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October 10, 2014

By Email: planning@amadorgov.org

Board of Supervisors County of Amador c/o Planning Department 810 Court Street Jackson, CA 95642-2132

Re: Objection To Newman Ridge Quarry And Edwin Center Project And Environmental Impact Report (SCH# 2011072039)

Honorable Supervisors:

On behalf of Ione Valley Land, Air, and Water Defense Alliance (Ione Valley LAWDA), we appreciate your providing a comment period on a portion of the EIR for the Newman Ridge Quarry and Edwin Center Project consisting only of Chapter 4.12 Transportation and Circulation but urge you to require revisions to and recirculation of the entire document. As detailed below, circumstances have changed since you approved this project on the basis of a defective EIR two years ago on October 12, 2012. These changed circumstances that materially affect the analysis in the entire EIR include the State's approval of the Mule Creek Prison Expansion project, your approval of the Jackson Valley Quarry, the governor's issuance of a Drought Proclamation, the Court of Appeal's May 2014 issuance of its decision in *Sierra Club v. County of Fresno (Friant Ranch)*, the Legislature's passage of various laws requiring regulation of groundwater extractions and in depth analysis of Native American resources, and the recent discovery of Native American archaeological resources on and near the Project site.

Following the Court's order to set aside the certification of the EIR and approval of the project, you have been given a second chance to serve your constituents as they deserve rather than as outside speculators are asking. We urge you to take this opportunity to completely examine the impacts of the proposed Newman Ridge Quarry and Edwin Center Project and ways to mitigate them, evaluate alternatives to the project as proposed, and find that its significant impacts should not be overridden to obtain the illusory benefits that are offered. We ask that you flatly reject this unnecessary and seriously harmful project.

A. Public Comments May Not Be Limited to the Traffic Section.

You have requested that public commenters and agencies limit their comments to only the revised portion of the EIR, i.e, Chapter 4.12 Transportation and Circulation. This request is inappropriate because other portions of the EIR are affected by the changes that have been made in the traffic analysis. For example, the air quality, biological resources, and alternatives sections of the EIR must reevaluated in light of changes made to the traffic and circulation section. Furthermore, new information and changes in circumstances that have occurred since the EIR was circulated in 2012 require that you accept comments on other portions of the EIR that area affected by these changes, especially related to water supply and financial assurances.

There is currently no valid certified EIR because the Superior Court ordered the EIR illegally certified by the County to be completely decertified. Therefore, comments on any portion of the EIR must be answered. Even if there were a valid EIR, subsequent environmental review, and public and public agency comment on that review, should be done when "substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions"in the EIR. (Pub. Resources Code § 21166.) Furthermore, subsequent review is also required when "New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available." (*Ibid.*) Both changed circumstances and new information are involved in your current review.

Below we address how the EIR must be improved before you once again consider its certification and approval of the proposed project. On the other hand, if you decide to entirely reject the project, no environmental review is necessary at all.

B. Traffic Issues Must be Genuinely Considered Based On Complete Analysis of the Current Situation and Project.

The defects in the current rehash of the traffic analysis are correctly identified in letters that have been separately submitted to you by members of the public including members of Ione Valley LAWDA, including 859 additional truck trips from the site beyond the 495 trips that had been identified before, and failure adequately analyze train impacts. These defects require a complete reexamination of traffic conditions and project impacts, not a recycling of the reports that were done before. Caltrans recommends a traffic study be updated every two years. The Mule Creek State Prison expansion project was approved after your October 2012 erroneous approval of the quarry project. In light of this recommendation and new information, the traffic analysis must be redone, not merely recirculated.

Furthermore, the train analysis relies upon the faulty assumption that trains will be moving at 10 miles per hour immediately upon exiting or entering the facility. Because fully loaded trains need time to accelerate, they will likely be traveling much slower than that.

The railroad line that would have to be used by the Newman Ridge Quarry is known as the Amador Branch Railroad. Since the EIR provides little or no information about it, we have included some as an attachment within Enclosure 3. This information includes a map of the line. (Information was obtained from a historic evaluation posted at http://ione-ca.com/home/ione/MyMedia/Train%20Depot%20Relocation/DRAFT-Depot-HRE.pdf.) The railroad was originally built in 1875. Significant upgrades would be needed to serve the production of aggregate contemplated by the Project. However, no such upgrades are mentioned or explained in the EIR. This renders it fatally flawed as an informational document since it fails to provide information necessary to the public and public agencies to make informed comments.

C. Current Air Quality Conditions Must Be Addressed.

The defects in the traffic analysis infect the analysis of air quality impacts. Now that the EIR has admitted to far more extensive truck traffic than was acknowledged in the prior defective EIR, the air quality impacts of the project including this additional truck traffic must be analyzed in the air quality section of the EIR.

Furthermore, as we identified, the County must analyze localized hot spot impacts where congestion will occur at Level Of Service E or worse. By failing to acknowledge the significant impact to Intersection 4 in the Draft EIR, the County failed to conduct the required air quality analysis for hotspots created by a congested intersection. These are required when an intersection is degraded to LOS **E** or worse. (Administrative Record Volume 2 page 522.)

Air quality monitors to establish a baseline should be required near the project site, in the communities that will suffer the adverse air quality impacts. The EIR improperly relies on monitors in the next county. The monitoring stations in the EIR do not establish the baseline conditions in the vicinity of the Project because they are located too far away. The Jackson-Clinton Road monitoring station, which monitors ozone only, is located about 12 miles from the Project site; the San Andreas-Goldstrike Road monitoring station is located even further away, about 20 miles from the Project site in Calaveras County. Thus, the local baseline of current concentrations of air pollutants was not established by air quality surveys or some other reasonable way as requested by the

public. (AR 2:941; AR 4:1886.) Lack of an adequately established baseline undercuts the entire air quality analysis. (*Communities For A Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 328.)

Projected concentrations of PM 2.5 were not disclosed. The disclosures do not include meaningful information about potential concentrations of PM 2.5 in the air breathed by nearby residents or at other sensitive receptors, such as farms, ranches, the City of Ione, and the state prison. Human health impacts are not necessarily discernible from high rates of pollutant emissions, but rather are directly related to high pollutant *concentrations*. (AR 2:509.) While emission rates were disclosed, concentration levels were not disclosed. The EIR compared criteria pollutant (pollutants for which state and federal maximum standards have been set) emissions rates with significance thresholds and determined that the Project would far exceed them. (AR 2:520). However, the EIR did not compare the projected *concentrations* of these pollutants to standards set to protect public health. (AR 2:509.) The EIR misleadingly focused on Toxic Air Contaminants, instead of the full range of impacts, and concluded that those human health impacts would not be significant. (AR 2:523.) This violates CEQA's full disclosure requirements.

The adverse health impacts of the identified significant air pollution must be explained in the EIR. Since the Superior Court made its decision, in May 2014 the Court of Appeal decided that exactly the type of analysis undertaken by the County here was inadequate and violated CEQA. In *Sierra Club v. County of Fresno (Friant Ranch)¹*, the Court explained:

the EIR was inadequate because it failed to include an analysis that correlated the project's emission of air pollutants to its impact on human health; (2) the mitigation measures for the project's long-term air quality impacts violate CEQA because they are vague, unenforceable and lack specific performance criteria; and (3) the statement that the air quality mitigation provisions will *substantially* reduce air quality impacts is unexplained and unsupported.

More specifically, the Court held:

the Friant Ranch EIR was short on analysis. It did not correlate the additional tons

¹ The case has become depublished since the Supreme Court took review of it. We are confident the Supreme Court will affirm the ruling of the Court of Appeal, since that would be most protective of public health and the environment. A copy of this decision is attached to this letter. (Enclosure).

per year of emission that would be generated by the project (i.e., the adverse air quality impacts) to adverse human health impacts that could be expected to result from those emissions. As defendants have pointed out, the reader can infer from the provided information that the project will make air quality and human health worse. Although the better/worse dichotomy is a useful starting point for analyzing adverse environmental impacts, including those to human health, more information is needed to understand that adverse impact.

To illustrate this point, we will use extreme examples from the continuum of potential human health impacts. The information provided does not enable a reader to determine whether the 100-plus tons per year of PM10, ROG and NOx will require people with respiratory difficulties to wear filtering devices when they go outdoors in the project area or nonattainment basis or, in contrast, will be no more than a drop in the bucket to those people breathing the air containing the additional pollutants.

The lack of information about the potential magnitude of the impact on human health also can be demonstrated by referring to quantitative information in the EIR. For instance, Table 3.3–2 in the draft EIR sets forth the days each year that pollutants, as measured at three monitoring stations in the Fresno area, exceeded federal and state standards. If an estimate of the project's impact on the "days exceeding standards" had been provided, the public and decision makers might have some idea of the magnitude of the air pollutant impact on human health. As presently written, the final EIR does not inform the reader what impact, if any, the project is likely to have on the days of nonattainment per year—it might double those days or it might not even add a single a day per year. Similarly, no connection or correlation is made between (1) the EIR's statement that exposure to ambient levels of ozone ranging from 0.10 to 0.40 parts per million for one to two hours has been found to significantly alter lung functions and (2) the emissions that the project is expected to produce.

The current version of the EIR shares exactly the same defects as the *Friant Ranch* EIR in failing to correlate identified air pollution data with human health impacts. In fact it is even less informative than the *Friant Ranch* EIR since that EIR at least noted "ambient levels of ozone ranging from 0.10 to 0.40 parts per million for one to two hours has been found to significantly alter lung functions." In this case, the EIR does not make any statement about what ambient levels of ozone are expected to be.

The *Friant Ranch* court also found the EIR's mitigation measures for air quality impacts were defective in a number of ways. The court found the relevant measures

vague and unenforceable, in violation of CEQA's "substantive requirement for mitigation measures" contained in Guidelines § 15126.4(a)(2) that they "be fully enforceable through permit conditions, agreements, or other legally-binding instruments." The court "treat[ed] the question of vagueness as being part of an inquiry into enforceability because vagueness makes it difficult to identify the who-what-when essential to enforcement." The court held the challenged "provisions do not clearly state who is to do what and when that action must be taken[,]" thus leaving "the reader ... to speculate whether County or the developer will perform the selection [of mitigation tree plantings]" and as to "who will determine if the [required HVAC catalyst] system is 'reasonably available and economically feasible.'" Such measures "are vague on matters essential to enforceability" and thus were not enforceable as required by CEQA. Further, the court held the EIR's conclusion that the challenged measures would "substantially reduce" air quality impacts was unsupported by any quantification or EIR discussion, rendering the statement "a bare conclusion ... not supported by facts or analysis.

Instead of disclosing details of how the Project would affect local air quality (not just regional air quality) and setting forth ways to mitigate these impacts so the area's attainment of state and federal air quality standards would not suffer, the EIR asserts that air quality impacts are unavoidable. (AR 2:521.) The EIR defers to a future Amador Air District permitting process the effort to mitigate air quality impacts. (AR 2:522 [requiring permits to operate and application for emissions offsets from Air District as mitigation measures].) The Amador Air District's comments ("Kapahi October Memorandum) about the project came late in the process and were not made part of the Draft EIR. (Enclosure). These should be circulated with the EIR for public comment since we identified significant errors in the Air District's analysis, including assuming residence were further away than they actually are. Furthermore, the Air District in earlier correspondence, not included in the Draft EIR, stated cumulative health impacts could be significant. The Kapahi October Memorandum revealed significant impacts not disclosed in the EIR that should have been circulated to the public. (Petitioners' Opening Brief, p. 14.) The County stated that risks were considered "Low" but failed to acknowledge some risks were in the "Medium" range and should have been disclosed to the public.

The EIR would likely be set aside by a Court applying the principles explained in this recently-decided *Friant Ranch* case, which was not available at the time the Superior Court decided to allow the County to rely on the air quality analysis as it stood at that time.

D. Current Water Supply Impacts Must Be Addressed Following Proper Investigation.

Although the Amador County Superior Court accepted the water supply analysis in the prior EIR, conditions have changed. With the January 14, 2014 Drought Proclamation and the passage of groundwater regulation bills, state government has recognized that groundwater simply cannot be pumped without consequences being suffered by surrounding users. In this case, the surrounding users are the ranchers and residents of your County.

Therefore, pump tests of the aquifer must be conducted to assure the residents and ranchers that their water supplies will not be affected by the enormous pumping that this project would require. Wells have been running dry throughout the state.

Wells have also been running dry in the area of the SGI/SPI mining operations run by Newman Minerals next to the Newman Ridge Quarry. We have been informed that the wells of John and Evelyn Dubois near the Irish Hill quarry have run dry within the past six months and they have been buying water from the Amador Water Agency. We also understand other properties near local Newman Minerals operations have lost water from their wells this past summer. Therefore, it is foreseeable that expanded operations in the SGI/Newman Ridge area will continue to suck nearby wells dry.

Rather than passively allowing such dire effects happen to your constituents we urge you to proactively anticipate the problem and ensure it will not occur.

E. Alternatives Must be Reexamined.

An EIR must be revised and recirculated when new information is added to the EIR. (CEQA Guidelines § 15088.5.) New information includes the availability of a feasible project alternative that would clearly lessen the significant impacts of the project, but are not adopted. Here, the alternative of relying on Jackson Valley Quarry would produce the aggregate identified as necessary by the County without creating the impacts identified in the EIR.

Now that you have approved the Jackson Valley Quarry, there is no need to approve Newman Ridge. The EIR, which you would be re-certifying, claims that Jackson Valley Quarry is infeasible for various reasons. This is clearly false. You can not legally certify an EIR that presents demonstrably false information. The County could feasibly do the following:

- 1. Completely deny the Project and keep current zoning.
- 2. Reduce production by imposing enforceable restrictions.
- 3. Restrict trucks from travelling through Ione is feasible.
- 4. Reduce quarry hours with enforceable operation restrictions.
- 5. Create a left turn lane on State Route 104 to reduce significant traffic impacts.

F. Biological Resource Impacts.

The DEIR was woefully defective in analyzing impacts to biological resources or requiring mitigation measures for those impacts. CDFG wrote objecting to the lack of identification of bridge impacts over Dry Creek, among other deficiencies. Now the EIR has newly identified the need for construction and rehabilitation of the railroad line into the project site, reports show that it will require the reconstruction of at least 20 railroad bridges or stream crossings. (<u>http://www.voiceinione.com/newmanridge.html</u> ["I may be reading between the lines" said the source, "They said that the cost (to make all the necessary improvements to the line itself) wouldn't be economical ... do you know how many bridges there are between Ione and Galt? About twenty. They would all have to be rebuilt."]) This will have impacts that have not even been identified, let alone mitigated in the EIR.

You received evidence at the September 23 hearing on the EIR in the form of photographs from Jim Scully of the state of disrepair of the tracks. The extensive repairs that are necessary to the tracks will likely require federal approvals including from the Federal Railroad Administration and from the Army Corps of Engineers. Therefore, these repairs must be identified and their impacts analyzed and mitigated. Furthermore, because federal permits or approvals will likely be necessary, those permits and approvals must be identified as part of the EIR process.

We have been informed by the Department of Fish and Wildlife that Amy Kennedy of that Department has informed Ms. Grijalva on October 8, 2014 by phone that if the railroad is to be used and the bridges are to be repaired for that use, it requires a new CEQA document. We concur with this assessment. Repair of one or more railroad bridges over streams within the jurisdiction of the CDFW, and possibly the US Army Corps of Engineers, is a reasonably foreseeable and necessary component of the Project's reliance on extensive new railroad operations. The impacts of these repairs must be identified and mitigation measures proposed in the EIR. We object to the County's

failure to highlight these potential changes for consideration by CDFW, and thereby failing to properly consult with CDFW as required by CEQA.

G. Financial Reassurances Are Required by SMARA.

As we noted before, the County Code requires financial assurances be identified and posted by the project proponent. We urge you not to place the long term financial responsibility for the project site's cleanup on your constituents' shoulders by failing to require sufficient assurances.

The companies that involve the same backers as the Newman Ridge Project have shaky financial histories. We have been informed that the Gold Rush development project has gone bankrupt. The SGI/ISP quarry run by Newman Minerals is apparently on its last financial legs and may be having its equipment repossessed soon. Therefore, every effort to guard against the County being stuck with the clean up liability for the Newman Ridge must be undertaken. Sufficient financial assurance must be demonstrated before the Project is reapproved, not sought long after approval is granted.

H. Cumulative Impacts From Adjacent Mining Operations at SGI/ISP Quarry and Irish Hill Have Recently Become Evident.

We have learned that mining operations at the SGI Quarry, also known as ISP and run by Newman Minerals, have intensified in the past year. These operations are placing numerous trucks on local roads including through the Town of Ione. They are also consuming large amounts of groundwater and contributing to the build up of wastewater in the ISP/SGI mining pit. These operations are also significantly contributing to the poor air quality conditions in the area. Since these operations have only been occurring in an intense way in the past year, the EIR must include and analyze them both in its analysis of baseline conditions and in its review of cumulative impacts. The Central Valley Regional Water Quality Control Board noted that the Notice of Preparation for the Newman Ridge Quarry EIR stated the Newman Ridge Quarry "will be owned and operated by the same business that operates the existing ISP Mine/Ione Quarry, which is located on the same property as the Project." (Enclosure).

Furthermore, the County approved on November 13, 2013 an expansion of operations under the Irish Hill Quarry use permit despite objections that original restrictions were imposed to protect Dry Creek and the hydrologically related groundwater in the Ione Valley's shallow aquifer. This new approval of expanded operations at Irish Hill Quarry must be factored into the cumulative effects of project operations since there will be impacts on water quality and quantity, air quality, traffic,

and other quarry-related impacts. The Irish Hill Quarry is operated by the same owner/operators as Newman Ridge and SGI/ISP.

I. The General Plan Update That is Now Underway Would be Prejudiced by a Reapproval of the Project.

At the hearing of September 23, 2014 you asked your Planning Director Ms. Grijalva if this proposed project would be consistent with the current general plan or the proposed general plan's designation of heavy industrial areas. Her answer clearly and repeatedly was "No." She clarified that this project site is outside the boundaries of the area where the designation would be changed- which is on the opposite, northern side of Highway 104. This inconsistency with the General Plan and the proposed general plan is newly identified and must be fully analyzed in the EIR.

J. Cultural Resource Impacts That Would Occur Have Recently Come to Light.

We have learned that there are significant grinding stones dating back to archaeological times on the project site that would be destroyed by mining operations. Attached are photographs of these grinding stones that were taken on October 8, 2014. (Enclosure). In view of these new finds, we urge you to reevaluate the cultural resource impacts of the Newman Ridge Project. Furthermore, we have been informed that there have been unforeseen cultural resource discoveries at the Mule Creek State Prison Expansion project, with a boundary that is less than 6000 feet from the Project site.

With the 2014 passage of AB 52 (Gatto) requiring increased consideration of impacts to Native American resources in CEQA documents, the EIR should include additional analysis and consideration of such impacts.

Thank you for your consideration. We also hereby incorporate by reference all of our prior comments, and our briefs in the Superior Court.

Sincerely, Douglas P. Carstens

Enclosures:

- 1. Sierra Club v. County of Fresno (Friant Ranch).
- 2. Photographs of Grinding Stone on Newman Ridge Taken on October 8, 2014.
- 3. Article Regarding Need for Replacement of 20 Bridges Between Ione and Galt.
- 4. Amador Air District January 11, 2013 response to Public Records Act request.
- 5. January 14, 2013 CVRWQCB letter to attorneys for Newman Minerals LLC.

ENCLOSURE 1

Westlaw,

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226 Cal.App.4th 704, 172 Cal.Rptr.3d 271, 14 Cal. Daily Op. Serv. 5810, 2014 Daily Journal D.A.R. 6590 Review Granted Previously published at: 226 Cal.App.4th 704 (Cal.Const. art. 6, s 12; Cal. Rules of Court, Rules 8.500, 8.1105 and 8.1110, 8.1115, 8.1120 and 8.1125) (Cite as: 172 Cal.Rptr.3d 271)

Court of Appeal, Fifth District, California. SIERRA CLUB et al., Plaintiffs and Appellants, V. COUNTY OF FRESNO et al., Defendants and Respondents; Friant Ranch, L.P., Real Party in Interest.

F066798 Filed May 27, 2014

Background: Objectors petitioned for writ of mandate challenging county's approval of environmental impact report (EIR) for residential development. The Superior Court, Fresno County, Nos. 11CECG00726, 11CECG00706, 11 CECG00709, Rosendo Pena, Jr., J., entered judgment for county and developer after bench trial. Objectors appealed.

Holdings: The Court of Appeal, Franson, J., held that:

(1) county general plan did not preclude changing agricultural land use designations by amendment;

(2) EIR adequately addressed balancing of effluent production, storage, and disposal; but

(3) EIR was inadequate in its discussion of health impacts of air pollutants;

(4) EIR's mitigation measures were improperly vague and unenforceable; and

(5) EIR improperly allowed for deferred formulation of mitigation measures.

Reversed and remanded with directions.

West Headnotes

[1] Zoning And Planning 414 C=1650

414 Zoning and Planning 414X Judicial Review or Relief 414X(C) Scope of Review 414X(C)1 In General 414k1645 Matters of Discretion 414k1650 k. Permits, certificates, and approvals. Most Cited Cases

A local governing body's determination that a project is consistent with a general plan is subject to judicial review under the abuse of discretion standard.

[2] Zoning And Planning 414 Cmp1650

414 Zoning and Planning 414X Judicial Review or Relief 414X(C) Scope of Review 414X(C)1 In General 414k1645 Matters of Discretion 414k1650 k. Permits, certificates, and approvals. Most Cited Cases

Zoning And Planning 414 Cmm 1703

414 Zoning and Planning

414X Judicial Review or Relief

414X(C) Scope of Review

414X(C)4 Questions of Fact

414k1703 k. Permits, certificates, and approvals. Most Cited Cases

A finding of fact related to a local governing body's determination that a project is consistent with a general plan is not supported by substantial evidence, and thus is an abuse of discretion, if, based on the evidence before the local governing body, a reasonable person could not have reached the same conclusion.

[3] Appeal And Error 30 \$\vee\$946

30 Appeal and Error

30XVI Review

30XVI(H) Discretion of Lower Court 30k944 Power to Review

30k946 k. Abuse of discretion. Most

Cited Cases

The arbitrary and capricious standard of review and the abuse of discretion standard of review are the same in substance.

[4] Zoning And Planning 414 Cm 1213

414 Zoning and Planning
414V Construction, Operation, and Effect
414V(A) In General
414k1211 Extrinsic Aids to Construction
414k1213 k. Construction by board or
agency. Most Cited Cases

Zoning And Planning 414 Cmp1624

414 Zoning and Planning
414X Judicial Review or Relief
414X(C) Scope of Review
414X(C)1 In General
414k1624 k. Decisions of boards or officers in general. Most Cited Cases

When the particular issue presented on appeal involves the interpretation of an ambiguous provision of a general plan, appellate courts defer to the local government's resolution of that ambiguity so long as the interpretation adopted is reasonable, and the local government is not required to select the most likely interpretation out of the range of possible reasonable interpretations.

[5] Zoning And Planning 414 🕬 1746

414 Zoning and Planning 414X Judicial Review or Relief 414X(E) Further Review 414k1744 Scope and Extent of Review

414k1746 k. Review of local authority

or lower court. Most Cited Cases

Appellate courts review a local governing body's determination that a project is consistent with a general plan, not the decision of the trial court, and consequently, the appellate court's review is independent of the trial court's decision.

[6] Zoning And Planning 414 2 1151

414 Zoning and Planning

414III Modification or Amendment; Rezoning 414III(A) In General

414k1149 Comprehensive or General Plan 414k1151 k. Conformity of change to

plan. Most Cited Cases

Zoning And Planning 414 Cmp1167

414 Zoning and Planning

414III Modification or Amendment; Rezoning 414III(A) In General

414k1158 Particular Uses or Restrictions 414k1167 k. Agricultural uses, wood-

lands and rural zoning. Most Cited Cases

In approving environmental impact report (EIR) for residential development, county acted within its discretion in interpreting its general plan's policy to "maintain agriculturally-designated areas for agriculture use" and to "direct urban growth away from valuable agricultural lands to cities, unincorporated communities, and other areas planned for such development where public facilities and infrastructure are available" to provide that agricultural land use designations may be changed by amendment and that a project is consistent with the policy if some public facilities and infrastructure are available in the project area, where another provision of the general plan implied that the county could "approve new development where existing facilities are inadequate" if necessary public facilities would be installed.

[7] Zoning And Planning 414 🕬 1220

414 Zoning and Planning

414V Construction, Operation, and Effect

414V(A) In General

414k1220 k. Comprehensive or general plan. Most Cited Cases

Generally, whether language in a county general plan is ambiguous, i.e., susceptible to more than one reasonable interpretation, presents a question of law.

[8] Zoning And Planning 414 Cmm 1624

414 Zoning and Planning 414X Judicial Review or Relief 414X(C) Scope of Review 414X(C)1 In General

414k1624 k. Decisions of boards or officers in general. Most Cited Cases

Where a provision of a county's general plan is ambiguous, the next and final question in the Court of Appeal's interpretation of the plan is whether the local governing body adopted a reasonable interpretation when it resolved that ambiguity.

[9] Zoning And Planning 414 Carr 1571

414 Zoning and Planning

414X Judicial Review or Relief

414X(A) In General

414k1571 k. Exhaustion of administrative remedies; primary jurisdiction. Most Cited Cases

Judicial enforcement of the exhaustion of administrative remedies requirement of the Planning and Zoning Law is not discretionary; instead, exhaustion is a jurisdictional prerequisite to judicial action challenging a planning decision. Cal. Gov't Code §§ 14, 65009(b)(1).

