Dairies threaten groundwater and surface water with pathogens. Cow manure contains *E. coli*, salmonella, and *cryptosporidium parvum*. PEIR at 4.8-10. The main factors in pathogen movement through soil is soil type, soil water content, and flow. 49 Additionally, a study shows that *cryptosporidium* oocysts stay in the aqueous phase and do not precipitate out onto the soil surface. This means that the pathogen groundwater threat remains despite distance traveled. 50 *Cryptosporidium* poses a significant threat because “it is not affected by chlorination at levels that are considered safe for water treatment and human consumption” and that *cryptosporidium* oocysts are “long-term survivors” over time. 51 A national study done by the National Health Survey found *Cryptosporidium parvum* oocysts present at 59% of 1,100 dairies surveyed. 52 The threat of pathogen contamination of groundwater and surface water is real and should be further analyzed.

An outbreak of *cryptosporidium* infection represents a significant health concern. In Milwaukee, Wisconsin during the spring of 1993 there was a widespread outbreak of acute watery diarrhea. Symptoms included stomach cramping, vomiting, nausea and fever. The outbreak affected over 400,000 people. 53 *Cryptosporidium* infection happens after consuming water contaminated with animal or human fecal matter.

In healthy people, the infection is self-limited. That is to say, it runs its course. In people who are immunocompromised, the infection can be “unrelenting and fatal.” 54 This threatened

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52 *Id.* at 2678.


population includes the elderly, people undergoing chemotherapy, and people with AIDS. A 1997 study in the American Journal of Public Health analyzed cryptosporidiosis-associated mortality in Milwaukee during the two years following the outbreak. Between April 1, 1991 and March 31, 1995 there were 58 cryptosporidiosis-associated deaths.54 Four deaths occurred in the two years prior to the outbreak while 54 occurred in the post-outbreak period. The report recommends "to prevent future loss of life from waterborne cryptosporidium outbreaks, it is essential to ensure that all person have access to safe drinking water."55

Impact 4.9-1: Traffic

The PEIR only evaluates the impact from traffic volume. The PEIR needs to disclose the impact to roads the traffic will have. Dairies will generate feed, manure, and milk truck traffic. The weight of these trucks may cause damage to county roads and highways. This impact may cause the County to spend more money on road repair, in effect subsidizing dairy industry expansion. The public and decision makers need to know the extent to which the public will subsidize dairy operations.

A potential mitigation measure for diary-related road damage would be a levy on milk or feed shipments which adequately compensates the County for road maintenance.

Section 4.10: Public Services and Utilities

The PEIR does not evaluate the amount of electricity dairies consume during operation. Dairies consume so much electricity that, during California's energy crisis, dairy industry groups petitioned the California Department of Food and Agriculture to increase milk prices to cover the cost of electricity.

Section 4.11: Cultural Resources

The County should incorporate all recommendations set forth in the letters received from California Historical Resources Information System and the Native American Heritage Commission (December 6, 2000). These recommendations, as part of the consultation process, seem to have been ignored. The County should also work with Rob Wood of the Native American Heritage Commission to identify additional cultural resources in the Kings County Area.

CRPE suggests mitigation measures to protect cultural resources. Proponents should survey all new dairy developments prior to any grading or construction. Pre-construction surveys by qualified archaeologists are necessary because construction personnel are not trained to

54 Id. at 2033.

55 Id. at 2034.
recognized cultural resources. The PEIR needs to do more than just protect known resources and site-specific surveys would meet the letter and spirit of CEQA. Furthermore, if construction personnel are required to identify cultural resources, then the PEIR illegally defers mitigation to those untrained construction personnel.

VII. CUMULATIVE IMPACTS

The CEQA Guidelines set forth the necessary elements for an adequate discussion of cumulative impacts. The PEIR must provide either (1) a list of past, present, and probable future projects, including those outside the control of the agency; or (2) a summary of projections contained in a general plan. See CEQA Guidelines §§ 15130(b)(1)(A), 15130(b)(1)(B). Additionally, the PEIR must also summarize the expected environmental effects of these related projects and conduct a reasonable analysis of the relevant projects' cumulative impacts. See CEQA Guidelines §§ 15130(b)(2), 15130(b)(3); Kings County, 221 Cal.App.3d at 729

This PEIR's cumulative impacts analysis fails to comply with CEQA in every respect. The PEIR does not contain a list of past, present, and probable future projects. The only projects it names are approved and proposed projects in Kings County, not the 149 existing dairies in the County. PEIR at 5-6. The PEIR claims that it "is impractical and unreasonable to identify all individual past, present, or future projects within the eight-county area that may contribute to cumulative air quality impacts identified for the proposed project." PEIR at 5-8.

