November 24, 2014

San Luis Obispo County
Department of Planning and Building
Murry Wilson
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San Luis Obispo, CA 93408

VIA EMAIL
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cc: mwilson@co.slo.ca.us

RE: Comments on the Revised Draft Environmental Impact Report for the Phillips 66 Company Rail Spur Extension and Crude Unloading Project

Dear Mr. Wilson,

Phillips 66 now admits that this is a tar sands crude by rail project. Nevertheless, the Revised Draft Environmental Impact Report ("RDEIR") for the Phillips 66 Rail Spur Extension and Crude Unloading Project ("Project") still fails to correct several deficiencies of the prior draft report, and fails as an informational document under the California Environmental Quality Act ("CEQA") for the additional reasons explained herein. CBE-01

The Project Description remains inadequate in not fully addressing the scope of the company's total shift to a different quality of crude oil feedstock, and the RDEIR still obscures the inextricable link between the projects at the Santa Maria and Rodeo facilities. This, among other deficiencies, hides the true scope of the Project and precludes any adequate analysis of significant impacts. CBE-02

The Santa Maria facility is the "front end" of the Phillips 66 San Francisco Refinery ("SFR"). The facility performs severe processing of oil streams that are then piped to the SFR's Rodeo facility to make into profitable engine fuels. This Project switches the SFR to refining tar sands oil. This rail expansion allows the company to get tar sands "dilbit" oils by rail, which the throughput increase allows it to convert into engine fuel feedstocks for the Rodeo facility. At

Rodeo, a liquefied petroleum gas expansion requires this change in oil processing, and allows some resultant byproducts, otherwise uneconomic to dispose of, to be recovered and sold.[1] The RDEIR's environmental review is, however, unnecessarily limited to primarily rail transport activities, with a wholly inadequate assessment of impacts and mitigation in light of its unpersuasive assertions of federal preemption. Overall, the RDEIR hides serious local pollution, climate pollution and chemical safety hazards from the public and its own workers. CBE-02 cont

Accordingly, on behalf of Communities for a Better Environment, the Sierra Club, the Center for Biological Diversity, and Forest Ethics, we respectfully submit this comment, supported by several community based organizations and groups, cities, the California Nurses Association and thousands of California residents, seeking adequate environmental review of the Project, which is not reflected in the RDEIR. In addition, to date, approximately 22,000 residents have actively voiced concern against this Project.

Communities for a Better Environment ("CBE") is a California nonprofit environmental health and justice organization with offices in Oakland and Huntington Park. CBE has extensive organizational experience in protecting and enhancing the environment and public health by reducing pollution and minimizing hazards from refinery operations.

Sierra Club is a national nonprofit organization of over one million members and supporters dedicated to exploring, enjoying and protecting the wild places of the earth; practicing and promoting responsible use of the earth's ecosystems and resources; educating and enlisting humanity to protect and restore the quality of the natural and human environment; and using all lawful means to carry out these objectives. Sierra Club's Beyond Oil Campaign works to stem our nation's dependence on oil and to secure protections for communities and ecosystems from the significant toxic and global warming pollution emitted by oil development, including prevention of oil spills and other catastrophic events and pollution emissions that result from transporting extreme forms of oil by rail. Sierra Club has more than 143,000 members in the State of California who want to ensure that California's treasured landscape and coastline through which oil would be transported by rail are protected into the future. CBE-03

The Center for Biological Diversity ("Center") is a non-profit environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over 800,000 members and online activists throughout California and the United States, including members that live and/or visit the vicinity of the proposed project. These comments are submitted on behalf of our board, staff and members.

ForestEthics is a U.S. nonprofit organization that demands that corporations and government protect community health, the climate, and our wild places. ForestEthics fights to stop dangerous extreme oil trains and pipelines and has secured the protection of 65 million acres of wilderness by pushing major companies to shift hundreds of millions of dollars to responsible purchasing. ForestEthics has over 14,000 supporters in California.

As set forth below and in Attachments A-F, which include the expert reports of Phyllis Fox, Ph.D., PE ("Fox Revised Santa Maria Report," Attachment C), and Greg Karras ("Karras Revised Santa Maria Report," Attachment B), the RDEIR suffers from numerous deficiencies CBE-04

[1] The Phllips 66 Rail Spur Extension and Crude Unloading, Throughput Increase, and Propane Recovery Projects.

that render it inadequate under the California Environmental Quality Act[2] ("CEQA") and the CEQA Guidelines[3] ("CEQA Guidelines"). We respectfully request that the County reject the RDEIR as an environmental review document, and defer approval of the Project until such time as the RDEIR is revised to comply with CEQA, which includes following the procedures detailed in section I addressing lead agency review of piecemealed projects.

An EIR is "the heart of CEQA."[4] "The purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project."[5] The EIR "is an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return. The EIR is also intended 'to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.' Because the EIR must be certified or rejected by public officials, it is a document of accountability."[6] The RDEIR for the proposed Project still fails entirely to live up to this mandate, therefore, it violates CEQA, and violates several principles of Environmental Justice. CBE-04 cont

I. ENVIRONMENTAL REVIEW SHOULD PROCEED UNDER A PROGRAM EIR.

"A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one larger project."[7] Emphasized throughout this comment, the Project is piece-mealed and cannot achieve its objective independently, without either the Throughput Increase or Rodeo Propane Recovery projects.

As the Project is part of "one larger project," it would be more appropriate to analyze it under a Program EIR. This has several advantages: providing a more exhaustive consideration of effect and alternatives than would be practical in an EIR, ensuring adequate consideration of cumulative impacts that "might be slighted in a case-by-case analysis," allowing for an earlier and more practical consideration of mitigation measures, and saving considerable agency resources.[8] CBE-05

Where there could be more than one lead agency, as in this case, the lead agency which acts first on the project shall be the lead agency.[9] On June 8, 2010, the County of San Luis Obispo Planning and Building Department issued the Notice of Preparation for the Refinery Throughput Increase Project. On July 24, 2012, the Contra Costa County Department of Conservation and Development issued a Notice of Preparation and Scoping Session for an EIR for the Phillips 66 Propane Recovery Project. On July 8, 2013, the County of San Luis Obispo

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[2] Pub. Res. Code § § 21000 *et seq.*
[3] 14 Cal. Code Regs. § § 15000 *et seq.*
[4] *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal. 3d 376, 392 ("*Laurel Heights I*").
[5] Pub. Res. Code § 21061
[6] *Laurel Heights I*, 47 Cal. 3d at 392 (citations omitted).
[7] CEQA Guidelines § 15168.
[8] *Id.*
[9] CEQA Guidelines § 15051.

Planning and Building Department issued the Notice of Preparation for the Rail Spur Project. The County of San Luis Obispo Planning and Building Department acted first with the first component of this project, the Throughput Increase project, and is therefore the appropriate lead agency for a program EIR.

CBE-05 cont

Consequently, pursuant to the CEQA Guidelines, it would benefit the County to withdraw this RDEIR and move forward under a programmatic EIR approach. This would also yield a more accurate assessment of the significant and cumulative impacts and mitigation measures for all communities affected by the SFR's switch to refining tar sands.

II. THE EIR'S PROJECT DESCRIPTION IS INADEQUATE.

A. The Project Description Fails to Disclose an Industry Shift to a Different Quality Crude Feedstock

In order for an environmental document to adequately evaluate the environmental ramifications of a project, it must first provide a comprehensive description of the project itself. "An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR."[10] As a result, courts have found that, even if an EIR is adequate in all other respects, the use of a "truncated project concept" violates CEQA and mandates the conclusion that the lead agency did not proceed in a manner required by law.[11]

Furthermore, "[a]n accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity."[12] Thus, an inaccurate or incomplete project description renders the analysis of significant environmental impacts inherently unreliable. While extensive detail is not necessary, the law mandates that EIRs should describe proposed projects with sufficient detail and accuracy to permit informed decision-making.[13] The RDEIR's Project Description fails to meet this standard by minimizing the degree and scope of the switch in crude oil feedstock supply.

CBE-06

The RDEIR's Project Description is misleading. From the outset, the RDEIR limits its Project and Project-related impacts analyses solely on the Project's rail operations. However, this is not simply a transport infrastructure project. The RDEIR instead states that the primary objective of the project is to "allow the refinery to obtain…crude oil…from…North American sources that are served by rail…(by) install(ing) the necessary infrastructure."[14] The RDEIR's avoidance of this fact diminishes the true intent and scope of the Project, which is, in reality a project to receive tar sands. Indeed, this Project expressly enables and locks in refining of tar sands at the SFR: "tar sands oils would likely dominate the new crude source."[15]

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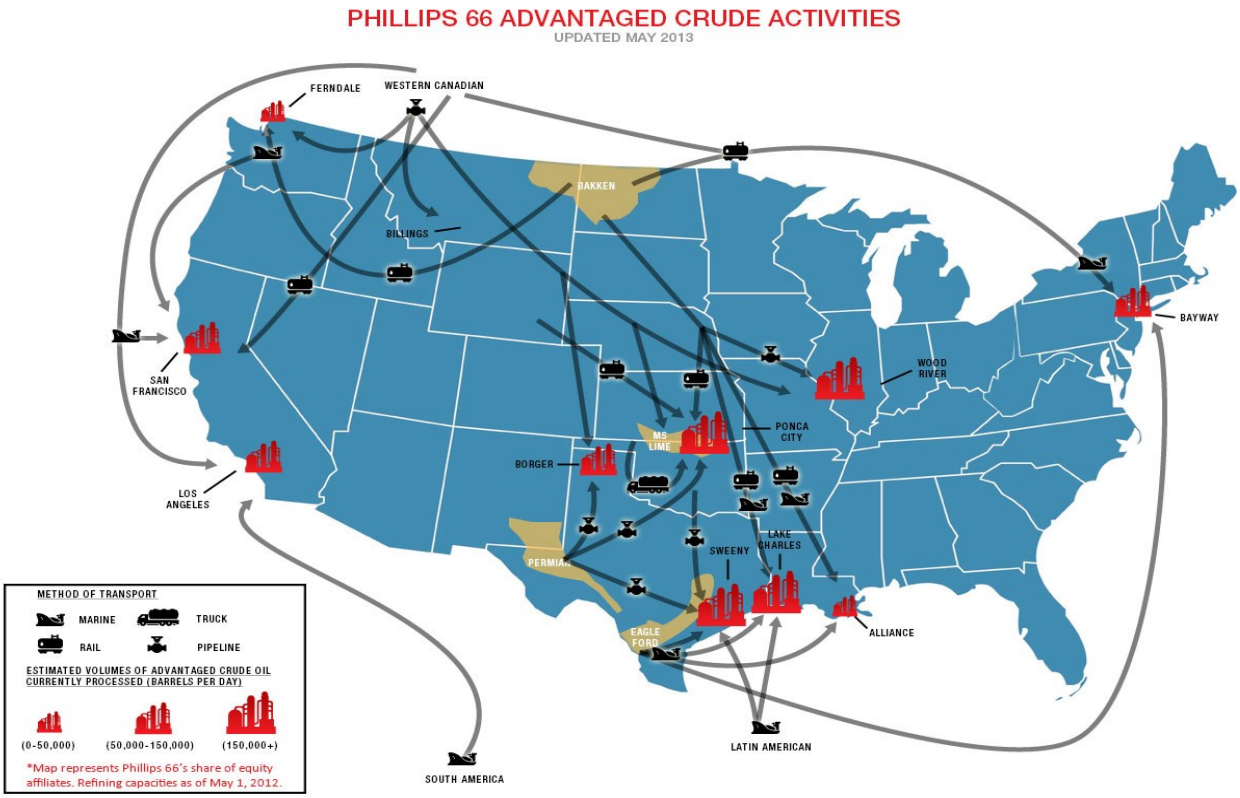
[10] *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 730, quoting *County of Inyo v. City of Los Angeles* (1977) 71 Cal. App. 3d 185, 193.
[11] *Id.* at 730.
[12] *Id.* (citation omitted).
[13] *See* CEQA Guidelines, §15124 (requirements of an EIR).
[14] RDEIR at 2-1.
[15] Karras Revised Santa Maria Report, at 3.

Phillips 66 is currently in the process of implementing a series of projects to allow a switch to refining what its management, and now also the RDEIR, calls, "advantaged crude." The company emphasizes: "(the) opportunity that we have…is to get…Canadian crudes down into California…We're looking at rail to barge to ship, down to the West Coast refineries..."[16] The map immediately below details this strategy.



Phillips 66 map indicating plans to transport Western Canadian crude oil to San Francisco Refinery.[17] Notice that the icon labeled "San Francisco" identifies the San Francisco Refinery, which includes the Santa Maria facility.

CBE-06 cont

The company has no choice but to seek such an alternative supply of crude oil feedstock. As stated in the RDEIR:

> In the long-term, the need for the SMR rail project could be driven by declines in local production of crude oil that can be delivered by pipeline. Production from offshore Santa Barbara County (OCS crude) has been in decline for a number of years. Oil production in Santa Barbara County (both onshore and offshore) peaked at about 188,000 barrels in 1995 (County of Santa Barbara Energy Division website) and currently production is

[16] September 12, 2013 Transcript, pdf 7, available at: http://www.phillips66.com/EN/investor/presentations_ccalls/Documents/Barclays_091213_Final.pdf.
[17] Phillips 66 Advantaged Crude Activities: Updated May 2013, available at: http://www.phillips66.com/EN/Advantaged%20Crude/index.htm.

around 61,000 barrels per day for both onshore and offshore oil fields (BOEM Pacific Region and Drilling Edge websites).[18]

This decline in locally available crude stands in stark contrast to the Santa Maria facility's recent Throughput Expansion that enables the Santa Maria facility to process more crude oil. Certainly, the RDEIR makes a bold assertion: "Phillips 66 expects to continue to receive, blend and process a comparable range of crudes in the future."[19] At the same time, however, those diminishing local sources make up the "bulk" of the crude oil currently processed at the Santa Maria Refinery.[20]

As noted in one expert report, "built to tap local oil fields, the Santa Maria facility lacks infrastructure to receive crude via ship or rail. A pipeline system that connect the Santa Maria facility only to local oil fields "is currently the only way that the Phillips 66 refinery can receive crude oil.""[21] There is substantial evidence that declining local and regional crude production could greatly affect the operation of the Santa Maria facility.[22] If the facility's crude rate falls too far below the design specifications of its existing equipment, it cannot operate efficiently or profitably.[23] A more accurate project description must admit that the company is *replacing* one feedstock with another. CBE-06 cont

The distinction in crude oil feedstock matters. The chemical composition of raw materials that are processed by a refinery directly affect the amount and composition of the refinery's emissions.

> The amount and composition of sulfur in the crude slate, for example, ultimately determines the amount of [sulfur dioxide] that will be emitted from every fired source in the refinery and the amount of odiferous hydrogen sulfide and mercaptans that will be emitted from tanks, pumps, valves, and fittings. The composition of the crude slate establishes the CEQA baseline against which impacts must be measured.[24]

Other significant impacts, such as increased energy consumption, air emissions, toxic pollutant releases, flaring and catastrophic incident risks, are also entirely dependent on the quality of crude oil processed at the facility.[25] As detailed further below, a heavier crude oil feedstock has also been identified as a contributing factor to potentially catastrophic incidents at refineries, and a root cause of the August 6, 2012 fire at the Chevron Richmond Refinery.[26]

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[18] RDEIR at 2-36.
[19] *Id.* at 2-33.
[20] *Id.* at 2-35.
[21] Karras Revised Santa Maria Report at 4, citing RDEIR at 2-36.
[22] *Id.* at 5.
[23] *Id.*
[24] Fox Rodeo Report at 13.
[25] *See* Fox Rodeo Report, Fox Valero Report and Karras Rodeo Report at 11-13.
[26] *See* Chemical Safety Board, Chevron Richmond Refinery Interim Investigation Report, April 2013, available at: http://www.csb.gov/assets/1/19/Chevron_Interim_Report_Final_2013-04-17.pdf.

Any environmental review document for this Project must analyze the full scope of these impacts, and at least for the anticipated life of the project. A shift of this extent has far different consequences and impacts compared to the RDEIR's diminished purpose of merely "obtaining" these feedstocks or "continu[ing] to receive, blend and process a comparable range of crudes in the future."[27] The RDEIR insists, "it is speculative as to what if any local crude oil would be displaced." No such speculation is required:

> "…our plan promises…availability and supplies in North America…we're disappointed in the progress to permit our Santa Maria rail rack 40,000 a day, but we have – we're optimistic that we'll get that done. It just takes time in California to get these things permitted…we're making progress in terms of put advantaged crude to the front of our refineries in California."[28]

The company has expressed a clear priority to switch to refining tar sands at the SFR, a priority diminished by the RDEIR focus on merely transportation infrastructure. In fact, the Project is proposing to replace the **majority** of the current crude slate (2010-2012: 38,100 bbl/day) with up to 100% tar sands crudes.[29] Consequently, the DEIR's omission of this switch to a very different crude oil feedstock violates CEQA in leaving several significant impacts unanalyzed.[30] It is impossible to provide any intelligent evaluation of the potential environmental effects and risks to community and worker health and safety of partially refining Canadian tar sands in Santa Maria, unless the RDEIR *first* discloses the extent of the replacement of feedstock that the Project enables.[31] At a minimum, the RDEIR should have established how this Project would affect the scope and degree of the company's use of tar sands in Santa Maria and Rodeo and evaluate its resulting impacts.[32] The RDEIR should also states whether, and by at least an estimated degree how much, the current 2-7% of heavy Canadian crude oil suggested by the RDEIR to be tar sands and processed at the Santa Maria Refinery would increase. Indeed, the percentage lies at the other end of the spectrum, reflecting the "long-term replacement of declining local SMF crude supplies."[33] Until such adequate disclosure occurs, the Project Description is inaccurate, incomplete and renders the analysis of significant environmental impacts inherently unreliable.[34]

CBE-06 cont

B. The Project Is Piecemealed.

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[27] RDEIR at 2-33.

[28] *See* Phillips 66 Presentation to Barclays CEO Energy Power Conference, September 2014, *available a*t http://investor.phillips66.com/files/doc_presentations/2014/PSX-BarclaysCEOConfTransSept2014.pdf

[29] Fox Revised Santa Maria Report at 12.

[30] *See Berkeley Keep Jets Over the Bay Comm. v. Bd. of Port Comm'rs* (2001) 91 Cal.App.4th 1344, 1355 ("the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process").

[31] *See Id*., see *also, Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4 70, 89 (holding that an EIR is insufficient where it obscures the project's enabling of a refinery to process heavier crude).

[32] *Id*.

[33] Karras Revised Santa Maria Report at 7.

[34] *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722 (the failure to include relevant information relating to a project's components precludes informed decision making, thwarting the goals of the EIR) and *see* Karras and Fox Revised Santa Maria Reports.

Phillips 66's Santa Maria and Rodeo refineries are interdependent. One cannot function without the other. If major reconfigurations occur at both facilities at the same time and those modifications require each other, then they must be part of the same project. CEQA requires that an EIR describe the entirety of a project, including reasonably foreseeable future actions that are part of it.[35] Illegally "chopping a large project into many little ones" creates a narrow view of a project and "fallacy of division…that is, overlooking a project's cumulative impact by separately focusing on isolated parts of the whole."[36] Certainly, any permit by permit review, where those permits constitute a larger project, forecloses this essential focus on cumulative impacts, and also, impacts to already overburdened and vulnerable populations.

In *Laurel Heights I*, the Supreme Court established the following test: while an EIR need not include speculation about future environmental consequences of a project, the "EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effect."[37] Under this standard, "the facts of each case will determine whether and to what extent an EIR must analyze future expansion or other action."[38] A project proponent must analyze future expansion and other such action in an EIR if there is "telling evidence" that the agency has either made decisions or formulated reasonably definite proposals as to such future activities.[39] Further, there must be discussion "in at least general terms" of the future activity, even if the project is contingent on uncertain occurrences.[40] CBE-07

This rail spur expansion project wholly depends on both the throughput expansion project and the critical back end of the SFR, the Phillips 66 Rodeo Refinery. The SFR consists of two facilities linked by a 200-mile Phillips-owned pipeline. The Santa Maria facility is located in Arroyo Grande, in San Luis Obispo County, while the Rodeo facility is located in Rodeo, in Contra Costa County. As the Draft EIR noted, "the Santa Maria Refinery and the Rodeo Refinery, linked by the company's own pipeline, comprise the San Francisco Refinery…Semi-refined liquid products from the Santa Maria Refinery are sent by pipeline to the Rodeo Refinery for upgrading into finished petroleum products."[41] The refining processes at Phillips 66's Santa Maria and Rodeo facilities are integrated to a capacity that neither can achieve alone.[42] Further, Phillips 66 reports these two facilities as a single processing entity, the San Francisco Refinery, to industry and government monitors.[43]

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[35] CEQA Guidelines § 15378(a).
[36] *See* Bozung v. Local Agency Formation Commission , 13 Cal. 3d 263, 268 (1975) and McQueen v. Board of Directors of the Mid-Peninsula Regional Open Space District, 202 Cal. App. 3d 1136, 1143 (1988).
[37] *Laurel Heights I*, 47 Cal. 3d at 394-396.
[38] *Id.* at 396.
[39] Id. at 396-397.
[40] *Id.* at 398.
[41] DEIR at 2-3. Notably, the reference to the company ownership of the pipeline has been obscured in the RDEIR.
[42] *See* Karras Report on Phillips 66 Propane Recovery Project, September 2013, Exhibits 21 through 24. *Oil & Gas Journal*, 2012; and EIA Ref. Cap. 2013. See also orders R2-2011-0027 and R3- 2007-0002. Comparing the references shows "Rodeo" capacities reported to EIA include the Santa Maria facility, attached as part of Attachment A.
[43] *Id.*

The RDEIR's piecemealing of both ends of the same refinery is analogous to the facts of *Laurel Heights I*. In that case, the Supreme Court set aside an EIR for piecemealing the reasonably foreseeable second phase of a multi-phased project. The University of California, San Francisco, had proposed a project to expand into a new building, of which only about a third was initially available to the school. The EIR failed to analyze impacts related to occupying the remaining two thirds, even though it was wholly foreseeable that UCSF would occupy the entire building.[44] Here, Phillips 66 will obtain tar sands crude by rail, must eventually fully refine it for sale, and to do so requires the entire SFR, not only the Santa Maria or Rodeo facilities. Just as it was foreseeable for the University of California to occupy the whole building, it is at least equally foreseeable, if not a surety, that the Rodeo facility will fully refine tar sands imported to the Santa Maria facility.

In order for Phillips 66 to implement its "advantaged crude" strategy for the SFR, it requires three pieces: the Santa Maria Refinery Throughput Increase Project, the Rodeo Refinery Propane Fuel Recovery Project, and this Project. Imports of heavy Canadian tar sands are facilitated by the Throughput Increase project. Components of the Rodeo Propane Fuel Recovery Project lock the Rodeo Refinery into a change in oil feedstock processing tar sands anticipated by rail to the Santa Maria Refinery.[45] That lower quality feedstock, gas oils and naptha, is produced at Santa Maria and sent to Rodeo by pipeline, a pipeline owned by the same company.[46] These changes are inter-related, wholly anticipate each other, and together create significant impacts on the environment. This meets the two-part *Laurel Heights I* test and is far removed from court decisions that do not find a piecemealed project on account of an insufficient showing of this "necessity" element.[47] CBE-07 cont

The following analysis further highlights a larger project that is piecemealed and more appropriate for review under a programmatic level EIR.

(i) The Prior Throughput Expansion is Dependent on this Project.

In the *San Joaquin Raptor* case, the court held that the EIR for a residential development project was invalid because it failed to discuss expansion of the sewer system, even though the developer recognized the necessity for sewer expansion for the overall development project to CBE-08

[44] *Laurel Heights I*, 47 Cal.3d at 393.
[45] *See* Karras and Fox Rodeo Reports and RDEIR at 2-32 (Fox Rodeo Report also attached as part of Attachment A).
[46] *Id.* and DEIR at 2-29.
[47] In *Communities for a Better Environment et al. v. City of Richmond et al.*, (184 Cal. App. 4th 70, 100-101 (2010)), the Court of Appeal addressed the piecemealing issue with respect to another refinery expansion project. In that case, the EIR for the expansion project identified the potentially significant cumulative impact of a hydrogen pipeline project, but did not provide a complete analysis of the pipeline project's impacts. The Court held that the pipeline project was not piecemealed, that it is a separate project from the overall expansion project. In so holding, the Court reasoned that the expansion and pipeline projects are independent – they perform *entirely different* functions. The Court focused on project objectives: the expansion project's objective was to access a wider range of crude oil and other feedstocks; the pipeline project's objective was to transport excess hydrogen, not required by the expansion project, to other hydrogen consumers in the Bay Area. Ultimately, the Court found that the expansion project did not "depend on" the pipeline project. Similarly, in *Berkeley Jets*, the Court rejected an argument that an airport development plan should have included "long-range plans for potential runway expansions." The Court held that these future expansion plans were neither a crucial element nor a foreseeable consequence of the development plan. (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Cmrs.*, 91 Cal. App. 4th 1344, 1361 (2010)).

proceed.[48] The RDEIR's assertions that the throughput expansion project is unrelated and not dependent on the Rail Spur Project are misleading and incorrect.[49] This Project wholly supports the throughput expansion. Just as in *San Joaquin Raptor*, the company has identified a necessity to respond to declining local crude supplies. This calls into question any initial need, without the ability to obtain crude by rail, to increase throughput capacity.

The Santa Maria throughput increase project increases, "…the volume of products leaving the Santa Maria facility for the Rodeo Refinery via pipeline."[50] Nevertheless, the RDEIR still maintains that, "the ability of the Santa Maria Refinery to operate at the maximum approved throughput level is based on the existing infrastructure and is not dependent on, or related to, the SMR Rail Project."[51] Yet, the RDEIR then admits that, "the bulk" of local crude oil sources is declining, and in the long term, could "drive" this rail spur project.[52] This begs the simple question: if local supply is declining, how can the Santa Maria Refinery operate at the maximum capacity, when it currently operates below capacity, independent of rail assisted imports? Trucking in crude is expensive. There is simply no way for the Santa Maria facility to obtain enough crude oil feedstock for its throughput expansion economically without any crude imports by rail, implicating this Project's rail spur extension. The need for this Rail Spur Project was, therefore, wholly foreseeable at the inception of the Throughput Increase Project.

CBE-08 cont

Furthermore, the environmental review of this Project overlaps with the Throughput Expansion explicitly in two regards. First, the evaluation of several project impacts is based on not only the same analysis and data performed in the Throughput Increase Project EIR, but the actual conclusions of that EIR.[53]

Second, the inclusion of the Vertical Coastal Access component is particularly telling. In *Tuolumne County*, the Court found projects A and B piecemealed where project B's approval was a condition of approval of project A.[54] As a condition of approval of the Throughput Increase Project, Phillips 66 was required to provide a vertical public right of coastal access at the Santa Maria facility.[55] The RDEIR includes a programmatic environmental assessment of the Vertical Coastal Access requirement: approval of this rail spur extension project would also mean approval of the vertical coastal access condition. This echoes the facts of *Tuolumne County*. Evidently, the public must also be protected from the rail transport of hazardous materials, as well as the facility's partial refining and storage of those same hazardous materials. Not only was the need for the rail spur clearly foreseeable at the time of the throughput expansion, but the linked projects also implicate greater and significant environmental impacts of transporting and refining tar sands at the SFR. The two projects are piecemealed and integral to this greater design.

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[48] San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus, 27 Cal.App.4th 713, 729 (1994).
[49] *See eg.* DEIR at 2-29.
[50] S*ee* Fox Rodeo Report at 6, citing Throuput Project DEIR at ES-4, 2-25.
[51] RDEIR at 2-35.
[52] RDEIR at 2-32, 2-36.
[53] *See eg.* Tables 4.3.6, 4.3.7, 4.3.26.
[54] *Tuolumne County*, 155 Cal. App. 4th at 1214.
[55] *See* RDEIR at ES-17.

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(ii) The Phillips 66 Rodeo Refinery is Dependent on this Project.

> "Tar sands crudes are heavier and more viscous than the feedstock currently processed at either Rodeo or Santa Maria. These crudes are thus commonly blended with 25% to 30% diluent to facilitate transporting them by rail or pipeline. The blended crude is known as a "DilBit." The diluent is typically natural gas condensate, pentanes, or naphtha. The diluent can be readily separated and recovered as propane/butane at Rodeo."[56]

The Santa Maria Refinery Throughput Increase and Rail Spur Extension projects are intricately related to the propane/butane recovery project currently proposed at the company's Rodeo Refinery. The Rodeo project recovers propane and butane from the refining of crude oil at both Rodeo and Santa Maria.[57] The throughput increase at Santa Maria would necessarily be included in the streams from which propane and propane/butane would be recovered at the Rodeo Refinery and this increase would have been anticipated when the propane/butane project was being planned as the Land Use Application for the Santa Maria throughput increase project was filed in 2008, well in advance of the propane/butane project at Rodeo, the application for which was filed in 2012. An increased throughput of tar sands would arrive at the Santa Maria facility by rail, be converted into semi-refined products in the Santa Maria facility's distillation units and coker to yield gas oil and naptha, which would then be sent to the Rodeo facility, where propane and butane would be separated, contributing to the propane/butane slated for recovery by the Rodeo Propane Recovery Project.[58] CBE-09

In addition, the Throughput Increase Project anticipates a 10% increase in throughput capacity, and therefore butane and propane feedstocks.[59] Even with the throughput increase, a discrepancy between the amount of propane and butane projected and currently recovered still exists, and is quite large, perhaps explained by the company's anticipated recovery and use of propane and butane-rich diluent in Canadian tar sands crude.

> In fact, most all of the cost-advantaged crudes flooding into the market will allow the Santa Maria facility to produce propane/butane rich, semi-refined products and the Rodeo Refinery to recover more propane and butane from them than available in their baseline crude slates.[60]

Moreover, this implicates direct transport of tar sands crude from the Santa Maria facility to the Rodeo facility by pipeline. This possibility is not precluded by the RDEIR's assertion that, "no crude oil or refined product would be transported out of the refinery by rail."[61] Further,

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[56] Fox Rodeo Report at 7.
[57] *See* Karras and Fox Rodeo Reports and Karras and Fox Revised Santa Maria Reports.
[58] *Id.*
[59] Fox Rodeo Report at 6, citing Throughput Increase Project EIR.
[60] Fox Revised Santa Maria Report at 6.
[61] RDEIR at ES-5.

some tar sands crudes are classified as a semi-refined product,[62] and therefore not relevant to that assertion.

Another link between the import of tar sands dilbit oils at Santa Maria for processing and the Rodeo project involves solving the problem of the disposition of the diluent used to transport the bitumen in these dilbits. Generally, plants that, like Santa Maria's, are not configured to process light crude in any quantity may need to consider disposing of the (very light) diluent, which may, for example, simply be returned for reuse as diluent in future dilbit imports. While such a solution may be economic for pipeline delivery systems it could be quite costly, and hazardous, if the diluent is returned by rail. However, this same diluent is LPG-rich, and presents an opportunity to increase the amount of propane and butane that could be recovered at Rodeo.[63] Furthermore, the refining of dilbits yields much greater amounts of naphtha, "the lighter component of the pressure distillate sent to Rodeo and one of the feedstocks for propane recovery."[64] The Rodeo project, by allowing Phillips to recover and sell that (LPG) portion of the diluent, could significantly improve the cost structure of the "Advantaged Crude" strategy to be implemented by the Project.