[10] Zoning And Planning 414 🕬 1571

414 Zoning and Planning 414X Judicial Review or Relief 414X(A) In General 414k1571 k. Exhaustion of administrative remedies; primary jurisdiction. Most Cited Cases

Zoning And Planning 414 Cmp1675

414 Zoning and Planning 414X Judicial Review or Relief 414X(C) Scope of Review 414X(C)3 Presumptions and Burdens 414k1675 k. In general, Most Cited

Cases

Under the exhaustion of administrative remedies requirement of the Planning and Zoning Law, the petitioner has the burden of proving an issue was exhausted. Cal. Gov't Code §§ 14,65009(b)(1).

[11] Administrative Law And Procedure 15A

15A Administrative Law and Procedure

15AV Judicial Review of Administrative Decisions

15AV(E) Particular Questions, Review of

15Ak796 k. Law questions in general.

Most Cited Cases

Whether exhaustion of administrative remedies occurred is usually deemed a question of law, and thus as a result, appellate courts conduct an independent review when evaluating whether an issue was raised at the administrative level.

[12] Zoning And Planning 414 Corr 1571

414 Zoning and Planning

414X Judicial Review or Relief

414X(A) In General

414k1571 k. Exhaustion of administrative remedies; primary jurisdiction. Most Cited Cases

Letter in which city set forth its comments to draft environmental impact report (EIR) failed to exhaust administrative remedies for objectors' argument on appeal that county's approval of proposed residential development would violate a provision of the county general plan stating that the county's roadways should meet a minimum Level of Service (LOS) standard, where the letter's reference to unacceptable levels of service on certain road segments and intersections did not inform the county that it should address whether those levels of service were consistent with the general plan's traffic policies. Cal. Gov't Code § 65009(b)(1).

[13] Environmental Law 149E \$\overline\$689

149E Environmental Law

149EXIII Judicial Review or Intervention

149Ek677 Scope of Inquiry on Review of Administrative Decision

149Ek689 k. Assessments and impact statements. Most Cited Cases

Under the abuse of discretion standard, Court of Appeal independently reviews claims that a public agency committed legal error in the preparation of an environmental impact report (EIR), but in comparison, the Court of Appeal reviews claims that an agency committed factual errors under the

substantial evidence standard. Cal. Pub. Res. Code § 21168.5.

[14] Environmental Law 149E C----648

149E Environmental Law 149EXIII Judicial Review or Intervention 149Ek636 Administrative Decisions or Actions Reviewable in General

149Ek648 k. Assessments and impact statements. Most Cited Cases

Environmental Law 149E Caro 689

149E Environmental Law

149EXIII Judicial Review or Intervention

149Ek677 Scope of Inquiry on Review of Administrative Decision

149Ek689 k. Assessments and impact statements. Most Cited Cases

Environmental Law 149E €----692

149E Environmental Law

149EXIII Judicial Review or Intervention

149Ek692 k. Questions of law and fact. Most

Cited Cases

A lead agency's determination whether an environmental impact report's (EIR) discussion of a topic is sufficient to comply with California Environmental Quality Act's (CEQA) information disclosure requirements presents a question of law subject to independent review by the courts. Cal. Pub.Res. Code § 21168.5

[15] Environmental Law 149E Cmo689

149E Environmental Law

149EXIII Judicial Review or Intervention

149Ek677 Scope of Inquiry on Review of Administrative Decision

149Ek689 k. Assessments and impact statements. Most Cited Cases

Because the standard of review established by California Environmental Quality Act (CEQA) refers to a prejudicial abuse of discretion, plaintiffs claiming the information in an environmental impact report (EIR) was insufficient must demonstrate that the failure to include relevant information precluded informed decisionmaking by the lead agency or informed participation by the public. Cal. Pub.Res. Code § 21168.5,

149E Environmental Law

149EXII Assessments and Impact Statements

149Ek598 Adequacy of Statement, Consideration, or Compliance

149Ek604 Particular Projects

149Ek604(6) k. Waste; hazardous materials. Most Cited Cases

Final environmental impact report (EIR) for residential development with wastewater treatment plant adequately addressed the issue of how effluent production, storage, and disposal could be balanced, where the EIR specified that the effluent would be stored in winter and used for irrigation in the summer, it accounted for the application of all of the effluent produced by the wastewater treatment plant over the course of a year, and it specified how much effluent would be produced at the plant, how much effluent would be stored in the winter, and how many acres would be irrigated with the effluent. Cal. Pub.Res. Code § 21000 et seq.; Cal. Code Regs. tit. 14, § 15151.

[17] Environmental Law 149E Cmo665

149E Environmental Law

149EXIII Judicial Review or Intervention

149Ek665 k. Exhaustion of administrative remedies. Most Cited Cases

Comment on draft environmental impact report (EIR) for residential development with wastewater treatment plant and letter from environmental organization adequately exhausted administrative remedies for objectors' argument on appeal that the EIR inadequately addressed the issue of how effluent production, storage, and disposal could be balanced, where the letter asked for the identification of lands capable of accepting recycled water applications and an assessment of impacts so that applica-

tion of recycled water would be "consistent with potential irrigable acreage." Cal. Pub.Res. Code § 21000 et seq.; Cal. Code Regs. tit. 14, § 15151.

250 Mandamus

250III Jurisdiction, Proceedings, and Relief 250k187 Appeal and Error

250k187.4 k. Presentation and reservation in lower court of grounds of review. Most Cited Cases

In appeal from trial court's denial of objectors' petition for writ of mandate challenging county's approval of environmental impact report (EIR) for residential development with wastewater treatment plant, Court of Appeal would consider objectors' argument that the EIR inadequately addressed the issue of how effluent production, storage, and disposal could be balanced, even though the argument was not presented to the trial court, since the argument presented questions of law and the disposal of wastewater would affect the public interest. Cal. Pub.Res. Code § 21000 et seq.; Cal. Code Regs. tit. 14, § 15151.

[19] Environmental Law 149E \$\overline\$600

149E Environmental Law

149EXII Assessments and Impact Statements 149Ek598 Adequacy of Statement, Consider-

ation, or Compliance

149Ek600 k. Consideration and disclosure of effects. Most Cited Cases

Environmental Law 149E Cras615

149E Environmental Law

149EXII Assessments and Impact Statements 149Ek612 Evidence

149Ek615 k. Weight and sufficiency.

Most Cited Cases

The existence of substantial evidence in the record to support an environmental impact report's (EIR) conclusions does not mean that the EIR's discussion of a topic is sufficient to comply with California Environmental Quality Act's (CEQA) information disclosure requirements; they are separate legal issues. Cal. Pub.Res. Code § 21000 et seq. ; Cal. Code Regs. tit. 14, § 15151.

[20] Environmental Law 149E C=583

149E Environmental Law

149EXII Assessments and Impact Statements
 149Ek580 Preliminary Assessment or Report
 149Ek583 k. Sufficiency. Most Cited

Cases

Draft environmental impact report (EIR) for residential development with wastewater treatment plant was not prejudicially inadequate in its discussion of potential discharge of effluent to a nearby river, where the draft EIR mentioned the possibility of seepage of wastewater to the river, and after the release of the draft EIR the environmental review process produced further information and analysis regarding the possible hydrologic connection between the site of the proposed effluent pond and the river. Cal. Pub.Res. Code § 21000 et seq.; Cal. Code Regs. tit. 14, § 15151.

[21] Environmental Law 149E604(6)

149E Environmental Law

149EXII Assessments and Impact Statements

149Ek598 Adequacy of Statement, Consideration, or Compliance

149Ek604 Particular Projects

149Ek604(6) k. Waste; hazardous materials. Most Cited Cases

Environmental impact report (EIR) for residential development with wastewater treatment plant was inadequate in its discussion of health impacts of air pollutants that the project would produce, even though the EIR specified the number of tons per year of each pollutant that would be produced and provided a general description of each pollutant, including ozone and particulate matter 10 microns in diameter or smaller (PM10), where the EIR failed to describe the magnitude of any additional health impacts would result from the addition of the project's pollutants to a basin that was already des-

ignated as a severe nonattainment area for ozone and a nonattainment area for PM10, and the EIR failed to inform the reader what impact, if any, the project was likely to have on the days of nonattainment per year. Cal. Pub.Res. Code § 21000 et seq.; Cal. Code Regs. tit. 14, § 15151.

[22] Environmental Law 149E Cmo665

149E Environmental Law

149EXIII Judicial Review or Intervention

149Ek665 k. Exhaustion of administrative remedies. Most Cited Cases

Letter from city stating that environmental impact report (EIR) for residential development with wastewater treatment plant "fails completely" to "disclose the human health related effects of the Project's air pollution impacts" adequately exhausted administrative remedies for objectors' argument on appeal that the EIR was inadequate in its discussion of health impacts of air pollutants that the project would produce. Cal. Pub.Res. Code § 21000 et seq. Cal. Code Regs. tit. 14, §§ 15151, 15126.2(a).

[23] Mandamus 250 🕬 187.4

250 Mandamus

250III Jurisdiction, Proceedings, and Relief 250k187 Appeal and Error

250k187.4 k. Presentation and reservation in lower court of grounds of review. Most Cited Cases

On objectors' petition for writ of mandate challenging county's approval of environmental impact report (EIR) for residential development, objectors' opening brief in the trial court asserting that the EIR failed "to discuss the health effects of the Project's significant air quality impacts" adequately preserved that argument for appeal. Cal. Pub.Res. Code § 21000 et seq.; Cal. Code Regs. tit. 14, §§ 15151, 15126.2(a).

[24] Environmental Law 149E \$===604(6)

149E Environmental Law

149EXII Assessments and Impact Statements 149Ek598 Adequacy of Statement, Consideration, or Compliance

149Ek604 Particular Projects

149Ek604(6) k. Waste; hazardous materials. Most Cited Cases

Environmental impact report's (EIR) statement in the conclusion of its discussion of air quality impacts that increased in air pollutants would be "lessened by policies of the proposed Specific Plan and Community Plan" did not require the EIR to explain how those policies would minimize emissions or to describe the extent that the policies would minimize emissions, where the policies of the proposed Specific Plan and Community Plan were not part of a mitigation measure. Cal. Pub.Res. Code § 21100(b)(3); Cal. Code Regs. tit. 14, § 15126.4(a)(1).

[25] Environmental Law 149E 🗲 604(6)

149E Environmental Law

149EXII Assessments and Impact Statements

149Ek598 Adequacy of Statement, Consideration, or Compliance

149Ek604 Particular Projects

149Ek604(6) k. Waste; hazardous materials. Most Cited Cases

Environmental impact report (EIR) for residential development with wastewater treatment plant violated the requirement in the California Environmental Quality Act (CEQA) to provide mitigation measures that "are fully enforceable through permit conditions, agreements or other measures," in stating that heating, ventilation, and air conditioning (HVAC) units must be fitted with a catalyst system if feasible and that trees "shall be carefully selected and located" to protect buildings from energy consuming environmental conditions, since the mitigation measure were vague, where the EIR failed to identify the persons or entities selecting and locating the trees and determining whether a catalyst system was feasible. Cal. Pub.Res. Code § 21081.6(b) Cal. Code Regs. tit. 14, §§ 15126.4(a)(2).

[26] Environmental Law 149E @.....604(6)

149E Environmental Law

149EXII Assessments and Impact Statements

149Ek598 Adequacy of Statement, Consideration, or Compliance

149Ek604 Particular Projects

149Ek604(6) k. Waste; hazardous materials. Most Cited Cases

Environmental impact report (EIR) for residential development with wastewater treatment plant was improperly conclusory in its discussion of mitigation measures, in stating that a mitigation measure composed of a dozen separate provisions would "substantially reduce air quality impacts," where the implication that someone had quantified the expected reductions to the tons of emissions disclosed earlier in the EIR was not supported by the discussion in the EIR. Cal. Pub.Res. Code § 21081.6(b); Cal. Code Regs. tit. 14, §§ 15126.4(a)(2).

[27] Environmental Law 149E C==>666

149E Environmental Law

149EXIII Judicial Review or Intervention

149Ek666 k. Preservation of error in administrative proceeding. Most Cited Cases

Court of Appeal would exercise its discretion to consider the question of whether county improperly deferred the formulation of mitigation measures in environmental impact report (EIR) for residential development with wastewater treatment plant, even if objectors failed to raise the issue of deferred formulation of mitigation in the trial court, where objectors did argue to the trial court that it was impossible to gauge the effectiveness of the mitigation measures because they were vague and undefined, and the vagueness argument was similar to the claim that the mitigation measures failed to contain specific performance criteria. Cal. Pub.Res. Code § 21081.6(b); Cal. Code Regs. tit. 14, §§ 15126.4(a)(1)(B).

[28] Environmental Law 149E Cm 602

149E Environmental Law

149EXII Assessments and Impact Statements 149Ek598 Adequacy of Statement, Consideration, or Compliance

149Ek602 k. Mitigation measures. Most Cited Cases

It is proper for an environmental impact report (EIR) to defer the formulation of mitigation measures when the agency has committed itself to specific performance criteria for evaluating the efficacy of the measures to be implemented in the future, and the future mitigation measures are formulated and operational before the project activity that they regulate begins. Cal. Pub.Res. Code § 21081.6(b); Cal. Code Regs. tit. 14, § 15126.4(a)(1)(B).

149E Environmental Law

149EXII Assessments and Impact Statements

149Ek598 Adequacy of Statement, Consideration, or Compliance

149Ek604 Particular Projects

149Ek604(6) k. Waste; hazardous materials. Most Cited Cases

Environmental impact report (EIR) for residential development with wastewater treatment plant improperly allowed for deferred formulation of mitigation measures in stating that the that county and air pollution control district could substitute different air pollution control measures for individual projects if they were equally effective or superior to those proposed in the EIR, where many of the specific mitigation provisions in the EIR lacked performance standards that would allow either the county or the public to determine whether the substitute measure worked as well as the original provisions. Cal. Pub.Res. Code § 21081.6(b); Cal. Code Regs. tit. 14, § 15126.4(a)(1)(B).

[30] Environmental Law 149E 🗲 581

149E Environmental Law

149EXII Assessments and Impact Statements 149Ek580 Preliminary Assessment or Report 149Ek581 k. In general. Most Cited Cases

A lead agency's responses to comments to a draft environmental impact report (EIR) need not be exhaustive, and the level of detail required in a response is judged by the level of detail in the comment. Cal. Pub.Res. Code § 21091(d)(2)(A); Cal. Code Regs. tit. 14, § $15088(a)_{*}$

[31] Environmental Law 149E 🗲 581

149E Environmental Law

149EXII Assessments and Impact Statements

149Ek580 Preliminary Assessment or Report 149Ek581 k. In general. Most Cited Cases

County made an adequate good faith response to objectors' comment, on draft environmental impact report (EIR) for residential development with wastewater treatment plant, that county should consider how air quality impacts could be mitigated impacts through off-site emission reduction programs such as air pollution control district's voluntary emission reduction agreement (VERA), where county stated that a VERA would not be enforceable by the county, county indicated that the consideration of a VERA would occur at a later stage, and county explained that process. Cal. Pub.Res. Code § 21091(d)(2)(A); Cal. Code Regs. tit. 14, § 15088(a).

[32] Environmental Law 149E 581

149E Environmental Law

149EXII Assessments and Impact Statements

149Ek580 Preliminary Assessment or Report 149Ek581 k. In general. Most Cited Cases

Whether county made an adequate good faith response to objectors' comment on draft environmental impact report (EIR) was determined by an objective standard based on reasonableness, rather than a subjective standard based on county's state of mind or motives. Cal. Pub.Res. Code § 21091(d)(2)(A); Cal. Code Regs. tit. 14, § 15088(a)

[33] Environmental Law 149E 🗫 604(6)

149E Environmental Law

149EXII Assessments and Impact Statements 149Ek598 Adequacy of Statement, Consideration, or Compliance

149Ek604 Particular Projects

149Ek604(6) k. Waste; hazardous materials. Most Cited Cases

County was not required to consider whether the impacts of a residential development with a wastewater treatment plant should be mitigated with a voluntary emission reduction agreement (VERA), pursuant to the VERA program of the air pollution control district where the project was located, prior to approving the final environmental impact report (EIR) for the project.

See 12 Witkin, Summary of Cal. Law (10th ed. 2005) Real Property, § 840 et seq.

***276** APPEAL from a judgment of the Superior Court of Fresno County. Rosendo Pena, Jr., Judge. (Super. Ct. Nos. 11CECG00726, 11CECG00706, 11CECG00709)Law Office of Sara Hedgpeth-Harris and Sara Hedgpeth-Harris for Plaintiffs and Appellants.

Kevin B. Briggs, County Counsel, Bruce B. Johnson, Deputy County Counsel, for Defendants and Respondents.

Remy Moose Manley, James G. Moose, Tiffany K. Wright, Sacramento, and Laura M. Harris for Real Party in Interest.

OPINION

Franson, J.

*708 INTRODUCTION

In February 2011, the County of Fresno (County) approved the **Friant Ranch** project, a proposed master-planned community for persons age 55 or older located in north-central Fresno County (the Project). The Project is located on 942 acres of unirrigated grazing land adjacent to the unincorporated community of Friant, below Friant Dam and Millerton Lake, near the San Joaquin River.

This appeal argues that (1) the Project was inconsistent with land use and traffic policies in County's general plan and (2) the environmental impact report (EIR) for the Project failed to comply with the California Environmental Quality Act (CEQA). FN1 The CEQA claims challenge the adequacy of the EIR's discussion of certain*277 issues involving (1) treated effluent from the proposed wastewater treatment facilities and (2) air quality impacts.

FN1. Public Resources Code, section 21000 et seq. All further statutory references are to the Public Resources Code unless otherwise indicated.

As to the claims of general plan inconsistency, we conclude that the Project is not inconsistent with the land use element, since the agricultural use designation was properly changed by amendment, thereby avoiding an inconsistency, and the issues regarding traffic policy TR-A.2 were not exhausted during the administrative process.

We conclude the CEQA claims involving wastewater disposal lack merit because the amount and location of wastewater use and disposal and the hydrogeology of the site ultimately chosen for the wastewater treatment plant were addressed in sufficient detail during the environmental review process.

As to the CEQA claims involving air quality, we conclude that (1) the EIR was inadequate because it failed to include an analysis that correlated the project's emission of air pollutants to its impact on human health; (2) the mitigation measures for the project's long-term air quality impacts violate CEQA because they are vague, unenforceable and lack specific performance criteria; and (3) the statement that the air quality mitigation provisions will *709 substantially reduce air quality impacts is unexplained and unsupported. These defects must be cured by the preparation of a revised EIR.

We therefore reverse the judgment.

Parties

Plaintiffs Sierra Club, League of Women Voters of Fresno, and Revive the San Joaquin (collectively, plaintiffs) alleged that they are nonprofit organizations concerned with protecting the environment, public participation in the political process, and protection and restoration of the San Joaquin River, respectively.

FACTS

County is the local governmental entity that acted as the lead agency in the preparation of the EIR for the Project and, through its board of supervisors, issued approvals necessary for the Project. Real party in interest Friant Ranch, L.P. is the Project proponent. This opinion refers to County and Friant Ranch, L.P. collectively as "defendants."

The Project

The Project proposes the development of the Central Valley's first master planned retirement community for "active adults" (age 55 and older) on a 942-acre site in north central Fresno County, just south of the San Joaquin River. The development includes single- and multi-family residential units that are age restricted, some residential units that are not age restricted, a commercial village center, a recreation center, trails, open space, and parks and parkways.

County approved Alternative 3 of the Project, which includes the construction of approximately 2,500 residential units and 250,000 square feet of commercial space on 482 acres and the dedication of 460 acres to open space. The Project's construction is divided into five phases with an estimated 10-year build-out.

FN2. As initially proposed, the project planned for the development of 667 acres (as opposed to 482 acres) and the construction of 2,996 residences.

The residential and commercial growth envisioned by the Project will require additional

wastewater treatment capacity. The hydrogeology of the site proposed for the new wastewater treatment facilities, the concerns about *710 the amount and location of the storage, and the application of *278 the facilities' treated effluent, are the subject of the CEQA claims raised in this appeal.

The initial proposal for the Project placed new wastewater treatment facilities adjacent to a small existing plant in the Friant Ranch Specific Plan area and indicated that treated effluent might be discharged from the new plant into the San Joaquin River during winter months, when demand for irrigation was low. County rejected this site and found that the alternative site for the new wastewater treatment and disposal facilities on land known as the "Beck Property" was environmentally superior. The Beck Property is approximately 145 acres located west of Friant Road and south and east of Lost Lake Park. The site was used by a gravel extraction operation and presently contains highly disturbed agricultural land and an aggregate mining quarry. The quarry will be used to create an effluent pond that is capable of storing treated effluent yearround.

> FN3. The version of the Friant Ranch Specific Plan approved by County's board of supervisors eliminated the possibility of discharging the treated effluent into the river and inserted the following: "No discharge of wastewater into the San Joaquin River from the wastewater treatment plant will occur."

Governmental Approvals

In October 2007, County distributed a notice of preparation regarding the draft EIR for the Project. Two years later, the draft EIR was released. The 45-day period for the public to submit comments on the draft EIR and the Project ended on December 15, 2009. The final EIR, which included the comments presented and County's responses, was released in August 2010.

On February 1, 2011, County's board of super-

visors approved the Project by adopting resolution No. 11-031, which certified the final EIR and approved General Plan Amendment No. 511, which updated the Friant Community Plan (a component of the Fresno County General Plan) and authorized the proposed Friant Ranch Specific Plan. The update to the Friant Community Plan expanded the area covered from the existing unincorporated community of Friant to include the proposed development-that is, the area covered by the Friant Ranch Specific Plan. One controversy generated by the board of supervisors' approval of the Project and general plan amendment relates to the redesignation of land in the Project area from agricultural use to commercial, residential, public facility, and open space uses and whether that redesignation was consistent with the general plan's policy of preserving valuable agricultural land. General Plan Amendment No. 511 did not change any of the land use goals and policies set forth in the general plan.

Other County action required for the Project includes amending the Friant Redevelopment Plan, changing zoning, and entering into a development *711 agreement for the project. The final EIR states that County will consider issuing conditional use permits for the wastewater treatment plant and related use of treated wastewater for irrigation of Lost Lake Park and other disposal sites.

This appeal concerns primarily the approvals issued by County because County (1) acted as the lead agency for the CEQA review and (2) approved aspects of the Project that plaintiffs contend are inconsistent with County's general plan. Nevertheless, the Project cannot be completed without approvals from other state and federal agencies.

*279 One such state agency involved in approving the Project is the Central Valley Regional Water Quality Control Board. The final EIR states that the Project will require the Water Quality Control Board to adopt waste discharge and water reclamation requirements for land disposal of treated effluent, adopt a National Pollutant Discharge Elimination System (NPDES)

discharge of treated effluent to the San Joaquin River, issue a Clean Water Act section 401 certification, and take other action.

FN4. The NPDES is part of the federal Clean Water Act, title 33 United States Code section 1251, et seq., and sets forth the conditions under which a state with an approved water quality control program may issue permits for the discharge of pollutants in wastewater. (33 U.S.C. § 1342(b) .)

In addition, the San Joaquin Valley Air Pollution Control District (Air District) might review certain aspects of the Project. The final EIR states that the proposed Project might require the Air District to (a) process an air permit application for the wastewater treatment plant, (b) process an air impact assessment, (c) issue a dust control permit, and (d) take appropriate action to ensure compliance with Air District's Rule 9510.

Contents of EIR

The draft EIR states that the Friant Ranch Specific Plan area was being used for cattle grazing and the Project did not propose to convert to nonagricultural uses any (1) prime farmland, (2) farmland of statewide importance, or (3) land designated unique farmland. Also, no land within the Project area is subject to a Williams Act contract or a Farmland Security Zone contract. Based on these facts, the draft EIR stated that the growth proposed by the Project was being directed to "an area that does not include valuable agricultural land." Accordingly, the draft EIR concluded that the Project was consistent with County's land use policies designed to protect agricultural resources in Fresno County.

The majority of the land in the Friant Ranch Specific Plan area was designated "Agriculture" by County's general plan. Similarly, most of the *712 land was zoned "Exclusive Agriculture (AE-20 and AE-40)." The remainder was zoned for trailer parks (about 35 acres), commercial uses (about 4 acres) or residential (about 2.5 acres). As a result of County's approval of the Project, the land previously designated for agriculture was redesignated for commercial, residential, public facility and open space use.

The EIR discusses the disposal of effluent resulting from the treatment of wastewater at the proposed wastewater treatment plant. The discussion of wastewater issues relevant to this appeal is described later in this opinion. (See part III.A, *post.*) Similarly, matters relevant to plaintiffs' claims that the EIR's analysis of air quality impacts was inadequate and the mitigation measures are flawed are also set forth below. (See part IV.A, *post.*)

PROCEEDINGS

Following the Board of Supervisor's approval of the Project, County filed a notice of determination for the Project on February 3, 2011, which triggered the 30-day statute of limitations for bringing a CEQA claim. (§ 21167, subd. (c); Guidelines, § 15112, subd. (c)(1).)

FN5. The term "Guidelines" refers to the regulations that implement CEQA and are codified in California Code of Regulations, title 14, section 15000 et seq.