Instead the County attempts to quantify the total emissions from dairies in the eight counties. However, the PEIR completely failed to summarize the expected environmental effects and analyze related projects' cumulative impacts. All the PEIR does is estimate regional air pollutant emissions. Quantification of pollution is meaningless to the public and decision makers if they are not provided key information regarding the effect and impact of that pollution. The PEIR must inform decision makers about the severity of the dairy air pollution problem. The public should be informed about the burden Kings County expects them to bear for the benefit of the dairy industry.

The PEIR only states in a conclusory fashion that cumulative air impacts will be a cumulative significant unavoidable impact. A finding of significance does not obviate the need to analyze the impacts. See City of Carmel-by-the-Sea v. U.S. Dept. of Transp., 123 F.3d 1142, 1160, 1165 (9th Cir. 1997) (cumulative impact analysis violated CEQA when it failed to provide useful analysis of cumulative impact). Kings County cannot shirk its statutory duty with glib findings of significance and claims of impracticality and unreasonableness. CEQA requires a cumulative impact analysis and the PEIR must be revised and recirculated.

Quantification of Air Quality Impacts

The PEIR only quantifies dairy air quality cumulative impacts from dairies. The Element in calculating the theoretical herd size recognized the impacts of other animal confinement
operations. The cumulative air quality analysis should also account for air pollutant emissions from other animal confinement operations, operations which are clearly related projects under CEQA. Failure to do so is a failure to proceed in a manner required by law and a prejudicial abuse of discretion.

Cumulative Water Quality Impacts

The PEIR also fails to analyze cumulative water quality impacts. Instead the County relies on CEQA Guidelines § 15064.7 to adopt thresholds of significance. Kings County erroneously hangs its hat on this section, which does not apply here. Section 15064.7 falls within Article 5 of the CEQA guidelines which covers the initial study. Kings County decided to do an EIR for the Element, and therefore Article 5 does not apply to the County’s study of the cumulative impact analysis.

Rather, CEQA Guidelines § 15130 guides a lead agency’s cumulative impact analysis once an EIR is prepared. “An EIR shall discuss cumulative impacts of a project when the project’s incremental effect is cumulatively considerable, as defined in section 15065(c).” CEQA Guidelines § 15130(a). The definition of cumulative impacts determines whether a lead agency must analyze an aspect of the project in the EIR. Section 15130 provides instances where a cumulative impacts analysis is not required, and section 15064 is not among them. Simply put, the County improperly claims it need not analyze the cumulative impact to water quality.

The County instead relies on thresholds based on the Tulare Lake Basin plan and existing water quality regulations. However, the discussion of cumulative water quality impacts does not discuss the current water quality in Kings County. There is no analysis of the effectiveness of these existing regulations. Without knowing if water quality is being protected currently, the County cannot make the finding that cumulative water quality impacts are less than significant. The County must do an adequate analysis of cumulative water quality impacts. Its failure to do so is a failure to proceed in a manner required by law and constitutes a prejudicial abuse of discretion.

VIII. ALTERNATIVES

The California Supreme Court has described the alternatives and mitigation sections as “the core” of an EIR. Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 564. The project’s objectives serve as the backdrop to the PEIR’s alternatives section.

The PEIR states objectives as (1) evaluate Kings County’s dairy herd capacity from an environmental and economic perspective; (2) provide standards, including mitigation of impacts; and (3) develop and adopt means to bring all dairies into compliance with the Element. PEIR at 3-10, 11.

The County should consider a no-dairy economic development alternative. Many
industries exist in California which provide jobs and economic development without pollution. In other words, the alternatives analysis considers nothing but more dairies in Kings County. Additionally the County should consider and adopt the 50% reduced herd size alternative because it would meet the objectives while mitigating the significant and unavoidable impact. The County should also consider an even greater herd reduction, since a 50% reduction would still have significant unavoidable impacts.

IX. CONCLUSION

The Draft Program Environmental Impact Report fails to meet CEQA's basic procedural and substantive mandates in nearly every respect. Because the flaws in the EIR render the document inadequate, it should be withdrawn, rewritten, and recirculated for public comment. The Center on Race, Poverty & the Environment and AIR look forward to participating in the public review period at that time. Should the Kings County Board of Supervisors choose instead to certify this woefully inadequate DEIR, the Center on Race, Poverty & the Environment hereby requests to receive a Notice of Determination.

Sincerely,
Center on Race, Poverty & the Environment

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