The RDEIR attempts to provide information to contradict the interdependence of the two parts of the SFR. The RDEIR alleges that, as vapor "pressure limits (of tanks that store naphtha and gas oil) restrict the amount of propane/butane that can be contained in naphtha and gas oils," and, "additional butane and or propane would cause the products to exceed the vapor pressure limits of the storage tanks," suggesting that there is no link between this Project and the Rodeo project.[65] The RDEIR attempts to bolster this claim by asserting that it historically and currently operates near these limits, prohibiting any potential increased propane/butane transport to Rodeo.[66] These assertions, however, are incorrect and wrong.[67] Rather, there are either no such vapor pressure limits on the subject tanks, or the materials stored in them have a vapor pressure far below their permitted levels.[68] In addition, the RDEIR fails to contain any support whatsoever for these propositions, which cannot meet CEQA's threshold requirement of substantial evidence.[69] "In sum, the claims made in the RDEIRs in an attempt to decouple the Santa Maria Rail Spur Project and the Rodeo Propane Recovery Project based on vapor pressure limits have no merit."[70]

CBE-09 cont

Evidently, plenty of "telling evidence" exists regarding the intimate connection between the proposed Project, the Throughput Increase Project and the Propane Recovery Project. The facts are again analogous to *Laurel Heights I* and the *San Joaquin Raptor* case: the Rodeo Project depends on the projects at the Santa Maria Facility and vice versa. Consequently, these

[62] Fox Rodeo Report at 6.
[63] Fox Revised Santa Maria Report at 7.
[64] *Id*. at 8, citing RDEIR for the Propane Recovery Project at 3-6.
[65] *Id*. at 2.
[66] *Id*.
[67] *Id*.
[68] *Id*.
[69] *Id*. at 3.
[70] *Id*. at 11.

are connected actions that must therefore be analyzed concurrently with the direct and cumulative impacts of the proposed Project itself under a programmatic EIR assessment.[71]

Finally, under CEQA, even assuming, arguendo, that the Rodeo Propane Recovery project is not an integral part of this proposed Project, the RDEIR still failed to adequately discuss the Rodeo project, and should at a minimum have discussed the need to recover propane or butane from sources facilitated by the rail spur expansion.[72] The company's ownership of the pipeline gives the company proprietary rights and ownership of all shipments. The impacts are cumulatively considerable and should have been assessed in the RDEIR. CBE-09 cont

(iii) Both the Rail Spur Extension Project and the Propane Recovery Project Lack any Independent Utility.

Under California law, where one part of an arguably larger project serves some "independent utility," the lead agency may focus solely on that smaller part of the project.[73] For the reasons detailed above, however, this Project, the rail spur extension, bears no independent utility. The project is piecemealed and the County should review the overall impacts, especially the cumulative impacts, of the larger project. CBE-10

III. THE RDEIR'S PREEMPTION ASSERTIONS PRECLUDE A MEANINGFUL ANALYSIS OF PROJECT IMPACTS.

The DEIR erroneously purports that mitigation is preempted by federal law, thereby avoiding critical measures to abate the hazards and impacts of increased crude by rail transport through California Communities.

The RDEIR states that:

> The operation of unit and manifest trains to and from the Rail Spur Project Site would be performed by UPRR, on UPRR property, and on trains operated by UPRR employees. The movement of those trains within San Luis Obispo County to and from the Project Site … may be preempted from local and state environmental regulations by federal law under the Interstate Commerce Commission Termination Act of 1995 … the County as CEQA Lead Agency, and other state and local responsible agencies may be preempted from imposing mitigation measures, conditions or regulations to reduce or mitigate potential impacts of UPRR train movements on the mainline.[74]

Similar statements to this effect are repeated throughout the RDEIR.[75] CBE-11

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[71] CEQA Guidelines, § 15378, subd. (a) agency must evaluate the environmental impacts of the whole of the action.
[72] *Laurel Heights I*, 47 Cal.3d at 398 (requiring discussion "in at least general terms" of future activity in connection with a project, even if the project is contingent on uncertain occurrences).
[73] Del Mar Terrace Conservancy, Inc. v. City Council of San Diego, 10 Cal. App. 4th 712 (1992).
[74] EIR at ES-22.
[75] *See, e.g.*, RDEIR at ES-6, 1-7, 1-8, 2-2, 4-1. The EIR correctly states that mitigation addressing impacts, including air emissions, within the SMR facility boundaries can be mitigated because Phillips 66 controls and operates the facility property. EIR at ES-9; 4.3-5. *See Town of Milford, MA – Petition for Declaratory Order*, STB F.C.C. No.

With little justification or analysis, the RDEIR concludes on several occasions that the impacts of the proposed project will be "significant and unavoidable" because mitigation required by the County as it applies to the mainline and UPRR locomotives may be preempted and therefore unenforceable. The RDEIR reaches the "significant and unavoidable" conclusion based on preemption for a range of impacts caused by the project. Specifically, the RDEIR states that the following mitigation measures could be preempted by federal law:

- Measures to improve emergency response and oil spill clean-up along the mainline to reduce impacts to adjacent agricultural crops, sensitive biological and cultural resources, and ground and surface water resources.[76]
- Mitigation measures imposed along the mainline tracks addressing emergency responder notification and training.[77]
- Mitigation measures to require the use of Tier 4 locomotives outside the SMR property to address emissions from locomotives, including cancer-causing toxic emissions, which will result in exceedances of air district thresholds along the mainline.[78]
- Mitigation measures that would reduce greenhouse gas emissions associated with locomotives outside the SMR property.[79]
- Mitigation addressing tank car design safety applied to the mainline and UPRR locomotives by the County.[80, 81]

CBE-11 cont

For the following three reasons, the RDEIR's analysis is inadequate and too limited to provide any proper or suitable mitigation.

1. The Interstate Commerce Commission Termination Act Preemption is Not Unlimited.

34444, 2004 WL 1802301, at *2 (S.T.B., Aug. 11, 2004)(when railroads involvement in rail terminal transloading facility owned by a third party is incidental to terminal operations, STB has no authority, [therefore state has full authority over CEQA review of the proposed SMR project]); *High Tech Trans, LLC – Petition for Declaratory Order*, STB F.D. No. 34192, 2003 WL 21952136, at *1 (S.T.B., Aug. 14, 2003)(railroad delivered cars, but transloading facility owned and operated by a non-railroad third party).

[76] EIR at ES-8; ES-10; ES-14; 4.4-47, 48; 4.5-15; 4.7-63; 4.8-26; 4.13-28.

[77] EIR at ES-13; 4.4-47, 48; 4.11-29, 32.

[78] EIR at ES-9; 4.3-5, 48, 50, 56, 63, 67, 68, 75, 76; 5-44, 48.

[79] EIR at ES-9; 4.3-71, 77.

[80] EIR at ES-11; 4.4-47, 48; 4.13-28; 5-48; 51.

[81] The EIR cannot simply rely on the U.S. Department of Transportation's rulemaking to ensure safer tank car designs will serve the project and reduce the hazards of crude by rail transport. That rulemaking proposes several alternatives for new tank car designs, which reduce risks of crude by rail transport to varying degrees, and that rulemaking has not yet been finalized. Therefore, there is significant uncertainty about the degree of safety and risk reduction that will result from the final rule. Moreover, implementation of a final rule, including a phase out of the most dangerous tank cars including DOT111s and unjacketed CPC-1232s, may take as long as six years. As such, the safety benefits of the proposed rule will not materialize until long after the proposed SMR project would begin operation. In the meantime, the U.S. DOT estimates that under the current rail infrastructure network, 15 mainline accidents spilling crude will occur each year and at least one disastrous incident at least as large as Lac Megantic will occur every two years.

Simply concluding that mitigation may be unenforceable and the project's impacts are "significant and unavoidable" because mitigation may be preempted by federal law is a misinterpretation of the intersection between CEQA and ICCTA. As such, failing to require and enforce mitigation is an abdication of the County's responsibilities under CEQA.

The Interstate Commerce Commission Termination Act gives the Surface Transportation Board economic regulatory oversight over the railroad industry, including rates; service; the construction, acquisition and abandonment of rail lines, carrier mergers; and interchange of traffic among carriers.[82] Although the ICCTA provides exclusive authority by the Surface Transportation Board over many aspects of rail transport, the scope of that preemption authority is not limitless.[83] Citing decisions from federal appellate courts, the *Humboldt Baykeeper* court reiterated that ICCTA preemption applies only to state laws "with respect to regulation of rail transportation."[84] CBE-12

Moreover, state and local entities can implement railroad safety regulations or measures if they are necessary to eliminate an "essentially local safety hazard," and are not incompatible with federal regulations, or unduly burden interstate commerce.[85] Importantly, a state or local requirement must not impact an activity that is integral to railroad operations and must not impose a significant burden on railroad operations.

Courts also have concluded that the ICCTA does not preempt CEQA.[86] Nor does CEQA, which is an informational statute, "unreasonably interfere with interstate commerce."[87] CEQA, which does not regulate rail transportation, is an environmental review law of general application that applies to projects in California that may have a significant effect on the environment. CEQA requires that significant impacts of a project be mitigated if reasonably feasible. A local

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[82] 49 U.S.C. § 10101 *et seq.*

[83] *Humboldt Baykeeper v. Union Pacific RR*, 2010 WL 2179900, *2(N.D. Cal. May 27, 2010).

[84] *Id.* ("ICCTA preemption only displaces "'regulation,' i.e., those state laws that may reasonably be said to have the effect of 'managing]' or 'governing]' rail transportation" and permits "the continued application of laws having a more remote or incidental effect on rail transportation."); s*ee e.g., Fla. E. Coast Ry. Co. v. City of West Palm Beach*, 266 F.3d 1324 (11th Cir. 2001)(application of local zoning and occupational license ordinances against a company leasing property from a railroad does not constitute "regulation of rail transportation" and is not preempted by the ICCTA); *Flynn v. Burlington Northern Santa Fe Corporation*, 98 F. Supp. 2d 1186, 1189-90 (E.D. Wash. 200)(noting that "ancillary railroad operations" such as "truck transfer facilities" are not subject to federal preemption); *Californians for Alternatives to Toxics v. N. Coast R.R. Auth. Et al*, 2012 WL 1610756 (N.D. Cal., May 8, 2012).

[85] 49 U.S.C. 20106(a). *See, e.g., Southern Pacific Transportation Company v. Public Utility Commission of the State of Oregon*, 9 F.3d 807, 812 (9th Cir. 1993); *State of Washington v. Chicago, Milwaukee, St. Paul and Pacific Railroad Company*, 79 Wn.2d 288 (Wash. 1971)(upholding local regulation forbidding the operation of engines without modern spark plug arrestors to prevent fires which are characterized as an essentially local safety hazard). *Flynn v. Burlington N. Santa Fe Corp. (BNSF),* 98 F. Supp. 2d 1186, 1189 (E.D. Wash. 2000) (local authorities can exercise their police powers to protect local community health and safety).

[86] *Humboldt Baykeeper v. Union Pacific RR*, 2010 WL 2179900, *2(N.D. Cal. May 27, 2010); *Town of Atherton v. California High-Speed Rail Auth.,* 228 Cal. App. 4th 314, 330-31, 175 Cal. Rptr. 3d 145, 159-60 (2014) (relying on market participant doctrine); and s*ee generally Ass'n of American Railroads v. South Coast Air Quality Management District*, 622 F.3d 1094, 1097 (9th Cir. 2010). *But see Friends of the Eel River v. N. Coast R.R. Auth.* (Sept. 29, 2014, !st Dist. Ct. App., Case No. A139235), *available at* http://www.courts.ca.gov/opinions/documents/A139222.PDF.

[87] *Id.*

government's environmental and health policy goals to achieve efficient and safe market participation are perfectly acceptable policies through which to enforce mitigation measures that abate the externalities of increased volatile and toxic crude by rail service through communities.[88]

CBE-12 cont

Without analysis, the RDEIR erroneously concludes that mitigation along the mainline is infeasible because it may be preempted. However, a factual assessment of the Project's proposed mitigation, which is absent from the RDEIR, demonstrates that mitigation measures to abate serious local and regional air quality problems and to adequately prepare for local emergency response and spill planning do not "unreasonably interfere with railroad transportation" and therefore are not preempted.[89]

2. CEQA Mitigation is Necessary to Abate Serious Public Health and Safety Impacts Posed by the Project and is not Preempted by the ICCTA.

Proposed mitigation along the mainline directly addresses the local safety and environmental threats posed by the movement of hazardous crude by rail through communities. In particular, the burden of increased air pollution emissions from locomotives and tank cars—including volatile organic compounds and cancer-causing toxic air pollutants—on communities already adversely impacted by poor air quality present a significant local safety concern. Environmental justice communities along the mainline rail route including Richmond, Oakland, and Martinez, and cities throughout California's Central Valley already experience increased adverse health effects from poor local air quality, making mitigation of locomotive air emissions even more critical. Accordingly, the mitigation of air emissions proposed in the RDEIR and other measures not proposed but urgently needed to limit VOC and GHG releases from tank cars must be required and enforced to abate the heightened health and safety risks created by multiple mile-long crude trains traveling through highly impacted communities.[90] Notably, mitigation of tank cars, all of which are owned by Phillips 66,[91] to prevent release of VOCs and greenhouse gases can be implemented even before the cars are handed off to UPRR for operation during transport.

CBE-13

Indeed, requirements of locomotives and tank cars to reduce dangerous air pollution along the mainline do not "deny [the] railroad the ability to conduct some part of its operations", nor does such mitigation interfere with matters "directly regulated" by the Surface Transportation Board, such as "construction, operation, and abandonment of rail lines; railroad mergers, line acquisitions, and other forms of consolidation; and railroad rates and service."[92] Moreover, such mitigation "can be obeyed with reasonable certainty" and avoid "extended or open-ended delays."[93]

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[88] *Town of Atherton v. California High-Speed Rail Auth.,* 228 Cal. App. 4th 314, 330-31, 175 Cal. Rptr. 3d 145, 159-60 (2014).
[89] *Id.* at 164.
[90] EIR at ES-9; 4.3-5, 48, 50, 56, 63, 67, 68, 75, 76; 5-44, 48.
[91] EIR at ES-5.
[92] *Town of Atherton v. California High-Speed Rail Auth.,* 228 Cal. App. 4th 314, 330-31, 175 Cal. Rptr. 3d 145, 159-60 (2014).
[93] *Green Mountain R.R. Corp. v. Vermont* (2nd. Cir. 2005) 404 F.3d 638, 643.

Similarly, mitigation addressing emergency response—including notification and training of first responders and coordinated oil spill clean-up and incident response planning—are critical measures that must be taken to address serious safety risks. These risks include risk of derailments and spills that threaten contamination of entire drinking water sources and destruction of downtown urban areas, as well as agricultural, cultural, and sensitive biological resources.[94] Indeed, the warnings by the National Transportation Safety Board and the record evidence in the U.S. Department of Transportation crude rail safety rulemaking demonstrate that crude by rail transport in DOT111 and unjacketed CPC 1232 tank cars (proposed for use in this project) is high risk. Damages from derailments, resulting in fires, explosions and spills are extremely damaging and costly to clean up. The risks are especially exacerbated for communities along the rail lines that bear the burden of catastrophic damages from accidents. These mitigation measures do not deny UPRR from continuing to provide service, nor do such measures "discriminate" or "unduly burden" rail transport serving the SMR project. Accordingly, these measures must be required and enforced to abate heightened local safety problems.[95, 96] CBE-13 cont

3. ICCTA Preemption is Improper because it Undermines a Local Government's Ability to Comply with other Federal Statutes.

Further, preemption by the ICCTA is improper because mitigation within the SMR facility and along the mainline is necessary to ensure compliance with other federal statutes such as the Clean Air Act and Clean Water Act.[97] Specifically, air pollution mitigation to reduce toxic cancer-causing emissions must be required to ensure Clean Air Act pollution thresholds are not exceeded.[98] In addition, much of California is nonattainment for state and federal Clean Air Act ozone and PM2.5 standards. The cumulative impacts of locomotives supporting the many crude by rail projects proposed or in operation in the state would significantly interfere with compliance of Clean Air Act ozone and PM2.5 standards as well as meeting Regional Haze requirements.[99] As such, absent mitigation on locomotive emissions, the additional air pollution from trains serving the proposed project would impede compliance with these federal standards. CBE-14

Further, oil spill response planning, including training and notification, is necessary to fulfill local governmental responsibilities under the Clean Water Act. The federal statute, amended in 1990 by the Oil Pollution Act, includes mandates that preserve the authority of state and local governments to impose additional oil spill prevention and clean-up requirements.[100] Accordingly, mitigation measures that advance the Clean Water Act's mandates of oil spill

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[94] EIR at 4.5-14; 4.7-63; 4.13-28.
[95] *Id.* at 160,162.
[96] The DEIR must not simply rely on California law AB861 for additional forms of emergency response mitigation as that law is under attack by the rail industry and the subject of a legal challenge. Moreover, that law does not address the particular safety needs of individual communities and water sources along the mainline. As such, additional mitigation measures addressing local emergency response and spill prevention must be required.
[97] *Flynn v. Burlington N. Santa Fe Corp. (BNSF),* 98 F. Supp. 2d 1186, 1189 (E.D. Wash. 2000).
[98] EIR at 4.3-50.
[99] *See* http://www.arb.ca.gov/desig/desig.htm. In addition, the California compliance plan for Regional Haze under the Clean Air Act includes phasing in new locomotive engines. *See* Table 1 of: Progress Report at: http://www.arb.ca.gov/planning/reghaze/progress/carhpr2014.pdf.
[100] 33 U.S.C. § 1321(o)(1)-(2).

prevention and effective response are necessary and enforceable in communities directly impacted by crude transport servicing the proposed project.

In sum, while the ICCTA may preempt some state laws and regulations, it is not a blanket preemption that applies to every state law or regulation that touches on railroads in any way. The RDEIR has unlawfully dismissed critical mitigation measures to protect the public health, safety and environment of California communities directly impacted by the proposed project. The RDEIR does not cite any authority that supports the position that CEQA mitigation is preempted by ICCTA. The RDEIR's statements of federal preemption are overly broad and simplistic, and fail to recognize the nuance in preemption questions, especially when state police power to protect the public health and safety are involved. Consequently, the RDEIR's analysis has not satisfied the legal requirements under CEQA for "significant and unavoidable" impacts. These flaws compound the many other inadequacies of the RDEIR's impacts analysis as detailed immediately below. CBE-14 cont

IV. THE DEIR'S ANALYSIS OF AND MITIGATION FOR THE IMPACTS OF THE PROPOSED PROJECT ARE INADEQUATE.

In order to effectuate the fundamental purpose of CEQA, it is critical that an EIR meaningfully inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made."[101] Only with a genuine, good faith disclosure of a proposed project's components, can a lead Agency analyze the full range of potential impacts of the project, identify, and implement mitigation measures where necessary, prior to project approval.[102]

Nevertheless, because the RDEIR still fails to include integral project components and the SFR's overall switch to tar sands in its analyses, the RDEIR still asks the wrong questions, diminishing or even foreclosing an analysis of the Project's environmental impacts, even those it determines to be significant. In several of those instances, the RDEIR lacks the necessary detail to verify the validity of its analyses. Consequently, the RDEIR fails to include a sufficient analysis of the Project's impacts as required by CEQA.[103] These include significant and unmitigated impacts to: air quality, public and worker health and safety, water quality and supply, agriculture, biological resources and the local community in the Nipomo Mesa area. CBE-15

A. The DEIR Fails to Adequately Analyze and Mitigate the Project's Air Quality Impacts.

The RDEIR's analysis of the Project's criteria pollutant impacts is riddled with errors. CBE-16

[101] *Laurel Heights Improvement Ass'n v. Regents of University of California* (1993) 6 Cal. 4th 1112, 1123; CEQA Guidelines § 15126.2(a) ("[a]n EIR *shall* identify and focus on the significant environmental effects of the proposed project") (emphasis added throughout).

[102] Pub. Res. Code § 21002 (public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects); Guidelines § 15126.4.

[103] *See*, *Laurel Heights Improvement Assn. v. Regents of Univ. of California, supra,* 47 Cal.3d, at 400 (*quoting* Pub. Resources Code § 21002.1(a); and Guidelines 15002(a)). *See also*, *Communities for a Better Environment v. Richmond, supra*, 184 Cal.App.4th, at 89 (an "EIR must include forseeable change in crude processed as part of environmental and impacts analysis.").

We highlight several: first, the EIR relies on an inadequate study area and therefore underestimates the Project's potential to result in a substantial increase in criteria pollutant emissions. Second, the RDEIR's analysis is predicated on a vague, faulty and illegal baseline. Third, the RDEIR's analysis ignores any increase in toxic or hazardous air pollutants from the increased refining of tar sands. Fourth, the RDEIR does not analyze all of the project's components. Fifth, the Project's climate change implications are completely underestimated. Sixth, the RDEIR's analysis relies on an illegal use of Emission Reduction Credits. Finally, the EIR fails to properly address emissions from construction activities. The end result is that the Project will result in significant air quality impacts that the EIR fails to identify or mitigate. CBE-16 cont

(i) The DEIR Incorporates an Inadequate Study Area.

The study area of an EIR must include "the area which will be affected by a proposed project."[104] There is no predefined geographic limit to where impacts can occur, and it is well established that "the area that will be affected by a proposed project may be greater than the area encompassed by the project itself."[105] This broad understanding of the geographic scope of an EIR's analysis is essential, and "the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area."[106]

The RDEIR still substantially underestimates the Project's increase in greenhouse gas ("GHG") and criteria air pollutant emissions because it relies on an artificially and unnecessarily constrained study area. The DEIR's air impact analysis is unnecessarily limited to the immediate vicinity of the Rail Spur.[107] Our prior comments[108] made this same observation. The RDEIR attempts to ameliorate the deficiency by employing significance criteria from the SLOCAPCD CEQA Air Quality Handbook.[109] The Handbook, however, emphasizes the necessity for a "complete and accurate project description," and full disclosure of potential air pollutants and toxic air contaminants."[110] The RDEIR cannot use the Handbook as any measuring stick until it adequately discloses the full scope and impacts of this Project. CBE-17

Furthermore, as noted throughout this comment, the air quality impacts of the Project will regularly extend far beyond the county line. By artificially limiting the geographic scope of the analysis to air pollutants emitted within the boundaries of San Luis Obispo County, the RDEIR substantially underestimates the significant air quality impacts of refining tar sands at the SFR. The RDEIR should be revised to evaluate these Project emissions that occur in and outside of the County, and to discuss mitigation for those emissions.

(ii) The DEIR Uses an Inappropriate Baseline Environmental Setting, Rendering its Air Quality Analysis Unreliable.

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[104] *See* Cal. Pub. Res. Code § 21060.5 (defining "environment" as "the physical conditions that exist within the area which will be affected by a proposed project").
[105] *Save the Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155, 173.
[106] Muzzy Ranch Co. v. Solano Cnty. Airport Land Use Com. (2007) 41 Cal. 4th 372, 387.
[107] RDEIR at 4-2.
[108] *See* Attachment C.
[109] RDEIR at 4.3-33.
[110] *See* SLOCAPCD CEQA Air Quality Handbook at 1-3.

The RDEIR's baseline is vague. It is not clear what baseline the RDEIR uses, but to any degree, relies on permitted levels. This reliance on permit limitations instead of actual emissions to establish baseline air quality is a clear violation of CEQA. This precise discrepancy was at issue in *Communities for a Better Environment v. South Coast Air Quality Management District*, where the Supreme Court rejected the Air District's argument that permit levels should be used to establish the baseline.[111] The Air District argued that for a project employing existing equipment, the baseline should be the maximum permitted operating capacity of the equipment, even if the equipment is operating below those levels when the Notice of Preparation is issued.[112] The Supreme Court rejected the District's illegal permit based approach, and clarified the need for the proper assessment of baseline for review under CEQA.[113] The County should similarly reject the RDEIR's use of a vague and illegal baseline that also employs measurements from another piece of the same larger project, further corroborating that this Project is piecemealed. CBE-18

(iii) The DEIR Fails to Identify or Mitigate Additional Impacts of Emissions Resulting from the Project's Change in Crude Slate.

The RDEIR fails to analyze the increase in Toxic Air Contaminants ("TACs") and Hazardous Air Pollutants ("HAPs") from refining tar sands. As mentioned throughout this comment, the expert reports, and the comments and expert reports to the DEIR, tar sands crudes are distinct from even the heaviest of crudes processed in the past at the SMR, for two principal reasons: (1) the unique chemical composition of the bitumen itself; and (2) the presence of large quantities of volatile diluent containing high levels of VOCs, TACs and HAPs. When released, these air pollutants cause significant public health and air quality impacts that are inadequately addressed in the RDEIR.[114] CBE-19

TAC and HAP emissions in "DilBit"

Tar sands crudes alone are comprised of higher molecular weight chemicals than the current slate processed at the SMR, including large amounts of benzene, toluene, ethyl-benzene, xylenes,[115] and other heavy metals such as lead. These chemicals are found in both state and federal toxic emissions inventories, and are, therefore, of particular concern to both federal and state regulatory agencies.[116] As stated in CBE's Comments to the DEIR, the U.S. Geological Survey reports that "natural bitumen," the source of all Canadian tar sands-derived oils, contains 102 times more copper, 21 times more vanadium, 11 times more sulfur, six times more nitrogen, 11 times more nickel, and 5 times more lead than conventional heavy crude oil.[117] CBE-20

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[111] *Communities for a Better Env't v. S. Coast Air Quality Management District* (*CBE v. SCAQMD*) (2010) 48 Cal. 4th 310.
[112] *CBE v. SCAQMD*, 48 Cal. 4th at 320.
[113] *Id.*
[114] To the extent the RDEIR fails to cure errors regarding the Project's public health impacts, raised by CBE in its comment to the DEIR, the same comments are hereby incorporated by reference.
[115] Together referred to as "BTEX" compounds.
[116] *See, e.g.*, United States EPA, Clean Air Act 1990 List of Hazardous Air Pollutants, available at: http://www.epa.gov/ttn/atw/orig189.html, last accessed on Jan 26, 2014; *see also*, California Air Resources Board Toxic air Contaminant Identification List, available at: http://www.arb.ca.gov/toxics/cattable.htm#Note 1, last accessed on Jan 26, 2014.
[117] *See*, Fox Report to DEIR.

When blended with the diluents, tar sands "dilbit" crudes contain even higher concentrations of BTEX compounds, which have a significantly high potential to be released by way of transport and process related emissions that also remain underestimated in the RDEIR. These contaminants can cause severe impacts on the environment, and can lead to grave human health problems. Moreover, because diluents also have a notably low molecular weight, and a high vapor pressure, they are highly prone to cause fugitive, gaseous releases by increasing vapor pressure in various refinery operation components throughout the SFR, including rail cars and pipelines used for transport to and between the Santa Maria and Rodeo facilities.[118] CBE-20 cont

Potential and Known Public Health Impacts

Despite the known severe health effects of the HAPs including BTEX compounds present in "DilBit" crudes, the RDEIR incorporates a number of assumptions and flawed emissions estimates that lead to a faulty analysis of the range of significant impacts from their release into the environment, and as a result the RDEIR fails to state adequate mitigation.[119] While the RDEIR now acknowledges the shift in the overall crude slate that will be enabled by the Project, and discloses the fact that Phillips 66 currently processes only a small portion of Canadian tar sands crudes,[120] the document still fails to address potentially severe impacts from Project emissions including the range of potential health impacts from known carcinogens and other harmful pollutants; acid rain; bioaccumulation of the toxic contaminants contained in the Project's potential emissions; the formation of ground-level ozone and smog; visibility impairments; odor impacts affecting residents near the Refinery; accidental releases due to corrosion of refinery equipment; and depletion of soil nutrients.[121] CBE-21

As discussed in CBE's comments on the DEIR, benzene alone has notably high cancer potency, and is known to cause severe reproductive, developmental and immune systems impacts at even low exposure levels.[122] Systemic benzene poisoning, a long term exposure risk, includes the potential for severe hemorrhages, and may at times result in fatality.[123] Concentrated, acute exposure levels have also been known to cause headaches, and nausea.[124] While less information is available relating to longer term systemic and acute exposure levels to ethylbenzene, toluene and xylene, in California, the toxicity and risk levels of the three are currently under CARB scientific review.[125]

Flaws in the RDEIR's Analysis of Impacts to Public Health

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[118] *See* Fox Report to DEIR, at 22 (explaining that these contaminants are present in highly dangerous concentrations in "DilBits" as a result of their composition of both undiluted tar sands bitumen crudes and diluent mixtures.).
[119] RDEIR 4.3-59.
[120] RDEIR 2-33.
[121] *Id*.
[122] Determination of Acute Reference Exposure Levels for Airborne Toxicants, March 1999, Acute Toxic Summary, BENZENE, available at: http://www.oehha.ca.gov/air/acute_rels/pdf/71432A.pdf, last accessed, November 24, 2014.
[123] *Id*.
[124] *Id*.
[125] California Air Resources Board, Toxic Air Contaminant Identification List, available at: http://www.arb.ca.gov/toxics/cattable.htm#Note 1, last accessed, November 24, 2014.

While the RDEIR incorporates the Health Risk Assessment (HRA) conducted in the Environmental Review process and its relative cancer risk assessments, it fails to identify, analyze or mitigate, the associated, **non**-cancer causing, potentially severe public health risks resulting from both construction and operation of the project, and from both the transport and refining activities enabled Project operations.

The RDEIR assumes an increase of BTEX compound emissions at the SMR from 0.81 to 1.25%, and it defines and analyzes the scope as well as the relative significance of this increase in terms of "the probability of developing cancer" as a result of "exposure to a given chemical, at a given concentration."[126] By referring exclusively to the HRA to analyze the Project's impacts resulting from increased BTEX emissions,[127] the RDEIR concludes that the increase in BTEX levels at the facility affect both acute and chronic cancer risk levels only *minimally*, with a 0.03 and 0.002 increase in each, respectively, with the highest risk occurring at the SMR parcel boundary immediately south and west of the rail spur location due to diesel emissions from the rail spur operations, which the RDEIR further concludes is "not a significant impact because no residential receptors are located there."[128] Indeed, the highest cancer risk reported in the RDEIR, and the in the HRA occurs north of the facility primarily due to the current trucking diesel emissions at residential receptors.[129]

CBE-22

The RDEIR cannot solely rely on the HRA's assessment of relative cancer risk to determine the level of significance of potential TAC and HAP emissions, and provide adequate mitigation and the fact that is does so, violates CEQA's requirement to include a sufficient analysis of local, direct, indirect and cumulative impacts.[130]

As explained above, BTEX compounds known to be present in high concentrations in "DilBit" both in combination and each separately, present serious, non-cancer risks that must be independently analyzed. Moreover the RDEIR's analysis is focused on the areas directly adjacent to the Project area, precluding the document's analysis of increased public health risks caused by transport along the rail lines, and by refining at the Rodeo facility. The RDEIR must analyze and mitigate these impacts, as they are not otherwise analyzed for the purpose of meeting CEQA's requirements in the HRA.

The RDEIR further fails to state other, specific information necessary to assess the potential human health impacts from the Project, such as information regarding the concentration of diluents that will be present in those crudes, resulting in the public's need to guess, based on outside information, what an approximate mix of diluents to tar-sands bitumen might be. Readers of an EIR should not be forced to rely on outside research and resources to find important components of a thorough environmental analysis.[131] Information regarding the

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[126] RDEIR 4.3-60.
[127] *Id*.
[128] RDEIR 4.3-61 (emphasis added).
[129] *Id*.
[130] *See*, *Laurel Heights Improvement Assn. v. Regents of Univ. of California, supra,* 47 Cal.3d, at 400 (*quoting* Pub. Resources Code § 21002.1(a); and Guidelines 15002(a)).
[131] *San Joaquin Raptor Rescue Ctr. v. County of Merced* (2007) 149 Cal.App.4th 645, 649; *see also*, *California Oak Found. v. City of Santa Clarita* (2005) 133 Cal.App.4th 1219, 1239.

concentration of heavy metals, chemicals and organic compounds contained in the crude is critical to assessing the scope and extent of impacts from potential emissions caused by these crudes, and impacting public health in the areas surrounding the San Francisco Refinery facilities. While we may conjure the amount of diluents and tar sands blend used at the Refinery, through piecing together other data, it is a grave problem that the precise amount of diluents used to transport, store or otherwise process tar sands crudes arriving at the Santa Maria facility by rail is entirely omitted from the RDEIR analysis.