*280 Plaintiffs' petition for writ of mandate and complaint challenges County's approval of the Project and certification of the final EIR and alleged violations of CEQA and the Planning and Zoning Law requirement that land use decisions be consistent with the applicable general plan.

After extensive briefing by the parties, a hearing on the merits was held on September 21, 2012. On December 14, 2012, the trial court delivered its ruling from the bench, denying all of the claims and entering judgment in favor of defendants.

In February 2013, plaintiffs filed a notice of appeal from the judgment entered against them.

DISCUSSION I. PROJECT'S CONSISTENCY WITH GENERAL

PLAN

California's Planning and Zoning Law requires County's specific plans, zoning ordinances, subdivision map approvals and other land use or *713 development actions to be consistent with County's general plan. (Gov.Code, §§ 65454 [specific plans], 65860 [zoning ordinances] & 66473.5 [subdivision maps].)

A. Standard of Review

[1][2]A local governing body's determination that a project is consistent with a general plan is subject to judicial review under the abuse of discretion standard. (Families Unafraid to Uphold Rural etc. County v. Board of Supervisors (1998) 62 Cal.App.4th 1332, 1338, 74 Cal.Rptr.2d 1 (FU-TURE).) An abuse of discretion is established if the governing body did not proceed as required by law, made a determination that was not supported by findings, or made findings of fact that were not supported by substantial evidence. (Ibid.) A finding of fact related to general plan consistency is not supported by substantial evidence if, based on the evidence before the local governing body, a reasonable person could not have reached the same conclusion. (*Ibid.*)

Defendants argue that the deferential arbitrary and capricious standard of review should be applied to County's determination that the project was consistent with the general plan.

[3]We believe that the arbitrary and capricious standard and the abuse of discretion standard are the same in substance. (*Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 782, fn. 3, 32 Cal.Rptr.3d 177; cf. *Haraguchi v. Superior Court* (2008) 43 Cal.4th 706, 711–712, 76 Cal.Rptr.3d 250, 182 P.3d 579 [the abuse of discretion standard of review, in the context of a motion to recuse a prosecutor, uses an arbitrary and capricious test for the application of the law to the facts].) Because this court used the abuse of discretion standard in *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal.App.4th 683, at page 706, 58 Cal.Rptr.3d

102, we will proceed in this appeal using that formulation of the standard of review.

[4] When the particular issue presented on appeal involves the interpretation of an ambiguous provision of a general plan, appellate courts defer to the local government's resolution of that ambiguity so long as the interpretation adopted is reasonable. (*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 142, 104 Cal.Rptr.2d 326.) In other words, the local government may adopt *any* reasonable interpretation; it is not required to select the most likely interpretation out of the range of possible reasonable interpretations.

[5]Lastly, appellate courts review the local government's consistency determination,*281 not the decision of the trial court. Consequently, our review is *714 independent of the trial court's decision. (See *California Native Plant Society v. City* of Rancho Cordova (2009) 172 Cal.App.4th 603, 637, 91 Cal.Rptr.3d 571 [question on appeal is same question presented to trial court].)

B. General Plan Land Use Policy LU-A.1

[6] The agriculture and land use element of County's general plan states that its goal regarding agriculture is to promote the long-term conservation of productive and potentially productive agricultural lands and to accommodate agriculturally related activities and support services. To achieve this goal, the general plan lists 21 policies. The first is land use policy LU-A.1 (County Ag Use Policy), which states:

"The County shall maintain agriculturally-designated areas for agriculture use and shall direct urban growth away from valuable agricultural lands to cities, unincorporated communities, and other areas planned for such development where public facilities and infrastructure are available."

The parties disagree about the meaning of the County Ag Use Policy and whether County violated the policy when it approved the project. We con-

clude that County interpreted the policy in a reasonable manner when it determined agricultural land use designations could be changed by amendment and a project is consistent with the County Ag Use Policy if *some* public facilities and infrastructure are available in the Project area.

1. Plaintiffs' Contentions

Plaintiffs' argument that the Project is inconsistent with the County Ag Use Policy begins with the contention that the policy is fundamental, mandatory and unambiguous. Plaintiffs interpret the mandatory language of the policy to mean that County is prohibited from changing the designation of land that has been designated for agriculture. Based on this interpretation, plaintiffs conclude that the project is inconsistent with the County Ag Use Policy because the Project included the redesignation and rezoning of an agricultural area to allow for intensive urban use.

Plaintiffs also contend that the Project is inconsistent with the County Ag Use Policy because the Project is located in an area where public facilities and infrastructure are not available.

2. Defendants' Contentions

As to the interpretation of the County Ag Use Policy, defendants contend it does not prohibit changes in land use designations that are accomplished by *715 amendments to the general plan. Defendants support this contention by arguing it is unreasonable to interpret the policy to mean that land designated "Agriculture" must retain that designation in perpetuity.

Defendants also contend that the project is consistent with the County Ag Use Policy because (1) it protects valuable agricultural land by directing growth to less productive grazing land and (2) it directs growth to the existing community of Friant and ensures appropriate improvement and expansion of public facilities there.

C. Changing Land Use Designations

The first disagreement over the proper inter-

pretation of the County Ag Use Policy centers on the phrase "shall maintain agriculturally-designated areas for agricultural use...." This phrase is not interpreted in isolation. Consequently, we will discuss other provisions in the general plan that may shed light on its meaning.

*282 1. Other Provisions in General Plan

Plaintiffs support their view that County is prohibited from redesignating agriculturally designated areas to other uses by referring to the general plan's (1) definition of "policy" as a "[s]pecific statement guiding action and implying clear commitment" and (2) statement that the "use of the word[s] 'shall' in a policy is an unequivocal directive...." Because the general plan does not define the word "maintain," plaintiffs cite a dictionary that defines "maintain" to mean (1) to cause something to exist or continue without changing or (2) to keep in an existing state.

Defendants argue that the "shall maintain" language in the County Ag Use Policy does not prohibit general plan amendments that change the designation of land that had been designated "Agriculture." Defendants refer to the provision in the general plan that authorizes amendments and County's history of adopting amendments that change land use designation. Defendants also quote three other agriculture policies (LU–H.8, LU–F.39 and LU–A.14) as evidence that the general plan recognized situations could arise where the redesignation of agricultural land is necessary.

Amendments to the general plan are addressed in the introduction under the heading "REVISING AND AMENDING THE GENERAL PLAN." The first paragraph under the heading states that the general plan "must be flexible enough to respond to changing conditions and at the same time specific enough to provide predictability and consistency in guiding day-to-day land use and development decisions. Over the years, conditions and community *716 needs change and new opportunities arise; the plan needs to keep up with these changes and new opportunities." After mentioning two types of peri-

odic review of the general plan, the paragraph concludes:

"From time to time, the County will be asked to consider proposals for specific amendments to the plan. The County will initiate some of these proposals itself, but most will be initiated by private property owners and developers. *Most* general plan amendments involve changes in land use designations for individual parcels."

2. Analysis of General Plan's Provisions

[7] The starting point for our examination of the meaning of the general plan is similar to the analysis used for statutes, contracts and other instruments. The first question is whether the provision in question is ambiguous. (E.g., Winet v. Price (1992) 4 Cal.App.4th 1159, 1165, 6 Cal.Rptr.2d 554 [the existence of contractual ambiguity is a threshold question to the determination of meaning]; Coburn Sievert (2005) 133 Cal.App.4th 1483, V. 1494-1496, 35 Cal.Rptr.3d 596 [initial examination of statute concerns whether statute is ambiguous].) Generally, whether language is ambiguous (i.e., susceptible to more than one reasonable interpretation) presents a question of law. (Winet v. Price, supra, at p. 1165, 6 Cal.Rptr.2d 554.)

[8]Where a provision of the general plan is ambiguous, the next and final question is whether the local governing body adopted a reasonable interpretation when it resolved that ambiguity. (*No Oil, Inc. v. City of Los Angeles* (1987) 196 Cal.App.3d 223, 244, 242 Cal.Rptr. 37 [addressing whether city council's interpretation of ambiguous term in general plan was arbitrary, capricious or entirely lacking in evidentiary support].)

*283 We conclude that the statement in the County Ag Use Policy that "County shall maintain agriculturally-designated areas for agricultural use" is ambiguous as to whether County may amend the general plan and change the designation of land that had been designated "Agriculture." It is possible to interpret this language to mean that County may not ever change the agricultural designations made by the general plan. Alternatively, it is possible to interpret the language to mean, simply, that County shall allow only agriculture uses on land that is designated "Agriculture." Under this latter interpretation, the language does not address the subject of changing land use designations—it deals only with the designation that exists at the time in question.

The general plan's statement that "[m]ost general plan amendments involve changes in land use designations for individual parcels" clearly indicates that land use designations are not locked in forever. This reference to "land use *717 designations" is broad and, because there is no limiting language, it is reasonable to interpret it as covering *all types* of land use designations, including the designation "Agriculture." Therefore, General Plan Amendment No. 511, which changed the land use designation of the parcels in the Project area, is a type of general plan amendment authorized by the express language of the general plan.

In summary, County's interpretation of the County Ag Use Policy and the other provision of the general plan to allow general plan amendments that change a land use designation from "Agriculture" to another use was one of the interpretations to which the general plan was reasonably susceptible. Therefore, County did not abuse its discretion in adopting that interpretation.

D. Available Public Facilities and Infrastructure

The second dispute over the proper interpretation and application of the County Ag Use Policy relates to the provision that County "shall direct urban growth [to areas] where public facilities and infrastructure are available." Plaintiffs cite the EIR's statement that the project is consistent with the County Ag Use Policy "in that growth is being directed in an area that does not include valuable agricultural land and where public facilities and infrastructure are available or can be expanded." (Italics added.) In plaintiffs' view, the italicized language does not appear in the policy itself and demonstrates that the project is inconsistent with the wording of the County Ag Use Policy.

Defendants argue that plaintiffs' interpretation of that policy is not reasonable because it effectively limits growth to areas where the necessary public facilities and infrastructure are in existence and excludes growth in areas where only *some* public facilities and infrastructure are available.

We conclude that that County reasonably interpreted the County Ag Use Policy to mean that County could direct growth to an area where an expansion of existing facilities and the development of new facilities was required. County's interpretation is supported by policy PF-A.1, which provides:

"The County shall ensure through the development review process that public facilities and services will be developed, operational, and available to serve new development. The County shall not approve new development where existing facilities are inadequate unless the applicant can demonstrate that all necessary public facilities will be installed or adequately financed and maintained (through fees or other means)." (Italics *284 added.)

> FN6. This policy is part of the "Public Facilities and Services Element" of the general plan. Goal PF-A is to "ensure the timely development of public facilities and to maintain an adequate level of service to meet the needs of existing and future development."

*718 The foregoing policy clearly indicates that new development can be approved in an area where the public facilities need to be expanded. Therefore, County did not abuse its discretion when it interpreted the County Ag Use Policy to mean that growth was allowed in areas that needed to expand public facilities and infrastructure.

E. Traffic Policy Addressing Levels of Service 1. General Plan Provisions The general plan's "Transportation and Circula-

tion Element" addresses various modes of transportation and their related facilities, including streets and highways. Goal TR-A is to "plan and provide a unified, coordinated, and cost-efficient countywide street and highway system that ensures the safe, orderly, and efficient movement of people and goods." Policy TR-A.1 addresses standards used in the planning and construction of streets and roads. Policy TR-A.2 (LOS Policy) provides in full:

"The County shall plan and design its roadway system in a manner that strives to meet Level of Service (LOS) D on urban roadways within the spheres of influence of the cities of Fresno and Clovis and LOS C on all other roadways in the county.

"Roadway improvements to increase capacity and maintain LOS standards should be planned and programmed based on consideration of the total overall needs of the roadway system, recognizing the priority of maintenance, rehabilitation, and operation of the existing road system.

"The County may, in programming capacity-increasing projects, allow exceptions to the level of service standards in this policy where it finds that the improvements or other measures required to achieve the LOS policy are unacceptable based on established criteria. In addition to consideration of the total overall needs of the roadway system, the County shall consider the following factors:

"a. The right-of-way needs and the physical impacts on surrounding properties;

"b. Construction and right-of-way acquisition costs;

"c. The number of hours that the roadway would operate at conditions below the standard;

"d. The ability of the required improvement to significantly reduce delay and improve traffic operations; and

*719 "e. Environmental impacts upon which the County may base findings to allow an exceedance of the standards.

"In no case should the County plan for worse than LOS D on rural County roadways, worse than LOS E on urban roadways within the spheres of influence of the cities of Fresno and Clovis, or in cooperation with Caltrans and the Council of Fresno County Governments, plan for worse than LOS E on State highways in the county." (Italics added.)

The first paragraph of the LOS Policy uses the word "shall" and the last paragraph uses the word "should." The general plan contrasts the meaning of "should" with the unequivocal directive "shall" by stating that "the word 'should' is a less rigid directive that will be honored in the ***285** absence of compelling and countervailing considerations."

2. Contentions of the Parties

Plaintiffs contend that the project is inconsistent with the general plan's LOS Policy because it plans for roadways and intersections operating at worse than acceptable levels of service.

> FN7. "'Level of service' is a way of describing relative traffic congestion on a roadway segment or intersection. LOS is stated as a letter grade ranging from A through F, with A being the best." (*Friends of Lagoon Valley v. City of Vacaville* (2007) 154 Cal.App.4th 807, 820, fn. 5, 65 Cal.Rptr.3d 251.)

Defendants disagree with this claim of inconsistency and also argue that plaintiffs are barred by Government Code section 65009, subdivision (b)(1) from pursuing the claim because they did not exhaust their administrative remedies on the issue.

Plaintiffs' reply brief addresses exhaustion by contending the claim that the project's contribution to unacceptable levels of service on numerous county roadways and intersections is inconsistent with the LOS Policy raised during the administrative proceedings. Plaintiffs support their position by citing a single document—the December 15, 2009, letter in which the City of Fresno set forth its comments to the draft EIR. The contents of the letter, which are crucial to the exhaustion issue, are described in part I.E.4, *post*.

3. Legal Principles Governing Exhaustion

The exhaustion of administrative remedies is required by Government Code section 65009, which provides in relevant part:

"(b)(1) In an action or proceeding to attack, review, set aside, void, or annul a finding, determination, or decision of a public agency made pursuant to this title at a properly *720 noticed public hearing, the issues raised shall be limited to those raised in the public hearing or in written correspondence delivered to the public agency prior to, or at, the public hearing...."

[9]The reference to "this title" means title 7 of the Government Code, which "title may be cited as the Planning and Zoning Law." (Gov.Code, § 65000.) Government Code section 65009, subdivision (b)(1) uses mandatory language that states "the issues raised [in an action] shall be limited to those raised" administratively. (See Gov.Code, § 14 ["[s]hall" is mandatory].) As a result, judicial enforcement of the exhaustion requirement is not discretionary. Instead, exhaustion is "a jurisdictional prerequisite to judicial action challenging a planning decision. [Citations.]" (*Friends of Lagoon Valley v. City of Vacaville, supra*, 154 Cal.App.4th at p. 831, 65 Cal.Rptr.3d 251.)

The purpose of Government Code section 65009, which also includes a 90-day statute of limitations, "is to provide certainty for property owners and local governments regarding decisions made pursuant to this division." (Gov.Code, § 65009, subd. (a)(3).) Certainty is increased by the exhaustion requirement because it prevents administrative agencies from being surprised in court and provides them an opportunity to address issues and make any

necessary findings or changes before the issue is subject to judicial review. (*Friends of Lagoon Valley v. City of Vacaville, supra*, 154 Cal.App.4th at p. 831, 65 Cal.Rptr.3d 251.) The exhaustion requirement also lightens the burden on the court system by encouraging the development of a complete record before the administrative agency and allowing the agency to exercise its expertise on the issues raised. (*286Evans v. City of San Jose (2005) 128 Cal.App.4th 1123, 1137, 27 Cal.Rptr.3d 675.)

[10][11]The petitioner has the burden of proving an issue was exhausted. (*North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors* (2013) 216 Cal.App.4th 614, 624, 157 Cal.Rptr.3d 240.) Whether exhaustion occurred is usually deemed a question of law. (*Ibid.*) As a result, appellate courts conduct an independent (i.e. de novo) review when evaluating whether an issue was raised at the administrative level. (*Ibid.*)

In the instant case, the primary legal question regarding exhaustion is whether the objections submitted to County during the administrative process were *sufficiently specific* to raise the issue of the project's alleged inconsistency with the LOS Policy.

Courts usually begin discussing the specificity required by referring to the rationale underlying the exhaustion doctrine. In *721 Porterville Citizens for Responsible Hillside Development v. City of Porterville (2007) 157 Cal.App.4th 885, 69 Cal.Rptr.3d 105, we stated that the objections must be sufficiently specific so that the agency has the opportunity to evaluate and respond to them. (Id. at p. 909, 69 Cal.Rptr.3d 105.) Similarly, in Coalition for Student Action v. City of Fullerton (1984) 153 Cal.App.3d 1194, 200 Cal.Rptr. 855, the Fourth Appellate District stated: "The essence of the exhaustion doctrine is the public agency's opportunity to receive and respond to articulated factual issues and legal theories before its actions are subject to judicial review. The doctrine is not satisfied by a relatively few bland and general references " (Id. at p. 1198, 200 Cal.Rptr. 855 cf. Sierra Club v.

City of Orange (2008) 163 Cal.App.4th 523, 535–536, 78 Cal.Rptr.3d 1 [isolated and unelaborated comments will not suffice; nor will general objections to project approval].)

Some courts have adopted statements that suggest a relatively high degree of specificity is required. For example, in Mani Brothers Real Estate Group v. City of Los Angeles (2007) 153 Cal.App.4th 1385, 64 Cal.Rptr.3d 79, the Second Appellate District stated: "The 'exact issue' must have been presented to the administrative agency to satisfy the exhaustion requirement. [Citation.]" (Id. at p. 1394, 64 Cal.Rptr.3d 79.) The rationale given for the "exact issue" standard is that requiring less would enable litigants to narrow, obscure or even omit arguments before the final administrative authority in the hope a trial court would reach a more favorable decision. (North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors, supra, 216 Cal.App.4th at p. 623, 157 Cal.Rptr.3d 240.)

Other appellate decisions set forth principles regarding specificity that appear more moderate. For example, we have stated that less specificity is required to preserve an issue in an administrative proceeding than to preserve an issue for appeal in a judicial proceeding because citizens are not expected to bring legal expertise to the administrative proceeding. (*Woodward Park Homeowners Assn., Inc. v. City of Fresno, supra, 150 Cal.App.4th at p. 712, 58 Cal.Rptr.3d 102.)*

4. Comments Presented During Administrative Process

[12]Plaintiffs attempt to prove exhaustion of the claim that the project is inconsistent with the general plan's LOS Policy by referring to language in the 26-page comment letter the city manager of the City of Fresno submitted on the draft EIR. We will discuss the portions of that letter that address (1) inconsistencies with the general plan and (2) traffic.

*287 The letter contains six paragraphs of com-

ments under the heading "Chapter 3.9 Land Use and Planning." The first sentence of the comments states the objection in broad terms: "The Project presents fundamental inconsistencies with the land use and planning policies in the County of Fresno General Plan and the General Plans of surrounding cities." The letter then describes alleged inconsistencies in more detail, which include (1) the project's development of *722 intense urban uses on agricultural land and (2) the failure to direct urban development to areas with existing services that support development. None of the inconsistencies raised in this portion of the letter mention "roadways," "roads," "streets," "highways," "intersections," "levels of service," or "traffic." Furthermore, this portion of the letter makes no reference to transportation policies in general or to the LOS Policy in particular.

The City of Fresno's comments to "Chapter 3.13 Transportation/Traffic" of the draft EIR are set forth at pages 14 through 21 of the letter. The first and third paragraph of that discussion states:

"The EIRs traffic and transportation impacts analysis, and Appendix D (Traffic Impact Study, or TIS) is inadequate in many respects.

"[¶] ... [¶]

"Appendix D indentifies Friant Road and Willow Avenue as the major routes providing access to the Project site. Yet the EIR identifies multiple road segments and intersections on both Friant Road and Willow Avenue as operating at unacceptable levels of service either now or by 2030. Furthermore, the EIR concludes that no mitigation can feasibly result in either of these two major access routes operating at acceptable levels of service. Yet the EIR's traffic analysis concludes that development under the Friant Ranch Specific Plan, on property served by these two unacceptably impeded roadways will have absolutely 'no impact' to emergency services access. The EIR ... must explain how it determines that access for necessary medical services will not be

significantly affected by the unacceptable traffic conditions on Friant Road and Willow Avenue."

The italicized language was quoted in plaintiffs' reply brief to support their position that the issue regarding the project's inconsistency with the LOS Policy was presented to County during the administrative proceedings and, as a result, the administrative remedies were exhausted.

5. Application of Exhaustion Requirement

Our analysis of whether the contents of the letter satisfy the exhaustion requirement starts from the perspective of what the letter omits and what it contains.

First, the portion of the letter cited by plaintiffs, omits any mention of (1) the general plan, (2) the requirement for consistency with the general plan, or (3) any statutory provision that requires consistency with the general plan *723 (e.g., Gov.Code, § 65454).^{FN8} In addition, the letter does not *288 cite the LOS Policy or reference the text of that policy, either verbatim or in a summarized form.

FN8. This court has concluded that it is possible to exhaust a claim—that is, apprise the agency of the relevant facts and issues— without identifying the precise statute at issue. (Building Industry Assn. of Central California v. County of Stanislaus (2010) 190 Cal.App.4th 582, 597-598, 118 Cal.Rptr.3d 467 (BIA); accord, McPherson v. City of Manhattan Beach (2000) 78 Cal.App.4th 1252, 1264, 93 Cal.Rptr.2d 725.)

In *BIA*, *supra*, 190 Cal.App.4th 582, 118 Cal.Rptr.3d 467, the petitioner's administrative challenge to a farmland mitigation program added to a county's general plan included the contention that the county did not have the authority to require involuntary agricultural conservation easements. (*Id.* at p. 597, 118

Cal.Rptr.3d 467.) The petitioner did not refer to Civil Code section 815.3, subdivision (b) -the statute that prohibited conditioning the issuance of a land use entitlement on the granting of such an easement. (BIA, supra, at p. 597, 118 Cal.Rptr.3d 467.) In BIA, we concluded the exhaustion requirement was satisfied because the petitioner's challenge at the administrative level adequately raised the issue concerning the county's authority to require such easements. (Id. at p. 598, 118 Cal.Rptr.3d 467.) Therefore, in the instant appeal, the omission of the statutory provision containing the consistency requirement from the City of Fresno's comment letter does not resolve the exhaustion question presented.

Second, the portion of the letter cited by plaintiffs includes the factual assertion, which is accurate, that "the EIR identifies multiple road segments and intersections on both Friant Road and Willow Avenue as operating at unacceptable levels of service...." This factual assertion appears to provide part of the foundation for the objection the City of Fresno set forth in the last sentence of the paragraph. That objection states: "The EIR ... must explain how it determines that access for necessary [i.e., emergency] medical services will not be significantly affected by the unacceptable traffic conditions on Friant Road and Willow Avenue."

The paragraph that includes the language quoted by plaintiffs to prove exhaustion stands in contrast to other portions of the letter that (1) explicitly mention the general plan, (2) articulate an allegation of inconsistency and (3) refer to the requirements of the policy in question. As discussed earlier, the section of the letter that addresses land use and planning makes the broad assertion that the project presents fundamental inconsistencies with the general plan and then sets forth the following specific claim: "The policies of directing urban development to incorporated areas with existing services to support development and away from agricultural land are contradicted by the Project." This language illustrates that when the City of Fresno wished to raise the question of general plan inconsistency it was capable of doing so with direct language. The absence of any comparable language in the portion of the letter relied upon by plaintiffs would lead an objectively reasonable person reading that part of the letter to infer that the claim of general plan inconsistency regarding levels of service for traffic was not being raised by the letter.

*724 As a result, the letter's reference to unacceptable levels of service on certain road segments and intersections did not inform County that it should address whether those levels of service were consistent with the general plan's traffic policies. Thus, County was not put on notice that it should explain how it resolved various issues concerning the application of the traffic policies to the facts of this case. In particular, County had no reason to (1) set forth its interpretation of the LOS Policy, (2) explain how it applied that interpretation to the facts of the case, and (3) make any findings of fact that might have been necessary to establish that one of the exceptions articulated in the LOS Policy applied.

Accordingly, we conclude the City of Fresno's comment letter was not specific enough to satisfy the exhaustion requirement on the issue of the project's inconsistency with the general plan LOS Policy. For example, plaintiffs now interpret the language that "[i]n no case should the County plan for worse than LOS D on rural County roadways" (italics added) to be a clear prohibition. If a claim of inconsistency had been articulated during the *289 administrative process, County's personnel who responded to the public comment would have been alerted to the need to set forth their interpretation of the LOS Policy, including the meaning of the word "should" and other phrases.^{FN9} Because the question of general plan consistency was not raised in connection with general comments about traffic and levels of service or in connection with

specific comment about the LOS Policy, County had no reason to set forth its interpretation of that policy or explain how it applied the policy to the facts of this case. Consequently, we do not know how County's personnel would have interpreted the policy's language and whether, if necessary under that interpretation, they would have treated this project as an allowable exception to the stated levels of service. In short, County was not given an opportunity to respond to the factual and legal issues related to the application of the LOS Policy before its actions were subject to judicial review. (Coalition for Student Action v. City of Fullerton, supra, 153 Cal.App.3d at p. 1198, 200 Cal.Rptr. 855.) Therefore, we conclude that the issue of the project's inconsistency with the general plan's LOS Policy was not exhausted at the administrative level.

FN9. One such phrase is "shall plan ... in a manner that strives to meet" the stated levels of service.

II. CEQA PRINCIPLES

A. Standard of Review

The parties agree that the CEQA claims are reviewed on appeal under the abuse of discretion standard set forth in section 21168.5. We concur. Our *725 "inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence." (§ 21168.5.)

[13] Under this abuse of discretion standard, we independently review claims that a public agency committed legal error (i.e., did not proceed in the manner required by law) in the preparation of an EIR. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 426–427, 53 Cal.Rptr.3d 821, 150 P.3d 709 (*Vineyard Area Citizens*).) In comparison, we review claims that an agency committed factual er-

rors under the substantial evidence standard. (*Id.* at p. 426, 53 Cal.Rptr.3d 821, 150 P.3d 709.)

B. Rules of Law Governing Adequacy of EIR's Discussion

Generally, claims that the information presented in an EIR is legally inadequate under CEQA can be divided into two types. The first type involves a situation where the EIR does not discuss a topic that a statute, regulation or judicial opinion says must be discussed. This type of claim is relatively easy to decide—either the required information was in the EIR or it was omitted. (E.g., *Laurel Heights Improvement Assn. v. Regents of University* of California (1988) 47 Cal.3d 376, 404, 253 Cal.Rptr. 426, 764 P.2d 278 [EIR concluded there were no feasible alternative sites for relocation of biomedical research facilities; EIR's discussion was insufficient because it contained no analysis of alternative locations].)

[14] The second type of claim, which is presented in this case, is more complex. It involves an EIR that has at least addressed the required topic and a claim by *290 the plaintiff that the information provided about that topic is insufficient. Conceptually, this type of claim involves reviewing courts drawing a line that divides sufficient discussions from those that are insufficient. Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. (Madera Oversight Coalition, Inc. v. County of Madera (2011) 199 Cal.App.4th 48, 102, 131 Cal.Rptr.3d 626.) The terms themselves-sufficient and insufficient-provide little, if any, guidance as to where the line should be drawn. They are simply labels applied once the court has completed its analysis.

In Association of Irritated Residents v. County of Madera (2003) 107 Cal.App.4th 1383, 133 Cal.Rptr.2d 718 (AIR), this court set forth the following general principles to help define the line between sufficient and insufficient discussions in an EIR:

"When assessing the legal sufficiency of an EIR, the reviewing court focuses on adequacy, completeness and a good faith *726 effort at full disclosure. [Citation.] 'The EIR must contain facts and analysis, not just the bare conclusions of the agency.' [Citation.] 'An 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.' [Citation.] Analysis of environmental effects need not be exhaustive, but will be judged in light of what was reasonably feasible." (*Id.* at p. 1390, 133 Cal.Rptr.2d 718; see Guidelines, § 15151 [standards of adequacy].)

This court has also recognized that a good faith effort at full disclosure does not mandate perfection and does not require an analysis to be exhaustive. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 653, 57 Cal.Rptr.3d 663.)

[15]Because the standard of review established by section 21168.5 refers to a prejudicial abuse of discretion, plaintiffs claiming the information in an EIR was insufficient must demonstrate that the failure to include relevant information precluded informed decisionmaking by the lead agency or informed participation by the public. (Madera Oversight Coalition, Inc. v. County of Madera, supra, 199 Cal.App.4th at pp. 76-77, 131 Cal.Rptr.3d 626; AIR, supra, 107 Cal.App.4th at p. 1391, 133 Cal.Rptr.2d 718.) Plaintiffs need not show that the outcome of the administrative process would have been different if the lead agency had complied with CEQA's disclosure requirements. (San Joaquin Raptor Rescue Center v. County of Merced, supra, 149 Cal.App.4th at p. 653, 57 Cal.Rptr.3d 663.)

III. ADEQUACY OF EIR'S DISCUSSION OF WASTEWATER IMPACTS

Plaintiffs contend that the EIR's discussion of wastewater generated by the proposed treatment plant lacks sufficient information about (1) the amount and location of wastewater application and (2) the hydrogeology of the Beck Property, the site selected for the proposed treatment plant and storage pond.

A. Disclosures Regarding Amount of Effluent Produced and Recycled

1. Draft EIR

Section 3.14 ("Utilities and Service Systems") of the draft EIR described the existing water, wastewater treatment, effluent disposal, storm drainage and solid waste service in the project area. As to wastewater treatment and effluent disposal, the draft EIR set forth various state *291 and federal laws, regulations and other standards that affect wastewater service. Then, the draft EIR described the existing facilities for handling wastewater in the project area as follows:

"Nearly all of the buildings in the Friant Community are currently serviced by individual septic systems. The Millerton Lake Village Mobile Home Park is the only portion of the Friant Community that is *727 currently served by a small sewer system package treatment plant. A new wastewater treatment plant is needed to provide adequate service levels and accommodate new development within the existing Friant Community."

The draft EIR addressed the project's need for a new wastewater treatment plant by discussing the possibility of locating a new wastewater treatment facility immediately adjacent to the small existing plant. This location is east of Friant Road and north of much of the proposed development.

The draft EIR stated that the proposed wastewater facilities would be built in three phases, as the development project is built out. When completed, the facilities would be able to handle approximately 800,000 gallons of wastewater per day (roughly 900 acre-feet per year). The wastewater would be treated to achieve tertiary quality effluent that would meet the state water quality standards for unrestricted use.

FN10. "Tertiary" refers is the third stage of

treatment. It means "a wastewater treatment process that goes beyond secondary treatment, which may include filtration, coagulation, and nutrient removal." (Cal.Code Regs., tit. 23, § 3671 [definitions of "primary treatment," "secondary treatment" and "tertiary treatment].) Similarly, secondary treatment is more extensive that primary treatment, which is a minimum level of treatment concerned with separating substances that readily settle or float from the water being treated. (Ibid.) The standards for use of recycled water are contained in title 22 of the California Code of Regulations. (E.g., Cal.Code Regs., tit. 22, § 60304 [use of recycled water for irrigation].)

The draft EIR, in six paragraphs at pages 3-368 and 3-369, discussed the use or disposal of the wastewater once it has been treated by the new plant. During the summer months, all treated effluent was to be used irrigating landscape within the Project and turf at Lost Lake Park. During the winter months, when plants and grasses are dormant, the treated effluent could not be applied to land at the same rates as summer and, therefore, it was to be stored or disposed of in another way. The draft EIR stated that it was doubtful that storage ponds could be provided within the Friant Ranch development and proposed disposal of the treated effluent by discharge into the San Joaquin River, such discharges being limited to the months of October through April. If the requisite approval for the proposed discharge could not be obtained, the draft EIR stated that alternative disposal options would be considered, "such as storage or percolation at locations in the immediate vicinity (see Figure 3.14-4 for Beck Property effluent storage option)." Figure 3.14-4 presents an aerial view of the Beck Property and Lost Lake Park that includes a superimposed outline of a proposed 25-acre storage on the Beck Property.

A controversial part of the draft EIR's discus-

sion of effluent disposal and use relates to the calculations regarding (1) the amount of treated effluent that *728 would be generated by the proposed wastewater treatment plant, (2) potential applications of that treated effluent, and (3) the volume of treated effluent that could not be applied and, therefore, would have to be *292 stored or discharged. The draft EIR addressed the controversy by stating:

"Water balance calculations have been prepared, demonstrating a balance between effluent production and available reclamation areas, allowing application of all effluent in a manner that does not exceed the agronomic demand of the receiving lands. The calculations take into account the effects of a wet (100-year recurrence interval) rainfall year."

The water balance calculations referred to were included in the draft EIR as an appendix to an appendix. "Appendix L—Water Quality Impact Analysis" of the draft EIR contained three reports. One such report was dated December 2007 and titled "Anti-Degradation Analysis—Part 1." This report assessed wastewater discharge into the San Joaquin River and wastewater reclamation for project landscaping and irrigation at Lost Lake Park. It had six appendices of its own, including Appendix E, which was labeled "Friant Ranch Alternatives Water Balance" (Appendix E).

Appendix E is a one-page table providing six categories of information for three alternatives for the disposal of treated wastewater. The alternatives were described as (1) "Irrigate in Summer/Store in Winter," (2) "Irrigate in Summer/Discharge in Winter," and (3) "Irrigate Year Round/Store on Rainy Days." The first alternative listed the phaseone irrigation area as 85 acres, the build-out irrigation area as 225 acres, and the requisite storage volume and storage area as 113,100,000 gallons and 35 acres, respectively.

The data in Appendix E, together with other information in the draft EIR, can be analyzed mathematically to derive additional information about

the "Irrigate in Summer/Store in Winter" alternative. First, the treatment plant's expected annual production of 900 acre-feet of treated wastewater can be divided by the irrigation area of 225 acres to conclude that, not factoring in losses from evaporation, each acre in the irrigation area would receive 4 acre-feet of treated wastewater per year. Second, the information about (1) the amount of treated wastewater that needs to be stored and (2) the amount of wastewater produced each day can be used to calculate the number of days that wastewater will be stored. When the 113.1 million gallons of stored effluent is divided by 800,000 gallons of effluent per day, the resulting figure is approximately 141 days. Because a year contains 365 days, the 141 days of storage implies an irrigation season of 224 days.

Another report in Appendix L to the draft EIR is titled "Anti-Degradation Analysis—Part II" (Part II) and was completed in April 2009, 16 months after the first part. It contained a two-paragraph section of text labeled "Seasonal *729 Storage with Irrigation" that stated:

"Because irrigation demand is seasonal, recycled water produced during the winter, when demand is neglible, must be stored for future use or disposed of in some manner. Seasonal storage of wintertime flows for subsequent irrigation requires physical space for the storage facility. For example, a preliminary water balance reveals that a storage pond would need to provide approximately 370 acre-ft of storage and would occupy an area of approximately 42 acres."

Part II then discussed possible locations for such a storage facility and concluded that, with the exception of the Beck Property, no available site was suitable for such a storage pond. It is unclear whether Part II's reference to the "preliminary water balance" meant the same water balance set forth in Appendix E. The numbers presented in Part II—42 acres and 370 acre-feet—do not appear in Appendix E, *293 which lists 35 acres as the storage area needed for approximately 113.1 million gallons (i.e., 347 acre-feet) of wastewater. FN11 The larger storage volume mentioned in Part II implies more days of storage are needed, which implies a shorter irrigation season. The calculations show storage for approximately 151 days of the plant's output, which is the number of days from November 1st to March 31st, inclusive (nonleap year).

FN11. Because one acre-foot equals 325,851 gallons (see *O.W.L. Foundation v. City of Rohnert Park* (2008) 168 Cal.App.4th 568, 576, fn. 2, 86 Cal.Rptr.3d 1), 113.1 million gallons equal approximately 347 acre-feet. The 370 acre-feet referenced in Part II equals approximately 120 million gallons.

A reader of the draft EIR and its attachments would be confused about the number of acres needed for the effluent storage pond because the numbers provided are not consistent. Figure 3.14-4 (October 2009) in the draft EIR shows a proposed 25-acre storage pond on the Beck Property. Yet, Appendix E indicates that 35 acres of storage is needed for the "Irrigate in Summer/Store in Winter" alternative. Also, the discussion in Part II of the anti-degradation analysis indicates that a 42-acre storage pond would be needed.

2. Final EIR

The final EIR was released in August 2010. Section 2.4 contained the project description and addressed the treatment and disposal of wastewater as envisioned at that time. The project description stated that permits were required from the Regional Water Quality Control Board for "irrigation with treated effluent of Specific Plan landscaping and off-site disposal of treated effluent on suitable nearby lands such as the Beck Property (identified in Figure 2–6) and/or Lost Lake Park (and, if sufficient winter land disposal areas are not available, seasonal discharge to the San Joaquin River)...." (Fn. omitted.) The footnote described the Beck Property as the location of an *730 effluent storage pond, but not as an alternate site for the treatment

plant. The footnote also provided information about the proposed storage pond and how the stored effluent would be used, stating that (1) the mining pit at the north end of the Beck Property would be used as the storage pond for seasonal irrigation of the remaining irrigable land on the Beck Property, (2) a maximum of approximately 100 days of effluent would be stored, (3) a pipeline would carry the effluent from the wastewater treatment plant to the Beck Property, and (4) the recycled wastewater would be applied to the Beck Property at agronomic rates.

The final EIR also contained comments to the draft EIR and County's responses. One comment criticized the generality of the water balance information in the draft EIR and stated it was difficult to ascertain the precise water balance for the project. In addition, the comment asserted that Friant Ranch, L.P. "should prepare a water balance that compares recycled water produced and recycled water demand on a monthly basis." (Italics omitted.) County's response provided in part:

"A water supply balance has been conducted for the Project to determine and plan for expected effluent supply and demand. Effluent will be applied to landscape irrigation use as needed (during irrigation season from spring to fall) and excess effluent (e.g., effluent during winter months not otherwise disposed of) would be stored in tanks or ponds located onsite or at the off-site disposal sites for subsequent use onsite (see e.g., DEIR page 366). The Beck property disposal option includes over-winter *294 storage, where effluent would be held until it could be used for irrigation. The water balance shows the Beck Property has capacity to provide 100 days storage, which is sufficient to accommodate wastewater generated by the Project, with enough remaining land to use the balance of reclaimed water for agriculture irrigation after supplying 400 acre-feet to the development areas of the Specific Plan Area for landscape irrigation The excess effluent will be used off-site, once the on-

site demand is met."

The final EIR included a March 2009 memorandum prepared by Live Oak Associates, Inc., an ecological consulting firm, that analyzed the biological resources associated with the Beck Property. The memorandum was designated as Appendix Q to the final EIR. It set forth the conclusion that the use of tertiary treated effluent to irrigate crops on the Beck Property during the spring, summer, and fall, and the storage of effluent in the existing mining pit, would have a negligible impact on the San Joaquin River. This conclusion was based on the factual assertion that effluent applied to the Beck Property to irrigate crops and the effluent stored in the pond would not reach the river.

3. Planning Commission Recommendation

After the final EIR was distributed in August 2010, County's planning commission reviewed the project and the final EIR and issued a staff report. *731 The staff report was dated October 7, 2010, and recommended the Beck Property as the environmentally superior location for the wastewater treatment plant. In addition, the planning commission recommended that there be no discharge of treated wastewater from the plant into the San Joaquin River. As a result of these two recommendations, more scrutiny was placed on whether there was enough storage capacity at the Beck Property to hold the treated effluent during the winter months and what, if anything, would happen to the treated effluent while it was stored. For example, one concern was whether the stored effluent would seep into the river.

4. Infrastructure Master Plan

Some of the concerns about the Beck Property and the winter storage of effluent were addressed in the Friant Ranch Infrastructure Master Plan dated September 2010(IMP). The IMP addressed a smaller version (i.e., fewer residences) of the Friant Ranch Specific Plan than initially proposed. Under the scaled-down version, the expected wastewater production from the residences at Friant Ranch, commercial and industrial flows, and the existing

and future uses in the Friant Community Plan area was estimated at 625,000 to 725,000 gallons per day or up to 815 acre-feet per year. This volume of effluent is about 10 percent less than the 900 acrefeet per year discussed in the draft EIR.

The IMP stated that the preferred alternative for winter effluent disposal was storage in the existing pond at the Beck Property and that the existing size of the pond was "more than adequate to provide 100-day storage of over-winter effluent" and "[w]ith a total available capacity of approximately 600 ac-ft, at project build-out, this pond actually provides for over a year of storage of effluent." Figure 7 in *295 the IMP is a map of the Beck Property that shows the location of the proposed treatment plant and an outline of the effluent storage pond, which is significantly larger than the outline of the 25-acre storage pond shown on a map in the draft EIR. Figure 7 helps resolve any confusion about the size of the proposed storage pond that might have been created by the various descriptions in the draft EIR and its attachments.

> FN12. This statement that the 600 acre-feet of storage represents over a year of effluent storage, when read in context, is referring to the effluent production of the development proposed, not the total production (i.e., 815 acre-feet per year) of the wastewater treatment plant, which included contributions from the Friant Community Plan area, not just the development within the Friant Ranch Specific Plan area.

The IMP identifies an alternate plan for disposal of winter effluent that involves the discharge to the San Joaquin River during the months of October through April.

The IMP also addressed the project's water balance, which is a broader water issue than balancing wastewater production with application and *732 storage. Effluent reclamation—that is, use of recycled water for irrigation—is a part of the project's overall water balance. The IMP stated that, at project build-out, about 575 acre-feet of recycled water per year FN13 would be available for irrigation on the project site and the Beck Property, which amount would be sufficient to irrigate approximately 120 to 150 acres. The project's roadways, landscaped slopes, parks, parkways, and commercial and activity centers contains about 85 irrigation acres and the remaining 35 to 65 acres would be located on the Beck Property.

FN13. The estimate of 575 acre-feet per year is based upon a combined residential and commercial flow of approximately 510,000 gallons per day. This number does not include the 165,000 gallons per day of projected peak flow from the Friant Community Plan area. Thus, the project's water balance, as discussed in the IMP, does not address how all of the treated effluent (i.e., 815 acre-feet per year) produced by the treatment plant would be used.

The IMP does not discuss in specific terms how the remainder of the effluent from the treatment plant would be used. Instead, it includes a general statement (much like the statement in the draft EIR) that water balance calculations have been prepared and those calculations demonstrate "a balance between effluent production and available reclamation areas, allowing application of all effluent in a manner that does not exceed agronomic demand of the receiving lands." Whether this general statement is intended to cover the 815 acrefeet of total effluent production or just the effluent attributable to **Friant Ranch** is not clear.

5. Two Hearings by the Board of Supervisors

On December 7, 2010, County's board of supervisors held a public hearing where one of the agenda items was the consideration of the Project and the final EIR. At the hearing, concerns on many topics were expressed, including locating the proposed wastewater treatment plant and storage pond in the San Joaquin River bottom. A vote on the ap-

proval of the Project was not taken at that hearing. Instead, the board of supervisors decided that issues raised at the hearing should be clarified. Accordingly, they continued the matter to the February 1, 2011, hearing and allowed further comments and rebuttal.

At the February 1, 2011, hearing of County's board of supervisors, the wastewater treatment plant and associated issues were addressed again. Travis Crawford from the Quad Knopf consulting firm testified that the Beck Property, a former gravel quarry, was identified as the environmentally superior site for the plant and effluent storage and disposal. He also stated that, at full build-out, there was enough area at the Beck Property and the open spaces areas of the Friant Ranch *296 Specific Plan to use the wastewater without discharging into the San Joaquin River.

*733 Joe Glicker works for CH2M Hill, the company designated to design, build and operate the proposed wastewater treatment plant. He testified about the plant and the storage capabilities planned for the Beck Property. The slides Glicker used at the hearing were printed out and included in the administrative record. Glicker addressed a scenario of 240 to 250 million gallons of sewage being delivered to the treatment plant and producing 240 to 250 million gallons of effluent-that is, recycled water. He stated "at full capacity of the plant, you would get between 240 to 250 million gallons of sewage that goes into the plant that all comes out as recycled water and would go into the pond " These figures, when reduced to gallons per day, equal approximately 675,000 to 685,000 gallons per day, which is in the middle of the range of 625,000 to 725,000 gallons per day discussed in the IMP.

Glicker presented a slide showing that all effluent would be reused for irrigation and none would be discharged into the river. His figures included 15 million gallons (about 46 acre-feet) being added to the storage pond by rainfall and losses of 75 million gallons (about 230 acre-feet) to evaporation and 3 to 4 million gallons (about 9 to 12 acre-feet) to percolation. The other two uses were **Friant Ranch** irrigation at 110 to 120 million gallons and farm reuse at 65 million gallons.

As to storage capacity and the system in general, Glicker stated:

"The reuse system as we've looked at it is very well thought out. The pond is an oversized pond, a large amount of storage. In a typical year, there's about a year and a half of storage in the pond. The kinds of landscape and agricultural uses and the crops that ha[ve] been selected to be used on the Beck property are the kinds of crops that use reused water well. So it is a system that we feel adequately balances the water and the water that's going into the plant will get used in the reuse operations."

Glicker's slide about the uses of the effluent appears to be the only document in the administrative record that provides figures for all inflows into the pond and for all the ways that water in the pond could leave.

B. Adequacy of Disclosures Concerning Wastewater

1. Contentions of the Parties

Plaintiffs contend that the EIR lacked sufficient detail about the amount and location of wastewater discharge and use. The lack of detail, they argue, makes it impossible to ascertain how it was determined that there could be a balance between effluent production and its subsequent storage and disposal.

Defendants contend that they provided more than adequate information about the wastewater treatment plant and its environmental impacts because *734 (1) even if treated wastewater reached the San Joaquin River, the wastewater would not cause significant impacts; (2) the EIR provided adequate detail regarding the amount and location of wastewater discharge; (3) the issue regarding the amount and location of wastewater discharge and use was not administratively exhausted; and (4) the issue was not raised in the trial court and thus

should not be addressed on appeal.

2. Sufficient Detail Was Provided [16]We disagree with plaintiffs' argument that the draft EIR did not show how *297 effluent production, storage and disposal could be balanced.

When the information in Appendix E is considered with information disclosed in the text of the draft EIR and a few mathematical calculations are performed, the reader is able to understand how a year's production of effluent will be handled over the course of a year and the amount of land on which it will be applied for irrigation. In particular, under the irrigate-in-summer-and-store-in-winter alternative, the 900 acre-feet of effluent expected to be produced by the plant at project build-out would require winter storage of 113.1 million gallons (i.e., 347 acre-feet) of effluent. Also, Appendix E's reference to the irrigation of 225 acres can be compared to the 900 acre-feet of treated effluent generated per year to deduce that, on average, four acre-feet of effluent would be applied to each acre of land during the irrigation season.

> FN14. This estimate of four acre-feet per acre does not account for losses due to evaporation and percolation and gains from rainfall. Glicker's figures indicated a net loss of approximately 25 percent of the effluent produced, which, if applied to the four acre-feet estimate, would reduce it to three acre-feet.

As to the location of the effluent application, the draft EIR indicates that "the Project proposes to use all effluent for a combination of irrigation of landscape features within the **Friant Ranch** Specific Plan development and turf at Lost Lake Park or other suitable disposal area in the immediate vicinity." While this statement about location is general in nature, we conclude that it is legally sufficient for a *draft* EIR because it provides enough detail to enable members of the public to present comments during the administrative review process about the location of effluent application and its potential en-

vironmental impacts. (See AIR, supra, 107 Cal.App.4th at p. 1390, 133 Cal.Rptr.2d 718.)

Moreover, the final EIR provided more specific information, which eliminated some of the generality of the disclosure in the draft EIR. In particular, the final EIR included the response to comment No. 28.14, which stated that the Beck Property had "enough remaining land to use the balance *735 of reclaimed water for agriculture irrigation after supplying 400 acre-feet to the development areas of the Specific Plan Area for landscape irrigation. The Project is not relying on 100% of the anticipated effluent to contribute towards onsite landscaping within the Specific Plan Area throughout the year. The excess effluent will be used off-site, once the on-site demand is met." $^{\rm FN15}$ We conclude that this disclosure provides sufficient detail about the location of the effluent application-namely, the Beck Property and the Specific Plan area-to enable the public and decision makers to understand the location of the proposed effluent application and consider its potential impacts. (See AIR, supra, 107 Cal.App.4th at p. 1390, 133 Cal.Rptr.2d 718; Guidelines, § 15151 [evaluation in EIR need not be exhaustive].)

> FN15. The conclusion that the Beck Property and Specific Plan area were sufficient to use all recycled water was confirmed by the additional detail provided by Glicker at the board of supervisors' February hearing. His slide addressed farm use at the Beck Property, irrigation in the Specific Plan area, losses to evaporation and percolation, and gains from rainfall.

Plaintiffs' opening brief argues that the statement about the project's use of 400 acre-feet annually "fails to account for the entire 900 AFY of wastewater that the Project will generate." First, this argument does not reflect the wastewater production of Alternative 3, the smaller version*298 of the project that was approved. Under Alternative 3, the treatment plant's wastewater production is not expected to exceed 815 acre-feet per year. Second,

the final EIR states that the excess effluent will be applied to the Beck Property, which has enough remaining land (i.e., land besides that used for the wastewater treatment plant and storage pond) to use the balance of the effluent for agriculture irrigation. Therefore, the final EIR does account for the application of all of the effluent produced by the wastewater treatment plant over the course of a year.

Plaintiff also argues that the draft EIR does not indicate that the Beck Property has the capacity to store all of the effluent generated during the nonirrigation season. This alleged shortcoming has some merit because the draft EIR referred to a 25-acre storage pond on the Beck Property and Appendix E indicated that a storage pond of 32 acres was needed for the irrigate-in-summer-and-store-in-winter alternative. In addition, the final EIR and IMP refer to 100-day storage capacity, which is unfortunate in view of the statements that the months of no irrigation demand typically are October through April, a period much longer than 100 days. However, the concerns generated by the discrepancy in pond acreage, and the possibility that 100 days of storage was insufficient, might be viewed as being addressed by the general assurance in the final EIR that the Beck Property storage capacity *736 was sufficient to accommodate the wastewater generated by the project. Also, concerns are addressed by the maps included in the IMP and its statements that (1) the existing size of the pond on the Beck Property was more than adequate to provide 100-day storage of effluent produced during the winter and (2) at project build-out, the pond's total available capacity would be approximately 600 acre-feet. Because the upper limit of estimated wastewater production was 815 acre-feet per year, a storage pond with a capacity of 600 acre-feet storage is adequate to accommodate the effluent produced by the treatment plant during the winter. Therefore, any shortcomings in the draft EIR about storage capacity were addressed in sufficient detail during the environmental review process. Also, the record contains substantial evidence to support the final EIR's statement that adequate storage capacity exists at the Beck Property.