Moreover, the RDEIR fully omits any impact analysis for other harmful, air pollutants such as lead, which the California Air Resources Board (CARB) and the Center For Disease Control have identified as a pollutant for which there is no safe level of exposure.[132] Indeed, the RDEIR fails to even state a baseline level for the current level of lead emissions, upon which any additional increase must be measured. In comments to the DEIR, CBE pointed out that based on CARB's findings the increase in lead from switching even a minimal percentage of the Refinery's current crude slate to tar sands alone is a significant impact.[133] Yet the RDEIR continues to omit any mention of the Project's potential to drastically increase lead emissions, by shifting the Refinery's overall crude slate. The potential health impacts from led are, moreover, deeply concerning, as they can include serious, permanent neurological damage, particularly in children. The RDEIR's failure to identify, much less analyze or mitigate this category of known potential impacts stemming from the change in crude slate enabled by the project, therefore, highlights one, crucial example of the failings of the RDEIR, which must be corrected, in a revised, and re-circulated document.[134] CBE-22 cont

The RDEIR Fails to Identify, Analyze and Mitigate the Cumulative Impacts Caused by TAC and HAP Emissions at the Rodeo Refinery

Finally, because the Project's crude slate change will increase TAC and HAP emissions from **all** fugitive components in the Refinery, including both the Santa Maria and Rodeo facilities; through compressors, pumps, valves, fittings, and tanks, in far greater amounts than from the current baseline feedstock,[135] the RDEIR must analyze the range of potential impacts from this shift, in relation to both the Santa Maria and Rodeo facilities, as they together comprise the San Francisco Refinery. This failure to adequately analyze increased TAC and HAP emissions that stem from the physical and chemical composition of the crude imported to the SMR by way of the Project, and processed at the SFR, results in a critical omission of significant, public health impacts, and violates CEQA.[136] CBE-23

(iv) The DEIR Does Not Analyze Emissions from All of the Project's Components.

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[132] *Id*.
[133] *See* CBE Comment to DEIR.
[134] *See*, *Laurel Heights Improvement Assn. v. Regents of Univ. of California, supra,* 47 Cal.3d, at 400 (*quoting* Pub. Resources Code § 21002.1(a); and Guidelines 15002(a)).
[135] *See* Fox Comments.
[136] *See*, *County of Inyo v. City of Los Angeles*, (1977) 71 Cal. App. 3d 185.

The RDEIR fails to analyze all of the Project's components in two respects. First, the RDEIR shirks the lead agency's responsibility to mitigate emissions due to unpersuasive assertions of federal preemption of regulating locomotives. Second, the RDEIR's analysis is limited to those locomotives.

First, the RDEIR improperly dismisses mitigation measures on account of unpersuasive assertions of federal preemption. Specifically, a lead agency should not shirk responsibility to identify adequate mitigation measures on the sole basis of such an assertion. Rather, lead agencies must identify suitable mitigation measures, and not end an analysis because of a legal roadblock to but one of a menu of options for mitigation.

Second, the RDEIR still fails to assess emissions from all integral components of the Project. The RDEIR identifies operational emissions from "the operation of locomotives (both onsite and offsite), fugitive emissions from components and from the vapor recovery carbon canisters, and from vehicles associated with employees and the transportation of materials."[137] Most blatantly, this fails to assess the air quality impacts of the SFR as a whole, and includes neither an analysis of the emissions that will be caused at the Rodeo component as a result of the rail spur extension, nor the increased emissions of refining increased quantities of tar sands at the Santa Maria component.

CBE-24

CEQA requires that an EIR consider the impacts of a whole project, not simply its constituent parts, when discussing the environmental effects of the project.[138] As discussed *supra* in Part II, an essential element of this Project is a shift to a different-quality crude slate, and the Santa Maria Throughput Expansion, Rodeo Propane Recovery Project and this Project are at least three integral components of this piecemealed project. Consequently, this DEIR should include an analysis of the full scope of air quality impacts resulting from this larger piecemealed project, not just the impacts from the Rail Spur Extension Project.

In addition, because the DEIR does not disclose the scope of tar sands that will be brought to the SFR as a result of the rail spur expansion, the RDEIR cannot analyze the severe air quality impacts that will result from processing those increased quantities first at the Santa Maria facility, and subsequently the Rodeo facility. The refining of this different quality crude slate can be reasonably expected to require an increase in frequency and magnitude of flaring at Santa Maria, since dirtier crude processing would likely increase "malfunction" and "emergency" flaring.[139] Moreover, a malfunction or emergency upset causes the whole contents of one or more major process vessels to depressurize suddenly, and each flaring event can cause acute exposures to emitted pollutants.[140] Each of these flaring episodes comes with associated and extremely high levels of additional pollution that the RDEIR's analysis ignores.

In addition, the daily operation and refining of a different quality crude slate will result in increased daily emissions of pollutants, including many toxic/PM precursor/smog-forming air

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[137] RDEIR at 4.3-32.
[138] *See* CEQA Guidelines, 14 Cal. Code Reg. § 15003(h); *Citizens Assoc. for Sensible Degvelopment of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151.
[139] *See* Karras Rodeo Report.
[140] *Id.*

pollutants from burning more fuel per barrel to process the likely denser/dirtier crude feeds.[141] An increase in fugitive emissions and heightened concentrations of toxic VOCs can also be anticipated as a result of the higher pressure processing of denser crudes.[142] The RDEIR does not analyze these effects, either at the Santa Maria or Rodeo ends of the SFR, and consequently, also fails to discuss mitigation measures for these impacts.

CBE-24 cont

The environmental review of this Project presents a critical opportunity to engage in a genuine and thorough review of the full environmental impacts of this Project. By failing to analyze the emissions from all components of the larger project, the DEIR obfuscates the full extent of air quality impacts, and renders informed decision-making on this Project impossible.

(v) The RDEIR Fails to Adequately Analyze the Significant Climate Change Implications of this Project.

The RDEIR wholly underestimates the significant, and irreversible, effect that the project presents to climate change. Although the RDEIR makes references to the Intergovernmental Panel on Climate Change, it's references are outdated, and in fact contradicted by more updated reports. Specifically, the RDEIR fails to acknowledge the Intergovernmental Panel on Climate Change's recently voiced and serious concerns regarding the "irreversible" effects of climate change.[143] The report concluded that "continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts," calling for the need for dramatic cuts in pollution.[144]

CBE-25

In the face of that warning, the Project admits a climate change impact that is significant and unavoidable.[145] However, no intelligent weighing of whether to live with that impact is possible without first establishing the degree of that significant impact. The RDEIR underestimates even this significant impact. Not only does its analysis restrict the scope of impacts to generally locomotive and ancillary emissions, ignoring the climate change impacts of this larger tar sands project, but even that analysis is plagued with ambiguity and a failure to analyze alternative mitigation measures.

(a) The RDEIR Fails to Analyze All GHG Emissions from All Components of the Project.

As noted throughout this comment, the Project is piecemealed. In regards to climate change impacts, the RDEIR must disclose all of the SFR's GHG emissions that the Project will enable not only at the Santa Maria facility, but also at the Rodeo end of the facility. Moreover, as acknowledged by the RDEIR, the climate change impacts of refining are correlated to the

CBE-26

[141] *Id.*
[142] *Id.*
[143] *See eg.* "Effects of Climate Change "Irreversible"' available at http://www.washingtonpost.com/national/health-science/effects-of-climate-change-irreversible-un-panel-warns-in-report/2014/11/01/2d49aeec-6142-11e4-8b9e-2ccdac31a031_story.html?hpid=z1
[144] Report attached as Attachment D.
[145] RDEIR at 4.3-71.

quality of the feedstock refined.[146] Refining tar sands at the SFR, compared to refining the more traditional blend, creates far greater GHG emissions and therefore climate change implications. Until the RDEIR corrects its Project Description regarding the degree of shift to refining tar sands at the SFR, its analysis cannot provide any adequate analysis of the Project's, already determined as significant, impacts to climate change.

In addition, CEQA requires an EIR to consider both direct and indirect impacts of a proposed project.[147] Indirect impacts are those that are "caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable."[148] The scale of the Project's activities is large enough that off-site emissions could reasonably be affected. Moreover, the indirect nature of these wholly foreseeable off-site emissions cannot be ignored as "it is inaccurate and misleading to divide the project's air emissions analysis into on-site and secondary emissions for purposes of invoking the presumption the project will have no significant impact."[149] Thus, the RDEIR requires a sufficient analysis and discussion of these sources. For example, in *North Coast Alliance*, the lead agency's analysis of the identification of indirect sources of GHG emissions from electrical demand was found sufficient given that the agency conducted a thorough analysis of the project's demand on a utility's electricity generation and whether it would increase production at any fossil-fuel power plants.[150] CBE-26 cont

Similarly here, an inextricable link exists between the Santa Maria and Rodeo ends of the SFR. Just as it was foreseeable in *North Coast Alliance* that utility demand would be met, it is just as foreseeable, if not a certainty, that the Rodeo facility will exactly meet the demand of the Santa Maria facility's export by the pipeline, owned by Phillips 66, that connects the two facilities. The RDEIR fails to acknowledge the full scope of GHG emissions from the Project. By limiting the study of GHG emissions to largely locomotive and associated operations alone, but one component of the overall Project, the RDEIR omits entirely a significant portion of the emissions that will result from the Project, and thus vastly underestimates the Project's significant air quality impacts.

Emissions from the Rodeo facility include increased GHG emissions resulting from the processing of tar sands, as well as the off-site emissions from the propane and butane produced via the Propane Recovery Project and the off-site emissions associated with natural gas demand activities. The RDEIR must, at the least, identify these foreseeable activities and then adequately analyze and estimate how much the Project is likely to increase emissions from all of these sources, regardless of their location. At a minimum, the RDEIR must address these emissions as reasonably foreseeable cumulative impacts, as more fully addressed below.

(b) The RDEIR's Proposed Mitigation of Project GHG Emissions is Inadequate.

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[146] RDEIR at 4.3-70.
[147] CEQA Guidelines, 14 Cal. Code Reg. § 15358(a).
[148] CEQA Guidelines, 14 Cal. Code Reg. § 15358(a)(2).
[149] Kings County Farm Bureau v. City of Hanford (1990) 221 Cal. App. 3d 692, 717.
[150] North Coast Alliance v. Marin Mun. Water Dist. Bd. of Directors, 216 Cal.App.4th 614, 652 ("Based on this evidence, the EIR concluded the Project's energy demand would not result in an indirect increase in pollutant emissions.").

The RDEIR's proposal to mitigate all of the Project's increased GHG emissions is too vague, speculative, and a potentially illegal use of Emission Reduction Credits ("ERC's"). This is how the RDEIR proposes to mitigate the Project's potentially massive increase in GHG emissions:

> Mitigation Measure AQ-6: Prior to issuance of the Notice to Proceed, the Applicant shall provide GHG emission reduction credits for all of the project GHG emissions for the life of the project. Coordination with the San Luis Obispo Planning and Building Department should begin at least six (6) months prior to issuance of operational permits for the Project to allow time for refining calculations and for the San Luis Obispo Planning and Building to review and approve the emission reduction credits.

An ERC is a credit granted to a facility that voluntarily reduces emission beyond a certain required level of control; it then provides the authority to emit the regulated pollutant in an amount equal to that original reduction. One principle issue with ERCs is that these emission reductions may have been realized elsewhere from the project location. There may be no real emission reduction in the actual project area. Therefore, the cumulative impact of any emissions increases, addressed by such credit related mitigation measures, remains and goes wholly unanalyzed, along with the emission of any associated, and potentially also separately significant co-pollutants. This oversight of impacts to the most vulnerable sections of our population pervades the RDEIR. In addition, the RDEIR's proposed use of these ERCs is wholly vague. Its analysis hopes to avoid the use of additional ERC's to mitigate GHG emissions from locomotive operations, yet is unable to come to a conclusion of whether and how much would be necessary in order to do so. CBE-26

In addition, the RDEIR lacks any attempt to quantify the amount of GHG reductions that could be achieved by ERCs. Is it as simple as a 1:1 ratio/offset? The SLOCAPCD recommends using the CAlEEMod for mobile sources and a partial characterizariton of area source impacts. In cerain cases, it will also suggest alternative methods.[151] What method applies in this case? Regardless, the RDEIR must provide sufficient detail for the decision making body to at least determine whether an exclusively ERC method of mitigation is even feasible.

Also, as more fully detailed below, in 2007, Phillips 66 entered into a settlement agreement with the Attorney General to resolve a conflict over the GHG emissions that would result from a proposed Clean Fuels Expansion Project at the Rodeo Refinery. In this Agreement, Phillips 66 agreed that the ERCs issued by SLOCAPCD for the shutdown of one of its sources cannot be sold or transferred, and could only be used for modifications or expansions at the Santa Maria Refinery.[152] If those ERCs are used at the Santa Maria Refinery, Phillips 66 committed to "offset all GHG emissions that result from the use of the ERCs,"[153] either by GHG reductions at other Phillips 66 refineries or by permanently retiring AB 32 GHG credits. The additional requirements that the use of the ERCs—namely, complete offsetting of GHG emissions resulting from the use of the ERCs—are highly relevant to the air quality analysis in

[151] SLOCAPCD CEQA Handbook, 2012, at 3-14.
[152] Attachment F, Amendment to Settlement Agreement Between ConocoPhillips Company and the Attorney General of California, May 25, 2010..
[153] Attachment F, para. 4.

this RDEIR, and the analysis is incomplete and potentially misleading without including any discussion of this Settlement Agreement. The RDEIR must be revised to provide some adequate quantification of the feasibility of the use of ERCs to mitigate the GHG impacts of this Project. Otherwise, certification of this document would create additional administrative confusion and burden. Although the Attorney General has the authority to enforce those provisions at a later date, the RDEIR must disclose that and at least analyze a scenario of non-compliance, which it fails to do.

Furthermore, the RDEIR's focus and dependence on an overbroad and vague use of ERCs seems wholly misplaced when compared to the GHG mitigation measures proposed by the SLOCAPCD. Certainly, the RDEIR avails itself to the jurisdiction and certain thresholds estabilished by the SLOCAPCD. Despite that, however, the RDEIR chooses to ignore the SLOCAPCD's recommendations on GHG mitigation measures, instead opting for a more unstable option of pursuing ERCs. The SLOCAPCD recommendations include mitigation measures targeting energy efficiency.[154] In particular, the SLOCAPCD recommends onsite renewable energy systems and other community based, more local, solutions.[155] These mitigation measures are not only recommended, but feasible, will create more jobs, and are not plagued by the same environmental justice concerns as the mitigation proposed by the RDEIR. Any environmental review of this proposed Project must address these alternative forms of mitigation that prove more beneficial to the communities immediately and disproportionately already affected by the SFR. CBE-26 cont

(vi) The DEIR Inappropriately Relies on Emission Reduction Credits to Mitigate the Project's Significant Air Quality Impacts.

The Proposed Project will result in significant increases in emissions of criteria air pollutants (CAPs). The RDEIR proposes to mitigate these impacts by securing ERCs to offset any emissions over the applicable significance thresholds, in order to ensure that emissions "do not exceed the Air District thresholds for the life of the project."[156] The RDEIR proposes to acquire ERCs for ROG + NOx and DPM, both within San Luis Obispo County and outside of the county along the UPR mainline.[157] The RDEIR also intends to reduce toxic emissions below applicable threshold via ERCs.[158] Finally, the RDEIR proposes to mitigate GHG emissions below SLOCAPCD thresholds with GHG ERCs. Mitigation Measure AQ-6 provides that "the Applicant shall provide GHG emission reduction credits for *all* of the project GHG emissions for the life of the project."[159] CBE-27

(a) The RDEIR Provides Insufficient Information On Its ERC Mitigation Measure.

[154] SLOCAPCD CEQA Handbook, 2012, at 3-17 to 3-20, Table 3-5.
[155] *Id.*
[156] RDEIR at 4.3-53.
[157] RDEIR at 4.3-47 (Mitigation Measure AQ-2a), -53 (Mitigation Measure AQ-3).
[158] RDEIR at 4.3-63 (Mitigation Measure AQ-4), -67 (Mitigation Measure AQ-5).
[159] RDEIR at 4.3-71 (emphasis added).

For ROG + NOx, DPM, and GHGs, the RDEIR's mitigation measures provide that Phillips 66 will be required to secure or provide emissions reduction credits sufficient to bring the Project's emissions below the applicable significant thresholds. However, this is all of the information that the RDEIR provides about the ERCs. The RDEIR does not provide any further information about what ERCs the facility already possess, the quantity of ERCs that may be required, or where ERCs might be acquired from.

The RDEIR does not provide any further information about the quantity of ERCs that might be required to fully mitigate each pollutant, the quantity of ERCs that Phillips 66 already has in the SLOCAPCD bank, or whether Phillips 66 would have to purchase banked ERCs from another certificate holder. The RDEIR does not discuss the offset ratio, in order to determine the number ERCs that would be required to offset each ton of CAP emissions. The RDEIR does not identify the specific ERCs that it plans to use, which makes it impossible to determine whether the ERCs have limitations on use.

Importantly, the RDEIR does not make any mention of the existing settlement agreement between Phillips 66 and the California Attorney General that limits the Refinery's use of ERCs. In 2007, Phillips 66 (then ConocoPhillips) entered into a settlement agreement with the Attorney General to resolve a conflict over the GHG emissions that would result from a proposed Clean Fuels Expansion Project at the Rodeo Refinery. In this Agreement, Phillips 66 committed to permanently surrender the operating permit for the calcining plant at the Santa Maria Refinery, in order to reduce Phillips 66's GHG emissions in California.[160] In a 2010 Amendment to the Agreement, Phillips 66 agreed that the ERCs issued by SLOCAPCD for the shutdown of the calclining plant (ERC Certificate No. 1318-Z1) cannot be sold or transferred, and could only be used for modifications or expansions at the Santa Maria Refinery.[161] If those ERCs are used at the Santa Maria Refinery, Phillips 66 committed to "offset all GHG emissions that result from the use of the ERCs,"[162] either by GHG reductions at other Phillips 66 refineries or by permanently retiring AB 32 GHG credits. Phillips 66 is also required by the terms of the Settlement Agreement to notify the Attorney General "when it submits an application for a project at the Santa Maria Refinery that *may* use all or a portion of the ERCs."[163] The RDEIR does not specify whether these credits will be used in this Project, nor does it specify whether the Attorney General has been notified of the potential use of these credits. The additional requirements that the use of the ERCs on Certificate No. 1318-A1 would trigger—namely, complete offsetting of GHG emissions resulting from the use of the ERCs—are highly relevant to the air quality analysis in this RDEIR, and the analysis is incomplete and potentially misleading without including any discussion of this Settlement Agreement.

CBE-28

Furthermore, the RDEIR makes no commitment to or mention of the permanent retirement of ERCs, and instead proposes to "acquire" or "provide" offsets. Without a commitment to the permanent retirement of ERCs, the mitigation achieved by ERCs would be illusory. The Refinery could simply hold on to the ERCs, and later sell or transfer them, thus allowing emissions levels to increase above this Project's baseline. Phillips 66 must commit to

[160] Attachment F, Exhibit A, para. 1.a.
[161] Attachment F.
[162] *Id.* at para. 4.
[163] *Id.* at para. 7 (emphasis added).

permanently retiring any ERCs that it uses for mitigation in order to ensure that actual, on-the-ground emissions are reduced. CBE-28 cont

(b) Using Credits to Mitigate CAP Emissions Would In Fact Increase Emissions in San Luis Obispo County and Along the UPR Main Line.

ERC retirement fails to actually mitigate emissions. ERCs represent emission reductions that were made in the past. Thus, the retirement of an ERC today has no impact on actual emissions today. Instead, the retirement of an ERC represents the prevention of a future emissions increase, and a region-wide, "on paper" decrease in allowable emissions levels.

However, CEQA is not concerned with impacts "on paper," but instead with actual, on-the-ground impacts on human health and environmental quality.[164] While ERC retirement may reduce future allowable levels of pollution, thus complying in theory with CEQA's mandate that emissions be reduced below applicable significance thresholds, employing ERC retirement as mitigation for this Proposed Project will result in an increase in emissions in San Luis Obispo County and along the UPR main line above existing levels. This measure would not mitigate the Proposed Project's impacts, but would instead permit the impacts to occur unmitigated. The City should not approve a mitigation measure that would increase CAP, TAC/HAP, and GHG emissions above current levels, and should instead rely on mitigation measures that would result in actual emissions reductions in San Luis Obispo County and along the rail tracks leading to the Refinery. CBE-29

B. The RDEIR Fails to Adequately Disclose, Analyze, and Mitigate Project-Related Hazards and Public Safety Risks.

An EIR must provide sufficient information to evaluate all potentially significant impacts of a project, including public safety risks due to accidents, and it must state sufficient information to determine "how adverse [an] adverse impact will be."[165] This information is critical to the public and agency decision makers as they evaluate the extent and severity of the Project's impacts, specifically as they relate public safety.

The RDEIR fails to meet this CEQA requirement in three respects: (1) while it mentions an overall change in crude slate as part of the Project, it fails to adequately analyze the implications of that shift as it concerns a realistic and genuine assessment of resultant safety impacts, including those that may stem from routine transport and handling, train car derailments and other accidents, and refining; (2) it applies flawed, underestimated assumptions regarding the increased risks of crude oil spills and resulting impacts, caused by the Project; and (3) it illegally defers mitigation by relying on safety precautions and anticipated plans that will not be implemented within a reasonable time. CBE-30

[164] *See, e.g.*, CEQA Guidelines § 15358(b) (limiting CEQA analysis to impacts "related to a *physical* change") (emphasis added); CEQA Guidelines § 15002(g) (defining "significant effect on the environment as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project"); CEQA Guidelines § 15126.4(a) (identifying mitigation measures as those which could minimize significant effects on the environment).

[165] *Santiago County Water District v. County of Orange* (1981) 118 Cal. App. 818, 831.

(i) The RDEIR Does Not Adequately Consider the Specific Impacts of Transporting Tar Sands Crude by Rail.

Numerous accidents including fires, explosions, and spills have resulted from a rapid increase in crude transport across North America. Such incidents have been caused by accidents such as derailments, as well as non-accident releases from leaking valves or vents.[166]

The RDEIR acknowledges that the main hazards associated with the Project include potential fires and explosions that could occur as result of a spill or accident at the SMR, or along the UPRR mainline tracks.[167]

The RDEIR further acknowledges that the Project is one that will necessarily increase the transport and processing of distinctly dense and toxic diluted bitumen-based Canadian crude blends, which are disclosed in the document as "Access Western" and "Peace River Heavy" blends.[168] These crudes and the diluents with which they must be blended to enable their transport and processing pose particularly serious environmental and public health threats when accidentally released into the environment.[169]

CBE-31

In response to the spike in train car derailments and other accidents causing crude spills, the U.S. EPA recently noted that spills of diluted bitumen require different response action and equipment than conventional oil spills.[170] Indeed, three years after a major spill of DilBit into the Kalamazoo River in Michigan, heavy oil remains at the bottom of the river. Resource intensive cleanup is required to remedy the damage caused by the Kalamazoo oil spill, amounting to $1 billion in costs to public funds.[171]

Tar sands bitumen crudes and diluted blends not only pose unique problems regarding cleanup in the event of spills and other accidents, but they also pose serious concerns regarding equipment safety. Government agencies including the Federal Railroad Administration have expressed concern about an increasing number of severe corrosion incidents found in rail tank cars and service equipment.[172] Incidents of derailments and explosions of hazardous materials along California rail routes specifically have also been known to cause extensive environmental

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[166] Mike Soraghan, *Crude Mishaps on Trains Spike As Rail Carries More Oil*, E&E (July 17, 2013), *available at* http://www.eenews.net/stories/1059984505

[167] RDEIR at ES-11; 4.7-42.

[168] RDEIR at 2-33.

[169] Mike Soraghan, *Crude Mishaps on Trains Spike As Rail Carries More Oil*, E&E (July 17, 2013), *available at* http://www.eenews.net/stories/1059984505

[170] EPA, *Comment Letter to US Department of State Regarding the Supplemental Draft Environmental Impact Statement from TransCanada's Proposed Keystone XL project* (2013), *available at* http://www.epa.gov/Compliance/nepa/keystone-xl-project-epa-comment-letter-20130056.pdf.

[171] EPA, *Comment Letter to US Department of State Regarding the Supplemental Draft Environmental Impact Statement from TransCanada's Proposed Keystone XL project* (2013), *available at* http://www.epa.gov/Compliance/nepa/keystone-xl-project-epa-comment-letter-20130056.pdf.

[172] See http://www.fra.dot.gov/eLib/details/L04717.

damage in the past,[173] and recently, persistent and continued accidents involving crude transport by rail have garnered a significant amount of media attention.[174]

Yet, despite the unique characteristics of bitumen crudes and DilBit blends, including those characteristics which cause dramatic increases in corrosion in all refinery equipment components, the RDEIR avoids full analysis of the unique hazards accompanying rail transport, offloading, handling, storage, and processing of these crudes in its review of the Project's potential impacts.[175] As a result, the RDEIR's conclusions regarding the relative significance of the Project's impacts and its assessment of mitigation measures to address the same are inherently flawed. CBE-31 cont

a. The RDEIR Fails to Consider the Specific Hazard Risks Associated with the Transport of Tar Sands.

The RDEIR fails to consider the shift in crude slate when assessing the relative significance of the range of potential impacts caused by a crude oil spill. Rather than analyzing the simultaneous impacts from increased incidents of train car derailments and other accidental releases, and the corrosive effects of tar sand and DilBit blends as well as their unique challenges in cleanup, the RDEIR applies a quantitative estimation of train car accidents and derailments overall, and only mentions the potential risks associated with the Project's crude slate shift separately.

The RDEIR acknowledges throughout its analyses that implementation of the project "could result in spills at the Project Site due to mechanical failure, structural failure, corrosion, or human error during pipeline use and oil transportation to and from the rail spur."[176] Yet, it concludes that "given the low speed the trains would be moving at the site (3 mph) it is unlikely that a tank car could be impacted enough to result in a spill" and that "the most likely spill related event would [therefore] be a release during the unloading process due to a loading line failure."[177] CBE-32

The segmentation of the categories of risk associated with potential train car derailments from the known significant risks caused by corrosive properties of tar sands and DilBit crudes, therefore, allows the RDEIR to conclude—erroneously and in contradiction of substantial evidence—that the hazards impacts are less than significant, and do not require mitigation. Because this conclusion and the methodology used to reach the conclusion are both inherently flawed, the RDEIR must be revised and re-circulated to address the errors in its significance findings for the Project's potential on-site hazards impacts.

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[173] For example, there was a very major spill into Upper Sacramento River in 1991. *See*, http://www.dfg.ca.gov/ospr/NRDA/Cantara.aspx.
[174] *See*, *e.g.*, *Accidents Surge as Oil Industry Takes the Train,* New York Times, Jan. 25 2014, available at http://www.nytimes.com/2014/01/26/business/energy-environment/accidents-surge-as-oil-industry-takes-the-train.html?hp&_r=1.
[175] *See supra* Part II.A.
[176] See e.g., RDEIR at 4.7-42
[177] See e.g., *id.* at 4.7-42

The RDEIR further ignores the fact that the change in crude slate enabled by the Project involves serious potential emissions of high level VOCs and hazardous air pollutants (HAPs) implicating severe public health impacts. As explained in detail in the comments submitted to the DEIR, diluents are comprised of low molecular weight organic material with a high vapor pressure, and contain high levels of VOCs, sulfur compounds, and HAPs.[178] These would be emitted during unloading, and would be contained in emissions from the crude tank(s) as well as fugitive components used to facilitate crude movement from transport and storage units, and into refining and process units, including those at the Rodeo facility.[179] The presence of diluent would increase the vapor pressure of the crude, substantially increasing VOC and HAP emissions from tanks and fugitive component leaks—all of which are not addressed the RDEIR.[180]

CBE-32 cont

Moreover, these emissions would be highly prominent in any accidental releases caused by fire, explosion or other forms of accident, exacerbating the impacts of these incidents when they occur. Because the RDEIR fails to acknowledge, much less analyze or attempt to mitigate the potential impact from these emissions, it fails to comply with CEQA and must be revised and recirculated.

(ii) The RDEIR Fails to Discuss the Public Safety Risks of Refining a Different or Lower Quality Crude Oil Feedstock.

As noted above, a switch to a heavier oil feedstock necessarily implicates a greater risk of corrosion of refinery components.[181] This greater risk of corrosion was identified as a root cause of the August 2012 fire at the Chevron Richmond Refinery that sent 15,000 residents to local hospitals.[182] The RDEIR states explicitly that the Project will involve transporting heavy, higher sulfur-content crude, including tar sands crudes, yet it fails to adequately discuss the significant impacts resulting from this shift to a lower quality oil feedstock. As a result, the document precludes any meaningful analysis of the significant risks posed by this shift, including any identification or mitigation of the potential risks of catastrophic failure on par with what occurred at the Chevron Richmond Refinery in 2012 and any additional significant impacts to public health.

CBE-33

Tar sands blended crudes can lead to significant increases of all criteria pollutant emissions, as well as TAC and HAP emissions as a result of the increase in energy, and energy intensity required for processing and refining, and the increased risks associated with corrosion and potential accidents.[183]

As discussed above, while the RDEIR makes mention of potential increases in "emissions of toxic materials from fugitive emissions sources," caused by the Project, it fails to adequately

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[178] *See* Attachment A, Fox Comment.
[179] See *id.*
[180] *See i.d.*
[181] *See supra* Part II.A; Fox Comments on Mitigated Negative Declaration of Valero Crude By Rail Project, Use Permit Application 12PLN-00063.
[182] *See* Chemical Safety Board, Chevron Richmond Refinery Interim Investigation Report, April 2013, available at: http://www.csb.gov/assets/1/19/Chevron_Interim_Report_Final_2013-04-17.pdf.
[183] *See* Fox Comments ("more energy will be required and more emissions produced to convert them into the same slate of semi-refined and refined products").

identify, analyze, and mitigate the full range of impacts caused by refining a significantly larger quantity of tar sands crudes at the SMR. The RDEIR improperly limits its analysis of the public health risks to the cancer risks analyzed in the HRA, and omits the public health hazards that would result from potential accidents, fires and other accidental releases caused by day-to-day project operations. Because the non-cancer risks are concerning and are potentially severe and the high sulfur and acid levels contained in these crudes and their semi-refined products dangerously accelerate corrosion of refinery components, contributing to equipment failure and causing more frequent accidental releases, these risks cannot remain undisclosed, without proper mitigation.

CBE-33 cont

Moreover, because refining activities at the SMR are inherently linked to those which occur at the Rodeo facility and the Project has been improperly piecemealed from other related project, the RDEIR must account for increased emissions from refining tar sands crudes throughout the San Francisco Refinery.

Because the RDEIR fails to adequately analyze these impacts and state adequate mitigation to address them, it fails as an informational document and must be recirculated.

(iii) The RDEIR's Mitigation of Hazards is Inadequate.

The October 1, 2011 Department of Transportation (DOT) standards (also known as the "CPC-1232" standards) do not sufficiently minimize the risk of a hazardous material release involving Tar Sands crude:

> NTSB has long found that other features of DOT-111 tank cars, such as the bottom outlet valves, are inadequate and susceptible to breaches and has indicated that it is not convinced that the CPC-1232 modifications offer significant enough safety improvements. For its part, [Association of American Railroads] supports making additional modifications beyond the CPC-1232 standards by requiring that all tank cars carrying crude and ethanol have jackets, full-head shields, thermal protection and bottom outlet valve safeguards. BNSF officials have indicated that they would not have supported the consensus CPC-1232 standard in 2011 if they had known about crude oil at the time. They now believe the tank cars need to have a jacket and thermal protection in addition to the CPC-1232 upgrades, and have represented that these additional safeguards would increase tank car crashworthiness by another 50% over that afforded by the CPC-1232 standards.[184]

CBE-34

The RDEIR also relies on voluntary measures as assurance that derailments and accidents will be minimized, but there are no assurances of actual adherence to these measures. Moreover,

[184] *See* Earthjustice Petition to the Secretary of Transportation to Issue an Emergency Order Prohibiting the Shipment of Bakken Crude Oil in Unsafe Tank Cars (July 15, 2014), p. 16, *available at* http://earthjustice.org/sites/default/files/files/PetitionforEmergencyOrderReBakkenCrudeRailCars.pdf; *see also* "Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains," 79 Fed. Reg. 45,016 (Aug. 1, 2014) [noting safer specifications for tank cars].

nothing in the RDEIR indicates whether any of these measures actually apply to the railroads servicing the Project.