> FN16. Appendix E also listed 113.1 million gallons as the volume of effluent to be stored under the irrigatein-summer-and-store-in-winter alternative, a volume equal to approximately 347 acrefeet.

Plaintiffs also argue that the final EIR added to the confusion about wastewater balance by deleting the draft EIR's explanation of plans for disposal during the winter months. We conclude that the final EIR was not confusing on this point because the irrigate-in-summer-and-store-in-winter alternative was recommended to the board of supervisors and approved by them. This alternative provides for winter storage rather than winter disposal. Therefore, the discussion of possible methods of winter disposal, such as discharge into the San Joaquin River, was not relevant to the recommendations being made or approved and the continued inclusion of that information was unnecessary. In short, deleting the reference from the final EIR was consistent with the board of supervisors' decision to prohibit the discharge of effluent into the San Joaquin River and simplified matters by eliminating the discussion of an alternative that was being abandoned. Consequently, we reject plaintiffs' argument that County violated CEQA by approving a final EIR that *299 deleted a discussion contained in the draft EIR.

In summary, we conclude that the various arguments presented by plaintiffs have not established that the CEQA documents provided insufficient detail regarding the amount and location of wastewater disposal.

3. Other Issues

[17][18][19]For purposes of creating a full record, we will address briefly other issues raised by defendants. First, we conclude that the issue regarding the adequacy of the disclosures about the amount and location of wastewater disposal was ex-

hausted during the administrative process by comment No. 28.14 and a letter from plaintiff Revive the San Joaquin River. FN17 Second, because (1) *737 issues concerning the adequacy of a CEQA disclosure present questions of law and (2) matters involving disposal of wastewater affect the public interest, we have exercised our discretion and considered plaintiffs' argument on appeal even though it was not presented to the trial court. (See Woodward Park Homeowners Assn., Inc. v. City of Fresno, supra, 150 Cal.App.4th at pp. 712-714, 58 Cal.Rptr.3d 102 [issue concerning legal adequacy of EIR allowed to be raised for first time on appeal].) Third, defendants' argument that their disclosure was legally adequate because the opinions provided by experts constitute substantial evidence is off point. The existence of substantial evidence in the record does not mean that sufficient information was disclosed-they are separate legal issues. Fourth, we are not persuaded by defendants' argument that plaintiffs failed to demonstrate prejudice because the EIR asserted that there would be no significant adverse environmental impact if tertiary treated effluent reached the San Joaquin River. The board of supervisors did not necessarily agree with that particular assertion when they certified the EIR-they could have been convinced by the alternate position that it was improbable that any effluent would reach the river.

> FN17. The undated comment letter raised concerns about wastewater and stormwater and appears to have been presented at or shortly after the December 7, 2010, board of supervisors meeting. The letter asked for the identification of lands capable of accepting the recycled water applications and an assessment of impacts "so that application of recycled water [is] consistent with potential irrigable acreage."

C. Hydrogeology of Beck Property

 Arguments Made to the Trial Court
 [20] The opening brief plaintiffs filed in the trial court contained (1) a heading that asserted the
 EIR's analysis of the water quality impacts associated with the proposed wastewater treatment facility was inadequate and (2) one related subheading that asserted the "EIR fails to adequately analyze potential discharge of effluent to the River." (Underscoring omitted.) Plaintiffs argued that an adequate analysis would have described the hydrogeology of the Beck Property and analyzed the hydrological connection between the proposed effluent storage pond and the San Joaquin River.

Plaintiffs acknowledged a discussion in the final EIR (which relied upon a 2009 memorandum by Provost & Pritchard) that concluded: "[D]ue to the impermeable soil conditions and the direction of groundwater flow underlying the site, it is unlikely that a hydrologic connection exists between the groundwater and the San Joaquin River such that later groundwater seepage of treated wastewater into the San Joaquin River from the [Beck] Property would occur." Plaintiffs argued to *300 the trial court that this assessment "was *738 put in serious doubt by [(1)] the testimony and expert opinion of Dr. Robert D. Merrill," a geology professor, and (2) a study that was included in an earlier EIR.

FN18. The final EIR also stated that lateral migration of water held in the storage pond on the Beck Property to the river would be precluded by the nature of the lateral soils and the distance to the river. As the downward migration, the final EIR stated that was not a possibility because the 25-acre storage pond has been excavated to hard, resistant and impermeable granitic bedrock. The absolute nature of this statement was contradicted by Glicker, who estimated three to four million gallons of treated effluent would be lost from the pond each year due to percolation.

Defendants responded to plaintiffs' arguments by filing a joint opposition brief that asserted substantial evidence supported County's conclusion that operating a wastewater treatment plant on the

Beck Property would not adversely affect the San Joaquin River. Defendants referred to studies and testimony of its expert that recycled water stored in the pond on the Beck Property would not reach the river. As an alternative, defendants also argued the EIR determined that even a *direct* discharge of the treated effluent would have no significant impact on the river and, therefore, seepage could not have a significant adverse impact.

The trial court rejected plaintiffs' claims, stating that a battle-of-the-experts situation existed and the court could not substitute its decision for County's decision where that decision was supported by substantial evidence.

2. Plaintiffs' Contentions on Appeal

On appeal, plaintiffs have focused their argument on the adequacy of the *draft* EIR, rather than the final EIR. They argue that the "failure to disclose and discuss information about the hydrogeology of the Beck Property in the DEIR precluded informed public review and scrutiny of the decision to approve wastewater treatment, storage, and discharge on the Beck Property."

Plaintiffs rely on this court's decision in San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (1994) 27 Cal.App.4th 713, 32 Cal.Rptr.2d 704, a case in which the plaintiffs challenged the adequacy of a final EIR prepared for a residential and commercial development project. The rescue center argued the inadequate description of the existing environmental setting of the site and surrounding areas made it impossible to determine from the final EIR whether wetlands existed on the site. (Id. at p. 722, 32 Cal.Rptr.2d 704.) The trial court rejected the claim, but this court reversed and directed the trial court to require the preparation of an EIR that accurately described the site and surrounding environs. (Id. at pp. 742-743, 32 Cal.Rptr.2d 704)

3. Analysis

The challenge presented in San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus,

supra, 27 Cal.App.4th 713, 32 Cal.Rptr.2d 704. concerned the adequacy of *739 the final EIR description of the existing environmental setting. In discussing that challenge, this court discussed the contents of the draft EIR at length. (Id. at pp. 723-728, 32 Cal.Rptr.2d 704.) Our discussion demonstrated that the draft EIR's description of the environmental setting site of the project site and surrounding area was "inaccurate, incomplete and misleading" (id. at p. 729, 32 Cal.Rptr.2d 704) and that wetlands were an important aspect of the environment that should have been described and analyzed (id. at pp. 724-725, 32 Cal.Rptr.2d 704). Our discussion, however, did not establish new rules of law heightening the disclosure required in a draft EIR or preventing a final EIR from curing a draft EIR's omission*301 of information. Indeed, the discussion of the draft EIR preceded our resolution of the ultimate question-whether the final EIR was legally adequate. (Id. at pp. 728-729, 32 Cal.Rptr.2d 704.) In resolving that question, we stated that the final EIR "does not reflect even minimal investigation into the exact location and extent of riparian habitats either adjacent to or within the site." (Id. at p. 728, 32 Cal.Rptr.2d 704.) Our holding referred to the final EIR, not the draft:

"Without accurate and complete information pertaining to the setting of the project and surrounding uses, it cannot be found that the FEIR adequately investigated and discussed the environmental impacts of the development project. The failure to provide clear and definite analysis of the location, extent and character of wetlands possibly within and definitely adjacent to the development project and the failure to discuss [San Joaquin Wetlands Farm], precludes this court from concluding that all the environmental impacts of the development project were identified and analyzed in the FEIR." (*Id.* at p. 729, 32 Cal.Rptr.2d 704.)

The instant case is distinguishable from San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus, supra, 27 Cal.App.4th 713, 32

Cal.Rptr.2d 704, in at least two important ways.

First, the draft EIR for the Project actually mentioned the point in dispute—that is, the possibility of seepage of wastewater from the Beck Property to San Joaquin River. At page 3–210, the draft EIR states: "Due to impermeable soil conditions, it is unlikely that a hydrological connection exists between the groundwater and the surface water such that wastewater applied to irrigate onsite landscaping, the Beck Property, Lost Lake Park, or similarly situated lands would seep into the San Joaquin River through groundwater." This disclosure set forth the position that a hydrological connection was unlikely and, as a result, allowed those who disagreed to challenge that conclusion during the subsequent environmental review process.

Second, after the release of the draft EIR for the Project, the environmental review process (which included the submission of public comments, the publication of responses in a final EIR, and further public hearings) produced further information and analysis regarding the possible hydrologic connection *740 between the Beck Property and the river. The documents generated, which are included in the administrative record before this court, directly contradict plaintiffs' claim that the inadequacy of the draft EIR precluded public review and scrutiny of the use of the Beck Property as a wastewater storage and application site.

Therefore, unlike the circumstances in San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus, supra, 27 Cal.App.4th 713, 32 Cal.Rptr.2d 704 that led to our conclusion that the final EIR was inadequate, the circumstances of the instant case show that the subject of the alleged inadequacy was mentioned in the draft EIR and expanded upon in the final EIR. Accordingly, we reject plaintiffs' position that the disclosures in the draft EIR regarding the hydrogeology of the Beck Property were prejudicially inadequate and require this matter be remanded with directions for County to prepare a further analysis of the subject.

IV. ADEQUACY OF EIR'S DISCUSSION OF AIR QUALITY IMPACTS

A. Overview of EIR's Air Quality Discussion

Chapter 3 of the EIR addresses the project's setting, impacts and mitigation measures. Air quality is addressed in section 3.3.

*302 Subsection 3.3.1 of the EIR describes the regulatory setting—that is, the federal and state agencies that regulate air quality and the applicable statutes, regulations, policies and plans. Among other things, subsection 3.3.1 contains a table of the National Ambient Air Quality Standards (NAAQS) and corresponding California standards for certain pollutants, including ozone, particulate matter 10 microns in diameter or smaller (PM10), fine particulate matter (PM2.5), carbon monoxide, nitrogen dioxide, sulfur dioxide and lead.

FN19. The EIR states that these pollutants are commonly referred to as "criteria air pollutants" because they "are the most prevalent air pollutants known to be deleterious to human health and extensive healtheffects criteria documents are available...."

Subsection 3.3.2 describes the project's physical setting in a manner relevant to the air quality issues, including the fact that the project is located in the San Joaquin Valley Air Basin, which is the lower half of California's Central Valley. The EIR states that (1) the basin's ozone problem ranks among the most severe in California and (2) under the NAAQS and California's standards, Fresno County is designated a severe non-attainment area for ozone and a non-attainment area for PM10. Subsection 3.3.2 also provides a general description of the criteria air pollutants; these descriptions usually include a paragraph addressing the adverse health effects associated with exposure to the pollutant.

*741 Subsection 3.3.3 describes the criteria used to evaluate the air quality impacts. They in-

clude the "thresholds of significance" FN20 adopted by the Air District and the criteria in CEQA Appendix G. Also, a software program, URBEMIS, was used to estimate the amount of air emissions the development would generate. These estimates, and the thresholds of significance, are stated in tons per year.

FN20. Guidelines section 15064.7, subdivision (a) encourages public agencies to develop and publish thresholds of significance, which are "an identifiable quantitative, qualitative or performance level of a particular environmental effect...." Noncompliance with the threshold usually means that the environmental effect will be deemed to be significant for purposes of CEQA. (*Ibid.*)

Subsection 3.3.4 contains the impact analysis. The short-term construction emissions are analyzed separately from the long-term, ongoing area and operational emissions. Specifically, Impact # 3.3.1 addresses construction emissions and Impact # 3.3.2 addresses the long-term emissions primarily related to the activities that will occur indefinitely as a result of the new development. The primary source of the latter type of emissions is vehicular traffic.

FN21. The final EIR also states the analysis is divided into (1) a project level analysis for the **Friant Ranch** Specific Plan and Depot Parcel and (2) programmatic level analysis for the Friant Community Plan area outside the development proposed in the specific plan.

The estimate of the project's long-term emissions and the application of the Air District's thresholds of significance produced the conclusion that the project would have a significant adverse effect on air quality. As a result, the EIR proposed Mitigation Measure # 3.3.2 and stated that the measures would reduce the impacts, but not below the thresholds of significance. Whether Mitigation Measure # 3.3.2 complies with various CEQA requirements is among the issues raised on appeal; the actual mitigation provisions are discussed below.

B. Discussion of Impact of Project-Related Emissions on Health

Plaintiffs' first CEQA air quality challenge asserts that the EIR's discussion of *303 air quality impacts failed to explain in adequate detail how the air pollutants emitted by this project would impact public health. We agree.

1. EIR's Discussion of Air Pollutants

The EIR's discussion of Impact # 3.3.2, the long-term area and operational emissions, estimated that, at build-out, the proposed Friant Community Plan would emit approximately 117.38 tons per year of PM10, 109.52 tons per year of reactive organic gases (ROG), and 102.19 tons per year of *742 nitrogen oxides (NOx). Estimates were made for ROG and NOx because they are precursors to ozone, which is formed when ROG and NOx undergo chemical reactions in the presence of sunlight.

The Air District's thresholds of significance are 15, 10 and 10 tons per year for PM10, ROG and NOx, respectively. Because the project's estimated emission of PM10, ROG and NOx were from seven to 10 times larger than that of the thresholds of significance, the EIR concluded these air pollutants would have a significant adverse effect on air quality. Because Mitigation Measure # 3.3.2 could not reduce these emissions below the Air District's thresholds of significance, the EIR concluded that the significant impacts were unavoidable.

The draft EIR included a page of background information about ozone and nearly a page of background information about PM10. Each included a paragraph about the adverse health effects associated with the pollutant. The discussion of the adverse health effects, however, was not connected to the levels of the pollutant that would be emitted by the completed project. Instead, the discussion of adverse health effects was general in nature. For ex-

ample, the description of the health effects of ozone noted that the effects were primarily to the respiratory system and stated:

"Exposure to ambient levels of ozone ranging from 0.10 to 0.40 ppm for 1 to 2 hours has been found to significantly alter lung functions by increasing respiratory rates and pulmonary resistance, decreasing tidal volumes, and impairing respiratory mechanics."

As to PM10, the EIR stated its adverse health effects depended upon "the specific composition of the particulate matter." The EIR, however, provided no information about the composition of the particulate matter that was expected to be produced by the project.

2. Contentions of the Parties

Plaintiffs contend the discussion of air quality impact was inadequate because (1) the EIR did not explain what it meant to exceed the thresholds of significance by tens of tons per year and (2) provided no meaningful analysis of the adverse health effects that would be associated with the project's estimated emissions, which were far above the thresholds. Plaintiffs argue that anyone reading the EIR would not be able to understand how to translate the bare numbers of tons of estimated emissions and the thresholds of significance into adverse health impacts. To illustrate this point, plaintiffs assert that a reader would not understand how, from the perspective of human health, exceeding an Air District threshold by 20 tons would differ from exceeding the threshold by 100 tons. Plaintiffs support their position by citing *743 Bakersfield Citizens for Local Control v. City of Bakersfield (2004) 124 Cal.App.4th 1184. 1219-1220, 22 Cal.Rptr.3d 203 (Bakersfield Citizens), a case in which this court held an EIR was inadequate because it failed to correlate adverse air quality impacts to resulting adverse health impacts.

*304 Defendants contend the EIR was adequate because it informed readers that (1) Friant Ranch's operational emissions would exceed the thresholds

of significance set by the Air District, which are based on standards necessary for public health; (2) the project's exceedance of the thresholds was a significant and unavoidable consequence of the project; (3) the project's emissions will make it more difficult for the Central Valley to reach attainment status, which means the health of valley residents may be impacted; and (4) certain types of health impacts can occur from unsafe levels of ozone and PM10. Defendants contend that the "reader can infer from this information that the more tons per year of these emissions that a project adds to the air, the worse the project is for air quality and human health, generally." Defendants also contend that if anyone had requested additional information regarding the magnitude of the significant impact in a comment to the EIR, County would have responded.

3. Identification and Analysis of Health Impacts from Air Pollutants

In Bakersfield Citizens, supra, 124 Cal.App.4th 1184, 22 Cal.Rptr.3d 203, a local citizens group filed a CEQA petition challenging the EIR's for two retail shopping centers planned for the southwestern portion of Bakersfield, California. (*Id.* at p. 1193, 22 Cal.Rptr.3d 203.) Each shopping center featured a Wal-Mart Supercenter as its primary anchor tenant. (*Id.* at p. 1194, 22 Cal.Rptr.3d 203.) One of the arguments raised by the citizens group was "that both EIR's omitted relevant information when they failed to correlate the identified adverse air quality impacts to resultant adverse health effects." (*Id.* at p. 1219, 22 Cal.Rptr.3d 203.)

Both EIR's in *Bakersfield Citizens, supra*, 124 Cal.App.4th 1184, 22 Cal.Rptr.3d 203 concluded that the shopping center projects would have significant and unavoidable adverse impacts on air quality. (*Id.* at p. 1219, 22 Cal.Rptr.3d 203.) "Yet, neither EIR acknowledges the health consequences that necessarily result from the identified adverse air quality impacts. Buried in the description of some of the various substances that make up the soup known as 'air pollution' are brief references to

respiratory illnesses. However, there is no acknowledgement or analysis of the well-known connection between reduction in air quality and increases in specific respiratory conditions and illnesses. After reading the EIR's, the public would have no idea of the health consequences that result when more pollutants are added to a nonattainment basin." (*Id.* at p. 1220, 22 Cal.Rptr.3d 203.) We concluded that the disclosures were inadequate and stated that, on *744 remand, the health impacts resulting from the adverse air quality impacts must be *identified and analyzed* in the new EIR's. (*Ibid.*) FN22

> FN22. The regulatory basis for this conclusion was Guidelines section 15126.2, subdivision (a), which provides that an "EIR shall identify and focus on the significant environmental effects of the proposed project." Direct and indirect significant environmental effects of the project "shall be clearly identified and described...." (*Ibid.*) The EIR's "discussion should include relevant specifics of the ... health and safety problems caused by the physical changes" resulting from the project. (*Ibid.*)

[21]We will discuss these two action verbs—identify and analyze—separately. With respect to identification, the EIR in the present case goes much further than the EIR's in *Bakersfield Citizens, supra*, 124 Cal.App.4th 1184, 22 Cal.Rptr.3d 203, because it (1) lists many types of air pollutants that the project will produce; (2) identifies the tons per year of PM10, ROG, NOx and other pollutants that the project *305 is expected to generate; and (3) provides a general description of each pollutant that acknowledges how it affects human health. Therefore, the Friant Ranch EIR has identified, in a general manner, the adverse health impacts that could result from the project's effect on air quality.

Despite the inclusion of this information, the **Friant Ranch** EIR was short on analysis. It did not correlate the additional tons per year of emission that would be generated by the project (i.e., the ad-

verse air quality impacts) to adverse human health impacts that could be expected to result from those emissions. As defendants have pointed out, the reader can infer from the provided information that the project will make air quality and human health worse. Although the better/worse dichotomy is a useful starting point for analyzing adverse environmental impacts, including those to human health, more information is needed to understand that adverse impact.

To illustrate this point, we will use extreme examples from the continuum of potential human health impacts. The information provided does not enable a reader to determine whether the 100-plus tons per year of PM10, ROG and NOx will require people with respiratory difficulties to wear filtering devices when they go outdoors in the project area or nonattainment basis or, in contrast, will be no more than a drop in the bucket to those people breathing the air containing the additional pollutants.

The lack of information about the potential magnitude of the impact on human health also can be demonstrated by referring to quantitative information in the EIR. For instance, Table 3.3-2 in the draft EIR sets forth the days *745 each year that pollutants, as measured at three monitoring stations in the Fresno area, exceeded federal and state standards. If an estimate of the project's impact on the "days exceeding standards" had been provided, the public and decision makers might have some idea of the magnitude of the air pollutant impact on human health. As presently written, the final EIR does not inform the reader what impact, if any, the project is likely to have on the days of nonattainment per year-it might double those days or it might not even add a single a day per year. Similarly, no connection or correlation is made between (1) the EIR's statement that exposure to ambient levels of ozone ranging from 0.10 to 0.40 parts per million for one to two hours has been found to significantly alter lung functions and (2) the emissions that the project is expected to produce.

FN23. In this case, information about the magnitude of the human health impacts is relevant to the board of supervisors' value judgment about whether other considerations override the adverse health impacts. In other words, a disclosure of respiratory health impacts that is limited to the better/ worse dichotomy does not allow the decision makers to perform the required balancing of economic, legal, social, technological and other benefits of the project against the adverse impacts to human health because they have not been informed of the weight to place on the adverse impact side of the scales. (See Guidelines, § 15093, subd. (a) [statement of overriding considerations].)

The foregoing references to the data provided in the EIR should not be interpreted to mean that County *must* connect the project's levels of emissions to the standards involving days of nonattainment or parts per million. County has discretion in choosing what type of analysis to provide and we will not direct County on how to exercise that discretion. (§ 21168.5.) Nonetheless, there must be some analysis of the correlation between the project's emissions and human health impacts. (***306**Bakersfield Citizens, supra, 124 Cal.App.4th at pp. 1219-1220, 22 Cal.Rptr.3d 203.) In other words, we agree with plaintiffs that it is not possible to translate the bare numbers provided into adverse health impacts resulting from this project.

Therefore, we conclude that the **Friant Ranch** EIR is inadequate under CEQA because it does not *analyze* the adverse human health impacts that are likely to result from the air quality impacts identified in the EIR. The simple statement in an EIR that the significant adverse air quality impacts will have an adverse impact on human health fails to comply with the CEQA standards we discussed in *Bakersfield Citizens, supra,* 124 Cal.App.4th at pages 1219 through 1220, 22 Cal.Rptr.3d 203.

Defendants argue that the issue regarding the correlation between the project's emission of air pollutants and adverse health impacts was not exhausted during the administrative process. (See § 21177, subd. (a) [issue exhaustion].)

[22] We conclude the City of Fresno's letter adequately raised the issue during the administrative process by asserting that "under CEQA, the EIR must *746 disclose the human health related effects of the Project's air pollution impacts. (CEQA Guidelines section 15126.2(a).) The EIR fails completely in this area." This assertion apprised County that the discussion of human health impacts could not be general in nature, but was required to be connected to "the Project's air pollutions impacts." Therefore, County was alerted and provided an opportunity to correct the deficiency now raised on appeal.

[23] Also, we conclude that the issue was raised before the trial court. Plaintiffs' opening brief in the trial court asserted that the EIR failed "to discuss the health effects of the Project's significant air quality impacts" and cited *Bakersfield Citizens*, *supra*, 124 Cal.App.4th 1184, 22 Cal.Rptr.3d 203.

C. Air Quality Mitigation Measure # 3.3.2

Plaintiffs' second CEQA challenge involving air quality asserts that the EIR fails to provide sufficient detail about the measures that comprise Mitigation Measure # 3.3.2. We agree.

1. Legal Requirements for EIR's Discussion of Mitigation Measures

The statutory basis for plaintiffs' challenge is section 21100, subdivision (b)(3), which states that the EIR "shall include a detailed statement setting forth" the "[m]itigation measures proposed to minimize significant effects on the environment...." This informational requirement is designed to fulfill one of the purposes of an EIR, which is "to indicate the manner in which [the identified] significant effects [on the environment] can be mitigated or avoided." (§ 21002.1, subd. (a).)

4. Administrative Exhaustion

The statutory requirement for a detailed statement about mitigation measures is expanded upon by Guidelines section 15126.4, which addresses the consideration and discussion of mitigation measures that must be included in an EIR. Plaintiffs' appellate briefs referred to the following three provisions. First, subdivision (a)(1) of Guidelines section 15126.4 states that an "EIR shall describe feasible measures which could minimize significant adverse impacts...." Second, Guidelines section 15126.4, subdivision (a)(1)(B) provides: "Where several measures are available to mitigate an impact, each should be discussed*307 and the basis for selecting a particular measure should be indentified."

The third provision plaintiffs cite mandates a substantive requirement for mitigation measures. Guidelines section 15126.4, subdivision (a)(2) states that "[m]itigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments." The statutory basis *747 for this regulatory provision is section 21081.6, subdivision (b): "A public agency shall provide the measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." The use of permit conditions to satisfy the enforceability requirement is illustrated by Gray v. County of Madera (2008) 167 Cal.App.4th 1099, 85 Cal.Rptr.3d 50, a case in which the mitigation measures were incorporated as part of the conditional approval of the hard rock mining permit issued by the board of supervisors. (Id. at p. 1116, 85 Cal.Rptr.3d 50.)

2. Overview of Mitigation Measure # 3.3.2

Mitigation Measure # 3.3.2 is not a single measure, but a dozen separate provisions that address (1) nonresidential development, (2) reducing residential energy consumption, (3) promoting bicycle usage and (4) transportation emissions. To avoid repetition, the terms of those provisions are set forth where relevant to our discussion of the issues raised.

The effectiveness of the proposed mitigation is

addressed by the draft EIR's statement that Mitigation Measure # 3.3.2 would reduce project air quality impacts, but not below the Air District's thresholds of significance. In comparison, the lead paragraph of Mitigation Measure # 3.3.2 goes further, stating that implementation of the measures would *substantially* reduce air quality impacts related to human activity within the project area, but not to a level that is less than significant.

The final paragraph of Mitigation Measure # 3.3.2 provides County with some flexibility by indicating that the mitigation measures are subject to change:

"The County and [Air District] may substitute different air pollution control measures for individual projects, that are equally effective or superior to those proposed herein, as new technology and/or other feasible measures become available in the course of build-out within the Friant Community Plan boundary."

This paragraph is among those challenged by plaintiffs in this appeal.

3. Statement that Policies Will Lessen Impact

[24]Plaintiffs' first claim of insufficient detail concerns a statement made in the paragraph labeled "Conclusion" at the end of the EIR's discussion of Impact # 3.3.2 and immediately before the terms of Mitigation Measure # 3.3.2 were set forth. The third sentence of the conclusion stated: "The impact will be lessened by policies of the proposed Specific Plan and Community Plan, as mentioned above, which will promote the use of alternative transportation, *748 air quality mitigation for new developments, and strategies to minimize the number and length of vehicle trips."

Plaintiffs argue that "it is unclear what 'impact' the policies will 'lessen.' To the extent the objective is to minimize emissions from Project-related traffic, the EIR fails to explain how the policies of the proposed plans will minimize these emissions or to what extent they would minimize the emis-

sions."

*308 We disagree with plaintiffs' assertion that it is unclear what "impact" will be lessened. The statement is part of the discussion of Impact # 3.3.2, which addresses air pollutants from area and operational emissions at build-out of the project. Thus, the "impact" referred to is the "increase [in] criteria air pollutants in the area" that is mentioned in the first paragraph of the EIR's discussion of Impact # 3.3.2. Furthermore, the goals and policies from the specific plan and community plan that are set forth in the EIR are not part of the mitigation measures, despite the fact that the implementation of the policies would appear to reduce emissions. Because the goals and policies are not part of Mitigation Measure # 3.3.2, the rules of law governing the adequacy of an EIR's discussion of mitigation measures do not require the EIR to (1) explain how those policies would minimize emissions or (2) quantify, or otherwise describe, the extent that the policies would minimize emissions.

Plaintiffs' argument about the statement that the impact will be lessened by the plans' policies also includes the contention that "a mitigation measure cannot be used as a device to avoid disclosing project impacts." (San Joaquin Raptor Rescue Center v. County of Merced, supra, 149 Cal.App.4th at pp. 663-664, 57 Cal.Rptr.3d 663.) This legal principle does not apply to the instant case because (1) the policies are not mitigation measures and (2) the EIR, in fact, does disclose the air quality impacts by setting forth estimates of the operational and area emissions at build-out produced by the URBEMIS software. The estimates in the final EIR are 117.38 tons per year of PM10, 109.52 tons per year of ROG, and 102.19 tons per year of NOx.

Therefore, the EIR's statement that the impact will be lessened by the plans' policies does not violate the informational requirements applicable to mitigation measures.

4. Guidelines for Nonresidential Development

Plaintiffs' second claim of insufficient detail in the discussion of the mitigation measures concerns the part of Mitigation Measure # 3.3.2 that addresses nonresidential development:

*749 "The following guidelines shall be used by the County during review of future project-specific submittals for non-residential development with the Specific Plan area and within the Community Plan boundary in order to reduce generation of air pollutants with the intent that specified measures be required where feasible and appropriate:

"Trees shall be carefully selected and located to protect building(s) from energy consuming environmental conditions, and to shade paved areas. Trees selected to shade paved areas should be varieties that will shade 25% of the paved area within 20 years;

"Equip HVAC units with a PremAir or similar catalyst system, if reasonably available and economically feasible at the time building permits are issued. Catalyst systems are considered feasible if the additional cost is less than 10% of the base HVAC unit cost;

"Install two 110/208 volt power outlets for every two loading docks." (Original italics.)

a. Contentions of the Parties

Plaintiffs' argument regarding the inadequacy of this discussion is built, in part, on two related flaws in the mitigation provisions themselves. Plaintiffs assert the mitigation measures (1) are merely amorphous guidelines and (2) are not enforceable.*309 Plaintiffs appear to argue that these flaws (and the uncertainty they create) are not cured by the discussion in the EIR because there is no explanation of how it will be determined whether a measure is both "feasible and appropriate" and the person making this determination is not identified.

Defendants contend that the measures concerning nonresidential development are specific, en-

forceable and adequately described in the EIR. Defendants interpret these measures to mean that during review of future project-specific submittals, County shall require that the three provisions be followed. Defendants acknowledge the use of the term "guidelines" in the introductory language, but note the use of the word "shall" and contend the requirements in the italicized text are quite specific. As to enforceability, defendants interpret plaintiffs' argument as being limited to the phrase "feasible and appropriate" and arguing that feasibility is inherent in every mitigation measure adopted under CEQA and, alternatively, the three italicized mitigation measures are repeated in Mitigation Measures # 3.15.1a and # 3.15.1d without an introductory clause that states they will be implemented only if feasible and appropriate. Based on these arguments, defendants conclude that the CEQA requirements are satisfied because County is "committed" to the listed mitigation.

*750 b. Vagueness and Enforceability

Our scrutiny of plaintiffs' claim begins by examining whether the mitigation measures in question are vague or unenforceable. For purposes of this case, we will treat the question of vagueness as being part of our inquiry into enforceability because vagueness makes it difficult to identify the who-what-when essential to enforcement. FN24

> FN24. Although we are not applying the due process vagueness doctrine here, the cases discussing that doctrine illustrate the relationship between vagueness in a legal requirement or prohibition and its enforceability. A vague provision can make persons of common intelligence guess at its meaning and cause them to differ as to its application, which may result in arbitrary decisions by judges or others enforcing the requirement or prohibition. Accordingly, one aspect of the vagueness doctrine examines whether the requirement or prohibition in question "provides reasonably adequate standards to guide enforcement.

[Citations.]" (*Fisher v. City of Berkeley* (1984) 37 Cal.3d 644, 702, 209 Cal.Rptr. 682, 693 P.2d 261.)

[25] Under CEQA, County "shall provide" that the mitigation measures "are fully enforceable through permit conditions, agreements or other measures." (§ 21081.6, subd. (b); Guidelines, § 15126.4, subd. (a)(2).) The mitigation provisions in question do not expressly identify the means by which County will make the measures enforceable. The provision about equipping HVAC units with a catalyst system refers to availability and feasibility at the time building permits are issued. One implication of this language is that the inclusion of a catalyst system will be made a permit condition, but other interpretations are possible. Because the mitigation provisions themselves do not state expressly what County is required to do to render the measures enforceable, we turn to the discussion in the EIR to see if it explains how the provisions will be made enforceable. FN25 No such explanation is given in the EIR. Additional uncertainty about enforcement arises from the fact *310 that the provisions do not clearly state who is to do what and when that action must be taken. For example, the provision that trees "shall be carefully selected and located" (italics omitted) to protect buildings from energy consuming environmental conditions uses the passive voice to hide the identity of the actor—that is, the person or entity selecting and locating the trees. FN26 Thus, the reader is left to speculate whether County or the developer will perform the selection. Similarly, the provision about equipping *751 HVAC units with a catalyst system does not identify who will determine if the system is "reasonably available and economically feasible." Based on the foregoing, we conclude that the provisions in Mitigation Measure # 3.3.2 are vague on matters essential to enforceability and, therefore, County has violated the requirement in CEQA that it "shall provide" mitigation measures that "are fully enforceable through permit conditions, agreements or other measures." (§ 21081.6, subd. (b).)

FN25. Because the measures concerning nonresidential development concern future submittals, the enforceability question has two layers. First, if County fails to require the mitigation at a future date, can a legal proceeding be brought against County to force it to impose the mitigation? (See Morris v. Harper (2001) 94 Cal.App.4th 52, 62, 114 Cal.Rptr.2d 62 [ordinary mandamus generally is available only to compel performance of a duty that is purely ministerial and cannot be invoked to compel an official to exercise discretion in a particular way].) Second, if County requires mitigation, can a legal proceeding be brought against the developer to require the developer to perform the action required in the mitigation measure?

FN26. None of the 12 mitigation provisions in Mitigation Measure # 3.3.2 identify the person or entity that will perform the mitigation and some measures, such as the transportation related mitigation measures, even lack a verb (e.g., equip or install) that indicates the action to be taken. For example, the 12th measure simply provides: "Information regarding [Air District's] programs to reduce county-wide emissions.

As to defendants' argument that the phrase "where feasible and appropriate" FN27 does not create vague, unenforceable standards because the same measures are restated elsewhere without that limitation, we conclude that this internal inconsistency in the language of the mitigation measures does not solve the vagueness problem, but adds to it. For example, in a subsequent lawsuit over compliance with the mitigation measures, County could argue the inconsistency creates an ambiguity and the courts should defer to the interpretation County adopts to resolve that ambiguity because it adopted the provisions in the first place and understands the underlying intent. (See Gray v. County of Madera, supra, 167 Cal.App.4th 1099, 85 Cal.Rptr.3d 50 [county entitled to considerable deference when interpreting its general plan or its zoning ordinances].) Therefore, on remand, the additional vagueness created by the inclusion of the phrase "where feasible and appropriate" in Mitigation Measure # 3.3.2 should be resolved.

> FN27. While the regulatory definition of "feasible" in Guidelines section 15364 has been addressed and applied in many cases, the term "appropriate" is not defined in CEQA or the Guidelines. Consequently, use of the term could be interpreted as granting County a wide range of discretionary authority with regard to the imposition of future mitigation. One dictionary defines "appropriate" as "especially suitfitting." able or compatible: (Merriam-Webster's Collegiate Dictionary (10th ed. 1999) p. 57, col. 2.) Therefore, the use of the term "appropriate" adds to the vagueness of the mitigation provisions for nonresidential development.

Also, we do not join in defendants' interpretation of plaintiffs' argument about the lack of enforceability as concerning only the phrase stating that the specified measures will "be required where feasible and appropriate." Plaintiffs expressly argued that "there is nothing in MM 3.3.2 that appears to be a commitment to enforceable mitigation" and we interpret this argument as addressing more than just the phrase "feasible and appropriate."

5. Substantial Reduction in Air Quality Impacts

[26] Plaintiffs' third claim of insufficient detail in the discussion of the mitigation*311 measures concerns the first sentence in Mitigation Measure # 3.3.2, which states that "[i]mplementation of the following mitigation measures will *substantially* reduce air quality impacts related to human activity within the entire Project area...." (Italics added.)

Plaintiffs argue there was no explanation of how it was determined that the proposed measures would *752 substantially reduce air quality impacts and the bare conclusion about a substantial reduction does not satisfy CEQA's disclosure requirements. (See *AIR*, *supra*, 107 Cal.App.4th at p. 1390, 133 Cal.Rptr.2d 718 [EIR must contain facts and analysis, not just bare conclusions].)

Defendants argue that the EIR is adequate because it enables the public to discern the analytical route County traveled from evidence to action and, furthermore, plaintiffs have cited no legal authority requiring an EIR to disclose *the extent* that mitigation would reduce emissions.

The statement that air quality impacts will be reduced substantially by Mitigation Measure # 3.3.2 implies that someone has quantified the expected reductions to the tons of emissions disclosed earlier in the EIR and concluded that those expected reductions would be substantial. This implication is not supported by the discussion in the EIR nor explained in defendants' appellate brief. Thus, we are unable to discern whether the use of the term "substantially reduce" is supported by any evidence or, alternatively, is unsupported by the evidence and was included in Mitigation Measure # 3.3.2 inadvertently or as an intentional attempt to mislead the reader. Regardless of how the phrase came to be used, we agree with plaintiffs that the statement that the measure will substantially reduce air quality impacts is a bare conclusion and, in this case, is not supported by facts or analysis as required by the disclosure principles set forth in AIR, supra, 107 Cal.App.4th at pages 1390 through 1391, 133 Cal.Rptr.2d 718. On remand, if County reasserts its position that the reductions in emissions will be substantial, it should include enough facts and analysis in the EIR to allow a reviewing court to determine whether that finding of fact is supported by substantial evidence. For example, if the URBEMIS software program used to estimate the development's emissions contains variables that are affected by the mitigation measures, it may be

that the software program was used to analyze a development scenario that included the mitigation measures. If that is the case, then the use of URBE-MIS to quantify the emission reductions should be disclosed. Alternatively, if no quantitative assessment was performed, then (1) the claim of a substantial reduction should not be made or (2) the nonquantitative basis for the claim should be disclosed.

In summary, on remand, the assertion of fact in Mitigation Measure # 3.3.2 that the reduction in air quality impacts will be substantial should be either explained or deleted.

D. Impermissible Deferral of Formulation of Mitigation Measures

Plaintiffs argue that Mitigation Measure # 3.3.2 constitutes an impermissible deferral of the formulation of mitigation measures because (1) it *753 provides for future mitigation measures without a commitment to any performance standards and (2) it defers the task of formulating mitigation to the Air District.

1. Arguments Made to Trial Court

[27] Defendants contend the issue of deferred formulation of mitigation was not raised in the trial court. Plaintiffs did argue to the trial court that the mitigation measures were vague and undefined, *312 which made it impossible to gauge their effectiveness. This vagueness argument is similar to the claim that the mitigation measures failed to contain Cal.Rptr.3d specific performance criteria—the test used to determine whether the formulation of a mitigation measure may be deferred. In addition, the improper deferral of the formulation of a mitigation measure for a project of this size presents a question of law involving the public interest. Therefore, in the exercise of our discretion, we will consider the question whether County improperly deferred the formulation of mitigation measures. (See Woodward Park Homeowners Assn., Inc. v. City of Fresno, supra, 150 Cal.App.4th at pp. 712-714, 58 Cal.Rptr.3d 102 [this court exercised its discretion to consider issues regarding adequacy of EIR not

raised below].)

2. Rules Concerning Deferral and Performance Criteria

[28]Generally, it is improper to defer the formulation of mitigation measures. (Guidelines, § 15126.4, subd. (a)(1)(B); *POET, LLC v. State Air Resources Bd.* (2013) 218 Cal.App.4th 681, 735, 160 Cal.Rptr.3d 69 (*POET*).) An exception to this general rule applies when the agency has committed itself to specific performance criteria for evaluating the efficacy of the measures to be implemented in the future, and the future mitigation measures are formulated and operational before the project activity that they regulate begins. (*POET, supra,* at p. 738, 160 Cal.Rptr.3d 69.)

3. Substitution of New Measures

[29] Our analysis of the deferral issue begins with the last paragraph of Mitigation Measure # 3.3.2 because of its overarching effect, which provides that all the mitigation provisions are subject to change. Specifically, the final paragraph provides that "County and [Air District] may substitute different air pollution control measures for individual projects, that are equally effective or superior to those proposed herein " The contents of the substitute provisions are unknown at present and, therefore, must be created (i.e., formulated) in the future. Because the formulation of the substitute provisions is deferred, they must qualify for an exception to the general rule that prohibits the deferred formulation of mitigation measures- *754 that is, there must be specific performance standards so that the substitute measures may be evaluated to determine whether, in fact, they are equally effective or superior to the measure they replaced.

Many of the specific provisions in Mitigation Measure # 3.3.2 lack performance standards that would allow either County or the public to determine whether the substitute measure works as well as the original provisions. The 12th measure, which is supposed to address transportation, states: "Information regarding [Air District's] programs to reduce county-wide emissions." When this provision is construed with the substitution clause, there is no basis for determining whether any potential substitute measure is equally effective or superior. Therefore, the substitution clause, when read together with the 12th measure, violates CEQA because it allows for the deferred formulation of mitigation measures when there are no specific performance standards to evaluate the effectiveness of the substitute measure.

4. Application of Specificity Requirement

The foregoing conclusion leads us to an analysis of each of the 12 mitigation provisions contained in Mitigation Measure # 3.3.2. If the original provision contains *313 specific performance criteria, then the possibility that a substitute measure might be formulated in the future does not violate CEQA because the substitute's performance could be measured objectively under those criteria and a determination reached as to whether the substitute is as effective as the measure being replaced.

The first mitigation measure, which concerns the use of trees in nonresidential development, fails to contain any performance standard as to the trees selected and located to protect buildings from energy consuming environmental conditions, but does contain a performance standard for trees selected to shade paved areas. The latter category of trees "should be varieties that will shade 25% of the paved area within 20 years" (italics omitted). The absence of any performance criteria for the trees selected to protect buildings leads us to conclude that part of the provision violates CEQA's rule against the deferred formulation of mitigation measures.

The second mitigation measure concerning nonresidential development states: "Equip HVAC units with a PremAir or similar catalyst system, if reasonably available and economically feasible at the time building permits are issued...." In addition to the vagueness problem discussed earlier, the phrase "PremAir or similar catalyst system" does not identify the relevant performance characteristics of a PremAir system and, therefore, fails to set forth specific performance criteria. As a result, the

*755 person tasked with determining whether another catalyst system is similar to or better than a PremAir has not been provided with objective criteria for measuring whether the stated goal is met. (See *POET*, *supra*, 218 Cal.App.4th at p. 741, 160 Cal.Rptr.3d 69.) Therefore, the measure concerning HVAC units violates CEQA because it lacks sufficiently specific performance standards for determining when another catalyst system is "similar" to the PremAir.

The third mitigation provision calls for the installation of "two 110/208 volt power outlets for every two loading docks." Plaintiffs do not contend this measure lacks the requisite specificity.

The fourth through seventh mitigation provisions in Mitigation Measure # 3.3.2 shall be used to "accomplish an overall reduction of 10 to 20% in residential energy consumption relative to the requirements of the 2008 State of California Title 24...." FN28 The percentage reduction appears to be a specific performance standard. Plaintiffs have not addressed this 10 to 20 percent reduction and, therefore, have not shown the energy efficiency standard cannot be measured objectively. Therefore, we conclude that the provisions that concern residential energy consumption set forth a standard with the requisite specificity.

> FN28. This reference to title 24 presumably means title 24 of the California Code of Regulations—part 6 of this title contains the California Building Energy Efficiency Standards. (See *Tracy First v. City of Tracy* (2009) 177 Cal.App.4th 912, 932–933, 99 Cal.Rptr.3d 621.)

The eighth and ninth provisions are designed to promote bicycle usage by requiring (1) nonresidential projects to have bike lockers or racks and (2) apartments and condominiums to provide "at least two Class I bicycle storage spaces per unit." (Italics omitted.) The eighth provision lacks any performance standard. The ninth provision is specific only about the amount of storage required. There is no basis for evaluating the emissions reductions achieved by the measure. Therefore, a substitute that addresses storage of bicycles could be evaluated under objective criteria, but a substitute pertaining to another*314 subject matter could not be evaluated.

The tenth through 12th mitigation provisions, which are transportation related mitigation, are not enforceable because of vagueness and, also, lack the specific performance criteria necessary for the evaluation of a substitute measure.

On remand, the CEQA violations involving the substitution clause and the lack of specific performance standards in the mitigation provisions should be addressed.

*756 E. Off-Site Emission Reductions

Plaintiffs requested County to consider how air quality impacts could be mitigated impacts through off-site emission reduction programs such as Air District's Voluntary Emission Reduction Agreement (VERA). Plaintiffs contend that County's response to their comment was not in good faith and does not provide a reasoned analysis for not requiring a VERA as a condition of project approval.

Defendants contend County's response to the comments were adequate because they correctly explained that the suggestion for off-site emission reductions, including a VERA, would be considered during the Air District's indirect source review (ISR) process.

FN29. The ISR process is defined by Air District's Rules 3180 and 9510. (See *Coalition for Clean Air v. City of Visalia* (2012) 209 Cal.App.4th 408, 415, fn. 5, 147 Cal.Rptr.3d 141.) Rule 9510 requires a certain amount of emission reductions from each new development project and those reductions may be achieved through onsite emission reductions, payment of a fee to fund off-site emission reducing projects, or a combination of the two. (*California*

Building Industry Assn. v. San Joaquin Valley Air Pollution Control Dist. (2009) 178 Cal.App.4th 120, 127, 100 Cal.Rptr.3d 204.)

[30]The lead agency's obligation regarding comments to the draft EIR is discussed in CEOA and Guidelines section 15088. The agency must evaluate the comments and prepare a written response. (§ 21091, subd. (d)(2)(A); Guidelines, § 15088, subd. (a).) The written response shall describe the disposition of significant environmental issues raised in the comments. When the lead agency's position on a major environmental issue is at variance with the recommendations and objections raised in the comments, the response must address in detail why the specific comments and suggestions were not accepted. (Guidelines, § 15088, subd. (c).) "There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice." (Ibid.) Responses to comments need not be exhaustive. (Eureka Citizens for Responsible Government v. City of Eureka (2007) 147 Cal.App.4th 357, 378, 54 Cal.Rptr.3d 485.) The level of detail required in a response is judged by the level of detail in the comment-that is, a general response to a general comment is sufficient. (*Ibid.*)

[31][32] Applying the foregoing legal standards, we conclude that County's response to plaintiffs' written comments provided a reasoned analysis that meets an objective good faith stand-County's response to comment No. 32.24 ard. stated: "[A] VERA is a voluntary agreement and therefore is not a *757 mitigation measure that is enforceable by the County. In addition, VERAs are typically handled prior to issuance of a tentative map. However, the application will also be subject to an [ISR], at which time the application will discuss a *315 VERA with the [Air District.]" County's response to comment No. 32.25 stated that the Air District had jurisdiction over various project-related approvals, including the action to ensure compliance with Rule 9510.

FN30. We conclude an objective standard, which is based on reasonableness, rather than a subjective standard, which is based on the actor's state of mind or motives, is the correct standard in this context. (See *Madera Oversight Coalition, Inc. v. County of Madera, supra, 199 Cal.App.4th* at p. 103, fn. 32, 131 Cal.Rptr.3d 626.)

We conclude that these responses adequately served the disclosure purpose that is central to the EIR process. (*Twain Harte Homeowners Assn. v. County of Tuolumne* (1982) 138 Cal.App.3d 664, 686, 188 Cal.Rptr. 233.) County clearly indicated that the consideration of a VERA would occur at a later stage and explained that process.

[33] Besides claiming that County's response to the comment about VERA was inadequate, plaintiffs also appear to disagree with County's substantive decision to have the consideration of a VERA addressed later rather than accelerating the consideration of a VERA. Under the abuse of discretion standard of review, it can be difficult for a plaintiff to show that an agency's substantive decision constitutes reversible error. To establish reversible error, the plaintiffs must show that the agency "has not proceeded in a manner required by law...." (§ 21168.5.) In the present case, plaintiffs have identified no statute, regulations or case law that requires the consideration of VERA at this point in the administrative process. Therefore, plaintiffs have not shown that County failed to proceed in a manner required by law when it decided not to accelerate the consideration of a VERA.

DISPOSITION

The judgment is reversed and the matter remanded for further proceedings. The superior court is directed (1) to vacate its decision denying the petition for writ of mandate and (2) to enter a new order that grants the petition for writ of mandate.

The superior court shall issue a peremptory writ of mandate that compels County to vacate or set aside it approval of the Friant Ranch project

and directs County not to approve the project before preparing a revised EIR that (1) contains an analysis of the adverse human health impacts that are likely to result from the air quality impacts identified in the EIR; (2) addresses the deficiencies concerning vagueness, enforceability and lack of specific performance standards in Mitigation Measure # 3.3.2; and (3) addresses the issues related to the statement that those mitigation provisions will substantially reduce air quality impacts.

*758 The superior court shall retain jurisdiction over the proceedings by way of a return to the writ. Whether the superior court requires County to file an initial return explaining the action it intends to take to satisfy the writ's requirements is a matter committed to the court's discretion.

Costs on appeal are awarded to plaintiffs.

WE CONCUR: Cornell, Acting P.J. Kane, J.