CBE-34 cont

The RDEIR must perform a proper study of the risks of transporting tar sands crudes in particular, and it must require actual, specific, and enforceable measures to mitigate those risks.

(iv) The RDEIR's Analysis Illegally Defers Mitigation of Public Safety Precautions.

Formulation of mitigation measures should not be deferred until some future time.[185] Numerous cases illustrate that reliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decisionmaking.[186]

The RDEIR here relies on the hope, or anticipation, that both federal and state agencies will implement stronger standards for tank car safety regulations and other safety precautions to ensure a lower accident risk, and emergency plans to minimize damage when accidents do occur. While the RDEIR goes so far as to cite to some of these new, developing efforts, including those being developed by the Pipeline and Materials Safety Administration (PHMSA), the DOT, and the American Association of Railroads (AAR), it fails to assure the public and agency decisionmakers that such efforts will lead to any legally enforceable standards, applicable to the Project.[187] Moreover, in the event that such efforts do in fact materialize into legally enforceable requirements and/or standards, they are not legally enforceable at this time. Thus, to the extent the RDEIR sets forth such efforts in the context of its required mitigation measures, they constitute deferred mitigation and as such, are prohibited under state law.[188]

CBE-35

Though the RDEIR identifies four mitigation measures for the significant increase in risk of crude oil train derailment associated with the Project, all of these mitigation measures are qualified with a statement that "[t]he County may be preempted by federal law from implementing these measures."[189] The RDEIR then makes a general reference to the Interstate Commerce Commission Termination Act (ICCTA), but fails to undertake any analysis of ICCTA as it applies to the specific mitigation measures proposed by the RDEIR. By failing to analyze the preemption question with any degree of particularity, and instead relying on broad assumptions of preemption, the RDEIR illegally defers mitigation of the significant risks to public safety.[190] These impacts must be fully mitigated before any project approvals, and the Final EIR must include revisions to address these impacts.

Moreover, the RDEIR's analysis of the risk of train derailment is misleading because it is conducted entirely within the context of the DOT's proposed crude by rail safety regulations

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[185] CEQA Guidelines § 15126.4(a)(1)(b).
[186] *See eg. Cmtys. for a Better Env't v. City of Richmond*, 184 Cal.App.4th at 92.
[187] *See* RDEIR at 4.7-21 to -24.
[188] *See* RDEIR at 4.7-62 to -63 (Mitigation Measures HM-2a through -2d).
[189] RDEIR at 4.7-63.
[190] See also *supra* Part III.A.iv.a ("The DEIR Erroneously Purports that Mitigation is Preempted, Thereby Avoiding Critical Measures to Abate the Hazards and Impacts of Increased Crude by Rail Transport through California Communities").

which are not yet finalized and which present various options for new tank car design that offer varied degrees of improved safety.[191] Importantly, the rule is not yet finalized, and implementation of it will likely not occur for several years after the proposed project begins operation. Further, if the proposed project, as it states, largely imports heavy crude such as tar sands, the proposed federal DOT rule provides the SMR Project with little if any accident risk reduction benefits. That is because the proposed DOT rule assumes that the aging fleet of DOT111 tank cars will largely be shifted to tar sands service. As such, the proposed Project will not benefit from the safety improvements of the proposed rule's new tank car designs. Further, the federal DOT proposed rule estimates that 15 mainline crude rail accidents will occur each year and at least one catastrophic incident at least as large as Lac Megantic will occur at least every two years under the existing rail infrastructure network. Given that the proposed federal rules will not be finalized and implemented for several years, and that the proposed Project likely will not see many of the safety improvements required by the rule, the RDEIR must evaluate the risk of accidents and spills based on the hazards associated with existing rail infrastructure. CBE-35 cont

(v) The RDEIR's Analysis of Risk of Oil Spill and Train Derailment is Inaccurate and Misleading.

In its analysis of potential risks of hazards, accidents, and spills of over 100 gallons of oil, the RDEIR makes reference to incidents like the Lac Megantic disaster in July 2013, and a handful of others. Despite listing three additional accidents occurring since the Lac Megantic incident occurred less than sixteen months ago, the RDEIR erroneously concludes that there is a low probability that any accident, incident, or occurrence causing any damage or significant impact will occur. Moreover, the RDEIR finds that only those incidents causing 100 gallons or more of crude to spill merit consideration in the hazards analysis for the Project, because spills under 100 gallons are less likely to extend beyond the railroad right of way and less likely to produce explosions.[192] No further support is given to justify the 100 gallon cut-off, beyond these broad statements that more serious accidents are "unlikely" below 100 gallons. CBE-36

The RDEIR's Quantitative Risk Assessments estimates that spills or other accidents resulting in the release of over 100 gallons of crude oil are likely to occur between once every 46 years and once every 76 years, depending upon the rail route.[193] However, this estimate relies on historical derailment data from 2003-2012, and does not include any of the catastrophic derailments from 2013 and 2014. As such, the probability of catastrophic events is artificially low, and the risk assessment must be re-analyzed in order to include more recent and representative data on derailments.

(vi) The RDEIR's Accident and Spill Risk Analysis is Flawed in Omitting Critical Data Reflecting Recent Increases in Crude by Rail Accidents and Releases.

The RDEIR's analysis of accident risk and magnitude of spills is flawed. First, the analysis in section 4.7 and Appendix H.2 only evaluates rail accident rates from 2003 to 2012 CBE-37

[191] RDEIR at Appendix H.2, 10-12.
[192] *See* RDEIR at 4.7-47.
[193] *Id*.

and touts that accident rates are declining.[194] However, those conclusions are misleading because they omit very relevant data. Accident rates in 2013 and 2014 specifically for crude by rail actually increased. In order to fully understand the risks of accidents for the proposed SMR crude by rail project the RDEIR must include this more accurate and up to date data in its analysis. The RDEIR should also look at similar data from Canada to obtain a more accurate assessment of crude accidents using existing rail infrastructure.

The RDEIR also evaluates spill release rates of all hazardous materials between 2005 and 2009.[195] This data is entirely unrepresentative of the current state of play for rail-based crude releases because it looks at all hazardous material spills and not crude specifically. It also omits recent data which is critical to analyzing the magnitude of potential spills. In 2013 alone more crude spilled from trains than spilled in the last four decades combined. The RDEIR cannot simply omit this data. Also, as stated in the U.S. Department of Transportation's proposed crude by rail safety rulemaking, the industry regularly underreports accident spill quantities. Thus, the RDEIR's conclusion that its analysis of accident and spill risk is "conservative" because, among other reasons, the railroad industry's overall accident rate is declining, completely misses the mark.[196] In fact, quite the opposite is true. If the RDEIR had included recent data specific to crude by rail accidents and spills, the results would likely show that the risk of an accident and spill quantities are much higher. CBE-37 cont

(viii) The RDEIR's Worst Case Scenario Spill Analysis is Flawed.

Finally, the RDEIR's worst case scenario spill analysis is also flawed. The RDEIR estimates a worst case spill of approximately 180,000 gallons, the capacity of approximately six tank cars.[197] This must be and error because we know that most crude trains are comprised of 80 to 100 or more tank cars each carrying approximately 30,000 gallons of crude. As such, a *worst case* scenario spill should evaluate the possibility of a spill that releases an entire unit train's crude capacity – an analysis on the order of at least 2.5 million gallons. The analysis of a worst case disaster should evaluate how such a spill would affect sensitive and critical ecosystems such as the San Francisco Bay watershed, drinking water sources for California residents, agricultural resources as well as urban downtowns. The worst case spill analysis also must look at the impacts of massive spills of different types of crudes that may be transported by the proposed project, including difficult to remediate tar sands crudes and highly volatile Bakken crudes. Indeed, this project cannot be approved without analyzing and mitigating its true impacts, including the true impacts of a worst-case disaster. CBE-38

C. The DEIR Fails to Adequately Analyze the Project's Impacts on Local Agriculture and Water Quality and Supply.

(i) The RDEIR Underestimates Impacts to Agriculture.

[194] RDEIR at 4.7-4-13.
[195] RDEIR at Appendix H.2, 12.
[196] *Id*.
[197] RDEIR at 4.2-38; 4.7-47.

The Project would result in significant impacts to agriculture. As detailed immediately below, the RDEIR overlooks several of these impacts. It nevertheless does conclude that there will be a significant and unavoidable impact in the event of derailment along the mainline.[198] However, even that significance is again underestimated. CBE-39

(a) Inadequate Analysis of Impact to Agriculture.

The RDEIR mistakenly concludes that, with mitigation, there will be no significant impacts to agricultural uses due to the Project's increased water usage, generation of dust, weeds, and increased risk of fire or oil spills.[199] Two principle errors of the RDEIR pervade this analysis: first, the RDEIR's failure to adequately assess the full scope of this Project and the impact of refining and transporting tar sands; and second, the RDEIR's inadequate mitigation responses due to unpersuasive assertions of federal preemption. The RDEIR's analysis, limited in scope, evidently limits the assessed impacts. As illustrated throughout this comment, the local impact of refining tar sands has a very different and significant local impact than assessed in the RDEIR. Furthermore, the artificially low bar set by the RDEIR's analysis to account for a risk of spill is also underestimated, thereby underestimating any resulting impacts, including those to agriculture. The mitigation measures proposed (WR-1, WR-2, AQ-1f and BIO-9) are wholly insufficient to address an impact whose severity is even wholly underestimated. The RDEIR must be revised to address these oversights. CBE-40

(b) Conversion of Agricultural Rangeland to Industrial Use.

Agricultural impacts are considered significant if they impair the agricultural use of other property.[200] Instead of adhering to this clear mandate, the RDEIR provides a brief and unpersuasive analysis that the Project's appropriation of agricultural grazing land for the industrial purposes of the Project would not prove a significant impact.[201] In so doing, the RDEIR both ignores the impact of such displacement of agriculture for at least the next several decades, and forecloses the opportunity to address whether any feasible mitigation measures exist to address such a significant impact. The RDEIR must be revised to correct this deficiency. CBE-41

(c) Displacement of Goods Required by Rail for Agriculture.

The RDEIR does not adequately address how increased traffic and deliveries of crude oil to the SFR will affect or displace the supply of goods required for agriculture by rail. This "common carrier" issue has arisen recently in the media, and the RDEIR should address this potential and evidently foreseeable impact. CBE-42

(ii) The RDEIR Underestimates Impact to Water Quality and Supply.

An overall Project shift to refining tar sands at the SFR, a more energy intensive process than current operations, will increase water demand at the Santa Maria facility. That impact is CBE-43

[198] *Id.* at 4.2-39.
[199] RDEIR at 4.2-35.
[200] RDDEIR at 4.2-19.
[201] RDEIR at 4.2-34.

unaddressed in the RDEIR. The RDEIR does address, however, the traditional problem of water availability in the Nipomo Mesa area.[202] The South County already suffers from low water levels. The Project's anticipated increase in water usage may jeopardize local water supply and the RDEIR should have addressed this potentially significant impact.

Similarly, as noted above, the water quality impacts and mitigation analysis in the RDEIR is based on an underestimated assessment of the frequency and severity of oil spill. This leaves unexplored and still significant impacts to surface water and groundwater quality. Moreover, the mitigation suggested to manage water quality impacts in the immediate vicinity of the Santa Maria facility is insufficient and would still result in a significant impact.

CBE-43 cont

Mitigation measure WR-2 places the utmost confidence in the staff that implements the Santa Maria Refinery Spill Prevention Control and Countermeasure Plan ("SPCCP"). Essentially, the plan delivers a "first responder" approach that will reduce the impact of a spill in and around water sources that supply the Santa Maria facility to less than significant.[203] However, the RDEIR states elsewhere: "even with (first response) mitigation measures…impacts…could be significant."[204] Other unexplored variables include the volume and location of the spill and the amount of time before that first response.[205] The SPCCP is not laid out with sufficient specificity to provide any assurance that this water quality impact of the Project will be less than significant.

D. The RDEIR Fails to Adequately Analyze the Project's Impacts Related Biological Resources.

The RDEIR fails to adequately disclose, analyze, and mitigate many impacts to biological resources. Specifically, the RDEIR fails to adequately analyze and mitigate (i) impacts at the Project site from construction and operation of the Project; (ii) impacts outside of the Project site resulting from increased rail activity; and (iii) cumulative impacts from increased crude oil shipments.

CBE-44

(i) The RDEIR Fails To Adequately Analyze and Mitigate Impacts to Biological Resources at the Project Site from Construction and Operation.

The RDEIR fails to fully disclose, analyze, and mitigate many of the significant impacts to special-status species at the Project site resulting from construction and operation. Construction of the project would permanently destroy habitat and result in potential mortality for special-status species, including the highly imperiled Nipomo Mesa lupine. Project operation would result in significant new rail traffic at the Project site of up to 250 crude oil trains arriving each year, each carrying up to 80 oil cars, transporting a maximum of 53,532 barrels of crude oil per train.[206] This would result in a significant increase in the probability of oil spills at the Project site, in addition to increased impacts from train-related collisions, noise pollution, light pollution,

CBE-45

[202] See RDEIR at 4.10-4.
[203] RDEIR at 4.13-25.
[204] RDEIR at 4.2-39.
[205] *See id.* at 4.13-25.
[206] RDEIR at ES-5

and barriers to movement. The RDEIR fails to adequately analyze or mitigate many of these impacts, as detailed below. CBE-45 cont

(a) The RDEIR Fails To Adequately Analyze and Mitigate Many Construction and Operation-Related Impacts to Special-Status Species in the Project Area.

Under CEQA Guidelines, a project would cause significant adverse impacts to biological resources if it would "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species."[207] Many Project impacts meet this threshold but were not adequately analyzed or mitigated in the RDEIR. CBE-46

(1) Nipomo Mesa Lupine.

The Nipomo Mesa lupine *Lupinus nipomensis* is a federally and state-listed endangered species that is limited to one population comprised of approximately six colonies isolated along a two-mile stretch.[208] The species' habitat consists of stabilized backdune supporting central coastal dune scrub. Almost all the habitat for the species is located on the Santa Maria Refinery Property.[209] The Project would destroy 27.5 acres of undeveloped habitat,[210] including 26.5 acres of coastal scrub habitat.[211] As a result, Project construction would directly degrade and destroy some of the last-remaining habitat for the Nipomo Mesa lupine, and potentially destroy plants and seeds in the Disturbance Area. Project operation also significantly increases the risk of an oil spill that could kill individuals, destroy habitat, and potentially result in the extinction of species as acknowledged by the RDEIR.[212]

CBE-47

Although pre-project surveys did not detect plants at the Project site, the RDEIR admits that the survey data were not adequate to detect Nipomo Mesa lupine: "[t]he current determination of presence/absence of Nipomo lupine within the Project Site cannot be adequately determined…."[213] The RDEIR further acknowledges that "a seed bank has the potential to persist within the project site without producing any individuals,"[214] as verified by local species experts, the USFWS, and comments by scientific organizations. Because ground disturbances can stimulate germination of lupine, the RDEIR also acknowledges that construction activities could lead to a flush of plants at the Project site: "there is a potential for this species to occur within the Project site as a result of grading and construction activities associated with the Rail Spur Project."[215]

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[207] CEQA Guidelines, Appendix G.
[208] http://ecos.fws.gov/docs/five_year_review/doc3219.pdf
[209] Id.
[210] RDEIR at 2-7.
[211] RDEIR at 4.4-32
[212] RDEIR at 4.4-44
[213] RDEIR at 4.4-27
[214] RDEIR at 4.4-27
[215] RDEIR at 4.4-27

Although the RDEIR claims that the proposed mitigation measure BIO-1 is adequate to reduce the Project impacts to this highly imperiled species to "less than significant," mitigation under the RDEIR is inadequate in several key regards:

(1) The RDEIR should be revised to consider alternative locations for construction activities in order to avoid disturbing and destroying Nipomo Mesa lupine populations and suitable habitat.

(2) The RDEIR must implement mitigation measures even if the pre-project survey does not detect lupine. BIO-1 irrationally fails to implement mitigation if the pre-project survey does not detect lupine within the Project site.[216] However, the lack of detection in one additional pre-project survey is not sufficient to determine that the site is not occupied by lupine. Lupine can persist as an underground seed bank without producing above-ground individuals.[217] The seeds of the Nipomo Mesa lupine often require scouring in order for germination to occur, so there is a possibility that even with a normal rainfall season, the seeds may not germinate and produce above-ground individuals unless the seeds are scoured.[218] In addition, California is currently in severe drought and it may be several years before California receives "a normal rainfall season" as specified by the mitigation measure. In short, another survey that simply searches for blooming specimens may not prove sufficient to detect this endangered plant. Further, regardless of whether plants are detected, the Project is degrading and destroying a significant portion of remaining habitat for the Nipomo Mesa lupine, and this loss must be mitigated. The Nipomo Mesa lupine, like many annual plants, moves around on the landscape to take advantage of preferred ecological conditions, and occupies different sites from year to year. Thus, the Project site, even if not occupied by plants at present, may have been previously occupied and may be occupied in the future. Consequently, regardless of survey results, the RDEIR should proceed under the assumption that the Project will destroy currently occupied habitat or impact habitat that the lupine would occupy in the near future.

CBE-47 cont

(3) Mitigation measure BIO-1 states that Phillips 66 will coordinate with the County and California Department of Fish and Wildlife (CDFW) to acquire a 2081 Incidental Take Permit (ITP) if the survey determines that the lupine is present. Because surveys may fail to detect species' presence and because the Project will permanently destroy some of the last-remaining habitat for the imperiled Nipomo Mesa lupine, Phillips 66 must apply for and acquire an ITP regardless of whether the survey detects individuals. The ITP must be acquired before certification of the RDEIR because mitigation measures, analyses, or consultation with the CDFW performed *after* certification of this DEIR constitutes *illegally deferred mitigation*.[219]

(4) Under the California Endangered Species Act, the issuance of ITP must ensure that the Project will not jeopardize the continued existence of a State-listed species.[220] . However, the RDEIR acknowledges that the Project has the potential to cause the extinction of the species due

[216] RDEIR at 4.4-28
[217] RDEIR at 4.4-27; USFWS letter at http://www.slocounty.ca.gov/Assets/PL/Santa+Maria+Refinery+Rail+Project/NOPISCHECKLIST.pdf
[218] USFWS letter at http://www.slocounty.ca.gov/Assets/PL/Santa+Maria+Refinery+Rail+Project/NOPISCHECKLIST.pdf
[219] *See Communities for a Better Environment* v. *City of Richmond* (2010) 184 Cal. App. 4th at 93.
[220] Cal. Code Reg. tit. 14, § 783.4(a)-(b).

to a major crude oil spill: **"**However, highly localized species such as Nipomo Mesa lupine, a federally endangered species, there is a potential that the entire population could be permanently lost or severely damaged in a catastrophic event."[221] Since the potential extinction of a species should be considered jeopardy and cannot be mitigated, the ITP, if issued, must include mitigation measures that will ensure that the Project will not jeopardize the Nipomo Mesa lupine. For example, measures could include the restoration and maintenance in perpetuity of multiple, sufficiently-large (i.e., with a range of microhabitats) suitable habitat areas with restored Nipomo Mesa populations at suitable distances from the Project and Refinery area to escape impacts from a worst-case-scenario oil spill.

(5) To compensate for the *permanent* impacts to Nipomo Mesa lupine and its habitat, the RDEIR should require Phillips 66 to restore and maintain high-quality habitat for the Nipomo Mesa lupine in perpetuity at a ratio *of a minimum* of 3:1, consistent with USFWS standards. Since 26.5 acres of dune scrub habitat would be damaged or destroyed by the Project, a minimum of 79.5 acres of habitat for the Nipomo Mesa lupine should be restored and maintained in perpetuity. This habitat must support restored Nipomo Mesa lupine populations and other native plant populations, and should be maintained in addition to, and not overlapping with, the 53 acres of restored scrub dune habitat specified under the Dune Habitat Restoration Plan. As discussed above, restored habitat areas should be protected from the effects of a worst-case-scenario oil spill from the Project and Refinery. Further, there must be dedicated, long-term funding for the maintenance of the habitat in perpetuity, including long-term monitoring and management of invasive species. CBE-47 cont

(6) Construction on the Project site may lead to the germination of Nipomo Mesa lupine in the construction zone. The RDEIR must include mitigation measures to identify occurrences of lupine at the construction site and have detailed protocols to protect these individuals.

(7) Because a lupine seed bank is likely present at the Project site, the RDEIR should require that topsoil be removed and stockpiled prior to construction to preserve the seed bank. Consultation should occur with USFWS, CDFW, and other experts to determine how to protect and utilize the seed bank.

(2) Silver Dune Lupine-Dune Heather Shrubland Alliance.

The RDEIR fails to evaluate Project impacts on the imperiled Silver Dune Lupine-Dune-Heather Shrubland Alliance, also called the Silver Dune Lupine-Mock Heather Scrub Alliance,[222] which is comprised of silver dune lupine (*Lupinus chamissonis*) and dune-heather (*Ericameria ericoides*). This plant alliance is listed as G3 S3 and is tracked by the CDFW. The RDEIR fails to disclose that two large areas inhabited by this rare alliance are located immediately adjacent to the Disturbed Area along a ~750 foot border.[223] Due to the proximity of this sensitive plant community to Project construction and operation-related activities, the RDEIR must evaluate the direct and indirect impacts to this alliance from the Project. CBE-48

[221] RDEIR at 4.4-44.
[222] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=24716&inline=1 at PDF page 50
[223] RDEIR at Figure 4.4-3

(3) Sensitive Ground-Dwelling Animal Species.

The American badger, coast horned lizard, and slivery legless lizard are among the special-status species which will suffer permanent habitat loss due to the Project and which will either be evicted (badger) or translocated (lizards) from the Project site. Translocation often leads to mortality, and the mitigation measures BIO-3 and BIO-4 do not require any standards for the quality of the relocation sites or monitoring of translocated individuals to determine if these individuals survive. To mitigate for the loss of habitat and potential mortality of these species, the RDEIR should require a minimum of 26.5 acres of suitable habitat be provided, restored, and maintained in perpetuity for these species before the Project is approved. The RDEIR should also require that relocation sites meet species-expert-approved standards to ensure maximum survival probability for translocated individuals. CBE-49

(4) Burrowing Owl.

Mitigation measures BIO-8a and BIO-8b must follow the full recommendations of the 2012 CDFW Staff Report on Burrowing Owl Mitigation,[224] including survey protocols, buffer area distances for burrows, and vegetation management protocols for mitigation lands. CBE-50

(b) The RDEIR Fails to Analyze and Mitigate Many Impacts From Increased Rail Traffic at the Project Site.

The RDEIR fails to analyze and mitigate many operational and construction-related impacts at the Project site to special-status species, including impacts from collisions, noise pollution, light pollution, and barriers to movement imposed by Project construction and increased rail activity. The RDEIR must evaluate and mitigate the full range of construction-related and operational impacts to special-status species in the Project area. CBE-51

(c) The RDEIR Fails to Adequately Analyze and Mitigate Impacts From Oil Spills at the Project Site.

The RDEIR states that the impacts of an oil spill at the Project site are less than significant with mitigation. However, the analysis and mitigation of oil spill impacts at the Project site (BIO-7) are wholly inadequate in several key regards:

(1) The RDEIR does not contain sufficient analysis and mitigation for oil spills resulting from the pipeline. First, the RDEIR contains contradictory statements about the volume of a worst-case spill from the pipeline, which it estimates at 11,000 gallons of crude oil in Section 4.4[225] and at 90,800 gallons in Section 4.7,[226] which is an enormous discrepancy that must be corrected. Second, the RDEIR states that spills along the pipeline outside of the unloading rack "would be contained with an existing road."[227] However, the RDEIR appears to provide no explanation of how a spill would be contained by the road. The RDEIR must provide clear CBE-52

[224] http://www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf
[225] RDEIR at 4.4-38
[226] RDEIR at 4.7-43
[227] RDEIR at 4.4-38

mitigation measures to contain a worst-case scenario from the pipeline, if these impacts are to be considered less than significant with mitigation.

(2) The RDEIR remains inadequate in not fully addressing the scope of the company's shift to a different quality of crude oil feedstock and its impacts to biological resources. The shift in feedstock to tar sands oil must be addressed to properly analyze and mitigate impacts to biological resources. It is well-documented that the probability, severity, and consequences of an oil spill depend directly on the chemicals in the crude. Some types of crudes are more challenging to contain and clean up in the event of spill. For example, tar sands crude is heavy, and sinks to the bottom of water bodies that it is spilled into, which is detrimental to aquatic species. Tar sands oil is not only dangerous for its inherent corrosive and acidic properties and for its tendency to sink in water bodies, but because it is generally only transported when blended with toxic "diluents" that are mixed with the viscous tar sands in order to make it more fluid. Spills of heavy, "sinking" crude, like tar sands oil, are notoriously difficult and expensive to clean up, and create lasting and perhaps irreversible impacts to water quality and aquatic ecosystems.[228] Accordingly, the RDEIR must require mitigation measures that address the containment, cleanup, and restoration of oil spills resulting from the crude oil types that the Project will transport and process, such as Canadian tar sands oil.[229] CBE-52 cont

(3) Mitigation Measure BIO-7 requires Phillips 66 to amend and submit for review and approval to the County Planning Department, its Santa Maria Refinery Spill Prevention, Control and Countermeasure Plan. This amendment and review has not yet occurred, and will not occur until after the close of the CEQA process. However, CEQA requires that formulation of mitigation measures not be deferred until some future time.[230] Numerous cases illustrate that reliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decision making.[231] As such, an EIR cannot rely on any management plans, studies, or reports developed after the EIR process.[232] Thus, this mitigation measure cannot comply with CEQA until the County has had an opportunity to review, approve and include that Countermeasure Plan in a revised document.

(ii) The RDEIR Fails To Properly Analyze and Mitigate Impacts to Biological Resources Outside of the Project Site.

The RDEIR's analysis of Project impacts to biological resources outside the Project site suffers from numerous fatal flaws: (1) the RDEIR arbitrarily limits the geographic scope of its off-site biological resources impacts analysis; (2) the RDEIR fails to require sufficient mitigation measures to reduce the impacts of oil spills along the UPRR mainline serving the Project; and (3) the RDEIR fails to analyze and mitigate the impacts from collisions, noise pollution, light pollution, and barriers to movement from increased rail traffic on the rail lines serving the Project. CBE-53

[228] http://response.restoration.noaa.gov/about/media/oil-sands-production-rises-what-should-we-expect-diluted-bitumen-dilbit-spills.html
[229] RDEIR at Table 2.6
[230] CEQA Guidelines § 15126.4(a)(1)(b).
[231] *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal. App. 4th 70, 92 .
[232] *Id.*

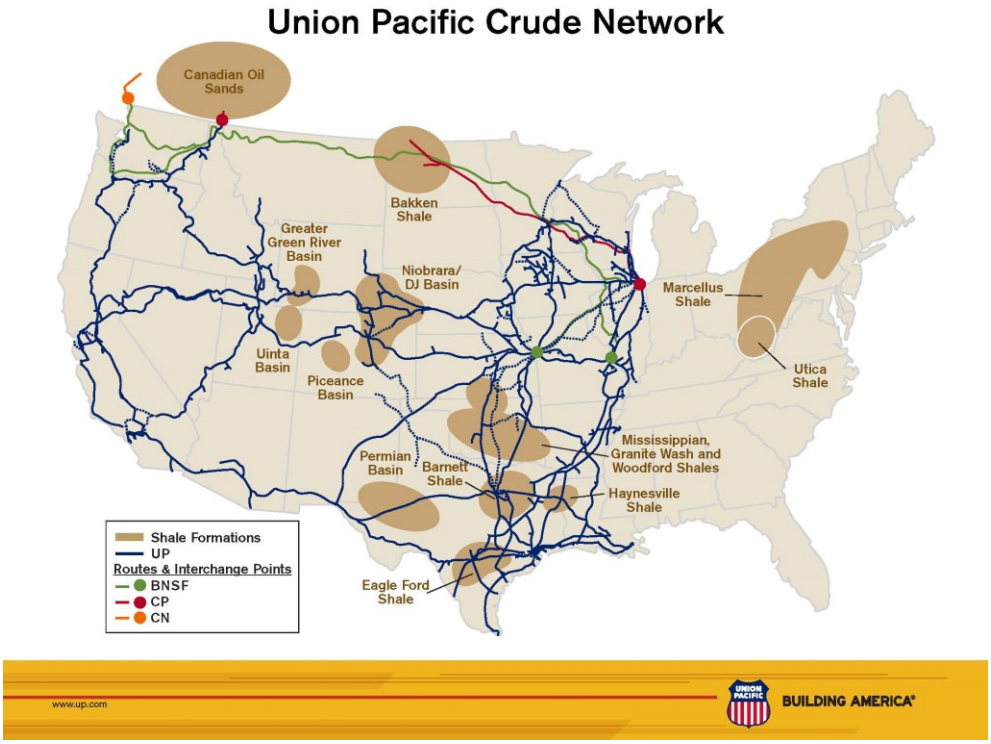
(a) The RDEIR Limits the Geographic Scope of its Off-Site Biological Resources Impacts Analysis.

The RDEIR limits its analysis of the impacts from a crude oil spill along the UPRR mainline to the section of track between the Roseville and Colton rail yards. However, CEQA requires an EIR to discuss the significant impacts that the proposed project will have in the relevant geographic area.[233] Agencies must "provide a reasonable explanation for the geographic limitation used,"[234] and the geographic scope "cannot be so narrowly defined that it necessarily eliminates a portion of the affected environmental setting."[235]

Although the RDEIR labels routes beyond the Roseville and Colton rail yards as speculative, very few branches of the Union Pacific railroad connect crude oil sources to the Project site within California and other Western states. For example, as illustrated in the map below, there are two main rail routes between the Project site and Canadian tar sands sources to the north. Because only a handful of rail lines would serve the Project, the analysis of the potential impacts to special-status species along the UPRR mainlines serving the Project is eminently feasible and foreseeable. As such, the RDEIR must analyze the impacts to special-status species along the mainline beyond the Roseville and Colton yards. This failure is arbitrary and violates CEQA. CBE-54

Union Pacific Crude-By-Rail Lines.
Source: http://www.up.com/customers/chemical/crude/index.htm

[233] CEQA Guidelines § 15126.2(a).
[234] *Id.* § 15130(b)(1)(B)(3).
[235] *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal. App. 4th 1184, 1216.



CBE-54 cont

(b) The RDEIR's Mitigation Measures are Inadequate to Reduce the Significant Impacts of Oil Spills Along the UPRR Mainline Serving the Project.

The RDEIR classifies the impacts from crude oil spills along the mainline as significant and unavoidable. The tremendous potential for harm is illustrated by the fact that oil spills along the limited section of mainline track between the Roseville and Colton rail yards could impact an estimated 167 sensitive plant species, 219 sensitive animal species, 411 streams and wetlands, 26 waterbodies and 578 wetlands, and 20 sensitive habitats, just within 300 feet of the mainline.[236] As noted by the RDEIR, "depending on the location of an oil spill along the UPRR mainline tracks, there may be no oil spill containment or cleanup equipment immediately available, and it could take some time for emergency response teams to mobilize adequate spill response equipment."[237] This analysis highlights the high probability for significant damage from an oil spill along the UPRR mainline track serving the Project. However, the proposed mitigation measures are completely inadequate. BIO-11 is simply not adequate to lessen the impacts of an oil spill to biological resources. Further, as discussed above, the proposed mitigation measures for the significant increase in risk of crude oil train derailment and spills are also inadequate because the RDEIR (1) applies flawed, under-estimated assumptions regarding the increased risks of crude oil spill(s) and resulting impacts, caused by the Project; (2) fails to adequately analyze the implications of a shift in crude slate on impacts; and (3) illegally defers mitigation in

CBE-55

[236] RDEIR at 4.4-44 to -45.
[237] RDEIR at 4.4-46.

relying on safety precautions and anticipated plans that will not be implemented within a reasonable time. CBE-55 cont

(c) The RDEIR Fails to Analyze and Mitigate the Impacts From Collisions, Noise Pollution, Light Pollution, and Barriers to Movement Due to Increased Rail Traffic on the Rail Lines Serving the Project.

Although the Project will vastly increase rail activity by up to 250 oil trains trips per year, with the potential for 500 total train trips per year when departures from the refinery are considered (i.e., the same trains coming and leaving), the RDEIR fails to sufficiently analyze the full range of off-site impacts from increased rail traffic to wildlife species along the rail lines serving the Project. Scientific studies have documented that train activity negatively affects wildlife through (1) mortality from collisions with trains; (2) disturbance from noise and artificial light causing stress and behavioral changes; (3) impeding natural movements, thereby restricting the animal's range, making habitat less accessible, and potentially leading to population fragmentation and isolation; and (4) pollution of the physical, chemical, and biological environment, for example through the emissions of contaminants like heavy metals, which can degrade habitat suitability in a much wider zone than the width of the railroad itself.[238] Each of these impacts would be worsened by the significantly increased rail traffic resulting from the Project. The RDEIR must analyze and mitigate each of these impacts along the rail lines serving the Project both within and outside of California. The RDEIR's failure to address these important topics violates CEQA. CBE-56

1. Mortality From Train Collisions.

Mortality resulting from animal-train collisions has been documented for a wide range of species, including moose,[239] grizzly bears,[240] black bears,[241] wolverines,[242] wolves,[243] deer,[244] pronghorn,[245] tortoises,[246] amphibians,[247] and birds.[248] The frequency of train trips was determined to be the most significant factor in the number of deer-train collisions across study sites.[249] Railroad fatalities can have detrimental impacts on animal populations. For example, train-moose fatalities in the lower Susitna Valley, Alaska, were a primary contributor to population reductions which ranged up to 35% per year.[250] CBE-57

The BNSF railway in northwestern Montana has long been responsible for killing threatened grizzly bears from the Northern Continental Divide Ecosystem (NCDE) population.

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[238] Jackson 1999.
[239] Andreassen et al. 2005, Gundersen and Andreassen 1998, Gundersen et al. 1998.
[240] Benn and Herrero 2002, Waller and Servheen 2005, Pissot 2007, USFWS 2013.
[241] Pace et al. 2000, Van Why and Chamberlain 2003.
[242] Krebs et al. 2004.
[243] Morner et al. 2005.
[244] AP 2014, Kusta et al. 2011, Kusta et al.2014.
[245] AP 2011.
[246] Iosif 2012.
[247] Budzik and Budzik 2014.
[248] Spencer 1965.
[249] Kusta et al. 2014.
[250] Becker and Grauvogel 1991, Modafferi 1991.

According to recent data, 50 grizzly bears from the NCDE population were documented as killed by train collisions between 1984 and 2013.[251] In 2014 at least two grizzly bears from this threatened population were killed by train collisions.[252] Although BNSF has taken some steps to clean up grain spills attracting bears, grizzly bears continue to be killed along this section of railroad, which has been attributed in large part to the high volume of rail traffic on this line:[253]

> Historically, grizzly bears have been attracted to the railroad by grain that leaked from cars along the tracks or that accumulated at sites of repeated derailments, and grizzly bears have been struck and killed by trains at these sites. Since the mid 1990s, BNSF has been largely successful in cleaning up and reducing the occurrence of grain spills, however, grizzly bears continue to be killed along this section of railroad. Our GPS data did not show any concentrated relocations on the railroad tracks that suggested the presence of an attractant. This research suggests that the coincidence of high rail traffic volume, low highway traffic volume, and natural grizzly bear movement patterns may be partially responsible for the observed patterns of mortality.[254]

CBE-57 cont

As a result, the average number of grizzly bear deaths from train collisions has not declined over time.[255]

2. Noise Pollution.

Noise from rail activity has been found to cause adverse impacts to species. Chronic noise pollution from road, rail, and other anthropogenic activity is an issue of increasing concern.[256] Birds are particularly vulnerable to noise because it can mask their vocal communication, with consequent effects on their health and survival. Schroeder et al. (2012) documented reduced reproductive fitness in birds exposed to chronic noise from generators. Intermittent noise, the expected pattern along a rail line, may also cause stronger effects and decrease the ability of birds to habituate to noise.[257] While some birds may utilize vocal adjustments in response to chronic noise pollution, those adjustments are likely to have direct and indirect fitness costs.[258]

CBE-58

3. Barriers to Movement.

Railways can act as barriers to movement that can result in population fragmentation and isolation. Increased train traffic can increase the impact of the barrier. For example, studies indicate that railways act as a barrier to movement for the federally threatened grizzly bear population in the Northern Continental Divide Ecosystem (NCDE) in northwest Montana.[259]

CBE-59

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[251] USFWS 2014.
[252] Daily Inter Lake 2014.
[253] Waller and Servheen 2005.
[254] Waller and Servheen 2005: 997.
[255] USFWS 2014.
[256] Morley et al. 2014.
[257] Blickley et al. 2012.
[258] Read et al. 2014.
[259] Waller and Servheen 2005, Kendall et al. 2009.

Kendall et al. (2009) found evidence for population fragmentation across the western side of the BNSF rail line and Highway 2 corridor between Glacier National Park and National Forest lands. Population differentiation across the corridor indicated that reduced genetic interchange was occurring. Waller and Servheen (2005) similarly found that train traffic posed a significant movement challenge for bears. Furthermore, their research indicated that the high rail traffic volume was particularly problematic for bear mortalities:

> While grizzly bears appeared to make behavioral adjustments to temporal patterns of highway traffic volume, they were faced with a different situation along the railroad. During hours of low highway traffic, when grizzly bears were choosing to cross US-2, railroad traffic was high. Trains were more frequent, longer, and faster at night than during daylight hours. Furthermore, rail traffic was greater during fall when bears were in hyperphagia. This situation arose for a number of reasons. First, most track maintenance work was accomplished during daylight hours; thus, freight traffic was often curtailed during the day to allow track work to proceed. Second, arrival times for freight trains depended partially on their departure time. Freight trains loaded on the Pacific coast (approx 800 km to the west) during the day left in the evening and arrived in our study area at night the next day, 24–36 hr later. The result was that grizzly bears had to contend with high railroad traffic when highway traffic was lowest. We observed greater grizzly bear mortality caused by trains than that caused by cars on the highway.[260]

CBE-59 cont

Railroads have also been shown to inhibit movement of bumblebees[261] and pronghorn.[262] Fenced railroads in Arizona posed movement barriers that isolated pronghorn into different populations and shaped home ranges, resulting in population fragmentation.[263]

(iii) The RDEIR Fails to Adequately Analyze and Mitigate Cumulative Impacts of Increased Crude Oil Shipments on Biological Resources.

The RDEIR acknowledges that the cumulative impact of an oil spill from the Project and the other crude oil shipment projects listed in Table 3-1 would be significant and unavoidable.[264] The RDEIR should have similarly analyzed the cumulative impacts from recent, current, and proposed projects on the risk of collisions, noise pollution, light pollution, barriers to movement, and other impacts resulting from increased rail activity along the mainline track serving the Project.

CBE-60

E. The Project is Inconsistent with State and Local Plans.

[260] Waller and Servheen 2005: 997.
[261] Bhattacharya et al. 2003.
[262] Ockenfels et al. 1997.
[263] *Id.*
[264] RDEIR at 4.4-49

An EIR must discuss any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans.[265] This necessarily includes the County of San Luis Obispo's General Plan and other applicable state and federal regulations.

The RDEIR fails to adequately discuss potential inconsistencies with applicable plans, policies, and regulations, including (1) the San Luis Obispo County General Plan, (2) Contra Costa County's Industrial Safety Ordinance, (3) the United States Chemical Safety Board, OSHA regulations, and other federal guidance regarding risk analysis and hazards prevention, and (4) the California Global Warming Solutions Act (AB 32).

The San Luis Obispo County General Plan sets forth goals to improve the environment, based on public, community-based input from County Residents. The Plan sets forth goals relating to the community's expressed needs to see a decrease in air pollution, decrease in traffic and traffic related noise, and decreased industrial development.[266] The Project, however, will increase all of those issues, wholly conflicting with the General Plan's over-arching environmental goals. Indeed, the RDEIR notes in the Appendix G that the Project is potentially inconsistent with ten of the General Plan's policy goals, including reducing air pollution, minimizing toxic exposures, limiting risks to public safety, promoting development of renewable energy resources, and preventing exposures to hazardous substances.[267] In addition to being inconsistent with the County's General Plan, the Project is also incompatible with surrounding land uses—most importantly, with surrounding residential land uses, where the Project would significantly increase cancer health risks, even with mitigation measures in place.[268] CBE-61

Additionally, because this Project is integrally related to the Propane Fuel Recovery Project at the Refinery's Rodeo facility, and because the two facilities are connected by pipeline, what takes place at the Santa Maria facility impacts the Rodeo facility, triggering Rodeo and Contra Costa County Local Plans and Ordinances. By increasing regional and state processing of and reliance on fossil fuels, the Project conflicts with Contra Costa County's General Plan, to the extent that plan sets goals to increase the usage of renewable energy such as wind and solar.[269] The Project's switch to denser, higher sulfur crude also conflicts with the Contra Costa County Industrial Safety Ordinance's Inherently Safer Systems requirement.[270]

Further, in order to provide such an adequate investigation and discussion of potential impacts of refining a lower quality oil feedstock as required by CEQA,[271] it would be reasonable for decisionmakers to determine consistency with federal recommendations addressing the same shift in industry practice. The Project as proposed in the RDEIR fails to meet such federal

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[265] CEQA Guidelines § 15125(d).
[266] SLO County General Plan, Adopted: August 1994, Revised: June, 2010, Chapter 1, Land Use, available at: http://www.slocity.org/communitydevelopment/download/unifiedgeneralplan/Chapter1-Land%20Use%20June2010.pdf.
[267] *See* RDEIR App. G, Table G-1.
[268] *See* RDEIR at 4.3-65, Figure 4.3-7.
[269] *See generally*, Contra Costa County General Plan, 2005-2020, Adopted January 18, 2005, Reprinted July, 2010, available at: http://contra.napanet.net/depart/cd/current/advance/GeneralPlan/General%20Plan.pdf.
[270] *See* Contra Costa County Ordinance Chapter 450-8, available at http://cchealth.org/hazmat/pdf/iso/2006_iso_official_code_complete.pdf.
[271] CEQA Guidelines § 15125(c).

guidance. In addition, the Project as proposed also fails to meet the requirements of the State's GHG reduction goals.

As noted above, the U.S. Chemical Safety Board (CSB) has explicitly addressed the increased risks of corrosion in refineries due to refining a heavier oil feedstock. In particular, the CSB has identified the risk of catastrophic and hazardous failure from running higher sulfur crude in existing refineries built before 1985.[272] The CSB also found that such sulfur corrosion is not a new phenomenon, and that the petroleum industry is well aware of its potential to cause serious impacts on refinery equipment.[273] The RDEIR fails to recognize the CSB's analysis and fails to address the proposed recommendations made by the CSB. The RDEIR should be revised to properly address similar and foreseeable issues of corrosion as identified at the Chevron Richmond Refinery, which lead to the catastrophic August 2012 Chevron Richmond Refinery fire.[274]

Moreover, because there will be an increase in the presence of harmful chemicals, raising serious safety and hazards concerns, the Project has the potential to conflict with the Occupational Health and Safety Act (OSHA) employee protection standards, as well as the President's August 2013 Executive Order (EO) to improve chemical safety and security.

CBE-61 cont

Finally, the Legislature has established that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California."[275] With AB 32, California has set its objective to meet 1990 emission levels of GHGs by 2020. The RDEIR's analysis does not provide enough information regarding whether the Project will meet such a state priority. The RDEIR's analysis does not provide enough information regarding whether the Project will meet such a state priority. In particular, "the increase in emissions of criteria pollutants and greenhouse gases from most fired sources due to tar sands bitumen derived semi-refined products refined at Rodeo should have been included in the emission inventory for the Rail Spur Project."[276] Absent this data, it is impossible for the RDEIR to describe whether the Project will meet, or even hinder, California's GHG reduction goals. Although the RDEIR includes a thorough discussion of California's regulatory framework to combat climate change,[277] without a sufficient GHG analysis, no decisionmaker can come to any sensible conclusion regarding how the impacts of this Project affect those goals.

The RDEIR fails to address the above examples of the Project's conflicts with local, State and Federal plans. Given this fundamental failure, the RDEIR should be redrafted and recirculated with a complete discussion of Project inconsistencies with applicable plans, policies, and regulations.

V. THE RDEIR FAILS TO ADEQUATELY ANALYZE THE PROJECT'S CUMULATIVE ENVIRONMENTAL IMPACTS.

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[272] *See* Chemical Safety Board, Chevron Richmond Refinery Interim Investigation Report, April 2013, available at: http://www.csb.gov/assets/1/19/Chevron_Interim_Report_Final_2013-04-17.pdf
[273] *Id*., at 15.
[274] *See* Chemical Safety Board, Chevron Richmond Refinery Interim Investigation Report, April 2013, *supra*.
[275] Assembly Bill (AB) 32, California Global Warming Solutions Act, Cal. Health & Safety Code § 38501(a).
[276] Fox Revised Santa Maria Report at 13.
[277] RDEIR at 4.3-29 to -32.

Once again, the RDEIR hides behind an unpersuasive assertion of federal preemption in order to avoid an analysis and possible future application of more realistic, feasible and beneficial mitigation measures. It does this by again focusing simply on cumulatively relevant locomotive operations.[278]

However, CEQA requires an EIR to discuss all of a Project's significant cumulative impacts.[279] A legally adequate cumulative impacts analysis views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project at hand. "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."[280] These projects do not have to be from the same class of project.

A project has a significant cumulative effect if it has an impact that is individually limited but "cumulatively considerable."[281] "Cumulatively considerable" is defined as meaning that "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."[282] Cumulative impacts analysis is necessary because "environmental damage often occurs incrementally from a variety of small sources [that] appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact."[283] The RDEIR fails to meet this requirement by unnecessarily limiting its analysis of potential sources of cumulative impacts. Just like the overall analysis underlying the RDEIR, this is not simply a transport infrastructure project. The other crude by rail projects listed in the RDEIR are also not simply transport infrastructure projects. All of these projects reflect the industry intention to switch to a lower quality of crude oil feedstock. Those create different and greater degrees of pollution that any environmental document must analyze cumulatively. The RDEIR's analysis focuses solely on cumulative impacts associated with that narrower transport element, or, the locomotive and associated emissions, for instance, increased traffic on the railway mainline. Foreseeable emissions include increased operational emissions from the inevitable refining of that lower quality oil feedstock transported. CBE-62

In addition, even the list of reasonably foreseeable future projects, including other crude by rail projects considered in the RDEIR is under inclusive, especially in light of the potential geographic scope of certain potentially significant impacts. Although the RDEIR mentions some of the current crude by rail projects and proposals, and purports to analyze the cumulative environmental impacts from them, it does not come close to disclosing the full scope of the staggering environmental impacts they will have on California.[284] The RDEIR's Table 3.1 purports to disclose cumulative projects to a sufficient degree.[285] It does not.

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[278] RDEIR at 4.3-76.
[279] CEQA Guidelines § 15130(a).
[280] CEQA Guidelines § 15355(b).
[281] *Id*. §§ 15065(a)(3), 15130(a).
[282] *Id*. § 15065(a)(3).
[283] *Communities for a Better Env't v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 114.
[284] *See* RDEIR Table 3.1.
[285] RDEIR at 3-3.

Five other projects omitted from adequate consideration in the RDEIR's analysis of cumulative environmental impacts include[286]: CBE-62 cont

(i) **Phillips 66 Ferndale, Washington Crude Unloading Facility Project.**

Phillips 66 was recently issued a permit to construct a new crude rail unloading facility at its Ferndale Refinery in Washington. The RDEIR must state whether this Project anticipates, depends on, or is in any other way related to the Washington project. CBE-63

(ii) **Phillips 66 Rodeo Propane Fuel Recovery Project.**

In particular, despite the clear relationship between the Santa Maria projects and the Rodeo Refinery project described above, the RDEIR fails to evaluate the Project's cumulative impacts of Santa Maria semi-refined products in Rodeo. These include a cumulatively considerable increase in criteria and toxic air contaminant air emissions and greenhouse gas emissions, and the cumulative environmental impacts of refining increased volumes of tar sands at the SFR. CBE-64

(iii) WesPac Pittsburg Energy Infrastructure Project.

WesPac Energy–Pittsburg LLC (WesPac) proposes to modernize and reactivate the existing oil storage and transfer facilities located at the NRG Energy, Inc.(NRG, formerly GenOn Delta, LLC) Pittsburg Generating Station. The proposed WesPac Energy– Pittsburg Terminal (Terminal) would be designed to receive crude oil and partially refined crude oil from trains, marine vessels, and pipelines, store oil in existing or new storage tanks, and then transfer oil to nearby refineries, including the Phillips 66 San Francisco Refinery's Rodeo facility.[287]

The Terminal Project consists of the modernization and reactivation of the following components at the NRG facility: (1) marine terminal; (2) onshore storage terminal, including both East and South Tank Farms; and (3) the existing San Pablo Bay Pipeline. In addition, the project consists of the construction and operation of new facilities, including: (1) Rail Transload Facility; (2) Rail Pipeline; (3) KLM Pipeline connection; and (4) new ancillary facilities, including an office and control building, warehouse, electrical substation, and others as described below.[288] CBE-65

For the delivery of crude oil and partially refined crude oil by train, a new Rail Transload Operations Facility would be constructed on a 9.8-acre vacant rail yard, to be leased from BNSF Railway Company. All products handled at the facility would be transported by rail, ship, barge, or pipeline; no products would be transported by truck as part of the proposed project.[289] The Terminal would operate with an average throughput of 242,000 barrels (BBLs)1 of crude oil or partially refined crude oil per day, and would have a maximum capacity throughput of 375,000

[286] This list does not include the nearby oilfield expansion project proposed by Freeport McMoran, which is under construction and discussed in the Fox Santa Maria Report.
[287] WesPac RDEIR at 2.0-1.
[288] *Id*. at 2.0-4.
[289] *Id*. at 2.0-1.

BBLs per day.[290] The total annual throughput for the entire Terminal would be approximately 88,300,000 BBLs of crude oil and/or partially refined crude oil per year.[291]

As mentioned above, the SFR is one of the refineries that may receive crude oil and/or deliver-crude oil to the Terminal.[292] Although the RDEIR *lists* this project in Table 3.1, it still fails to include any adequate *analysis* of the WesPac project in the cumulative impact analysis (outside of anticipated rail traffic). Nevertheless, the physical construction and *operation* of this facility will contribute to cumulative environmental impacts and because it could facilitate greater amounts of not just crude delivered to or from the SFR, but a lower quality crude with associated increased emissions and hazards delivered to or from the SFR. The RDEIR must be revised to take into account each of the cumulative projects that has the potential to result in cumulatively considerable environmental impacts. Furthermore, the RDEIR must identify feasible mitigation measures capable of reducing all of the Project's associated and foreseeable environmental impacts. CBE-65 cont

(iv) Kinder Morgan Richmond Terminal.

The RDEIR omits any mention of the Kinder Morgan terminal in Richmond, California. The RDEIR also omits any discussion of the possibility of ship to rail deliveries of crude oil feedstock, which would directly implicate deliveries to the Port of Richmond and then to the SFR via the Kinder Morgan facility. The cumulative impact of this terminal would be utterly foreseeable, and the RDEIR should have analyzed this possibility, and at a minimum, the additional cumulative impact the Project would add to the emissions of toxic air contaminants, GHGs, or other pollutants, or increase in hazards in conjunction with operation of the Kinder Morgan terminal's existing transport of crude by rail. CBE-66

(v) Phillips 66 Pipeline Project.

Table 3.1 also discloses the Phillips 66 Pipeline Project. The proposed project would transport crude oil from the Arroyo Grande oil field to the Santa Maria Facility.[293] The RDEIR's cumulative impacts analysis must analyze whether this Project would displace the need for this other source of crude oil feedstock for the SFR. CBE-67

A. Climate Change Implications.

Furthermore, it is important to acknowledge that climate change is the classic example of a cumulative effects problem; emissions from numerous sources combine to create the most pressing environmental and societal problem of our time.[294] As one appellate court recently held, "the greater the existing environmental problems are, the lower the threshold for treating a project's contribution to cumulative impacts as significant."[295] CBE-68

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[290] *Id*. at 2.0-2.
[291] *Id*.
[292] *Id*.
[293] RDEIR at 3-4.
[294] *Kings County Farm* ("Perhaps the best example [of a cumulative impact] is air pollution, where thousands of relatively small sources of pollution cause serious a serious environmental health problem.").
[295] *Communities for Better Env't v. Cal. Res. Agency* (2002) 103 Cal. App. 4th 98, 120.

Canadian tar sands crude is considered to be the dirtiest, most carbon-intensive fuels on the planet. NASA climatologist Jim Hansen explains:

> With today's technology there are roughly 170 billion barrels of oil to be recovered in the tar sands, and an additional 1.63 trillion barrels of worth underground if every last bit of bitumen could be separated from sand. "The amount of CO2 locked up in Alberta tar sands is enormous," notes mechanical engineer John Abraham of the University of Saint Thomas in Minnesota, another signer of the Keystone protest letter from scientists. "If we burn all the tar sand oil, the temperature rise, just from burning that tar sand, will be half of what we've already seen"—an estimated additional nearly 0.4 degree Celsius from Alberta alone.

CBE-68 cont

Notwithstanding the clear evidence documenting the effect that petroleum-refining has on GHG emissions, and enormous increase that would result from the transport, processing and refining of tar sands crudes. The RDEIR should have acknowledged the complete degree of the company's switch to this different quality crude oil feedstock and provided a suitable cumulative impacts analysis.

B. Environmental Justice Implications – A Tremendous Cumulative Impact on an Already Over-Burdened Community

Finally, it is important to note the cumulative impact of pollution on the local community. As illustrated throughout this comment, this Project as proposed will increase pollution locally, essentially relying on ERCs to mitigate a majority of pollution that occurs locally. Increased emissions in the impacted Project area will inevitably result in greater cumulative impacts especially for the communities surrounding the refinery. Santa Maria, its surrounding communities including the cities of Nipomo and Guadalupe, as well as Rodeo, and its surrounding communities, have all been identified by the Office of Environmental Health and Hazards Assessment (OEHHA) as bearing a concentrated burden of health hazards resulting from various pollution sources, including the Santa Maria and Rodeo Refinery facilities.[296] This means that impacts, which may appear insignificant by themselves, are indeed significant when considered in the context of and in combination with existing sources of environmental impacts, which often tend to be more concentrated in some areas, such as those where these two facilities are located.

CBE-69

With regard to the Santa Maria facility, Santa Maria, Nipomo and Guadalupe score high on the OEHHA's indicators used to highlight environmental justice, or highly burdened

[296] OEHHA Cal Enviro Screen 1.1 (amended), Statewide Zip code Results, Nipomo, Guadalupe, Santa Maria, available at: http://oehha.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=1d202d7d9dc84120ba5aac97f8b39c56, and Zip code Results, Rodeo, available at: http://oehha.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=1d202d7d9dc84120ba5aac97f8b39c56,

communities.[297] Some of these indicators or factors include: number of pollution sources, including active and inactive waste cleanup sites; heavy industrial facilities, such as refineries; and hazardous waste, groundwater waste, presence of ozone and ozone precursors in the ambient environment, among others. The public health indicators examined further include, *inter alia*, asthma and low birth weight rates.

Nipomo has a high concentration of solid waste sites, including both active and in-active clean-up sites.[298] This means that the residents of the Nipomo already bear the burden of existing concentrated mal-odors, methane and carbon dioxide emissions from those facilities alone.[299] Nipomo also scores within the top 3% of the state's highest Toxic Release Inventory chemical burdens and within the top 1% of the state's burden from pollution caused by pesticide use.[300] Guadalupe is identified as a linguistically isolated city, and similar to Nipomo has a high concentration of hazardous waste facilities.[301] It also bears the impacts of a high concentration of emissions from other concentrated pollution stationary sources, such as the Santa Maria Refinery.[302] The combined impacts of these factors renders that city and the surrounding area, a particularly vulnerable community that suffers a high health burden from existing contaminating sources. [303]

CBE-69 cont

Much like Nipomo and Guadalupe, Rodeo also ranks in the top 8% of the state's highest concentration of hazardous waste facilities, has a high concentration of contamination from Toxic Release Inventory chemicals, ranking in the top 3% for that factor.[304] Moreover, Rodeo also suffers from a high rate of low birth weights and asthma, ranking in the top 1 and 16% for each, respectively.[305]

The particular vulnerabilities of these communities, and the existing pollution burdens that exist in each, even without the added impacts of refining tar sands at the SFR, in combination with its related components in both the Throughput Increase and Propane Fuel Recovery Projects, demand a full analysis of the additional burden that will result from this Project. Only then can any decision making body properly ascertain the degree of significance of the cumulate impact of this Project, and the cumulative local impact is especially important. This analysis is an integral component of CEQA, one that the RDEIR illegally omitted.[306]

VI. THE RDEIR FAILS TO ANALYZE A REASONABLE RANGE OF PROJECT

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[297] *See*, OEHHA Cal Enviro Screen 1.1, Statewide Zip code Results, Nipomo, Guadalupe, Santa Maria, *supra*, at: http://oehha.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=1d202d7d9dc84120ba5aac97f8b39c56.
[298] OEHHA Cal Enviro Screen 1.1 (amended), Statewide Zip code Results, available at: http://oehha.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=1d202d7d9dc84120ba5aac97f8b39c56.
[299] OEHHA, California *Communities Environmental Health Screening Tool, Version 1.1 Guidance and Screening Tool*, September 2013 Update, Matthew Rodriguez, Cal EPA, and George V. Alexeeff, Ph.D., Director of OEHHA, available at: http://oehha.ca.gov/ej/pdf/CalEnviroscreenVer11report.pdf.
[300] *See* OEHHA Cal Enviro Screen 1.1, *supra*, and *see, Id*.
[301] *Id*.
[302] *Id*.
[303] *Id*.
[304] OEHHA, Cal Enviro Screen 1.1 (amended), Statewide Zip code Results, Rodeo, at: http://oehha.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=1d202d7d9dc84120ba5aac97f8b39c56.
[305] *Id*.
[306] CEQA Guidelines §§ 15064(d), 15125(c); *see also, Kings County Farm Bureau*, 221 Cal. App. 3d 692, 729.

ALTERNATIVES.

An EIR is not considered complete unless it has considered a "reasonable range of potentially feasible alternatives" to a proposed project.[307] The feasibility of an alternative is determined if it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."[308] An EIR's alternatives analysis is considered satisfactory as long as it contains "sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project."[309] "The degree of specificity required in an EIR 'will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.'"[310] Therefore, an EIR must contain more details for a specific project than an EIR for an approval of a general plan.[311]

The RDEIR fails to evaluate a reasonable range of alternatives and consider the alternatives in sufficient detail to allow a meaningful analysis and evaluation.[312] The RDEIR analyzed only two alternatives—a no project alternative, a loop rail unloading configuration alternative, and a reduced rail delivery alternative.[313] The RDEIR also identified three other alternatives that were considered, but rejected because they were either not technically feasible, failed to attain the basic objectives of the project, or would result in greater impacts than the proposed project. These rejected alternatives include two crude transportation alternatives (trucking and marine transport) and an alternative rail unloading sites alternative.[314] CBE-70

CEQA does not have an established legal standard for the scope of the alternatives considered, but courts have held the scope of the alternative "must be evaluated on its facts," on a case-by-case basis.[315] The rule of reason judges the scope of the alternatives.[316]

Parties objecting to the EIR are not responsible for formulating alternatives for consideration—the lead agency bears this burden.[317] Objecting parties will rarely have access to the same information that the lead agency does, and thus will be limited in their ability to suggest sufficiently detailed and specific alternatives.[318] The lead agency is in a better position to make these suggestions since they probably have greater access to information than the objecting parties.[319] However, the following discussion illustrates the inadequacy of the alternatives analysis contained in the RDEIR.

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[307] CEQA Guidelines § 15126.6(a).
[308] Cal. Pub. Res. Code § 21061.1.
[309] CEQA Guidelines § 15126.6(d).
[310] *Al Larson Boat Shop, Inc. v. Bd. of Harbor Commrs*. (2d Dist. 1993) 18 Cal.App.4th 729, 746 (quoting CEQA Guidelines § 15146).
[311] *See id.*
[312] *See* CEQA Guidelines § 15126.6(d).
[313] See RDEIR Table 5.10, p. 5-53.
[314] *See* RDEIR at 5-2.
[315] *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 566.
[316] CEQA Guidelines § 15126.6(a).
[317] *See Laurel Heights I*, 47 Cal.3d at 406.
[318] *Id.*
[319] *See id.*

The RDEIR fails to consider an alternative that would avoid putting people in unnecessary danger during the transport of the volatile crude. The Project as proposed involves locomotives travelling through highly densely populated areas of central California, including Sacramento. This route exposes a large population to air emissions associated with locomotive operation, and greatly increases the human health and safety risks of potential accidents or spills. Along the route is the Sacramento-San Joaquin Delta. The delta is home to a number of native Californian species, used for major agricultural purposes in the state, and is a major water source for much of the state. A spill or train derailment in this area, of any magnitude, risks the health and safety of not only those in the surrounding area, but all over the state as well.

CBE-70 cont

Alternative modes of transporting crude oil from across North America should also be analyzed more thoroughly. Though two options were preliminarily considered, these alternatives were not fully analyzed in the RDEIR. Finally, given the dwindling local supply of crude oil feedstock for the Santa Maria facility and the potentially massive overhaul to a different quality feedstock on account of this and other connected Phillips 66 projects, the point must be made that the existing facility will soon outlive its purpose. Thus, Phillips' proposal presents a choice: should it be allowed to extend this refining operation for several decades by re-purposing the Santa Maria facility to process tar sands oil that is imported by rail? The RDEIR should have evaluated, instead of obscuring, this choice and its environmental implications. The RDEIR failed to include this and other reasonable alternatives in its analysis, and the document should be revised and recirculated to correct these deficiencies.

VII. CONCLUSION

For the reasons stated above, the RDEIR remains inadequate under CEQA. The County must substantially revise and recirculate the document in order to correct its numerous defects.

It is important to note that the RDEIR does not provide a sufficient basis for the County to make a statement of overriding considerations. In order to approve an EIR with significant and unavoidable impacts, the lead agency must also make a statement of overriding considerations explaining why the benefits of the project would outweigh the significant environment impacts.[320] This statement must be supported by substantial evidence in the record.[321] This RDEIR identifies a number of impacts that it has found to be significant and unavoidable, including significant deterioration of air quality in San Luis Obispo County and along the UPRR mainline, increased risk of catastrophic train derailments and explosions, and degradation of sensitive biological resources. In order to approve the RDEIR with these significant impacts unmitigated, the County must make a finding that the benefits of the project outweigh those impacts.[322]

CBE-71

There is no basis for a finding that the benefits of the Project would outweigh its significant costs to the environment and to the health and safety of the thousands of people living in San Luis Obispo County and along the UPRR main line. The RDEIR offers an obscured project objective in an apparent attempt to suggest that the County develop a statement of

[320] CEQA Guidelines §§ 15092, 15093.
[321] *Id.* § 15093(b).
[322] *Id.*

overriding considerations, include allowing the refinery to obtain a range of competitively priced crude oils, and "[m]aximiz[ing] the use of existing infrastructure and resources to support the economic vitality of the County and State."[323] However, the RDEIR later notes that "[g]iven the limited increase in local expenditures associated with the Rail Spur Project, the economic growth associated with future development at the proposed project site would not be significant," and "minimal new operational employment would be associated with the Rail Spur Project."[324]

CBE-71 cont

Finally, the County is not presented with a complete picture of this Project. The RDEIR restricts the Project in scope, diminishing its impacts, and making any weighing or calculation of the costs and benefits of the Project impossible. Any determination to the contrary is not supported by substantial evidence, violates CEQA, and would display a total disregard for public and worker health and safety. For these, and the reasons listed above and detailed in the accompanying attachments, the County must reject this RDEIR, revise its flawed analyses and recirculate it for public comment under the procedures for a programmatic level EIR.