Cal.App. 5 Dist., 2014 Sierra Club v. County of Fresno 226 Cal.App.4th 704, 172 Cal.Rptr.3d 271, 14 Cal. Daily Op. Serv. 5810, 2014 Daily Journal D.A.R. 6590

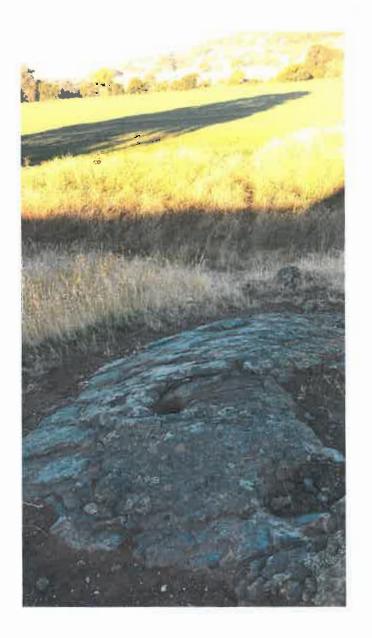
END OF DOCUMENT

ENCLOSURE 2

Grinding Rocks on "Newman Ridge" Quarry site on Howard Ranch



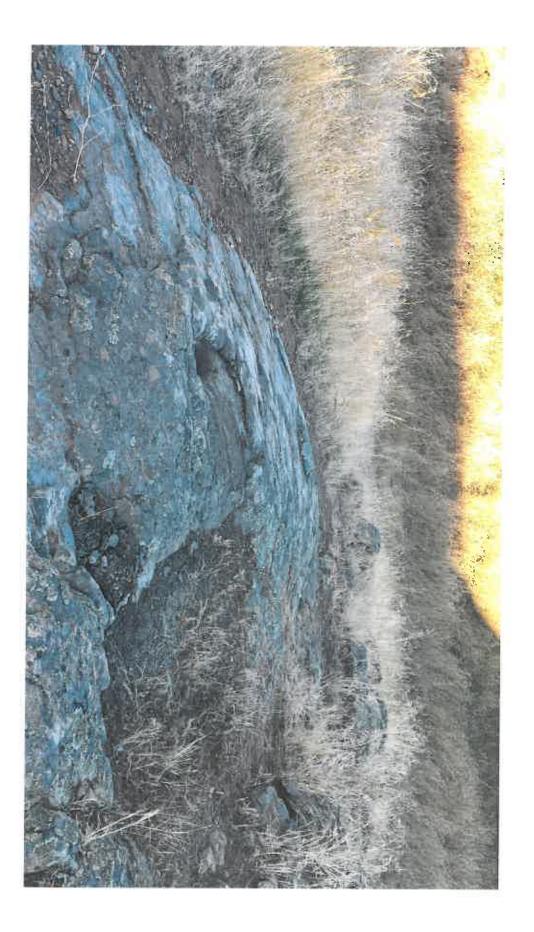
Southwest corner of Quarry site, facing Martin Bottom Alfalfa field. Grinding rock is center



Grinding rock in Southwest corner (the first Quarry site targeted for production)



9-10" wide, 8-9" deep



Grinding Rock on Northwest side of the Quarry Site





Northwest corner of the Quarry site



7-8" wide – 7" deep



ENCLOSURE 3

http://www.voiceinione.com/newmanridge.html

NEWMAN RIDGE-EDWIN NORTH PROJECT VOICE IN IONE EXCLUSIVE

UNION PACIFIC MAY NOT BE WILLING TO UPGRADE TRACKS

FOR NEWMAN RIDGE EXPANSION PROJECT

According to a source within the Union Pacific Railroad, who spoke with VOICE In Ione on the condition of anonymity because they were not authorized to speak on behalf of the railroad, the nation's premier railway hauler may not be interested in completing the necessary upgrades to service the proposed Newman Ridge expansion.

The Newman Ridge / Edwin North project that has been proposed, called for an estimated 200 carloads of rock being shipped each day. The Ione line in its current condition was considered to be not physically adequate to handle the proposed tonnage to be shipped by rail.



05.07.14

According to the UP source, executives from Union Pacific came to Ione and actually rode the rails between Ione and Galt. During the excursion one chief executive expressed strong reservations about the profitability of the Newman Ridge / Edwin North project from UP's standpoint.

"I may be reading between the lines" said the source, "They said that the cost (to make all the necessary improvements to the line itself) wouldn't be economical ... do you know how many bridges there are between Ione and Galt? About twenty. They would all have to be rebuilt." The source also said that UP's current focus in on intermodal freight, and that they are currently engaged in a major track improvement project between Stockton and Fresno.

The Union Pacific is also not interested in reviving the old Ione rail yard according the source. There had been speculation that UP might use the rail yard to build and break down consists (a group of rail vehicles making up a train, or a group of locomotives connected together for Multiple-Unit operation).

If over the road trucking were to be used as a substitute, the total number of trips through Ione, which had been estimated to be approximately 275 trucks per day, would increase dramatically. This alone could trigger a re-examination by Caltrans into the feasibility of the project. In early EIR documents, Caltrans expressed a reluctance to support the project.

It has long been assumed that the majority of rock ballast for the high-speed rail project would come from the proposed Newman Ridge project. A lack of rail transportation capacity, along with steadily declining support for California's high-speed rail project, could put the entire Newman Ridge / Edwin North project in jeopardy.

Ione Homecoming. This annual celebration has been held during the month of May almost every year since that first centennial celebration in 1876 and is one of California's longest-established community events. The discovery nearby of lignite (a substitute for coal) prompted the need to improve transportation in the region. This resulted in construction of better roads and extended rail service. Ione City held the county's first agricultural fair in 1862. Steady growth continued for the next two decades. The City of Ione was incorporated as a general law city in 1953 and is now the largest city in Amador County.

AMADOR BRANCH RAILROAD & IONE DEPOT

The initial incentive for construction of a rail line into Ione was to provide access to the nearby coal deposits and gravel resources. Rail service was also desired to replace the slow and difficult transportation of mining equipment and other goods by mule teams. As author Deborah Cook states:

As early as 1870, talk of building a railroad in Amador had begun. An early idea proposed accessing Amador by rail from Stockton via the town of Copperopolis in Calaveras County, while another considered construction of an extension of the Sacramento Valley Railroad from Latrobe to Sutter Creek. These early imaginings died out...until the want of coal to power Central Pacific steam engines and gravel to ballast rail beds became the motivating factors for accessing Amador by rail. This was accomplished in 1875 when the "Big Four" of Central Pacific fame – C.P. Huntington, Charles Crocker, Mark Hopkins, and Leland Stanford – built the Amador Branch Railroad. The line ran across the Sacramento Valley, from Galt to Ione, over a distance of 27.2 miles.²

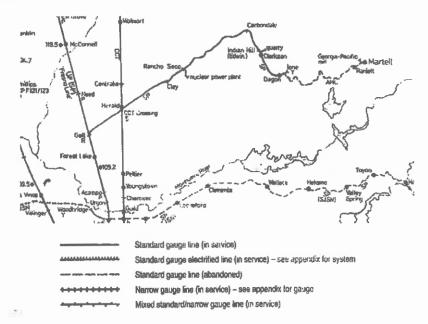


Figure 2. This 1997 map shows a depiction of the Amador Branch Railroad's Galt to Ione route.

² Deborah Coleen Cook, Images of Rail: Amador Central Railroad (Charleston, SC: Arcadia Publishing), 7. Note: Other accounts cite the length of the line as 27 or 27.1 miles.



The Amador Branch Railroad Company was incorporated on July 3, 1875, to build a standard gauge railroad from Galt to Ione.³ Construction started soon thereafter, and freight traffic began within a week of track completion. General traffic began after a sidetrack accessing the Mule Creek gravel pit was completed to provide ballast for the rail bed. Passenger service commenced in December 1876, and a freight car was initially used as a ticket office. The existing depot building was completed in January 1877.⁴

The Central Pacific Railroad Company operated the line from its inception through 1885, and by the Southern Pacific Railroad from 1885 to 1888. It was then consolidated with nine other shortlines to form the Northern Railway Company, an operating subsidiary of the Southern Pacific. The trackage was commonly known as the Southern Pacific's Ione Branch or the Amador Branch Railroad – not to be confused with the Amador Central Railroad, a later shortline built from Ione to Martell in 1905 (see below for short history of the Amador Central).⁵ Including Galt and Ione, there were thirteen stations along the line. Listed along with their milepost numbers, the station names were as follows:

MP#	Station Name	MP (cont.)	Station Name (cont.)
111.7	Galt	134.0	Yaru
116.7	C.C.C. crossing	134.4	Indian Hill
118.3	Conley	134.8	Edwin (spur)
121.6	Cicero	135.2	Clarkson
122.0	Clay	137.7	Dagon
132.3	Carbondale	138.8	Ione ⁶
133.0	Lignite		

Completion of the rail line to Ione brought increased business and trade to the community and provided work for many of the residents. John Dabney Perkins, a local businessman, came to Ione in 1876, and in 1877 was hired to be in charge of freight on the Amador Branch Railroad.⁷ Many local men also took steady jobs with the railroad. In addition to exports of coal and gravel from Amador County, the railroad also opened up the Sacramento Valley as a market for other goods produced in the county. The arrival of the Amador Branch railroad established Ione as an important early supply point for Amador County. A 1904 *San Francisco Call* article on Amador County towns describes Ione as follows:

Ione, the trade center of the valley that bears its name, is the garden town of Amador. It has a population of 1000. The extensive agricultural and pastoral interests of the valley region insure stability and steady growth. The merchants do a large business in

http://www.trainorders.com/discussion/read.php?1,159042 (accessed August 2012). ⁷ Cook, 23.



³ B. Larson and R. Flores, JRP Historical Consulting Services, Department of Parks and Recreation DPR Series forms for JA-4 (section of the Southern Pacific Railroad (Ione Branch)/Amador Branch Railroad), 25 June 2002. Record held at the North Central Information Center of the Historical Resources Information System. ⁴ Cook, 22.

⁵ B. Larson and R. Flores.

⁶ Trainorders.com website, "Western Railroad Discussion - SP Ione Branch Info Needed,"

handling the products of farming lands. It is the terminus of the only railroad that taps the county, and is therefore the most important distributing point.⁸

Union Pacific Railroad Company (Union Pacific) acquired the Amador Branch rail line and its related resources (depots) in 1996. Research did not produce a clear end date for passenger and freight activity at the depot, however the Acme Resin Corporation began using the building c.1970 through 2001. Union Pacific transferred ownership of the Ione Depot building to the city of Ione on May 3, 2010. The City has since identified and secured a nearby site for relocation of the building off Union Pacific property.

Though research did not produce original or other plan drawings for the building, visual investigation indicates that the building retains a high degree of integrity despite some alterations. The building still clearly communicates its original use as a passenger and freight depot, through its exterior appearance and interior layout. Though the dates of these changes are unknown, alterations noted during the site visit include:

- Installation of later metal framed windows at northwest corner of the building (one each at north and west elevations)
- Removal of freight platform along track side of building (still intact in 1969 see photo below)
- Removal of loading platform along north side of building
- Installation of toilet stall and hand sink in passenger baggage room
- Installation of gas stove in former passenger lobby
- Removal of a later interior wall in ticket office area ghosting of wall location visible on floor; possible relocation of ticket window between interior passenger lobby and ticket office
- Removal of two wood freight doors freight storage area
- Installation of wood frame and sheetrock office area with restroom at west end of freight storage area

⁸ "The Towns of Amador," The San Francisco Call, San Francisco, CA, 18 December 1904.



IONE RAILROAD DEPOT - DRAFT Historic Resource Evaluation



Figure 3. Amador Branch RR Depot (1969), east end and south (trackside) elevation, looking roughly west (photo provided by Amador County Archives).

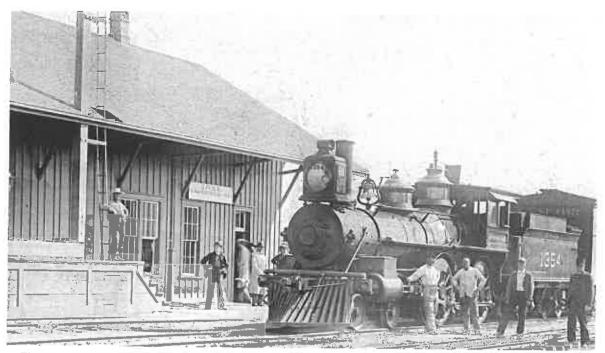


Figure 4. Depot, south elevation, entrance to passenger waiting area and freight platform (photo undated, provided by Tom Consolo).





Figure 5. State coach and buckboard at Ione depot (photo undated, provided by Tom Consolo).



Figure 6. Preston School of Industry coach at Ione Depot (photo undated, provided by Tom Consolo).



Suggestions for Further Research

Overall, the Ione Depot building remains relatively unchanged. Some alterations are evident, principally on the interior of the building. The exact dates of these alterations are largely unknown. Further photographic evidence (historic photographs), architectural documentation (original or later plan drawings, permits, etc.) should be sought to confirm the dates and extent of these alterations. In addition, more detailed information related to the function and use of the building over time would help develop a more complete history of the depot.

Note: At the time of this writing, some materials still had not been received from the California State Railroad Museum in Sacramento, though selected drawings have been requested. These drawings may provide additional insight or information about alterations and use over time. These materials will be forwarded to the City upon receipt.

AMADOR CENTRAL RAILROAD

For clarification purposes, this section provides a brief history of the Amador Central Railroad:

Although the Amador Branch Railroad provided much needed access to Amador County, plans soon materialized for an extension. Construction of the Amador Central Railroad, which linked Ione to Martell, began in 1904 under the name of the Ione & Eastern Railroad. The new line would extend freight and passenger service deeper into the county, replacing less efficient freight team and stagecoach services. The line was completed to Martell in June 1905 and construction began in Ione on the depot buildings and the turntable shortly thereafter.⁹ These buildings are no longer extant.

The Amador Central Railroad (AMC) was a standard gauge railroad that spanned 11.8 miles between a connection with the Southern Pacific Company at Ione, and the town of Martell near of Jackson, California. The line served the Sierra Nevada Foothills gold mining communities and hauled lumber products from the El Dorado National Forest.¹⁰ The line had several different operators over the years; ownership most recently passed from Sierra Pacific Industries to the Amador County Historical Society and the Recreational Railroad Coalition in 2010.

⁹ Cook, 7.

¹⁰ http://en.wikipedia.org/wiki/Amador_Central_Railroad (accessed August 2012).



ENCLOSURE 4



Amador Air District

12200-B Airport Road

Jackson, CA 95642

Phone (209)257-0112 Fax (209)257-0116

January 11, 2013

Douglas P. Carstens CHATTEN-BROWN & CARSTENS 2200 Pacific Coast Highway, Ste. 318 Hermosa Beach, CA 90254

Dear Mr. Carstens:

I have enclosed copies of all documents that are pertinent to your letter Re: Ione Valley Land, Air, and Water Defense Alliance v. County of Amador, Amador County Superior Court Case No. 12-CVC-08091-Notice to Responsible Agency and Public Records Act Request dated December 20, 2012.

Only two documents have been received and added to our files for this project. At this time, the District has not issued or published any notices related to the project. We will, as you have requested, inform you of any future notices or hearings regarding applications for the Quarry or Edwin Center North that are initiated by this District.

Sincerely.

Michael Boitano APCO



Acud 18, 2012

Air Permitting Specialists

TECHNICAL MEMORANDUM

To: Mike Boitano APCO Amador Air District Date: October 2, 2012

From: Ray Kapahi Principal (916-687-8352) Air Permitting Specialists ray.kapahi@gmail.com Project: Newman Ridge Project Amador County

Copies: Susan Grijalva – Amador County Planning Department

Subject: Analysis of Public Health Risks Associated Operation of Asphalt Plant

INTRODUCTION

I have reviewed the operation of the asphalt plant at the proposed Newman Ridge project and analyzed the public health risks associated with its operation. It is my understanding that up to 30,000 tons of asphaltic concrete may be produced annually. The asphalt plant may be either a batch or continuous drum type of plant. The plant would be fuelled by propane or natural gas. The combustion of the fuel gas would release trace amounts of toxic air contaminants (TACs).

The Technical Memorandum presents an estimate of hourly and annual emission rates of TACs and determines the significance of possible risks to individuals living near the project site.

ESTIMATE OF EMISSIONS

There are two categories of TACs that are released from the production of asphaltic concrete:

- 1. Organic Compounds
- 2. Metals

The emission rates were calculated using EPA¹ recommended emission factors for the production of asphaltic concrete. The emissions are presented in Table 1 for both organic compounds and metals.

SIGNIFICANCE OF PUBLIC HEALTH RISKS

In order to translate the emission rates of various TACs into public health risks, we calculated a facility score that ranks a facility according to potential risks to the public. This score is based on California's Air Toxics "Hot Spots" Guidelines². A facility is ranked as High, Medium or Low Priority as follows:

Total Facility Score	Category
Above 10	High Priority
Between 1 and 10	Medium Priority
Below or Equal to 1	Low Priority

Impacts to public health are considered significant if the prioritization score exceeds 10. This priority score equates to potential cancer risks above 10 in a million. We note, however, the score is a very conservative estimate of potential risks. Actual risks are lower. Nevertheless, the prioritization score is a useful tool for ranking facility in accordance to possible risks and identifying facilities that have low or medium risks. Such facilities do not pose a significant risk to the public and therefore a more detailed risk analysis is not warranted.

The results of the facility prioritization are attached. The results indicate a "High" prioritization score for any residents living within 250 meters (820 feet) of the proposed asphalt batch plant. Homes located greater than 250 meters from the asphalt plant would have a "Medium" or "Low" prioritization score indicating that public risks would not be significant. It is my understanding that the nearest home is located 5,650 feet (1,723 meters) from the project site. At this distance, the prioritization score is 0.46 and 0.01 for cancer and non-cancer health risks respectively.

Given that the prioritization score are below 1, public health risks from the asphalt plant are considered "Low", a more detailed risk analysis is not required.

¹ EPA AP-42 Compilation of Emission Factors Section 11.1. Available at: <u>http://www.epa.gov/ttnchie1/ap42/ch11/final/c11s01.pdf</u> ² Air Toxics Risk Prioritization Critical and Critic

² Air Toxics Risk Prioritization Guidelines (July 1990). Available at: <u>http://www.arb.ca.gov/ab2588/RRAP-IWRA/priguide.pdf</u>

Newman Ridge Project Estimate of Toxic Air Emissions from the Asphalt Batch Plant (Based on 30,000 tons/year)

		Emission				
	Pollutant	Factor	Annual]	Emissions	Туре о	f TAC
						Non-
		(lb/ton)	(lb/yr)	(gram/sec)	Carcinogen	Carcinoge
Organics	Acenaphthene	9.00E-07	2.70E-02	3.89E-07	x	
5 Sumo	Acetaldehyde	3.20E-04	9.60E+02	1.38E-04	x	
	Anthracene	2.10E-07	6.30E-03	9.07E-08	x	
	Benzene	2.80E-04	8.40E+00	1.21E-04	x	
	Benzo(a)anthracene	4.60E-09	1.38E-04	1.21E-04 1.99E-09	x	
	Benzo(a)pyrene	3.10E-10	9.30E-04	1.34E-10	x	
	Benzo(g,h,I)perylene	5.00E-10	1.50E-05	2.16E-10	x	
	Benzo(k)fluoranthene	1.30E-08	3.90E-04	5.61E-09	x	
	Chrysene	3.80E-09	1.14E-04	1.64E-09	x	
	Ethylbenzene	2.20E-03	6.60E+01	9.50E-04	x	
	Fluoranthene	1.60E-07	4.80E-03	6.91E-04		
	Formaldehyde	7.40E-04	4.60E-03 2.22E+01	3.20E-04	X	
	Napthalene	3.60E-05	2.22E+01 1.08E+00	3.20E-04 1.55E-05	x	
	Toluene	1.00E-03	3.00E+01	4.32E-03	x	
	Xylenes	2.70E-03	8.10E+01	4.32E-04 1.17E-03	х	x
	Aylenes	2.701-03	6.10E+01	1.17E-05		A
Metals	Arsenic	4.60E-07	1.38E-02	1.99E-07	x	
	Beryllium	1.50E-07	4.50E-03	6.48E-08	x	
	Cadmium	6.10E-07	1.83E-02	2.63E-07	x	
	Chrome+6	4.80E-08	1.44E-03	2.07E-08	x	
	Copper	2.80E-06	8.40E-02	1.21E-06		х
	Lead	8.90E-07	2.67E-02	3.84E-07	x	
	Mercury	4.10E-07	1.23E-02	1.77E-07		х
	Nickel	3.00E-06	9.00E-02	1.30E-06	x	
	Silenium	4.90E-07	1.47E-02	2.12E-07		х
	Zinc	6.80E-06	2.04E-01	2.94E-06		x
lotes						
	n factors for Asphalt Plant from		2, 12/00. US EPA	A		
		00 tons/yr				
	ion of Annual Emissions (lbs/y		<i>lb/ton)</i> x Annua	l Throughput (to	ons/yr)	
Calculat	ion of Annual Emissions (gram	•				
	Annual emissions (lbs/hr) x 4	51 (aram/lb)				

Annual emissions (lbs/hr) x 454 (gram/lb)

Seconds in 1 year

 $\boldsymbol{\varepsilon}_1$

Name	Air loxics "Hot Spots" ir	ntormation an Scores Prior			87 Facility Pri	oritization			
Applicability	Use this spreadsheet to known. Entries	generate a l required in	Prioritizat yellow ar	tion when emi eas, output i	ssion rates o in grey areas	of HAPs are			
uthor or updater 🚽	R Kapahi		Last Update	Septembe	231 2011				
Facility: D#: Project #: Jata Entered by: Jata Reviewed by: Location	Newman Ridge TACs HRA for AC Plant Newman Ridge TACs Ray Kapahi					74			
nputs	Operating Hours hr/yr	Release Height (m)							
1941s	5500	15							
	Receptor Proximity &	Eminoi	ions Potency	Mathod	Discourse	ion Adjustme	at Stational		
	Proximity Factors	Carc	Non-Carc	Facility	Carc	Non-Carc	Facility		
	(Meters)	Scores	Scores	Ranking	Scores	Scores	Ranking		
	0< R<100 1.000	227.88	2.64	High Priority	225 19654	2.63641	High Priority		Priority
	100≤R<250 0.250	56.97	0.66	High Priority	56 29914	0 65910	High Priority		Mediur
	250≤R<500 0.040	9.12	0.11	Medium Priority	9 00786	0 10546	Medium Priority Medium		Mediur Priority Mediur
	500≤R<1000 0.011	2.51	0.03	Medium Priority	2 47716	0.02900	Priority		Priority
	1000≤R<1500 0.003	0.68	0.01	Low Priority	0 67559	0.00791	Priority		Priority
	1500≤R<2000 0.002	0 46	0.01	Low Priority	0 45039	0 00527	Low Priority		Priority
	2000 <r 0.001<="" td=""><td>0.23</td><td>0.00</td><td>Low Priority</td><td>0 22520</td><td>0.00264</td><td>Low Priority</td><td></td><td>Low Priority</td></r>	0.23	0.00	Low Priority	0 22520	0.00264	Low Priority		Low Priority
Height Adjustment		<100m	<250m	<500m	<1000m	<1500m	<2000m	>=2000m	
<20m	60	11	0.25	0.04	0.011	0.003	0.002	0.001	
20m<= <45m =>45m	9		0.85	0.22	0.064	0.018	0.009	0.006	

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		Annual Emissions	Maximum Hourly	Average Hourty	Disp Adj Mothod Garc	EP Method Carc	EP Method Chronic	EP Method Acute	EP Max of Chronic and Acute
CAS#	Substance			(<u> </u>			-
	1,1,2,2-Tetrachloroethane			0.00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00
	1,1,2-Trichloroethane			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00
	1,1-Dichloroethane			0.00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00
	1,2,3,4,5,6,78-OctaD			0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00
0	1,2,3,4,5,6,78-OctaF			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
39001020	1,2,3,4,6,7,8,9- Octachlorodibenzofuran			0.00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00
3268879	1,2,3,4,6,7,8,9-Octachlorodibenzo-P- dioxin			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
	1,2,3,4,6,7,8-								
67562394	Heptachlorodibenzofuran			0.00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
	1,2,3,4,6,7,8-Heptachlorodibenzo-P-								
35822469				0.00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+00
	1,2,3,4,7,8,9-								
55673897	Heptachlorodibenzofuran			0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00
70648269	1,2,3,4,7,8-Hexachlorodibenzofuran			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00
	1,2,3,4,7,8-Hexachlorodibenzo-P-							-	
39227286			1	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00
57117449	1,2,3,6,7,8-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzo-P-			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00
57653857	dioxin			0 00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+00
72918219	1,2,3,7,8,9-Hexachlorodibenzofuran			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
	1,2,3,7,8,9-Hexachlorodibenzo-P-								
19408743				0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
57117416	1,2,3,7,8-Pentachlorodibenzofuran			0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
40001764	10070 D. (11 11 D. F. (
	1,2,3,7,8-Pentachlorodibenzo-P-dioxin			0.00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00
	1,2-Dibromo-3-chloropropane			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	
/88/5	1,2-Dichloropropane			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
	1,2-Diphenylhydrazine			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
106887	1,2-Epoxybutane			0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
106990	1,3-Butadiene			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00
542756	1,3-Dichloropropene			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00
1120714	1,3-Propane sultone			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
	1,4-Dioxane			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
	1,6-Dinitropyrene			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00
42397659	1,8-Dinitropyrene			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
5522430	1-Nitropyrene 2,3,3',4,4',5,5'-			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
39635319	HEPTACHLORBIPHENYL (PCB 189)			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00
38380084	2,3,3',4,4',5- HEXACHLOROBIPHENYL (PCB 156)			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00