Sincerely,

Roger Lin
Yana Garcia
Heather Lewis
on behalf of Communities for a Better Environment

Devorah Ancel
on behalf of Sierra Club

Shaye Wolf
on behalf of the Center for Biological Diversity

Ethan Buckner
on behalf of ForestEthics

Comment supported by:

The California Nurses Association
The City of Berkeley
West Oakland Environmental Indicators Project
Crockett Rodeo United to Defend the Environment (C.R.U.D.E.)
West Oakland Environmental Indicators Project
Energy-Climate Committee, Sierra Club California
South Asian Americans for Climate Justice
The SunFlower Alliance
Wellstone Democratic Club
Citizens Against Hazardous Oil Trains (Fremont)
Idle No More SF Bay Area
350 Bay Area
350 Silicon Valley
GreenAction for Health and Environmental Justice
San Francisco Baykeeper
Pittsburg Defense Council

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[323] RDEIR at 2-1 to -3.
[324] RDEIR at 6-2.

Martinez Environmental Group
Bay Area Refinery Corridor Coalition
Benicians for a Safe and Healthy Community
East Yard Communities for Environmental Justice
Santa Clara Valley Audubon Society
Associated Students of the University of California (ASUC), Berkeley
Niles Discovery Church
The Environmental Defense Center (Santa Barbara)

CBE-01	This is a general comment about the adequacy of the EIR. The comment does not provide any specific comments but rather refers to the comments contained in the letter. As such, no further response is required.
CBE-02	See Responses CBE-06, CBE-76, CBE-78 and CBE-87 through 92.
CBE-03	This comment is a general comment about the groups who submitted the comment letter and not about the adequacy of the EIR. No further response is required.
CBE-04	This comment does not address any concern or issue specifically related to the adequacy of the RDEIR or the proposed Project, but rather refers to the expert reports submitted with the comments, which identify adequacy issues with the EIR. Responses to the specific comments in the expert reports are provided below. No further response to this comment is required.
CBE-05	This comment does not address any concern or issue specifically related to the adequacy of the RDEIR or the proposed Project but makes general recommendations that the proposed Project should have been evaluated within a programmatic EIR. See Responses CBE-76, CBE-78, CBE-84/85, CBE-87 through 92, and CBE-93 that deal with the issue of piecemealing.
CBE-06	The RDEIR evaluated the impacts of a change in crude slate at the SMR. The impact assessment was based upon the worst case assumption that the crude being processed by the SMR would be all tar sands. Table 2.6 of the RDEIR provides a list of the key properties of the current crude oil slate and tar sands oil that could be handled by the SMR, and used the properties of the tar sand soil in evaluating the impacts of the crude oil change. This is clearly shown in impact AQ.4 (Section 4.3 Air Quality), where the BTEX emissions where assumed to increase from 0.81 to 1.25% as shown in Table 4.3.13. The 1.25% BTEX level is the highest number associated with processing all Access Western Blend. As discussed in AQ.4 the level of resid processing at the SMR with all tar sand oil would not increase as shown in Figure 2-11 (see Chapter 2.0, Project Description). Therefore, coke production would not increase over what is currently produced based upon the current typical crude blend so there would be no increase in emissions associated with transportation of coke. The RDEIR also evaluated the impacts of the potential increase in sulfur content in the crude to 5%, which is the highest level provided in Table 2.6 for Peace River Heavy. The refinery impacts associated with sulfur changes in the crude were based upon a 0.8% increase in sulfur content of the crude, which is the difference between the typical current crude blend of 4.2% and the 5% for Peace River Heavy. In fact the Access Western Blend crude, which is another possible tar sand source of crude discussed in the RDEIR, would have a lower sulfur level than the current typical crude blend. Section 4.3.4.2 of the RDEIR states that a by-product of the refinery operations

	is elemental sulfur. The elemental sulfur that is produced by the refinery is trucked offsite. The potential crude delivered by rail could have slightly higher sulfur content than the typical crude blend that is currently being run by the refinery. However, the sulfur would be in the range of the major crude sources used at the refinery. This slight increase in sulfur content would not be expected to increase emissions from the sulfur plant, which has strict emission limits within the SLOCAPCD permit. It is possible that with the rail project crude there would be a slight increase in sulfur truck trips. The truck trips for sulfur were 1,624 in 2013. The refinery is limited to a maximum of 14 truck trips per day for sulfur. They are currently averaging about 6 truck trips per day assuming five days per week for trucking sulfur. Assuming an increase of 0.8% sulfur in the crude by weight the number of additional truck trips for sulfur would be about 309 per year (about one additional truck trip per day). This potential increase in sulfur truck trips would be within the truck trips currently allowed for the refinery (14 truck trips per day). These additional truck trips are also addressed in Section 4.12, Transportation and Circulation. Impact HM.3 (Section 4.7, Hazards and Hazardous Materials) discusses the hazard impacts of a change in crude slate to tar sands. As discussed in Impact HM.3, the data in Table 4.7.14 shows that the expected range of sulfur and TAN would be within the range of the crudes that are currently being processed at the SMR. Therefore, the change in crude slate would not be expected to change the sulfur or TAN levels compared to the crude sources that are currently being processed at the SMR. It is possible that the TAN could increase when compared to the typical crude blend. However, with the programs and management systems, discussed above, in place, this potential increase would not be expected to increase the hazards or likelihood of a release at the SMR. These statements are based upon the highest levels of sulfur and TAN for the two tar sands crude oils addressed in the RDEIR. The proposed project at the SMR does not involve any changes to the processing equipment at the refinery. The SMR is designed to handle heavy sour crude and has design limits on the types of crude that can be processed. The proposed project would not change any of these design limits. This is very different from issues in the *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4 70, case cited in the comment. In this case the Chevron Richmond Refinery was proposing major processing changes at the refinery that would allow the refinery to handle a wider range of crude oils. The Rail Spur Project does not propose any changes to the processing equipment that would expand the types of crude oils the refinery is capable of processing. It is not possible to predict precisely which crude oils will be delivered to the SMR via rail. One of the objectives of the project is to provide greater access to the larger crude oil market, and the specific crudes received by rail would likely vary from time to time as has been the case for the current refinery crude slate.

	However, the crude oil types shown in Table 2.6 (Chapter 2.0, Project Description) provide a reasonable representation of the range of crude oil types that could be processed based on current economics and crude oil availability. The Rail Spur Project is not predicated on any single crude, but is designed to handle a variety of crude oils that can be generically described as heavy, sour crudes. “Heavy” crudes are generally considered to be those with API gravity of approximately 20 to 30 or less. “Sour” crudes are generally considered to be those with sulfur content greater than 1.0%. These are the types of crude oils that the SMR is designed to handle. The Rail Spur Project does not involve any changes to the processing equipment at the refinery that would expand the types of crude oils the refinery is capable of processing. The Rail Spur Project will bring crude oils to SMR that are comparable to those historically processed at the facility, particularly with respect to sulfur concentration, metals concentration, and volume percent of crude oil fraction that is processed at the coker. The RDEIR project description clearly discusses the all aspects of the project including the increased processing of tar sands that would be delivered by rail. The analysis in the RDEIR of impacts of this change in crude slate is based upon the worst case of only tar sand crude being processed at the SMR. In the *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, case cited in the comment the EIR did not include a sewer expansion in the project description, which was recognized by the RDEIR as necessary to the project, and its effects were ignored in the FEIR. The FEIR was thus premised on an improperly "curtailed" and "distorted" project description. This does not apply to the Rail Spur RDEIR since the issue of crude slate change has been discussed in the EIR and the impacts of this change have been evaluated.
CBE-07	See Responses CBE-76, CBE-78, CBE-84/85, CBE-87 through 92, and CBE-93 that deal with the issue of piecemealing.
CBE-08	See Response to CBE-76 and CBE-77. Table 4.3.6 provides the baseline SMR emissions without the Throughput Increase Project, and was taken from the baseline section of the Throughput Increase EIR. Table 4.3.7 is the baseline SMR offsite vehicle emissions without the Throughput Increase Project, and some of the data was taken from the baseline section of the Throughput Increase EIR. None of the data presented in these two tables has anything to do with the air emissions associated with the Throughput Increase Project, but rather are establishing the baseline conditions at the SMR. Table 4.3.26 is part of the cumulative impact discussion. The Throughput Increase Project was considered as part of the cumulative analysis as required by CEQA. As a condition of approval of the Phillips 66 Throughput Increase Project (approved by the County Board of Supervisors in February 2013), Phillips 66

	was required to provide an offer to dedicate vertical public right of coastal access at the SMR site. The permit conditions require Phillips 66 to provide vertical public access from State Route 1 to their western property line to comply with the coastal access provisions of the Coastal Zone Land Use Ordinance (CZLUO). The condition of approval for the Throughput Increase Project requires that the coastal accessway be developed within 10 years of permit issuance or at the time of any subsequent use permit approval at the project site, whichever occurs first. The proposed Rail Spur Project was the next subsequent use permit for the SMR so the Vertical Coastal Accessway had to be addressed in the Rail Spur EIR. The *Tuolumne County Citizens for Responsible Growth v. City of Sonaro (2007)*, 155 Cal. App. 4th 1214 case cited in the comment dealt with the permitting of a Lowes Home Improvement Center and whether the realignment of a road should have been included as part of the Project. The court found that there was a strong connection between the road realignment and the completion of the proposed home improvement center because the project was required to fund and complete the road realignment prior to implementing the project. In essence the court found that the home improvement center was dependent upon the completion of the road widening project, and therefore should have been included as part of the project. This case would not apply here since the Throughput Increase Project, Rail Spur Project, and the Vertical Coastal Accessway are not dependent upon each other. The Throughput Increase Project and Rail Spur Project can operate independently of the Vertical Coastal Accessway. This is clearly demonstrated by the fact the permit condition allowed up to 10 years for development of the Vertical Coastal Accessway. In requiring the condition for the Vertical Coastal Accessway, the County was implementing the requirements of the County's Coastal Zone Land Use Ordinance (CZLUO) to protect public access to the coast by requiring development occurring between the first public road and the tidelands to provide coastal access to the public. (23.04.420). The County's condition of approval on the Throughput Project requires that the access be consistent with the standards of Section 23.04.420 of the Coastal Zone Land Use Ordinance, including provisions that a vertical right of access be provided for each mile of coastal frontage, unless that access would be inconsistent with public safety, military security needs or the protection of fragile coastal resources. The purpose of the Vertical Coastal Accessway analysis in the Rail Spur EIR is to determine (1) whether coastal access is appropriate for the SMR site consistent with the standards of Section 23.04.420 of the Coastal Zone Land Use Ordinance; and (2) what intensity and type of coastal access is appropriate at the SMR site. If the County determines that coastal access at this location is appropriate, then

	Phillips 66 and the County could use the information in the Rail Spur EIR to assist in developing a final design for the coastal access (if substantial improvements would be required); or could rely on the information in this EIR to develop a coastal access way (if only minor improvements are required). If the County finds that coastal access for this location is consistent with the requirements of Section 23.04.420 of the Coastal Zone Land Use Ordinance, but substantial improvements are required to provide the appropriate type of access, then additional environmental review and an appropriate environmental determination may be required prior to final approval of the improvements. An additional Coastal Development Permit would also be required for improvements based on the location of coastal access and resources found in the vicinity of the identified alignment.
CBE-09	See Responses CBE-76, CBE-78, CBE-84/85, CBE-87 through 92, and CBE-93 that deal with the issue of piecemealing.
CBE-10	See Responses CBE-76, CBE-78, CBE-84/85, CBE-87 through 92, and CBE-93 that deal with the issue of piecemealing.
CBE-11	The RDEIR recognizes that federal law operates to preempt local agencies from imposing requirements on interstate rail operations and that these laws may preclude the County from adequately ensuring that mitigation measures are adhered to. As a result, the RDEIR takes a conservative approach to the evaluation of impacts by recognizing that federal law may preempt the County from imposing conditions of approval that would mitigate these impacts, potentially resulting in unmitigated significant impacts. This satisfies the information disclosure requirements of CEQA and will allow the County decision makers to evaluate the full spectrum of potential environmental impacts as well as possible measures to mitigate the impacts.
CBE-12	The RDEIR does not conclude that mitigation for impacts that may occur along the mainline is infeasible due to preemption. Instead, the RDEIR recognizes that federal law preempts local agencies from imposing requirements on interstate rail operations and that these laws may preclude the County from adequately ensuring that mitigation measures are adhered to. The RDEIR conservatively evaluates the Project's potential impacts by recognizing that federal law may preempt the County from imposing conditions of approval that would mitigate identified impacts, potentially resulting in unmitigated significant impacts. This satisfies the information disclosure requirements of CEQA and will allow the County decision makers to evaluate the full spectrum of potential environmental impacts as well as possible measures to mitigate the impacts.
CBE-13	It is unclear whether the mitigation measures discussed in this comment would fall under the "essentially local safety hazard" exception to the ICCTA's preemption provisions. Courts have tended to narrowly circumscribe the types

	of local regulations that fall within this exception. The RDEIR conservatively evaluates the Project's potential impacts by recognizing that federal law may preempt the County from imposing conditions of approval that would mitigate identified impacts, potentially resulting in unmitigated significant impacts. This satisfies the information disclosure requirements of CEQA and will allow the County decision makers to evaluate the full spectrum of potential environmental impacts as well as possible measures to mitigate the impacts.
CBE-14	It is unclear whether federal law would preempt the County from imposing measures that would mitigate impacts such as air quality and water quality that other federal statutes regulate. The RDEIR conservatively evaluates the Project's potential impacts by recognizing that federal law may preempt the County from imposing conditions of approval that would mitigate identified impacts, potentially resulting in unmitigated significant impacts. This satisfies the information disclosure requirements of CEQA and will allow the County decision makers to evaluate the full spectrum of potential environmental impacts as well as possible measures to mitigate the impacts.
CBE-15	This comment is an introductory comment about the perceived lack of analysis of mitigation measures and refers to specific comments below. Responses to the specific comments are provided below. No further response is required to the comment.
CBE-16	The EIR indicates that the Project would produce significant and unavoidable impacts to air quality in a number of areas, including for criteria pollutants and for GHG emissions. Emission estimates followed standard practices for estimating emissions, as defined by the EPA, CARB and the SLOCAPCD. The SLOCAPCD reviewed the emissions calculations on multiple occasions through the draft stages and modifications were made to the emissions methodologies based on these comments.
CBE-17	The EIR examined air emissions within California, not just within SLOCAPCD. Impacts would be basin-dependant, however, as emissions of criteria pollutants does not produce impacts in areas that are separated from the emission source by geography. This is why California is divided into different air basins and Districts. Emissions in the San Joaquin Valley do not impact the health of residents in SLOC, for example. The use of the SLOCAPCD thresholds for emissions within SLOC accurately portrays the potential impacts on residents within SLOC. Emissions that occur elsewhere do not impact SLOC residents. Emissions levels and threshold exceedances are listed in the EIR (Table 4.3.18 and 4.3.21 in the RDEIR). GHG emissions are quantified on a larger scale as GHG emissions can be more global in nature.
CBE-18	The final appealed decision for CBE vs. SCAQMD addressed the issue of baseline associated with a project that had previously undergone CEQA review. The use of permitted levels for the baseline was not considered to be in compliance with CEQA *unless* the permitted levels had already undergone

	previous CEQA review. The permitted levels at the SMR have undergone previous CEQA review.
CBE-19	The EIR examined the increase in toxic fugitive emissions for the refining of the proposed crude oils by examining the increase in BTEX emissions from fugitive components at the SMR, including emissions from the crude tanks. These increases in BTEX are determined to have a nominal effect on health risk. See Impacts AQ.2 and AQ.4 in Section 4.3, Air Quality and Greenhouse Gas Emissions and Appendix B.2.
CBE-20	The EIR examined the increase in toxic fugitive emissions for the refining of the proposed crude oils by examining the increase in BTEX emissions from fugitive components at the SMR, including emissions from the crude tanks. These increases in BTEX are determined to have a nominal effect on health risk. The increased levels of nickel, vanadium, lead and copper do not affect air emissions as none of the crude oil is combusted and none of the metals are carried over in the fuel gas. The metals would remain in the coke. Sulfur production would increase producing potentially more sulfur trucks trips, as discussed in Section 4.3.4.2 (see Section 4.3 Air Quality and Greenhouse Gases).
CBE-21	The potential increase in BTEX has been addressed in the EIR. See Impacts AQ.2 and AQ.4 in Section 4.3, Air Quality and Greenhouse Gas Emissions. However, during the Enbridge Spill, 1,086 air samples of benzene levels, for example, were measured and 21 of the samples showed air concentrations above the EPA action levels (http://www.epa.gov/enbridgespill/data/dataair.html) of 6 ppb, indicating that some volatiles were present in the spilled materials although not very much. Sampling conducted by the Michigan Department Of Natural Resources And Environment Environmental Laboratory on the crude oil in the Enbridge pipeline (which was dilbit from Canada, same as would be expected for the proposed project) indicated that benzene could be as high as 1,100 ppm in the crude, Xylene as high as 1,200 ppm and Toluene as high as 1,900 ppm (measured as mg/kg) (http://www.epa.gov/enbridgespill/data/index.html#aqdata). The results indicated a BTEX concentration of about 0.50%, or, as per Table 4.3.13 in the EIR, within or below the range of crude oils currently processed by the SMR. The Keystone Pipeline FEIS (2013) also examined a wide range of crude oils and demonstrated that the " BTEX content of the dilbits [from Canada] is much lower than that of many lighter crude oils" The EIR analyzed a BTEX concentration of 1.25% to be conservative which indicated nominal increases in health risk.
CBE-22	BTEX is included in the EIR Health Risk Analysis for cancer and for chronic and acute impacts, utilizing the computer models developed by OEHHA, as well as incorporating potential future changes to the HRA models anticipated to

	be generated by OEHHA in early 2015. The amount of BTEX emitted by fugitive emissions from the rail unloading operations would be minimal compared to the BTEX emissions from refinery equipment and tanks. Similarly, the amount of BTEX emitted from traveling trains would be minimal and the exposure levels would only occur at a single, fixed receptor for a period of a few minutes each day, thereby not contributing to cancer or non-cancer health risks along the mainline tracks.
CBE-23	As discussed above in Response to CBE-21, BTEX levels of the proposed project crude do not present a "far greater" amount of BTEX from fugitive components. In addition, fugitive emissions from components are estimated based on industry-wide average emission rates developed by the EPA and include a wide range of crude oil types, volatilities, BTEX fractions and compositions. The EIR demonstrated that changes to health risk due to a potential increase in BTEX to 1.25% are nominal and do not require further analysis. See Appendix B.2.
CBE-24	The EIR provides full disclosure to the decision makers and the public about mitigation measures that could reduce emissions, including the use of cleaner locomotives, reduced idling, etc. The EIR also discloses the scenario where the lead agency would not be able to apply these mitigation measures due to preemption. The EIR examines and presents the impact of the change in crude slate on the emissions at the SMR, including the increase in BTEX emissions from fugitive components and the increase in sulfur truck trips due to an increase in crude sulfur. Note that the increase in BTEX and the resulting impact on health risk were determined to be nominal, which would correlate to any increase in BTEX emissions from the SFR as well. See Appendix B.2. See Responses to CBE-84, CBE-85, and CEB-111 regarding increased amounts of propane and butane. Response to these comments indicate that the diluent would have very little propane and would not contribute to an increase in the propane produced as part of the Rodeo Refinery propane project. Changes to the Rodeo Refinery, such as increased flaring, etc, are not anticipated with the refining of the different crude slate. The "dirtier" crude would be partially processed at SMR, removing most of the heavier ends of the crude at the SMR, and refining at Rodeo would be within the range of historical crude oil refined at Rodeo.
CBE-25	More recent references to IPCC 2014, for example, have been added to the EIR. The conclusion of IPCC 2007 and IPCC 2014 are similar in that they all indicate a strong need to reduce GHG emissions in the near and long term in order to keep climate change to levels that will minimize impacts. Emissions of GHG produced by the project would be mitigated to the extent allowable under the possible preemption issue. However, under the preemption scenario, GHG emissions would remain significant and unavoidable and impacts are therefore defined as Class I in the RDEIR.

CBE-26	The refining of the different crude slate associated with this project would not produce different GHG emissions at the SMR than the normal range of crude oils refined at the SMR. Note that some Canadian crude oils are currently being processed at the SMR, transported by rail to Bakersfield, then by truck to the SMPS. GHG emissions are attributable to removal of the heavier ends, such as at the SMR, and associated with the cracking and formulation of lighter ends, such as gasoline, at the Rodeo Refinery. These activities would be within the range of normal activities at each refinery. Mining of the Tar Sands can produce higher GHG than conventional extraction methods. The additional GHG emissions associated with mining the tar sands, such as steaming or excavation, would occur no matter the destination of the crude oil, whether the crude oil is destined for the SMR, or other locations within the U.S or outside the U.S. Note that the EIR did analyze offsite emissions, including the potential increase in electrical consumption associated with rail unloading. Other changes in indirect emissions, such as a change in the GHG emissions at the Rodeo Refinery, are not anticipated. Extraction GHG emissions would occur regardless of the status of this project and are therefore not analyzed as they would not be affected by this project. GHG emissions have impacts on climate change regardless of the location of the emission source. The use of GHG credits from any reliable, verifiable reduction world-wide would be acceptable credits to offset the GHG emissions from this project and the mitigation measure is therefore acceptable. The SLOCAPCD and the County will determine the acceptability of GHG credits. Credits are widely used, as they are used for the CA cap-and-trade program as well, and are an acceptable form of reducing GHG emissions. CEQA assumes that projects will comply with regulations and rulings. otherwise, CEQA documents would be full of mitigations measures that just reflect current rules and regulations. This is particularly the case in Air Quality, as a regulating body, the SLOCAPCD, has numerous rules and regulations related to construction and operational equipment and emissions. The development of acceptable credits is defined in the mitigation measure as requiring the approval of the County. A mitigation measure needs to mitigate an impact as identified in the CEQA document. The impact is due to the emissions of GHGs. The nexus for the application of the mitigation is therefore the emissions of GHG and the resulting possible impact on climate change. Developing local jobs, for example, while a valuable side effect, does not mitigate the impact and the EIR does not have a nexus for requiring that GHG credits be local. As indicated above, GHG emissions have impacts on climate change regardless of the location of the emission source. The use of GHG credits from any reliable, verifiable reduction world-wide would be acceptable credits to offset the GHG

	emissions from this project
CBE-27	The mitigation measures have been developed in coordination with the SLOCAPCD. ERC are standard practice in many air districts state-wide to reduce the impacts of criteria pollutant emissions.
CBE-28	Information on ERC available within SLOC have been added to the EIR, as per communication with the SLOCAPCD. The calciner agreement has also been mentioned. However, as indicated above, CEQA assumes that projects will comply with regulations and rulings and a detailed discussion with additional mitigation measures in regards to the use of the ERC for the calciner shutdown are not needed.
CBE-29	Emission reduction credits are a method used throughout California Air Districts to reduce emissions of criteria pollutants on a regional, basin-wide basis and have contributed to the increasing quality of the air in California over the past 2 decades. Impacts of criteria pollutants are spatially large and affect areas through the basin due to the reaction times associated with ozone production. The use of ERCs is accepted practice by the SLOCAPCD and was included as mitigation in the RDEIR.
CBE-30	For issues related to potential changes in the refinery crude slate, please see the Response to CBE-32 and CBE-33. Please see Response to CBE-32, CBE-36 and CBE-38 regarding the risk analysis methodology. Please see Response to CBE-34 and CBE-35 regarding issues associated with deferred mitigation.
CBE-31	Impact WR.3 (Section 4.13 Water Resources) discusses the issue of diluted bitumencrude oils sinking if spilled into waterways. This impact discussion talks about the spill into the Kalamazoo River, which involved a diluted bitumen crude oil. Mitigation measure BIO-11 specifies detailed performance standards for an Oil Spill Contingency Plan, which would address responding to diluted bitumen crude oils. Historically, lower quality crude oils (lower API gravity, higher sulfur) have traded at price discounts because lower prices are required to compensate refiners for the additional capital and operating costs they incur to process these grades. In order for a refinery to be able to process these cheaper crude oils, capital investments in heavy upgrading process units and corrosion-resistant metallurgy is required. The SMR has historically processed heavy crude oils, including many with highly corrosive characteristics. The SMR is designed to refine low quality crude oil, including Canadian Tar Sands.
CBE-32	The RDEIR provides a comprehensive evaluation of crude oil transportation

	risk through the preparation of a Quantitative Risk Analysis (QRA). The QRA evaluates mainline rail risk based on nationwide rail accident data, including the root causes of these accidents. The QRA provides the overall assessment of risks associated with the project. The RDEIR also provides separate discussions of specific issues associated with the change in crude slate and impacts associated with the unique qualities of Canadian Tar Sands and other crude oil sources. For example, Impact HM.3 provides a clear evaluation of potential impacts associated with potential changes in the refinery crude slate, while Impact WR.3 provides a detailed discussion of oil spill cleanup challenges associated with dilbit crudes. The RDEIR provides a comprehensive evaluation of potential accidents and risk associated with the rail unloading facility and pipeline between the unloading facility and existing storage tanks. The comment mischaracterizes the spill scenarios that were evaluated by only noting the reference to the most likely spill from a loading line failure, cut chooses to ignore the analysis of the worst-case oil spill associated with a failure of the pipeline between the unloading facility and existing storage tanks. The comment is correct in noting that a catastrophic spill from a tank car was not considered, mainly because the slow train speeds in the refinery (approximately 3 mph) is much lower than the speed necessary to cause a shell breach of the tank car. The estimated shell and head puncture velocity of the tank car design proposed for use by the Applicant are 8.3 and 10.3 miles per hour respectively (USDOT 2014). In evaluating the risk at the unloading facility and refinery, potential hazard zones were estimated for the most likely and worst-case hazards noted above. Given the large size of the refinery property and the limited potential for offsite exposure, the risks to the public were considered less than significant. The RDEIR examined changes in emissions associated with a change of slate, as indicated in Section 4.3.4.2, Air Quality and Greenhouse Gases, which states" For the SMR, key crude slate parameters that could impact air emissions include the percent of BTEX, vacuum resid, sulfur and metals in the crude oil. " The BTEX was analyzed in the health risk assessment to determine the increased health risk. Increased sulfur was assessed as to the increased sulfur truck trips that would be required. None of the other components would alter the emissions at the refinery as the heavy metals would not be emitted into the air from the SMR. Note that as the API gravity would be similar, the emissions of volatile components (ROG) from fugitive emissions would be similar with the change in crude slate. BTEX levels of Canadian tar sands crude oil are similar to other heavy crude oil processed by the SMR and the RDEIR demonstrates that any increases in BTEX would generate a nominal increase in health risk. See Response to CBE-21 and CBE-23. The metals in the tar sands oil would not be volatilized at the SMR or along transportation routes and would therefore not contribute to increases in air-based health risk.

	The Canadian tar sands are not as "explosive" as Bakken crude oil and present similar risks to the rail transportation of heavy crudes that currently occur within California and through SLOC. The increased levels of nickel, vanadium, lead and copper do not affect air emissions as none of the crude oil is combusted and none of the metals are carried over in the fuel gas. The metals would remain in the coke. Sulfur production would increase producing potentially more sulfur trucks trips, as discussed in the RDEIR (see Section 4.3, Air Quality and Greenhouse Gases and 4.12, Transportation and Circulation). The use of higher sulfur crude oils would increase the amount of sulfur produced at the SMR. This increase in sulfur and the associated truck trips are addressed in the RDEIR in Section 4.3, Air Quality and Greenhouse Gases. Emissions of sulfur dioxide are not anticipated to increase as most of the sulfur in the crude is removed as elemental sulfur and trucked from the site and the SLOCAPCD has limits on the emissions of sulfur dioxide from the refinery processing equipment. As the SMR already processes heavy crude oils, and the tar sands crude oils would have a similar proportion of heavier materials, the production of coke is not expected to change with the project. Additional information on the make up the projected crudes compared with the current crude slate at the SMR is provided in Chapter 2.0, Project Description. A study performed by the SLOCAPCD, the South County Phase 2 Particulate Study, evaluated whether impacts from off-road vehicle activities at the Oceano Dunes State Vehicle Recreational Area (SVRA), the Phillips Refinery coke piles, and adjacent agricultural fields were contributing to the particulate problems on the Nipomo Mesa (SLOC APCD 2010). The Phase 2 portion of the study concluded that off-road vehicle activity in the SVRA is a major contributing factor to the PM concentrations observed on the Nipomo Mesa and that neither the petroleum coke piles at the Phillips facility nor agricultural fields or activities in and around the area are a significant source of ambient PM on the Nipomo Mesa. The composition of the particulates is predominately natural crustal particles. The SLOCAPCD has determined that the dune complex along the coast of the Five Cities area is the source of the high particulate matter levels measured at the South Coast stations (SLOCAPCD Annual Emissions Report, 2013). The SMR has a coke dust plan to reduce coke dust and it does involve watering. However, the proposed Project is not anticipated to increase coke handling or contribute to dust particulate levels in the area. Air quality violations on the mesa a primarily associated with natural crustal particulates.
CBE-33	This comment completely ignores the information on crude slate characteristics and hazards presented in the RDEIR as Impact HM.3, in Section 4.7, Hazards and Hazardous Materials. As noted in the RDEIR, the SMR is designed to

	handle heavy sour crude, to only partially refine crude oil to extract intermediates and gases, and uses the heavier crude oil components to produce petroleum coke. The SMR, as with all refineries, is similar to other manufacturing facilities that regularly evaluate their principal manufacturing feedstocks in terms of availability, suitability, and economics. This is certainly true of the crude oil feedstock used at the SMR. The refinery processes a range of crude oils from different sources, and the crudes have varied over time. In addition, the refinery often blends crudes from multiple sources prior to processing to assure the crude is within the processing design limits of the refinery. For the SMR, key crude slate parameters that could impact hazards and potential releases at the refinery have to do with the corrosivity of the crude oil. RDEIR Table 4.7.14 provided the key corrosivity driving properties (sulfur and total acid number (TAN)) of the typical crude blend and range of major crudes processed at the SMR as well as a range of typical crudes that could be delivered by rail. Naphthenic acids are natural constituents in many petroleum sources, including bitumen from oil sands. Naphthenic acids can create corrosion problems. This type of corrosion is referred to as naphthenic acid corrosion (NAC). Because of the lack of available naphthenic acid concentration data for crude oil, the petroleum industry uses a measurement known as the total acid number (TAN) to qualitatively measure the potential for an oil to produce such corrosion problems. High sulfur levels can lead to sulfide related corrosion. SMR currently processes sour, heavy crudes with elevated levels of sulfur and organic acids. The SMR follow the guidelines laid out in the American Petroleum Institute Recommended Practice "Guidelines for Avoiding Sulfidation Corrosion Failures in Oil Refineries". Phillips 66 also has a required standard for their refineries (M-42-RS-03 "Sulfidation Service Equipment."), which the SMR is in compliance with. Both these documents provide rules and guidelines to monitor, mitigate and prevent sulfidation corrosion of process equipment. With respect to organic acid corrosion, SMR follows generally accepted industry practices and the Phillips 66 Consensus Best Practice for "Naphthenic Acid Service Equipment." This document provides guidelines and recommendations for appropriate metallurgy and wide-spread risk based inspection including inspection frequency and methods, use of corrosion inhibitors and suggestions for possible equipment locations, material types, fluid velocities and temperature ranges where naphthenic acid corrosion may be expected to occur. SMR has a comprehensive inspection and monitoring program for naphthenic acid corrosion and has made numerous metallurgical upgrades of piping and equipment in response to program findings. Phillips 66 has approved capital projects planned between now and 2015 to further upgrade

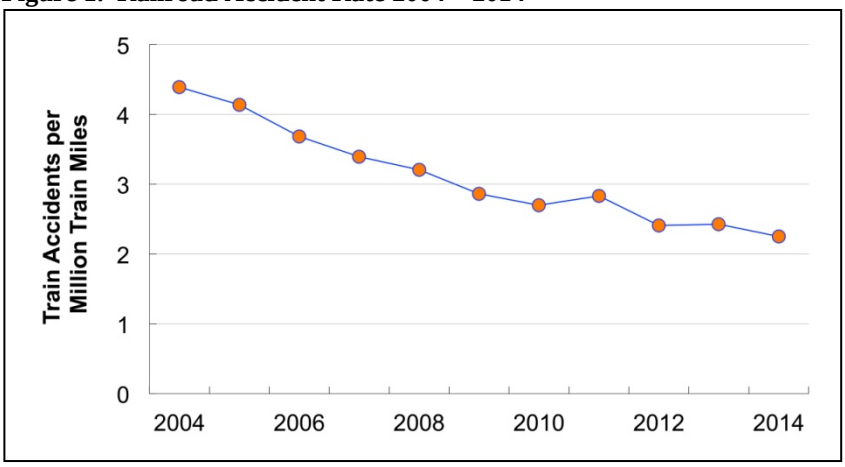
	piping and equipment and improve organic acid corrosion resistance at SMR. Phillips 66 has a number of existing process safety policies and procedures that would apply to the SMR rail project, including the equipment and operating procedures. These programs are designed to prevent releases of hazardous materials, minimize risk, and ensure the refinery's ability to process crude without increasing risk of releases. For example, the Mechanical Integrity Program covers equipment used to process, control, and store hazardous chemicals and assigns responsibility for equipment inspection and testing as well as maintenance. This program meets the requirements of CCR Title 8 Sec 5189, "Process Safety Management of Acutely Hazardous Materials" (f), (j) and 29 CFR 1910.119, "Process Safety Management of Highly Hazardous Chemicals" (j). The refinery uses a Positive Material Identification (PMI) program to ensure the integrity of all mechanical and pressurized systems. This program is overseen by the refinery's Inspection Supervisor. Any new feedstock coming to the refinery undergoes a complete Management of Change (MOC) analysis to ensure that all hazards, as well as the refinery's systems are safe and operable. The MOC program is part of the refinery's Process Safety Management program and tracks equipment modification, addition of new systems and process changes. MOC covers all changes that involve specific chemicals at or above threshold limits as defined in California Code of Regulation, Section 5189, Appendix A or flammable liquids or gasses as defined by California Code of Regulations, Section 5194(c) including new construction, modifications, changes in chemicals or materials, changes in feedstock, and changes in concentrations, temperatures, pressures, or flow rates outside of established Safe Process Limits. A review of the data in RDEIR Table 4.7.14 shows that the expected range of sulfur and TAN would be within the range of the crudes that are currently being processed at the SMR. Therefore, the change in crude slate would not be expected to change the sulfur or TAN levels compared to the crude sources that are currently being processed at the SMR. It is possible that the TAN could increase when compared to the typical crude blend. However, with the programs and management systems, discussed above, in place, this potential increase would not be expected to increase the hazards or likelihood of a release at the SMR. Therefore, the impact would be less than significant. The RDEIR examined changes in emissions associated with a change of slate, as indicated in Section 4.3.4.2, Air Quality and Greenhouse Gases, which states" For the SMR, key crude slate parameters that could impact air emissions include the percent of BTEX, vacuum resid, sulfur and metals in the crude oil. " The BTEX was analyzed in the health risk assessment to determine the increased health risk. Increased sulfur was assessed as to the increased sulfur truck trips that would be required. None of the other components would alter

	the emissions at the refinery as the heavy metals would not be emitted into the air from the SMR. Note that as the API gravity would be similar, the emissions of volatile components (ROG) from fugitive emissions would be similar with the change in crude slate. BTEX levels of Canadian tar sands crude oil are similar to other heavy crude oil processed by the SMR and the RDEIR demonstrates that any increases in BTEX would generate a nominal increase in health risk. See Response to CBE-21 and CBE-23. The metals in the tar sands oil would not be volatilized at the SMR or along transportation routes and would therefore not contribute to increases in air-based health risk. The Canadian tar sands are not as "explosive" as Bakken crude oil and present similar risks to the rail transportation of heavy crudes that currently occur within California and through SLOC. The increased levels of nickel, vanadium, lead and copper do not affect air emissions as none of the crude oil is combusted and none of the metals are carried over in the fuel gas. The metals would remain in the coke. Sulfur production would increase producing potentially more sulfur trucks trips, as discussed in the RDEIR (see Section 4.3, Air Quality and Greenhouse Gases and 4.12, Transportation and Circulation). The use of higher sulfur crude oils would increase the amount of sulfur produced at the SMR. This increase in sulfur and the associated truck trips are addressed in the RDEIR in Section 4.3, Air Quality and Greenhouse Gases. Emissions of sulfur dioxide are not anticipated to increase as most of the sulfur in the crude is removed as elemental sulfur and trucked from the site and the SLOCAPCD has limits on the emissions of sulfur dioxide from the refinery processing equipment. This comment is just a general statement about the relationship between the SMR and the Phillips Rodeo Refinery (SFR). Chapter 2.0, Project Description, acknowledges the relationship between these two refineries. The comment makes the point that the SFR is dependent upon the SMR since it receives gas oil and naphtha that it used to produce finished products such as gasoline, diesel fuel and jet fuel. The RDEIR states gas oil and naphtha recovered as part of the distillation and coking processes are shipped by pipeline to the Phillips Rodeo Refinery in the San Francisco Bay area for processing into gasoline, diesel fuel, and other petroleum end-use products (See Chapter 2.0, Project Description). The statement in the comment that crude delivery and upgrading via the SMR—the only other way the SFR receives crude—is a substantial portion (≈38.0 Mb/d) of its total crude supply is an inaccurate statement. The SMR does not ship any crude oil to the SFR. The SMR only ships gas oil and naphtha, which are intermediate products.

	The comment tries to build the case that without the crude by rail project at the SMR, the amount of intermediate product that could be shipped from the SMR to the SFR would decline overtime. This would reduce the amount of intermediate products that could be processed at the SFR. This is all based upon the assumption that without the proposed crude by rail project the SMR could not obtain adequate crude supplies. As shown in Table 2.7 of the RDEIR, the 2013 average throughput of the refinery was 41,635 barrels per day. The SMR has the ability to unload crude oil from trucks at the Santa Maria Pump Station (SMPS) where it is then moved via pipeline to the refinery. The current permitted limit on crude truck unloading at the SMPS is 26,000 barrels per day. As discussed in Section 5.1.1 (No Project Alternative), the current truck unloading rate at the SMPS is about 6,800 barrels per day. Therefore, an additional 19,200 barrels per day (26,000-6,800) could be shipped via truck to the SMPS for unloading and then moved via pipeline to the SMR. This additional 19,200 barrels of oil would increase the 2013 average daily throughput at the SMR to over 60,000 barrels per day, which is greater than the current permitted capacity of the refinery or the capacity of the refinery that would be allowed under the Throughput Increase Project. There are also other potential sources of local crude that could be available in the future. As discussed in Section 2.7, Project Description, of the RDEIR, there are a number of onshore oil development projects in northern Santa Barbara County that are being proposed that if approved could replace some of this lost production. In addition, the Arroyo Grande Oil Field (AGOF) has applied to the County of San Luis Obispo to increase production to 10,000 barrels per day. The County recently approved a project that would allow the oil from the AGOF to be moved via pipeline to the SMR (the oil production from the AGOF currently is trucked to the SMPS for delivery via pipeline to the SMR. If this project is approved it would increase the production from the AGOF by about 8,000 barrels. As discussed in Response CBE-78, there are potential options in the future for the SMR to obtain crude oil without the rail project, however, they are unknown, and as with all crude supply issues, would be determined based upon market forces, including the future price of crude oil. Therefore, it would be speculative at best to estimate when the crude supply would not be sufficient to support the further operation of the SMR without the proposed crude by rail project. See Response CBE-78 for more discussion of crude oil supplies.
CBE-34	As noted in the RDEIR, the current DOT-111 tank cars have serious safety deficiencies that can lead to an unacceptable spill rate in the event of a train derailment. As a result, the RDEIR specifically included mitigation measure HM-2a, which requires only rail cars designed to Option 1: PHMSA and FRA Designed Tank Car as listed in Table 4.7.6, shall be allowed to unload crude oil at the Santa Maria Refinery. Even with the improved rail cars, the RDEIR found that the risk of a crude oil train accident and spill was considered a

	Significant and Unavoidable (Class I) impact.
CBE-35	The RDEIR did not rely on tentative plans for future mitigation after completion of the CEQA process but used proposed rules to identify performance standards for the mitigation measures that were included in the RDEIR. For example, based on the relative spill risks for each PHMSA and FRA Designed Tank Car listed in the FRA, July 23, 2014 Proposed Rulemaking, the RDEIR identified the Option 1 tank cars as offering the most spill protection. While the outcome of the proposed rulemaking is uncertain, the RDEIR relies on the performance standard in the draft regulation to define tank car characteristics regardless of the final rule determination. The RDEIR does not assume that federal law preempts the County from imposing mitigation measures to address impacts that may occur along the mainline. Instead, the RDEIR recognizes that federal law preempts local agencies from regulating interstate rail operations and that these laws may preclude the County from adequately ensuring that mitigation measures are adhered to. The RDEIR conservatively evaluates the Project's potential impacts by recognizing that federal law may preempt the County from imposing conditions of approval that would mitigate identified impacts, potentially resulting in unmitigated significant impacts. This satisfies the information disclosure requirements of CEQA and will allow the County decision makers to evaluate the full spectrum of potential environmental impacts as well as possible measures to mitigate the impacts. As noted in the RDEIR, the current DOT-111 tank cars have serious safety deficiencies that can lead to an unacceptable spill rate in the event of a train derailment. As a result, the RDEIR specifically included mitigation measure HM-2a, which requires only rail cars designed to Option 1: PHMSA and FRA Designed Tank Car as listed in Table 4.7.6, shall be allowed to unload crude oil at the Santa Maria Refinery. Even with the improved rail cars, the RDEIR found that the risk of a crude oil train accident and spill was considered a Significant and Unavoidable (Class I) impact.
CBE-36	The RDEIR evaluated the potential hazards associated with small spills (<100 gallons) and found the hazards were generally limited to the railroad right of way and that the overall risks would be negligible. These small spills of heavy crude oil were far less likely to be ignited, and thermal hazard zones were localized. The risks associated with small spills were included in the QRA, but the overall contribution to public risk was negligible. Therefore, the RDEIR analysis focused on the potential impacts and mitigation of larger spills. The historical accidental data used in the RDEIR is not limited to trains shipping crude oil in recent years, but the long term historical train accident data for all freight. The use of data from all freight train movements nationwide provides a very robust database for estimating rail accidents and derailments.

	Average U.S. train derailment rates over the 5-year period 2005 – 2009 have previously been estimated using data from the U.S. Department of Transportation, Federal Railroad Administration (FRA) Rail Equipment Accident (REA) database combined with traffic data from the rail industry (Liu et al, 2014). This dataset was used to develop detailed derailment rates as a function of three factors: FRA Track Class, traffic volume (which appears to be correlated with additional maintenance above basic federal requirements) and Method of Operation (i.e., signaled or non-signaled trackage). All three of these factors have a significant effect on freight train derailment rate. These factors were used to calculate segment-specific derailment rates thereby enabling a fine grained calculation of derailment probability for any particular route. As discussed below, the overall accident rate has declined since this data was recorded and analyzed, thereby resulting in an overestimate of the present-day risk, and future risk. For example the average accident rate for the five-year period 2010-2014 was 27% lower than the average for the five-year period from 2005-2009, and the preliminary estimate of the accident rate for 2014 was 35% lower than the five-year period from 2010-2014. The reason data from 2005-2009 was used is because that dataset contained additional information that allowed for the estimated effect of FRA Track Class, Traffic Density and Method of Operation (Signaled or Unsignaled) on derailment rate. This additional granularity is needed for more precise segment-specific accident rate used in the analysis. The derailment rates calculated were based on 1,420 Class 1 railroad mainline derailments. Inclusion of a few more crude oil train derailments in recent years would have virtually no effect on the estimated rates. The suggestion that because these recent accidents were not included in our dataset somehow invalidates the results reflects a lack of understanding of the analytical technique and how it was used. The data needed for this analysis are less complete than for overall accident rate but all other things being equal, there is no reason to believe that crude oil trains derail at a rate different than other freight trains. Using what data are available and making certain assumptions, the EIR consultant conducted an analysis in 2014 and observed no significant difference in the derailment rate for crude oil trains then for other freight trains. The railroad accident rate has been steadily trending downward for over a decade. The accident rates in the past few years were the lowest since the FRA started recording the data in the mid-1970s. In the period from 2004 to 2014 the rate declined by 49% (almost half) (see Figure 1 below). Most derailments receive little or no attention from the public or media. Railroads are required by regulation to report all accidents that exceed a certain monetary threshold in damage to track, signals and rolling stock (currently $9,600). Proper estimation of train accident rates involves analysis of all accidents, divided by the total amount of traffic. The reason that some perceive an increase in the railroad petroleum crude oil accident rate is because of the more than 50-fold increase in

	this traffic since 2009. Estimates are that 233,698 tank cars of crude oil were moved by rail in 2012. This increased to over 435,000 tank cars moved by rail in 2013 (the full year of data is not yet available for 2014). With this increase in crude by rail traffic, the derailment and spill probability data would suggest that multiple crude by rail accidents would happen each year. **Figure 1. Railroad Accident Rate 2004 – 2014**  Data Source: US DOT Federal Railroad Administration http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx (Data for 2014 include January through November) Using the accident and spill probability data from the RDEIR the DEIR would have estimated that between 2012 and 2013 there would have been two to five derailments that had spills of 100 gallons or more in the U.S. Based upon the United States Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) incident data base, there were three crude oil train derailments with spills of 100 gallons or more. This does not contain the accident and spills that have occurred in Canada over this period since the accident and spill probability data is for mainline rails within the United States only. The methodology for estimating crude oil unit train accidents and spill probabilities is also consistent with the methodology outlined by the American Institute of Chemical Engineers, Center for Chemical Process Safety (AIChE CCPS) document *Guidelines for Chemical Transportation Risk Analysis* (CCPS, 1995), which is the definitive reference on the methodology for estimating hazardous materials transportation risk.
CBE-37	Please see Response to CBE-36.
CBE-38	In the event of a train derailment and accident, only a limited number of rail cars actually derail and spill oil. In no case has a rail accident resulted in all rail cars derailing and failing. The median number of cars derailed per FRA-reportable, freight-train derailment on Class I mainlines was six (Liu et al.,

	2013). In this analysis, we assumed that all derailed cars were crude oil tank cars. The conditional probability of release (CPR) represents tank car safety performance in accidents and was estimated based on the latest statistics developed by the Railway Supply Institute (RSI) – Association of American Railroads (AAR) Railroad Tank Car Safety Research and Test Project. The RSI-AAR Tank Car Project analysis accounts for tank car safety design features and accident characteristics. The RSI-AAR Project has also calculated a similar statistic, CPR(>100), which is the conditional probability of release of more than 100 gallons from an individual tank car involved in an FRA-reportable accident. Releases smaller than this amount are not believed to pose a substantial threat, so this is the principal metric being used by the rail and tank car industries in their consideration of different tank car safety designs. CPR(>100) is used in the risk analysis described here to be consistent with other documents related to this subject. Please note that trains associated with the Phillips 66 Project would generally have 80 tank cars due based on the space available for the new rail spur.
CBE-39	See Response to CBE-40 through CBE-42 below.
CBE-40	The comment, based upon footnote 199 is addressing the impact to agricultural resources at the SMR (Impact AR-3) from dust and contaminated air emissions, soil and water contamination, use of water within the Santa Maria Groundwater Basin, the spread of noxious weeds, and increased risk of fire or oil spills. The statement in the comment about federal preemption would not apply to this impact and no discussion of federal preemption is associated with Impact AR-3. The DEIR makes it clear that the issue of federal preemption may only apply to mainline rail activities. The County's position is that activities that occur within the SMR would not be subject federal preemption. The EIR evaluated the impacts of processing tar sands oil and the SMR. The air quality impacts from processing tar sand oil are discussed in Section 4.3, Air Quality and Greenhouse Gas Emissions. The SMR is somewhat unique for a refinery in California since it does not produce any finished motor grade fuels. The refinery was designed to process the heavy sour crude from the Santa Maria Basin and the Santa Barbara Outer Continental Shelf (OCS) into intermediate products (naphtha and gas oils). As such the refinery does not have any processing equipment that adds hydrogen to the heavier oil components. Many of the heavy crudes currently processed by the SMR are similar to dilbit crudes. This can be seen by reviewing the crude data provided in the Table 4.3.13 of the DEIR. The SMR does produce petroleum coke as a byproduct of the refining process, and the air emissions associated with the storage of this coke is discussed in Section 4.3. The percentage of vacuum resid is a measure of the amount of coke that could be produced at the refinery. Coke generated at the refinery is transported from the refinery via truck and rail. Increasing levels of vacuum resid would result in increased trucking and rail transport from the refinery. As

	shown in Table 4.3.13 the expected percentage of vacuum resid would remain about the same as the current operations. Therefore, coke production would not be expected to increase over current operations with the implementation of the Rail Spur Project changes in crude. The coke produced at the SMR is stored in piles prior to being loading on to trucks or rail cars. As specified in the Memorandum of Agreement for Coke and Sulfur Storage and Handling Plan, dated May 11, 2011, the coke piles must be kept moist to prevent any dust. As indicated in Section 2.6, the SMR is designed to handle heavy crude and an increase in tar sand crude process would not have a significant change in the overall properties of the crude processed at the SMR as shown in Table 2.6. The major water use at the refinery is for the cogeneration unit and coking units. Water use at these facilities would not increase with the processing of additional tar sand crude. As shown in Table 2.6 the amount of vacuum resid that would be processed with the additional tar sands crude would be the same or less than the current crude slate. It is this portion of the crude oil that drives water demand for the coking units. Therefore, processing of tar sand crude at the SMR would not be expected to increase water use. Water use for transportation activities would increase by about 250 gallons per day, or 0.3 AFY. With the Rail Spur and Throughput Increase Projects water demand at the SMR would be 1,111.3 AFY, which would be less than the 1,550 AFY of water available for SMR use under the Stipulation. As discussed in the RDEIR, the most likely spill related event would be a release during the unloading process due to a loading line failure. The unloading racks are equipped with oil spill drain boxes which would feed below-grade 16-inch-diameter drain lines routed to three parallel 20,000 gallon rectangular storage tanks located in a vault for containment. The total capacity of the containment system would be about 273,000 gallons (this includes the drain boxes, curbed area, pipelines and storage tanks). The containment system has been designed to move any spilled oil away from the rail cars and into the 60,000 gallon storage tanks. The loss of a loading hose could result in a maximum spill of about 27,300 gallons of crude oil (the capacity of one rail car). This system would effectively control spills from the loading operations. Downstream of the two unloading facility meter assemblies, a new 24-inch above ground pipeline would be routed along an existing internal dirt road on the Phillips 66 property between the unloading facility and the refinery. This pipeline would connect with the existing refinery crude oil storage tanks. The route for this pipeline is shown in Project Description Figure 2-3, and is approximately 3,525 feet in length. This dirt road accommodates periodic on-site traffic only associated with refinery personnel traveling at low-speeds. The proposed unloading facility would have a maximum crude oil pumping rate of 8,000 gpm. The unloading facility and 24-inch pipeline would be monitored

	using multiple Programmable Logic Controllers (PLCs) and controlled using the existing refinery Supervisory Control and Data Acquisition (SCADA) system. The SCADA would detect a catastrophic failure of the 24-inch pipeline within one minute, thus limiting pumping losses. However, the drainage of the pipeline would occur, and potentially result in a worst-case spill of about 90,800 gallons of crude oil. This worst case spill would occur where the pipeline connects with unloading pumps since this is the lowest elevation of the pipeline. As one moves up the pipeline toward the storage tanks, the maximum spill volumes decrease, with the smallest spill volumes being near the storage tanks. In the event of a release from the pipeline the oil would drain into the area around the pipeline and unloading racks (see grading plans in Appendix A). In the unlikely event that a spill got outside the perimeter of the unloading facility it would be generally be confined to the Project Site and would not impact areas that are used for agricultural purposes. The mitigation measures identified for Impact AR-3 (measures WR-1, WR-2; AQ-1f, and BIO-9) along with the design of the unloading facility would likely contain even the largest expected spills from the rail unloading facility. The implementation of an SPCC plan would also help to ensure that spills were contained within the facility and cleaned up in a timely manner. The determination of a less than significant impact for oil spills is not base upon just the implementation of a SPCC plan but includes the overall design of the unloading facility as discussed above.
CBE-41	The significance criteria referenced in the comment relates to “other property”, or property not within the Rail Spur Project Area and is intended to address potential impacts to off-site agricultural uses. As described in the RDEIR, the proposed Rail Spur Project would generate dust and contaminated air emissions, soil and water contamination, risk of fire and spills, and other effects that could impact adjacent agricultural areas. However, because of the distance between proposed improvements and adjacent agricultural uses, and the consistency with existing uses at the SMR, potential impacts were determined to be less than significant with implementation of identified mitigation and the design of the rail spur facilities as discussed in the Chapter 2.0, Project Description, and above in the response to CBE-40. The Rail Spur Project would convert areas that are currently zoned for industrial use but used for grazing to industrial use. However, as described in the RDEIR, the SMR has more than adequate area available to accommodate continued grazing activities in adjacent portions of the Project Site; therefore, no significant impact on existing grazing activities would occur. Because existing grazing activities would continue at the site, no mitigation is necessary to address any loss or impacts to this agricultural resource.
CBE-42	There is nothing in the CEQA initial study checklist or the County CEQA

	thresholds that addresses the impacts of increased rail traffic affecting the private movement of goods and services on the mainline rail. The RDEIR did address the impact of the crude oil train movements along the mainline rail on public rail as required by CEQA. UPPR is required by Federal law to move all goods and services, which would include crude oil as well as supplies and goods for agricultural use. As discussed in Section 4.12, Transportation and Circulation, the mainline rail routes that could be used by the proposed project have existing rail traffic. The addition of one crude oil train per day would not affect the level of service based upon three modeling runs since it is within the estimated freight train levels used in all three of the modeling simulations. These modeling simulations included all of the local trains that deliver agricultural supplies and goods. The analysis of impacts to passenger train performance provided in Section 4.12, Transportation and Circulation, showed that the addition of the crude oil train from the proposed project would not result in a substantial change in their on-time performance. Since passenger trains operate on a fixed schedule, this would represent a worst case analysis. On the other hand, freight trains do not operate on a fixed schedule and UPRR has more flexibility in scheduling the movement of freight trains then they do passenger trains. UPRR dispatches the passenger trains so as to meet these precise schedules. In its normal course of operation, UPRR dispatches freight trains so as to avoid congestion on the tracks and many freight trains are scheduled at night when commuter and passenger train levels are at their lowest. Based upon freight estimates in the 2013 State Rail Plan the routes that could be used by the proposed project crude oil trains have daily freight traffic between 2 and 80 trains per day. The addition of five crude oil trains per week would not be expected to impact the delivery of agricultural supplies and goods given the flexibility UPRR has in scheduling freight train movements.
CBE-43	As indicated in Section 2.6, the SMR is designed to handle heavy crude and an increase in tar sand crude process would not have a significant change in the overall properties of the crude processed at the SMR as shown in Table 2.6. The major water use at the refinery is for the cogeneration unit and coking units. Water use at these facilities would not increase with the processing of additional tar sand crude. As shown in Table 2.6 the amount of vacuum resid that would be processed with the additional tar sands crude would be the same or less than the current crude slate. It is this portion of the crude oil that drives water demand for the coking units. As discussed in Water Resources (see Section 4.13) the water use at the SMR refinery would increase by about 250 gallons per day with the Proposed Project, which is less than the amount of water required by a single family home. An average single-family dwelling on the Nipomo Mesa would use approximately

	460 gallons per day (0.51 AFY) (Water Systems Consulting 2011). The related water supply and demand has been addressed in Impact WR.6 (see Section 4.13). A Water Supply Assessment was completed in 2012 in association with increased throughput at the SMR. The Water Supply Assessment concluded that the total water supplies available during normal, single-dry, and multiple-dry water years, within a 20-year projection, will meet the projected water demand for the Increased Throughput project, based on the Phillips 66 groundwater rights in the Nipomo Mesa Management Area (NMMA), as defined in the Stipulation for the Santa Maria Groundwater Litigation (the Stipulation). In the next 20 years, if a Severe Water Shortage Condition occurs, per the Stipulation, Phillips 66 would have rights to 110 percent of the highest amount of prior groundwater use, or 1,550 AFY. The County of San Luis Obispo and other major water purveyors in the NMMA are bound by the Superior Court of the County of Santa Clara, under the Stipulation to uphold the Phillips 66 SMR rights to use water. With the Increased Throughput Project water demand at the SMR would be up to 1,111 AFY. The proposed Rail Spur Project would increase water demand by 250 gallons per day, or 0.3 AFY. With the Rail Spur and Throughput Increase Projects water demand at the SMR would be 1,111.3 AFY, which would be less than the 1,550 AFY of water available for SMR use under the Stipulation. As discussed in Impact WR.3, water quality impacts along the UPRR mainline track have been characterized as Class I (significant and unavoidable). And as indicated in Impact WR.2, the most likely spill related event would be a release during the unloading process due to a loading line failure. The unloading racks are equipped with oil spill drain boxes which would feed below-grade 16-inch-diameter drain lines routed to three parallel 20,000 gallon rectangular storage tanks located in a vault for containment. The total capacity of the containment system would be about 273,000 gallons (this includes the drain boxes, curbed area, pipelines and storage tanks). The containment system has been designed to move any spilled oil away from the rail cars and into the 60,000 gallon storage tanks. The loss of a loading hose could result in a maximum spill of about 27,300 gallons of crude oil (the capacity of one rail car). This system would effectively control spills from the loading operations. Downstream of the two unloading facility meter assemblies, a new 24-inch above ground pipeline would be routed along an existing internal dirt road on the Phillips 66 property between the unloading facility and the refinery. This pipeline would connect with the existing refinery crude oil storage tanks. The route for this pipeline is shown in Project Description Figure 2-3, and is approximately 3,525 feet in length. This dirt road accommodates periodic on-site traffic only associated with refinery personnel traveling at low-speeds. The proposed unloading facility would have a maximum crude oil pumping rate of 8,000 gpm. The unloading facility and 24-inch pipeline would be monitored

	using multiple Programmable Logic Controllers (PLCs) and controlled using the existing refinery Supervisory Control and Data Acquisition (SCADA) system. The SCADA would detect a catastrophic failure of the 24-inch pipeline within one minute, thus limiting pumping losses. However, the drainage of the pipeline would occur, and potentially result in a worst-case spill of about 90,800 gallons of crude oil. This worst case spill would occur where the pipeline connects with unloading pumps since this is the lowest elevation of the pipeline. As one moves up the pipeline toward the storage tanks, the maximum spill volumes decrease, with the smallest spill volumes being near the storage tanks. In the event of a release from the pipeline the oil would drain into the area around the pipeline and unloading racks (see grading plans in Appendix A). In the unlikely event that a spill got outside the perimeter of the unloading facility it would be generally be confined to the Project Site, as there are limited hydrologic connections between the Project Site and Little Oso Flaco Creek, located south of the Rail Spur Project Site. As discussed above the design of the unloading facility would likely contain even the largest expected spills from the rail unloading facility. The implementation of an SPCC plan would also help to ensure that spills were contained within the facility and cleaned up in a timely manner. Mitigation measure WR-2 provides specific requirements for the elements that must be in the SPCC Plan. The portion of the comment that states, “Essentially, the plan delivers a “first responder” approach that will reduce the impact of a spill in and around water sources that supply the Santa Maria facility to less than significant” and footnotes to page 4.13-25 of the RDEIR, is not accurate. The text on page 4.13-25 states that implementing mitigation measures WR-2 along with the design features of the rail spur and unloading racks, potential oil spill impacts within the SMR site would reduce spill-related impacts to surface and groundwater quality to less than significant. The determination of a less than significant impact is not based upon just the implementation of a SPCC plan as implied in the comment. The statement in the comment that, “However, the RDEIR states elsewhere: “even with (first response) mitigation measures…impacts…could be significant.” and refers to page 4.2-39 of the DEIR, applies to spills along the mainline rail route and does not apply to spills at the Santa Maria Refinery, which is what the comment is addressing.
CBE-44	This comment serves as an introductory statement. The comment does not provide substantial evidence as to why the impact analysis is allegedly flawed, nor does the comment request changes to the analysis of these impacts. No further response to this comment is required. See Responses to CBE-46 through

	CBE-60.
CBE-45	This comment serves as an introductory statement. The comment does not provide substantial evidence as to why the impact analysis is allegedly flawed, nor does the comment request changes to the analysis of these impacts. No further response to this comment is required. See Responses to CBE-46 through CBE-52.
CBE-46	This comment serves as an introductory statement. The comment does not provide substantial evidence as to why the impact analysis is allegedly flawed, nor does the comment request changes to the analysis of these impacts. No further response to this comment is required. See Responses to CBE-46 through CBE-50.
CBE-47	With regards to the Nipomo Mesa lupine, this species has not been identified within the Biological Study Area (BSA), which includes the Rail Spur Project area, and a minimum 100 foot buffer area around the applicant's proposed disturbance area. However, the RDEIR recognizes the absence of this species cannot yet be definitively determined due to drought conditions. During the EIR process, additional focused surveys for Nipomo Mesa lupine were conducted in March 2015. The study area included the entire refinery property. Nipomo Mesa lupine were identified and mapped within locations that were consistent with previous studies that have been conducted in the past. No evidence of Nipomo Mesa lupine was identified within the BSA for the proposed project. This additional survey work provides further evidence that the BSA does not contain Nipomo Mesa lupine. CEQA requires that the baseline conditions be evaluated, which are the conditions on the ground at the time the NOP was issued. A number of surveys of the BSA area have occurred over the past few years and Nipomo Mesa lupine has not been found within the project area. Although the presence of this species is unlikely due to the distance from historically mapped populations, the Rail Spur Project may result in potential impacts to Nipomo Mesa lupine, which was found to be a significant. The EIR contains mitigation that would reduce impact to Nipomo Mesa lupine to less than significant levels. The RDEIR requires that focused surveys be conducted for this species during the typical blooming season with 'normal' rainfall. Should the species be determined to be present and cannot be avoided, the RDEIR includes specific mitigation that are enforceable to mitigate the impact to less than significant levels. The loss of central dune scrub habitat, which has the potential to support Nipomo Mesa lupine, will be mitigated by implementation of BIO-5a, which would include either an open space easement or conservation easement if required by the responsible agencies. Mitigation Measures BIO-1 has been revised to more clearly state that if the species is present, then the project shall avoid the individual or population to the extent feasible. If avoidance is not feasible, the FEIR states that the

	applicant would be required by law to obtain a CDFW to acquire a 2081 Incidental Take Permit. BIO-1 also requires a 3:1 replacement of any individuals lost. CEQA Guidelines Section 15126.6 states that the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project. With the proposed mitigation, the impacts to Nipomo Mesa lupine where found to be less than significant. In addition, a number of alternative rail unloading sites were addressed as part of the alternatives analysis (See Chapter 6.0 of the EIR) that do not have suitable Nipomo Mesa lupine habitat. Prior to acquiring a 2081 Incidental Take Permit for Nipomo Mesa lupine, it must be determined that the project impact area is currently utilized by the listed species. Presence of the species would be necessary to make this determination. California Department of Fish and Wildlife, and United States Fish and Wildlife were contacted prior to preparation of the RDEIR. Furthermore, the RDEIR identifies enforceable mitigation measures (3:1 replacement of individuals to be included within Dune Habitat Restoration Plan) in the event that Nipomo Mesa lupine is identified and presence of habitat is determined. Therefore, the RDEIR does not illegally defer mitigation. In addition, since California Department of Fish and Wildlife is a responsible agency under CEQA, they could not issue any permit for the project until the County has acted on the project as the lead agency. Only if the County has certified the EIR could California Department of Fish and Wildlife issue any permits for the project. The identification of major spill impacting Nipomo Mesa lupine was for spills along the UPRR mainline. A major spill along the mainline tracks in the vicinity of the SMR would be unlikely since the trains would be moving at speeds of about five miles per hour since they would be on the mainline siding positioning for entering or exiting the refinery. For a major spill that could affect the entire population of Nipomo Mesa lupine, there would have to be a puncture of the head or shell of a rail car. The estimated shell and head puncture velocity of the tank car design proposed for use by the Applicant are 8.3 and 10.3 miles per hour respectively (USDOT 2014). California Department of Fish and Wildlife is a responsible agency under CEQA, they could not issue any permit for the project until the County has acted on the project as the lead agency. Only if the County has certified the EIR could California Department of Fish and Wildlife issue any permits for the project, which would include a possible incidental take permit. The commenter states that in addition to the 53 acres of dune habitat that would be restored and protected in perpetuity for the loss of 26.5 acres (2:1 ratio), the same 26.5 acres of habitat should also be mitigated an additional 3:1 ratio for any impacts to Nipomo Mesa lupine (if identified). At a 3:1 mitigation, the result would be an additional 79.5 acres solely for the purposes of Nipomo

	Mesa lupine habitat. Because the loss of existing dune habitat would the same habitat that would be utilized by Nipomo Dune lupine (if identified within the project site), the existing mitigation within the EIR (Mitigation Measure BIO-5a) would be sufficient in mitigating the loss of habitat of individuals and implementing an invasive species program. The restoration area would be held under an easement in perpetuity and the applicant would be held to 100% success within 5 years. Long-term funding beyond this 5 year point may be negotiated between the resources agencies, local interest groups and the applicant once this measure has been completed. BIO-5f has been revised to incorporate mitigation measures in the event that sensitive species are discovered during construction. Implementation of BIO-5a would ultimately mitigate for any impact under this scenario. BIO-5e states that topsoil should be stockpiled and re-deposited. This measure has been revised to incorporate the use of this topsoil "in consultation with CDFW and USFWS."
CBE-48	The nomenclature for sensitive communities has been revised within the FEIR due to the inconsistencies identified during the public review process. Habitat mapping within the BSA has been revised by Arcadis, and has been field verified by EIR technical specialist, Ms. Lauren Brown of Leidos, Inc. Findings from both studies have been summarized within the EIR and the studies have been appended to the FEIR. The nomenclature of sensitive communities has been revised within the FEIR in order to more closely follow the National Vegetation Classification system used by *A Manual of California Vegetation, Second Edition*. CDFW states clearly that the Holland 1986 definitions are a legacy classification system. Therefore, the sensitivity ranking of habitat within the FEIR follows the National Vegetation Classification system and uses the ranking system provided by NatureServe's Heritage Methodology when describing the vegetation types. Areas of *Lupinus chamissonis-Ericameria ericoides* Shrubland Alliance have been accurately mapped and verified by species experts. CDFW states clearly that the Holland 1986 definitions are a legacy classification system. Therefore, the sensitivity ranking of habitat within the EIR follows the National Vegetation Classification system and uses the ranking system provided by NatureServe's Heritage Methodology when describing the vegetation types. CDFW guidance states that whether or not the impacts to a sensitive community constitute a significant impact are based on the type of vegetation or natural community and the ranks of existing occurrences known. Based on the condition of Central Dune Scrub habitat within the Rail Spur Project area, the significance of the impact would not change, and the mitigation would be sufficient for both direct and indirect impacts.