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	2,3,3',4,4',5'- HEXACHLOR OB IPHENYL (PCB						
69782907	157)	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00
	2,3,3',4,4'-Pentachlorobiphenyl {PCB						
32598144	105}	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+00
	2,3',4,4',5,5'-						
	HEXACHLOROBIPHENYL (PCB						
52663726	167)	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00
	2,3,4,4',5-PENTACHLOBIPHENYL						
74472370		0 00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+00	0.00E+00
11112010	2,3',4,4',5-	0.002.00	0.002.00	0002.00	0.001.00	0.002.00	0.002.00
	PENTACHLOROBIPHENYL (PCB						
31508006	118)	0 00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2,3',4,4',5'-						
	PENTACHOROBIPHENYL (PCB				_		
65510443	123)	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
60851345	2,3,4,6,7,8-Hexachlorodibenzofuran	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	
57117314	2,3,4,7,8-Pentachlorodibenzofuran	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
51207319	2,3,7,8-Tetrachlorodibenzofuran	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+00
1746016	2,3,7,8-Tetrachlorodibenzo-P-Dioxin	0.00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00
88062	2,4,6-Trichlorophenol	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
				1		1	
	2,4-Diaminoanisole	0.00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
	2,4-Diaminotoluene	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	
	2,4-Dinitrotoluene	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	
53963	2-Acetylaminofluorene	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
	2-Aminoanthraquinone	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+0
607578	2-Nitrofluorene	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
	3,3',4,4',5,5'-						
20554166	HEXACHLOROBIPHENYL (PCB	0.005.00	0.005.00	0.005.00	0.005.00	0.005.00	0.005.00
32774166	3,3',4,4',5-	0 00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00
	PENTACHLOR OB IPHENYL (PCB						
57465288		0 00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00
21403200		0.002400	0.002.00	0.002.00	0.002.00	0002.00	U DOL TOL
	3,3',4,4'-TETRACHLORBIPHENYL						
32598133		0 00E+00	0 00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00
91941	3,3'-Dichlorobenzidine	0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00
	3,4,4',5-TETRACHLOROBIPHENYL						
70362504		0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	
56495	3-Methylcholanthrene	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+0
101174	4,4'-Methylene bis(2 Chloroaniline)	0.005.00	0.005.00	0.005.00	0.005.00	0.005.00	0.005.0
101144	(MOCA) 4,4'-Methylenedianiline	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0 00E+00 0 00E+00	0 00E+00 0 00E+00	0.00E+0
	4.4 - Metnylenedianiline 4-Aminobiphenyl	0.00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
920/1	4-Ammoorpheny	0.00E+00	0.0000000	0000=+00	1 0 00E+00	00000000	0002+00

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95830	4-Chloro-o-phenylenediamine			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00
601174	4-Dimethylaminoazobenzene			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00
57835924	4-Nitropyrene			0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00
	5-Methylchrysene			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00
602879	5-Nitroacenaphthene			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00
7496028	6-Nitrochrysene			0.00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00
	7,12-Dimethylbenz[a]anthracene			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
194502	7H-Dibenzo[c,g]carbazole			0 00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+00
	Acetaldehyde	9.60E+00	1.10E-03	1 75E-03	7 26E-04	4 41E-02	1 87E-03	3 51E-03	
	Acetamide	3.00L100	1.10E-05	0 00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3 51E-03 0 00E+00
107028				0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00	
	Acrylamide			0 00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00 0 00E+00
790012	Acrylic acid			0 00E+00	0.00E+00	0.00E+00	0.00E+00		
	Acrylonitrile			0 00E+00	0 00E+00			0 00E+00	0 00E+00
107151	Allyl chloride			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
210946	alpha-Hexachlorocyclohexane			0.00E+00		0.00E+00	0 00E+00	0 00E+00	0 00E+00
<u></u>	Amitrole				0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00
7664417	Ammonio			0 00E+00 0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00
62533					0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
7440282	Aniline	1 205 02	1.505.00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00
7440382	Arsenic	1.38E-02	1.58E-06	2 51E-06	1 28E-03	7 74E-02	2 51E-02	1 19E-02	2 51E-02
1016	Arsenic compounds (inorganic)			0.00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
7784421	Arsine			0.00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
1332214				0.00E+00	0 00E+00				
102944031	Barium chromate	1005 01	1 5 5 5 6 6	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00
	Benz[a]anthracene	1.38E-04	1.58E-08	2 51E-08	4 25E-07	2 58E-05	0 00E+00	0 00E+00	0 00E+00
714321	Benzene	8.40E+00	9.59E-04	1 53E-03	6 82E-03	4 14E-01	3 82E-03	1 11E-03	3 82E-03
92875	Benzidine (and its salts)			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00
	Benzidine-based dyes	0.000 0.0		0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
50328	Benzo[a]pyrene	9.30E-06	1.06E-09	1 69E-09	2 86E-07	1 74E-05	0.00E+00	0 00E+00	0 00E+00
205992	Benzo[b]fluoranthene			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00
	Benzo[j]fluoranthene			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
2070891	Benzo[k]fluoranthene	3.90E-04	4.45E-08	7 09E-08	1 20E-06	7 29E-05	0.00E+00	0 00E+00	0 00E+00
100447	Benzyl chloride			0.00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00
74404171	Beryllium	4.50E-03	5.14E-07	8 18E-07	3 02E-04	1 84E-02	1 75E-02	0 00E+00	1.75E-02
319857	beta-Hexachlorocyclohexane			0.00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
57578	beta-Propiolactone			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Bis(2-chloroethyl) ether {DCEE}	-		0.00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00
542881	Bis(chloromethyl) ether			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00
7440439		1.83E-02	2.09E-06	3 33E-06	2 15E-03	1 31E-01	2 50E-02	0.00E+00	2 50E-02
	Calcium chromate			0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
2425061				0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00
133062				0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
	Carbon disulfide	· · · · · · · · · · · · · · · · · · ·		0.00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
	Carbon monoxide			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00
	Carbon tetrachloride			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
	Chlordane			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00
	Chlorinated paraffin			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00
7782505				0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00
10049044	Chlorine dioxide	1		0 00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00

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108907	Chlorobenzene			0 00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00
	Chlorobenzilate	6 · · · · · · · · · · · · · · · · · · ·		0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00
	Chlorodifluoromethane			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00
	Chloroform								
				0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00
10/302	Chloromethyl methy			0.00E+00	0.00E+00	0 00E+00	0.00E+00		0 00E+00
/6062	Chloropicrin			0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00
	Chromium trioxide			0 00E+00					
	Chromium, hexavalent	1.44E-03	1.64E-07	2 62E-07	6.05E-03	3 67E-01	1 96E-04	0 00E+00	1 96E-04
	Chrysene	1.14E-04	1.30E-08	2 07E-08	3.51E-08	2 13E-06	0 00E+00	0 00E+00	0 00E+00
	Coke oven emissions			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00
7440508	Copper	8.40E-02	9.59E-06	1 53E-05	0.00E+00	0 00E+00	0 00E+00	1 44E-04	1 44E-04
	Cresols (mixtures of) {Cresylic acid}			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
	Cupferron			0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00
1073	Cyanide compounds			0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
	CYANIDE COMPOUNDS								
	[Inorganic)			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00
117817	Di(2-ethylhexyl) phthalate			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
226368	Dibenz[a,h]acridine			0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00
2263680	Dibenz[a,h]acridine			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00
53703	Dibenz[a,h]anthracene			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0.00E+00
224420	Dibenz[a,j]acridine			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00
192645	Dibenzo[a,e]pyrene			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
189640	Dibenzo[a,h]pyrene			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
189559	Dibenzo[a,i]pyrene			0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
	Dibenzo[a,1]pyrene			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
	Dibenzofurans (chlorinated) {PCDFs}								
1080	[Treated as 2378TCDD for HRA]			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+00
0	Dichlorodifluoromethene			0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00
	Dichlorodiphenyldichloroethylene							1	
72559	{DDE}			0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00
	Dichloroethylene			0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00
	Dichlorovos {DDVP}			0.00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
	Diesel engine exhaust, particulate								
9901	matter (Diesel PM)	4.44E+02		8 07E-02	3.73E+00	2 26E+02	2 42E+00	0.00E+00	2.42E+00
	Diethanolamine	The first of the		0.00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	
	Dimethyl carbamoyl chloride			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	
	Dimethyl formamide			0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00
124403	Dimethylamine			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00
	Dioxins, total, w/o individ. isomers								
	reported {PCDDs} [Treat as								
	2378TCDD for HRA			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00
	Direct Black 38			0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00
	Direct Blue 6			0.00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
	Direct Brown 95 (technical grade)			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00
	Epichlorohydrin			0 00E+00					
	Ethyl benzene	6.60E+01	7.53E-03	1 20E-02	4 62E-03	2 81E-01	9 00E-04	0 00E+00	9 00E-04
75003	Ethyl chloride (Chlorethane)			0 00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00

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1069341	Ethylene dibromide {EDB}			0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
	Ethylene dichloride {EDC}			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00
	Ethylene glycol			0.00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00
111762	Ethylene glycol monobutyl ethe:			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00
1108051	Ethylene glycol monoethyl ethe			0 00E+00					
	Ethylene glycol monoethyl ether				0.002.00				
111159				0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+0
	Ethylene glycol monomethyl ethe			0.00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+0
	Ethylene glycol monomethyl ether			0.002.00	0.002.00	0.002.00	0.002.00	0.002.00	0.001.0
110496				0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+0
	Ethylene oxide			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+0
	Ethylene thiourea			0.00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+0
	Ethyleneimine {Aziridine}			0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+0
	Fluorides			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+0
	Formaldehyde	2 225-01	2 626 02	4 04E-05	3.73E-05	2 26E-03	6 73E-04	6 90E-02	6 90E-0
111208	Glutaraldehyde	£ 222-91	2.53E-03	0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+0
111308	Giutaraldenyde	A-1				0 00E+00	0.00E+00	0 00E+00	0 00E+0
/6448	Heptachlor			0 00E+00	0 00E+00	0 00E+00	0 00E+00		0 00E+0
118/41	Hexachlorobenzene	and the state of t		0 00E+00	0 00E+00	0 00E+00		0 00E+00	
11201	Hexachlorocyclohexane	A		0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+0
	Hexachlorocyclohexanes (mixed or					0.005.00	0.005.00	0.005.00	0.005.0
608731 t	technical grade)			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+0
	Hexachloroethane			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+0
110543				0.00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+0
	Hydrazine	the second		0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+0
	Hydrochloric acid	and the second		0 00E+00	0.00E+0				
74908	Hydrocyanic acid			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+0
7664393	Hydrogen fluoride			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+0
7783075	Hydrogen Selenide			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+0
7783075	HYDROGEN SELENIDE			0 00E+00	0 00E+0				
7783064	Hydrogen sulfide			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+0
193395	Indeno[1,2,3-cd]pyrene			0 00E+00	0 00E+0				
78591	Isophorone			0.00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+0
67630	Isopropyl alcohol			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+0
7439921	Lead	2.67E-02	3 05E-06	4 85E-06	8 97E-06	5.45E-04	0.00E+00	0 00E+00	0 00E+0
301042	Lead acetate			0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+0
7758976	Lead chromate			0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+0
1128	Lead compounds (inorganic)			0.00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+0
	Lead phosphate			0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+0
	Lead subacetate		2	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+0
	Lindane {gamma-	and the second se	1						
	Hexachlorocyclohexane}			0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+0
	Maleic anhydride			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+0
	Manganese			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+0
	m-Cresol		0	0.00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+0
	Mercuric chloride			0.00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+
7439976	Mercury	1.23E-02	1.40E-06	2 24E-06	0.00E+00	0 00E+00	1 12E-02	3 50E-03	1 12E-0
	Methanol	LOL SE	TOL OU	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+0

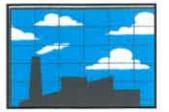
	Methyl chloroform {1,1,1-								
	Trichloroethane}			0.00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+0
	Methyl ethyl ketone			0 00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+0
6248391	Methyl isocyanate			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+0
1634044	Methyl tert-butyl ether			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+0
- <u> </u>	Methylene chloride								
75092	{Dichloromethane}			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+
	Methylene diphenyl diisocyanate								
101688	{MDI}			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+
90948	Michler's ketone			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	
	m-Xylene			0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	
	Naphthalene	1.08E+00	1 238 04	1 96E-04	1.03E-03	6 24E-02	3 27E-03	0 00E+00	
7440020		9.00E-02	1.03E-05	1.64E-05	6 55E-04	3 98E-02	4 91E-02	2 58E-03	4 91E-
373024	Nickel acetate			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	
3333673	Nickel carbonate			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+
	Nickel carbonate			0 00E+00	0 00E+				
	Nickel carbonyl			0 00E+00	0.00E+				
	Nickel hydroxide			0 00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+
	Nickel oxide			0 00E+00	0 00E+				
	Nickel refinery dust			0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	
	Nickel subsulfide			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+
	Nickelocene			0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	
7697372				0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+
1391391	Nitrilotriacetic acid			0 00E+00					
	NITROGEN DIOXIDE			0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0.00E+
	N-Nitrosodiethanolamine			0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+
	N-Nitrosodiethylamine			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+
62759	N-Nitrosodimethylamine			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0.00E+
924163	N-Nitrosodi-n-butylamine			0.00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+
	N-Nitrosodi-n-propylamine			0 00E+00	0.00E+00	0 00E+00	0 00E+00	0 00E+00	0 00E+
86306	N-Nitrosodiphenylamine			0.00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+
10595956	N-Nitrosomethylethylamine			0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+
	N-Nitrosomorpholine			0 00E+00	0.00E+				
	N-Nitroso-N-methylurea			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+
100754	N-Nitrosopiperidine			0.00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+
930552	N-Nitrosopyrrolidine			0.00E+00	0 00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+
90040	o-Anisidine			0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E+00	0 00E+
95487	o-Cresol			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E-
8014957	OLEUM			0 00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+
	o-Toluidine			0 00E+00	0 00E+00	0 00E+00	0.00E+00	0.00E+00	0.00E+
95476	o-Xylene			0 00E+00	0 00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+
10028156	OZONE			0 00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+
	PAHs, total, w/o individ. components								
	reported [Treated as B(a)P for HRA]			0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+
1336363	PCBs {Polychlorinated biphenyls}			0.00E+00	0.00E+00	0 00E+00	0 00E+00	0.00E+00	0 00E+
95692	p-Chloro-o-toluidine			0 00E+00	0.00E+00	0 00E+00	0.00E+00	0.00E+00	0 00E1
120718	p-Cresidine			0 00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+
106445				0 00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0 00E+
106467	p-Dichlorobenzene			0.00E+00	0.00E+00	0.00E+00	0 00E+00	0.00E+00	0 00E+

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87865	Pentachlorophenol			0 00E+00	0.00E+00	0.00E+00	0 00E+00 0 00E+00	0.00E+00
	Perchloroethylene							
127184	{Tetrachloroethene}			0.00E+00	0 00E+00	0.00E+00	0.00E+00 0.00E+00	0 00E+00
108952	Phenol			0 00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
75445	Phosgene		-	0 00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
7803512	Phosphine			0 00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	
	Phosphoric acid			0 00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
	Phthalic anhydride			0 00E+00	0.00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
	p-Nitrosodiphenylamine			0 00E+00	0.00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
	Potassium bromate			0 00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	
115071	Propylene			0 00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
	Propylene glycol monomethyl ethe			0 00E+00	0.00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
75569	Propylene oxide			0 00E+00	0.00E+00	0 00E+00	0.00E+00 0.00E+00	0 00E+00
	Propylene oxide			0 00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	
	p-Xylene			0.00E+00	0.00E+00	0.00E+00	0 00E+00 0 00E+00	
50555	Reserpine			0 00E+00	0.00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
	Selenium	1.47E-02	1.68E-06	2 67E-06	0.00E+00	0 00E+00	2 00E-05 0 00E+00	2 00E-05
	Selenium sulfide			0 00E+00	0.00E+00	0 00E+00	0 00E+00 0 00E+00	
	Silica, crystalline			0 00E+00	0.00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
	Silica, crystalline	-		0 00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
10588019	Sodium dichromate			0 00E+00	0.00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
	Sodium hydroxide			0 00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	
	Strontium chromate			0 00E+00	0.00E+00	0.00E+00	0 00E+00 0 00E+00	
100425	Styrene			0 00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
	Sulfates			0 00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
9960	SULFATES			0 00E+00	0.00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
7446095	Sulfur Dioxide			0 00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
7446719	Sulfur Trioxide			0 00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
7664939	Sulfuric acid			0.00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	
	Tetrachlorophenols			0 00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
	Thioacetamide			0 00E+00	0.00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
62566	Thiourea			0 00E+00	0.00E+00	0 00E+00	0.00E+00 0.00E+00	0 00E+00
108883	Toluene	3.00E+01	3.43E-03	5 45E-03	0 00E+00	0 00E+00	2 73E-03 1 39E-04	273E-03
1204	Toluene diisocyanate			0 00E+00	0 00E+00	0.00E+00	0.00E+00 0.00E+00	0 00E+00
	TOLUENE DIISOCYANATE			0 00E+00	0.00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
584849	Toluene-2,4-diisocyanate			0.00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	
91087	Toluene-2,6-diisocyanate			0.00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	
8001352	Toxaphene			0.00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	
	Trichloroethylene			0.00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	0 00E+00
	Trichlororfluormethane			0.00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
0	Trichlorotrifluormethane			0 00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	
121448	8 Triethylamine			0.00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	
	Urethane			0 00E+00	0.00E+00	0 00E+00	0.00E+00 0.00E+00	
7440622	Vanadium (fume or dust)			0 00E+00	0.00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
1314621	VANADIUM PENTOXIDE			0.00E+00	0.00E+00	0 00E+00	0 00E+00 0 00E+00	
108054	Vinyl acetate			0.00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	0 00E+00
	Vinyl chloride			0 00E+00	0 00E+00	0.00E+00	0 00E+00 0 00E+00	0 0 00E+00
	Vinylidene chloride			0 00E+00	0 00E+00	0 00E+00	0 00E+00 0 00E+00	
1330207	XYLENES (mixed xylenes)	8.10E+01	9.25E-03	1.47E-02	0.00E+00	0.00E+00	3 16E-03 6 31E-04	3 16E-03

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File: Newman Ridge Prioritization Sheet: PRIOR4



KOUT: 2012

Air Permitting Specialists

TECHNICAL MEMORANDUM

To: Mike Boitano APCO Amador Air District Date: October 5, 2012

From: Ray Kapahi Principal (916-687-8352) Air Permitting Specialists ray.kapahi@gmail.com Project: Newman Ridge Project Amador County

Copies: Susan Grijalva – Amador County Planning Department

Subject: Alternate Mitigation Strategy for Reducing Diesel Particulate Emissions

INTRODUCTION

This Memo summarizes my discussion during our meeting October 2nd, 2012 concerning emissions of diesel particulate matter (DPM) from equipment and mobile sources. These sources include dozers, loaders, electric generators and off-road mining trucks. Collectively, all these source release DPM that contributes to public health risks.

Long-term exposure to DPM contributes to two categories of health risks:

- Cancer Risk (expressed as a numerical probability of developing cancer)
- Non-Cancer Risks (expressed as a Hazard Index ratio of annual concentration of DPM from the project and recommended exposure level)

The Draft Environmental Impact Report for this project indicates that maximum residential cancer risk at nearby homes would be 18 cancers per million. As you know, this level of risk is above the threshold of significance of 10 cancers/million.

The DEIR identifies several mitigation strategies including use of retrofit devices and replacement of older vehicles and equipment. In addition to these strategies, it is also possible

to mitigate health impacts by phasing the project over 3 to 5 years. The DEIR assumes peak production by the 2013-2014 timeframe.

MITIGATION OF EMISSIONS BY PROJECT PHASING

The proposed project would extract 5 million tons of rock per year over 50 years. It is unlikely that this maximum level of production would be reached for the first few years of operation. If we assume that the maximum production level would occur in 5 years after start-up (e.g. in 2018), then DPM emissions from equipment and mobile sources would be substantially lower. This is because of the increased stringency of emission standards that apply to off-road equipment. These standards limit DPM and other air pollutants from equipment due to more stringent future emission limits.

A comparison of emissions from and mobile sources is given below. These emission rates are based on the OFFROAD Model¹ as incorporated into the Cal EE Model². This model has replaced the older URBEMIS model and is used to calculate emissions from off-road equipment.

Reduction in Diesel Particulate Emissions if Peak Production Occurs in 2018 vs 2013										
2013 Emission 2018 Emission										
Equipment	Horsepower	Factor	Factor	% Reduction						
Drill Rig	600	0.066	0.02	-230%						
Excavator	321	0.125	0.069	-81						
Off-Highway Trucks	740	0.134	0.074	-81						
Dozer	580	0.149	0.088	-69						
Water Trucks	740	0.134	0.074	-81						
Electric Generator	250	0.122	0.072	-69						

Depending on the equipment, the reduction in DPM emissions will be between 69% to 230%. This level of reduction will mitigate impacts to public health (cancer risk) that are currently considered significant.

SUMMARY

By phasing the proposed project over several years so that peak production occurs in 2018 instead of 2013-2014, there would be a significant decrease in DPM emissions. This decrease would be sufficient to reduce cancer risks to less than significant.

¹ CARB (2006) OFFROAD Emissions Inventory Model is used to calculate emissions from off-road equipment such as graders, dozers, etc. Available at: <u>http://www.arb.ca.gov/msei/offroad.htm</u>

² CALEEMOD - California Emission Estimator Model (Feb 2011) Available at: <u>http://www.caleemod.com/</u>

ENCLOSURE 5





MATTHEW ROORIQUEZ ACORTANY FOR ENVRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

14 January 2013

Bradley B. Johnson, Esq. Harrison Temblador Hungerford & Johnson 980 9th Street, Suite 1400 Sacramento, CA 95814

EXTENSION OF TIME FOR REPORT OF WASTE DISCHARGE, NEWMAN RIDGE QUARRY AND EDWIN CENTER NORTH PROJECT, AMADOR COUNTY

We have reviewed your 13 December 2012 letter regarding the Newman Ridge Quarry and Edwin Center project (the "Project"). The purpose of this letter is to clarify some points and to prevent any misunderstandings.

Your letter stated that, "the Project has not, as suggested in [Board staff's] July 11 letter, 'been in operation for some time without WDRs." Our statement in our July letter was based on the 18 July 2001 Notice of Preparation (NOP) issued by Amador County, which states that the Project will be owned and operated by the same business that operates the existing ISP Mine/Ione Quarry, which is located on the same property as the Project. Furthermore, based on the aerial photograph in the NOP and on our case records, we concluded that the existing aggregate mine is not regulated under a set of waste discharge requirements issued under Water Code section 13263 ("WDRs"). (If any of these conclusions are made in error, we would certainly appreciate an explanation.) Please note that our comment did not conclude that WDRs.

The Final Environmental Impact Report (FEIR) and your letter state that Newman Minerals, LLC will utilize above-ground tanks to collect, clarify, and recycle aggregate wash water and concrete wash water. Your letter stated that, "no process water will be discharged to ground or surface waters." However, your letter did not discuss the solids that will be collected in those clarifier tanks or how they will be managed and disposed. Your letter concluded that "Newman Minerals, LLC is not required to, and will not submit a Report of Waste Discharge by December 30."

The Central Valley Water Board generally regulates discharges of wash water and sediments from aggregate processing plants under WDRs when the operation of those facilities could affect the quality of waters of the State. It may be the case that operations at the Newman Ridge Quarry and Edwin Center (which will include a hard rock quarry, an aggregate plant, an asphaltic concrete plant, a ready-mix concrete plant, an asphalt and concrete recycling plant, and a rail loadout facility) will not result in any discharges of waste that could affect the quality of groundwater or surface water, or that obtaining coverage under the State Water Board's Industrial General Stormwater Permit will address all potential discharges. However, the Board cannot yet conclude that there is no need to either issue WDRs or conditionally waive the

issuance of WDRs (under Wat. Code § 13269) for the Project. Please note that it was staff's intention to grant an extension of time to submit a Report of Waste Discharge (RWD), not to wholly waive the requirement to submit one. When the Board receives information that indicates that there could be an ongoing unpermitted discharge of waste, the Board typically imposes a due date by which the operator must submit either a RWD or technical information justifying why WDRs are not required. If there are no operations ongoing, then the Board generally asks that the operator to submit a RWD at least one year prior to any planned operation.

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In order to clarify the nature of Newman Minerals, LLC's existing operations (if any) and its plans for future operations, please have a registered professional engineer or geologist prepare a brief Operations Plan and submit it to us by **28 February 2013** so that the Board may evaluate whether the facility will require WDRs. The Operations Plan must include the following information:

- 1. Whether Newman Minerals, LLC currently operates an aggregate quarry and/or processing plant in Amador County.
- 2. If so, describe the following:
 - Aggregate processing operations from excavation or blasting through stockpiling of finished products;
 - b. Whether aggregate is washed on site and how the wash water is handled, stored, and disposed or recycled;
 - c. Any other industrial operations that take place at the site that generate wastewater and how the wastewater is handled, stored, and disposed or recycled.
- If aggregate wash water, fines removed from the wash water, other industrial wastewater, or solids removed from industrial wastewater are placed on, or allowed to contact, the ground:
 - An interim plan of operations to prevent discharges of wastewater, fines, or other waste solids to surface water, and to minimize the threat to groundwater quality; and
 - b. The earliest date by which Newman Minerals, LLC could submit a complete RWD to apply for WDRs to regulate the current discharge.
- 4. Whether Newman Materials LLC plans to proceed with construction and operation of the Newman Ridge Quarry and Edwin Center North during the pendency of the lawsuit filed by Ione Valley Land, Air, and Water Defense Alliance.

Based on the information provide on the Operations Plan, we may work with you to establish a reasonable schedule for you to submit a RWD or we may conclude that a RWD is not necessary. Please note that the Central Valley Water Board generally will not adopt WDRs for a facility that is the subject of an unresolved CEQA lawsuit.

Bradley B. Johnson, Esq. Harrison Temblador Hungerford & Johnson

Please call me at (916) 464-4740 if you have any questions. We would be pleased to schedule a meeting or conference call with our legal counsel.

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ANNE L. OLSON, P.E. Senior Water Resource Control Engineer Waste Discharge to Land Permitting Section

cc: Micahel Israel, Amador County Environmental Health Department, Jackson Tom Swett, Newman Minerals, LLC, Ione Douglas P. Carstens, Chatten-Brown & Carstens, Hermosa Beach