CBE-49	The Sensitive Species Management Plan specified in mitigation BIO-3 and BIO-4 would be reviewed and approved by the California Department of Fish and Wildlife prior to implementation. The plan must also be prepared by a qualified wildlife biologist. BIO-3 has been revised to state that any captured individuals would be released to nearby suitable habitat that has been previously identified by the qualified wildlife biologist in consultation with the County and California Department of Fish and Wildlife. Ample habitat would be available within the boundaries of the Phillips 66 property including the area west of the UPRR tracks to support captured individuals. With regard to badgers (mitigation measure BIO-4) any active den must be avoided and not disturbed until it is no longer occupied. Mitigation for the loss of any habitat would be mitigated through the establishment of an easement in perpetuity of 26.5 acres of habitat.
CBE-50	The presence of burrowing owl within the proposed project has been determined based on surveys conducted by Arcadis. Should burrowing owl be identified within the project site, BIO-8a proposes a 300 foot buffer and requires that CDFW and/or USFWS be contacted to determine the appropriate buffer. As stated in the 2012 CDFW Staff Report on Burrowing Owl Mitigation, setbacks may be closer than those that are outlined within the CDFW Staff Report. A distance of 300 feet was proposed within BIO-8a because it is anticipated that any burrowing owl activity within the project site would occur during the winter, based upon historical observations over the past 30 years in San Luis Obispo County. According to the 2012 CDFW Staff Report, the recommended setback is 100 m (300 feet) for medium levels of disturbance. Mitigation for the loss of any foraging habitat would be mitigated through the establishment of an easement in perpetuity of 26.5 acres of habitat.
CBE-51	Impact BIO-3 addresses impacts associated with light and noise impacts to common and sensitive wildlife species during operation and construction. In addition, the rail loading area would be fenced, which would reduce the likely for collision impacts. Also, trains on site would be moving at speeds of only 3 miles per hour, which would reduce the potential for collisions with wildlife. Operational impacts of the train operations on wildlife were found to be less than significant, so no mitigation was required.
CBE-52	The worst case spill would be if the pipeline leaked or ruptured near the unloading rack since the pipeline increases in elevation as the line runs from the unloading area to the storage tanks. The worst case spill from this pipeline would be approximately 90,800 gallons. A spill near the unloading rack would drain into the spill drain boxes. Potential spills along the rest of the pipeline would be smaller in size due to the elevation change. As one moves up the pipeline toward the storage tanks, the maximum spill volumes decrease, with the smallest spill volumes being near the storage tanks. In the event of a release from the pipeline the oil would drain into the area around the pipeline and unloading racks (see grading plans in Appendix A).

	The rail unloading facilities have been designed to contain a spill at the SMR within the facility area through the use of containment systems, and site grading, which is discussed in Chapter 2.0, Project Description. As discussed in Section 4.13, Water Resources, in the unlikely event that a spill got outside the perimeter of the unloading facility it would be generally be confined to the Project Site, as there are limited hydrologic connections between the Project Site and Little Oso Flaco Creek, located south of the Rail Spur Project Site (see discussion in WR.1). As discussed in the Project Description, Chapter 2.0, the Canadian crudes that could be transported to the SMR have very similar properties to the crudes that are currently being handled by the SMR. Section 4.13, Water Resources discusses the unique nature of dilbit crudes as it relates to spills on water. If released to water, crude oil typically floats on the water's surface. If crude oil is left on the water's surface over an extended period of time, some constituents within the oil will evaporate, other fractions will dissolve, and eventually, some material may descend to the bottom. Oil can sink in the water column as it degrades and mixes with particulates in water. This is particularly true with dilbit crudes. Dilbit crudes will typically submerge in the water column. In flowing waters, the spreading of the oil in three dimensions creates many challenges for responders to minimize the impacts of the release. Consideration of submerged oil in a flowing water environment would require different response action planning and response equipment to contain and recover the submerged oil. Dilbit intermixed with sediment and trapped in the river and ocean beds and shoreline results in a persistent source of oil and will present new response and recovery challenges. The understanding and adaptation of response and recovery techniques to dilbit spills in flowing water scenarios continues along the Kalamazoo River in response to the 2010 Enbridge release near Marshall, Michigan. As the response to the Marshall Michigan dilbit spill continues to mature and evolve, the lessons learned from the response and recovery efforts should be considered to facilitate the implementation of proper response planning and response strategies to improve the overall response to dilbit spills. Mitigation measure BIO-7 provides a list of standards for the updated SPCCP that must be met, and as such the mitigation is not being deferred. BIO-7 has been updated to require the plan to demonstrate that the worst case oil spill from the rail unloading facilities, including the pipeline, can be adequately contained with the boundaries of the rail unloading facility.
CBE-53	This comment serves as an introductory statement. The comment does not provide substantial evidence as to why the impact analysis is allegedly flawed, nor does the comment request changes to the analysis of these impacts. No further response to this comment is required. See Responses to CBE-54 through CBE-59.

CBE-54	The RDEIR addressed the impacts associated with moving crude oil along the mainline UPRR tracks throughput the State of California and beyond. Detailed analysis of the impacts along the mainline was done for the routes from the SMR to the UPRR rail yards in Roseville and Colton California. A less detailed analysis was done for some issue areas from these two rail yards to the California border. As stated in Chapter 4.0, Environmental Analysis, trains could enter California at five different locations (one at the north end of the state from Oregon, two at the northeast from Nevada, one at the southeast from Nevada, and one at the south from Arizona). Depending upon the route taken by the train they could arrive at the Phillips 66 site from the north or the south. It is unknown what route UPRR would use to deliver the trains to the SMR. Coming from the north the routes merge at the UPRR Roseville Rail Yard. From the south the routes merge at the Colton Rail Yard. Given that the route the trains would travel to get to these two UPRR yards is speculative, the EIR has evaluated in more detail the impacts of trains traveling from these two UPRR yards to the SMR. Beyond the two UPRR Yards, trains could travel any number of routes. Also, crude oil delivered to California by UPRR would generally pass through either of these two rail yards in route to the SMR. Depending upon the source of the crude oil, crude oil trains could use any portion of the UPRR network between Roseville/Colton and the source location for the crude oil. The exact route that would be taken would depend upon a number of factors, that could include the source of the crude oil, weather conditions, train traffic conditions, etc. Since the routes past Roseville and Colton are somewhat speculative, the EIR has discussed in a more qualitative nature the potential impacts of train traffic beyond these two rail yards. The transportation of crude oil via rail has been increasing substantially over the past few years due to lack of adequate pipeline and other transportation infrastructure. The rapid expansion of North American oil production has led to significant challenges in transporting crudes efficiently and safely to domestic markets—principally refineries—using the nation's legacy pipeline infrastructure. In the face of continued uncertainty about the prospects for additional pipeline capacity, and as a quicker, more flexible alternative to new pipeline projects, North American crude oil producers are increasingly turning to rail as a means of transporting crude supplies to U.S. markets. According to rail industry officials, U.S. freight railroads are estimated to have carried 434,000 carloads of crude oil in 2013 (roughly equivalent to 300 million barrels), compared to 9,500 carloads in 2008. In 2014, 650,000 carloads of crude oil are expected to be carried. Crude imports by rail from Canada have increased more than 20-fold since 2011 (Congressional Research Service 2014). Even without the P66 crude by rail project, the crude oil will continue to move via rail, and the crude that would have gone to the SMR would be shipped to another refinery. Therefore, even without the SMR crude by rail project it is unlikely that the number of trains moving crude oil in the United

	States would decrease. Exactly where these trains would go is speculative, but they would be traveling on the mainline rail routes in the United States. However, it is highly unlikely they would be traveling on the mainline tracks between Roseville/Colton and the SMR.
CBE-55	Mitigation measure BIO-11 has been designed to reduce the impacts of a spill in the event that one occurs. The measure requires the staging of spill equipment in areas that have sensitive biological resources, requires training for spill responders, requires the identification and documentation of sensitive resources that could be impacted in the event of a spill, and sets standards for how quickly spill response resources must be deployed at the site of a spill. Other mitigation measures identified in the RDEIR also would serve to the risk or impacts of a spill. Implementation of mitigation measures PS-4a through PS-4e would serve to reduce the likelihood of an oil spill and the ability of first response agencies to respond to a crude oil spill. In particular, PS-4b would require the use of safer tank cars that would reduce the likelihood of a spill in the event of an accident. Even with all of these mitigation measures the impacts of an oil spill on the mainline was found to be significant and unavoidable. With regard to the estimate of the risk of an oil spill see Responses CBE-36 through CBE-38. Regarding implications of crude slate changes spill risk see Response CBE-31 and CBE-32. With regard to safety precautions that would not be implemented within a responsible time see Response to CBE-35.
CBE-56	This comment serves as an introductory statement. The comment does not provide substantial evidence as to why the impact analysis is allegedly flawed, nor does the comment request changes to the analysis of these impacts. No further response to this comment is required. See Responses to CBE-57 through CBE-59.
CBE-57	Text has been added to the FEIR in Section 4.4, Biological Resources that discussed discusses impacts of mainline train movements on wildlife.
CBE-58	Text has been added to the FEIR in Section 4.4, Biological Resources that discussed impacts of mainline train movements on wildlife. The comment states that intermittent noise, the expected pattern along a rail line, may also cause stronger effects and decrease the ability of birds to habituate to noise (Blickley 2012). The intermittent noise referred to in the comment was associated with road traffic along roads used to service natural gas drilling project in Wyoming. Intermittent road noise could be similar to that for mainline rail routes. The Blickley article also states that due to the presence of roads in our the study area, sage grouse may have associated road noise with potentially dangerous vehicular traffic and thus avoided traffic-noise leks areas more than drilling-noise leksareas. The article goes on to state that The effects of noise on wild animals are difficult to study because noise is typically accompanied by other environmental changes. Infrastructure that produces noise may be associated with fragmentation of land cover, visual disturbance, discharge of chemicals, or

	increased human activity. Each of these factors may affect the physiology, behavior, and spatial distribution of animals, which increases the difficulty of isolating the effects of the noise (Blickley 2012). These finding about road noise would likely be similar to that for mainline rail routes since the noise would also be intermittent. Strong conclusions about the impact of anthropogenic noise (i.e., manmade noise) are often not possible because suitable controls are lacking. For example, roads are noisy, but they also have high levels of disturbance, chemical pollution and light, and provide an edge habitat. Studies comparing the responses of animals near a noisy road with those in a control area, either a quieter road or a site at a greater distance from the road, do not allow any differences to be conclusively attributed to noise (Morely 2015).
CBE-59	Text has been added to the FEIR in Section 4.4, Biological Resources that discussed impacts of mainline train movements on wildlife.
CBE-60	Text has been added to the FEIR in Section 4.4, Biological Resources that discussed cumulative impacts of mainline train movements on wildlife.
CBE-61	Appendix G of the RDEIR provides a consistency analysis with the applicable general plans, specific plans, and regional plans as required by CEQA Guidelines §15125(d). This section of CEQA does not require an analysis of compliance with regulations, since the project would be required to comply with all applicable local, state and federal regulations and therefore, would be by default consistent with the requirement of the applicable regulations. Appendix G to the CEQA guidelines states that the EIR should address conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance). Since San Luis Obispo County is the only agency that has jurisdiction over the project, the consistency analysis focus on applicable county plans and policies. Each of the issue areas provides a discussion of the applicable regulations for the project. Appendix G provides a discussion of the potential inconsistencies the applicable provisions of the San Luis Obispo General Plan. As discussed in Response CBE-84/85 the Propane Recovery Project at the Rodeo Refinery has independent utility for the Rail Project. Therefore, the Rail Spur EIR does not need to discuss consistency with the Contra Costa County Industrial Safety Ordinance or General Plan since Contra Costa County has no jurisdiction over the Rail Spur Project. A consistency analysis with AB32 has been added to Appendix G. As discussed in the Land Use/Recreation (Section 4.8) the RDEIR found that due to the significant and unavoidable health risk impact and DPM emissions, the Rail Spur Project would be potentially inconsistent from a surrounding land use compatibility perspective. This was found to be a significant and

	unavoidable land use impact. Section 4.7, Hazards and Hazardous Materials, discussed the potential for increase corrosion due to a change in crude slate. SMR currently processes sour, heavy crudes with elevated levels of sulfur and organic acids. The SMR follow the guidelines laid out in the American Petroleum Institute Recommended Practice "Guidelines for Avoiding Sulfidation Corrosion Failures in Oil Refineries". Phillips 66 also has a required standard for their refineries (M-42-RS-03 "Sulfidation Service Equipment."), which the SMR is in compliance with. Both these documents provide rules and guidelines to monitor, mitigate and prevent sulfidation corrosion of process equipment. With respect to organic acid corrosion, SMR follows generally accepted industry practices and the Phillips 66 Consensus Best Practice for "Naphthenic Acid Service Equipment." This document provides guidelines and recommendations for appropriate metallurgy and wide-spread risk based inspection including inspection frequency and methods, use of corrosion inhibitors and suggestions for possible equipment locations, material types, fluid velocities and temperature ranges where naphthenic acid corrosion may be expected to occur. SMR has a comprehensive inspection and monitoring program for naphthenic acid corrosion and has made numerous metallurgical upgrades of piping and equipment in response to program findings. Phillips 66 has approved capital projects planned between now and 2015 to further upgrade piping and equipment and improve organic acid corrosion resistance at SMR. The Chemical Safety and Hazard Investigation Board report cited in the comment addressed the accident that occurred at the Chevron Richmond Refinery. Testing commissioned by the U.S. Chemical Safety and Hazard Investigation Board (CSB) and the California Division of Occupational Safety and Health (Cal/OSHA) determined that the pipe failed due to thinning caused by sulfidation corrosion, a common damage mechanism in refineries. The report states that historic data indicates that the sulfur in the steam at the Chevron Richmond Refinery had increased from 0.8 to 1.6 wt%, which represented a 85 percent increase in sulfur content between 1984 and 2012. This increase in sulfur composition likely increased corrosion rates. Chevron did not conduct an MOC analyzing the impact that increases in sulfur composition would have on corrosion in the crude unit. Chevron also did not change its corrosion monitoring programs in response to the increased sulfur content. As show in Table 4.7.18 (Section 4.7, Hazards and Hazardous Materials) of the RDEIR the sulfur content of the Canadian crudes expected to be processed at the SMR would be within the range of the current crude sources for the refinery. The range of major crude sources currently handled by the SMR have a sulfur content in the range is 2.1 to 5.2 weight percent. These are much higher levels than the Chevron Richmond Refinery. Therefore, the change in crude

	would not be expected to materially affect the sulfur level of the crude that is processed by the SMR, and therefore would not change the sulfide corrosion rates. As discussed above, Phillips 66 has an extensive program to monitor, mitigate and prevent sulfidation corrosion of process equipment. SMR has a comprehensive inspection and monitoring program for corrosion and has made numerous metallurgical upgrades of piping and equipment in response to program findings. Phillips 66 has approved capital projects planned between now and 2015 to further upgrade piping and equipment and improve corrosion resistance at SMR. Therefore, many of the findings of the Chemical Safety and Hazard Investigation Board report cited in the comment would not apply to the SMR. OSHA establishes rule and regulations covering worker protection for facilities the handle harmful chemicals. Phillips 66 is required by law to comply with all applicable OSHA regulations. As discussed above, CEQA does not require a consistency review with regulations.
CBE-62	The assertion that the Rail Spur Project is not a transportation infrastructure project is incorrect. The purpose of the proposed project is to transport crude oil from sources of crude oil in North America to the SMR for refining. The EIR evaluated the impacts of this transportation project as well as the impacts that could occur at the SMR refinery associated with the change in crude slate. Outside of the SMR, all of the proposed project impacts are related to the transportation of crude oil by rail. An EIR does not discuss impacts which do not result in part from the project evaluated in the EIR (CEQA Guidelines §15130(a)). The Rail Spur Project would only deliver crude oil to the SMR. No other refinery would be impacted by the proposed project. An EIR's discussion of a project's cumulative impacts should be guided by the standards of practicality and reasonableness, and focus on the cumulative impact to which the identified other projects contribute (CEQA Guidelines, §15130(b)). “[A] good faith and reasonable disclosure of such impacts is sufficient.” (Association of Irritated Residents v. County of Madera (2003) 107 Cal.App.4th 1383, 1403, 133 Cal.Rptr.2d 718.) The cumulative impact analysis in the EIR impacts meets these standards. Many of the mainline rail impacts for the proposed project would be significant and unavoidable, such as hazards, air quality, GHG, etc. Since the significance criteria used for project and cumulative impacts are the same, by default, if the proposed project’s impact were found to be significant and unavoidable, then the cumulative impacts would be significant and unavoidable. In discussing a cumulative impact, “[t]he relevant issue to be addressed in an EIR is not the relative amount of impact resulting from a proposed project when compared to existing environmental problems caused by past projects, but rather (whether the additional impact associated with the project) should be considered

	significant in light of the serious nature of existing problems." (City of Long Beach v. Los Angeles Unified School Dist., supra, 176 Cal.App.4th at pp. 905–906, 98 Cal.Rptr.3d 137) The EIR addressed whether the project's additional impact should be considered cumulatively significant in light of the existing problems, and in many cases concluded that it was. The statement in the comment that the other crude by rail project evaluated as part of the cumulative analysis are to switch to a lower quality crude oil feedstock is not accurate. Almost all of the crude by rail projects discussed in the cumulative analysis would be used to deliver Bakken crude to various refineries. Bakken crude is a high quality crude oil. For example, both the Valero and Alon crude by rail project are based upon the delivery of Bakken. The CEQA Guidelines state that "factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect"(CEQA Guidelines §15130). This approach would be analogous to an air basin, where projects located in a different air basin than the project would probably not contribute to a cumulative effect. A potential area where impact locations could overlap for cumulative analysis would be the use of the same railroad mainlines, where cumulative effects related to accidents or traffic could occur. The EIR, examines the cumulative impacts of a number of California crude by rail projects and determines that the cumulative impacts would be significant.
CBE-63	The Phillips 66 Ferndale Washington crude by rail project is to deliver up to 30,000 barrels per day of Bakken crude using BNSF rail lines. The project is completely separate from the SMR Rail Spur Project. As stated in Chapter 2.0, Project Description, no Bakken crude would be delivered to the SMR since the refinery is not designed to handle light sweet crudes. Projects located outside of the State of California, located in different air basins and not utilizing the same pipeline systems or rail infrastructure as the proposed project would not be anticipated to have any cumulative effects and would not be addressed in the EIR.
CBE-64	Operations at the Rodeo Refinery are not anticipated to change with the processing of Rail Spur Project crude oil. The refinery currently handles heavy crude oil and the characteristics of the Rail Spur Project crude oil are similar to current heavy crude oils as discussed in Section 2.6 (see Chapter 2.0, Project Description). The SMR ships semi-refined products (gas oils and naphtha) to the Rodeo Refinery via pipeline. The quantity and quality of these semi-refined products is not expected to change with the proposed project. No crude oil would be shipped to the Rodeo Refinery from the SMR. See Responses CBE-84, CBE-85, and CBE-86.

CBE-65	As part of the WesPac revised application, the crude by rail portion of the proposed project has been eliminated. The SMR Rail Spur Project would not deliver any crude oil to the Rodeo Refinery or any other refinery in the Bay Area. Operations at the Rodeo Refinery are not anticipated to change with the processing of Rail Spur Project crude oil. The refinery currently handles heavy crude oil and the characteristics of the Rail Spur Project crude oil is similar to current heavy crude oils as discussed in Section 2.6 (see Chapter 2.0, Project Description). The SMR ships semi-refined products (gas oils and naphtha) to the Rodeo Refinery via pipeline. The quantity and quality of these semi-refined products is not expected to change with the proposed project (See Responses CBE-84, CBE-85, and CBE-86). The WesPac project would not deliver any crude oil to the SMR. Therefore, the only cumulative overlap with the Rail Spur Project would be associated with the transportation of crude oil via train along the same tracks as the proposed project. With the elimination of the rail portion of the WesPac Project, this cumulative overlap is gone. An EIR's discussion of a project's cumulative impacts should be guided by the standards of practicality and reasonableness, and focus on the cumulative impact to which the identified other projects contribute (CEQA Guidelines, §15130(b)). “[A] good faith and reasonable disclosure of such impacts is sufficient.” (Association of Irritated Residents v. County of Madera (2003) 107 Cal.App.4th 1383, 1403, 133 Cal.Rptr.2d 718.)
CBE-66	The Kinder Morgan project is a repurposed ethanol transloading facility; currently operating; crude is loaded onto trucks bound for Tesoro refinery in City of Martinez. The terminal is permitted to unload 72,000 barrels per day, which is about one 100-car unit train per day. Until November 2014 the facility was receiving two 100-car unit trains of Bakken crude per month. Shipments have stopped due to changes in crude market. The Kinder Morgan existing crude by rail project has been added to the cumulative project list.
CBE-67	The FM O&G Arroyo Grande oilfield currently produces oil and transports the oil to the SMR via truck to the Santa Maria Pump Station. The pipeline project would install a pipeline to transport the crude oil instead of it being transported by truck. This would not impact the operations of the SMR or the Rodeo Refinery and would not have an "effect" that should be included as a cumulative impact beyond a potential overlap of accident potential. Section 4.7 includes a discussion of the potential overlap of risk impacts and determines that the impacts would be less than significant (see Section 4.7.6, Hazards and Hazardous Materials). Since it is Phillips 66 that is building and operating the pipeline it is highly unlikely that this source of crude oil would be displaced by the Rail Spur Project.
CBE-68	The additional GHG emissions associated with mining the tar sands, such as steaming or excavations, would occur no matter the destination of the crude oil, whether the crude oil is destined for the SMR, or other locations within the U.S. or world-wide, as is acknowledged in the Keystone Pipeline EIR " The

	proposed [Keystone Pipeline] Project is not likely to impact the amount of crude oil produced from the oil sands" (Keystone Final EIS, page ES-15) indicating that the crude oil would be produced and refined even without the new pipeline system or the elimination of California refineries to process the crude oil. Refineries are equipped to handle a specific type of crude oil, generally a refinery equipped to handle a heavy crude oil could not switch to a lighter crude oil and efficiently and economically conduct refining. Switching amongst heavy crudes would not substantially change the GHG emissions from a refinery. NETL (2009) conducted studies on a range of crude oils for a wheel-to-tank and wheel-to-wheel GHG lifecycle analysis associated with the Keystone Pipeline FEIS. The majority of differences between tar sands and other heavy crude oils was the Raw Material Acquisition (mining and extraction) stage of the lifecycle process, where the raw material acquisition GHG intensity ranged from 14 to 128 kg CO2e per bbl crude oil acquired, with Canadian Tar Sand at the upper end with 111. Conventional Canadian crude produced 36 kg and the US average produced 24 kg. This is in contrast to the refining stage of the lifecycle process which, between heavier crude oils, was similar.
CBE-69	Guidelines Section 15130 provides the guidance on the evaluation of cumulative impacts. This section of the Guidelines provides in part: "(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness. The following elements are necessary to an adequate discussion of cumulative impacts: "(1) Either: "(A) A list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency, or "(B) A summary of projections contained in an adopted general plan or related planning document which is designed to evaluate regional or areawide conditions....; "(2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available, and "(3) A reasonable analysis of the cumulative impacts of the relevant projects...." For the RDEIR a list of projects was used to assess the cumulative impacts

	consistent with the CEQA Guidelines discussed above. The list of cumulative projects is provided in Chapter 3.0 of the RDEIR. Section 4.3, Air Quality and Greenhouse Gases provides a discussion of the cumulative air impact for both criteria pollutants and air toxic emissions. For the area around the SMR, the cumulative projects were ones within the South Central Air Basin. The cumulative analysis found that the cumulative air emissions were significant and unavoidable and that the additional burden that would result from the Rail Spur Project's contribution to the cumulative air impact would be significant and unavoidable. The RDEIR also found that the health risk impact from cumulative air toxic emissions would be significant and unavoidable, and that the additional burden from the Rail Spur Project's contribution to the cumulative air impacts would be significant and unavoidable. The analysis in the RDEIR was adequate to determine the significance of the cumulative air impacts, which were found to be significant and unavoidable. Mitigation measures were identified to lessen the impacts to the extent feasible, but the RDEIR discloses that those measures will not mitigate the Project's impacts to less than significant levels. This satisfies the County's information disclosure obligations under CEQA. As discussed in Response to CBE-93 and CBE-94, the RDEIR was not required to analyze or disclose potential impacts related to the Rodeo facility.
CBE-70	The first part of this comment provides some general background on the CEQA requirements for the evaluation of alternatives. The comment alleges that the RDEIR failed to evaluate a reasonable range of alternatives, and did not provide enough information on the alternatives to allow a meaningful analysis and evaluation. The County disagrees with this assertion. An EIR need not consider every conceivable alternative to the project: "In determining the nature and scope of alternatives to be examined in an EIR, the Legislature has decreed that local agencies shall be guided by the doctrine of "feasibility." CEQA defines 'feasible' as 'capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.' (Pub. Resources Code, § 21061.1; see also [Guidelines,] § 15364.)'There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.' Cal.Code Regs., tit. 14, §15126.6, subd. (a).) The rule of reason 'requires the EIR to set forth only those alternatives necessary to permit a reasoned choice' and to 'examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.' (*Id.*, §15126.6, subd. (f).) An EIR does not have to consider alternatives 'whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.' (*Id.*, §15126.6, subd. (f)(3).)" (*In re Bay-Delta* (2008) 43 Cal.4th 1143, 1163.) The EIR includes three different transportation alternatives (trucking, pipeline, and marine). For the trucking alternative, four different endpoint locations are

	evaluated. For the marine and pipeline alternatives two different options are addressed. Three different rail unloading sites are discussed, and two different rail unloading facility configurations are evaluated. This is in addition to the No Project Alternative. The EIR used a screening analysis that looked at each of the alternatives in terms of environmental impacts relative to the proposed project and feasibility of the alternatives. The alternatives analysis provides detailed tables that address the environmental impacts by issue area for each of the alternatives, and discusses how these would compare with the proposed project. The EIR sets forth the alternatives that were considered by the County and rejected as infeasible and the reasons underlying the County's determination. This satisfies the requirements of CEQA, as described in *Laurel Heights Improvement Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 404-405. The EIR addressed a number of alternatives that could avoid most of the large populated areas along the mainline rail routes. These included a marine terminal and trucking of crude oil, as well as the No Project Alternative. A marine terminal would avoid all of the populated areas, but would introduce a host of new marine related impacts such as oil spills impacting marine water quality and marine resources. As discussed in Section 5.2 of the EIR (Chapter 5.0, Alternatives), use of a marine terminal or trucking from the source of the crude to the SMR were found to be potentially infeasible due to environmental and technical factors, and therefore, were not evaluated in more detail in the EIR. The No Project Alternative, which was evaluated in detail in the EIR, would involve a combination of rail transport to the San Joaquin Valley and then trucking to the SMPS. This alternative would eliminate the travel of trains through the Bay Area, Los Angeles Basin, and most of the heavy populated area of Sacramento. Also, the analysis of the Rail Spur Project looked at a mainline rail route through the Altamont Pass, which would avoid most of the Bay Area and most of the heavy populated area of Sacramento. The EIR looked at trucking and pipeline alternatives from moving crudes across North America. Both of these were found to be potentially infeasible due to environmental and/or technical factors, and therefore, were not evaluated in more detail in the EIR (see Section 5.2 of the EIR, Chapter 5.0, Alternatives).With regard to a cross country pipeline, permits would be needed from a large number of Federal, State and local jurisdictions, and Phillips 66 does not own the land that would be needed along a pipeline route. The Keystone XL Pipeline project is an example of the difficulties that a long-distance pipeline project alternative would face. The law does not require in-depth review of alternatives which cannot be realistically considered and successfully accomplished; the County could properly find that an alternative located outside of its decision making authority was not a feasible project alternative (*Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 566, 575).

	In addition, the comment provides no specific alternatives that the EIR should have addressed. "CEQA establishes no categorical legal imperative as to the scope of alternatives to be analyzed in an EIR. Each case must be evaluated on its facts, which in turn must be reviewed in light of the statutory purpose." (*Goleta Valley, supra*, 52 Cal.3d at p. 566.). Commenters must therefore show the agency failed to satisfy its burden of identifying and analyzing one or more potentially feasible alternatives. A commenter "may not simply claim the agency failed to present an adequate range of alternatives and then sit back and force the agency to prove it wrong." (*Mount Shasta Bioregional Ecology Ctr. v. County of Siskiyou* (2012) 210 Cal.App.4th 184, 199.) An alternative of shutting down the refinery would not meet any of the objectives of the project and therefore, would not be considered a feasible alternative under CEQA. The No Project Alternative, which was evaluated in detail in the EIR, addresses what the SMR would likely do without the Rail Project. The No Project Alternative is based upon what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (CEQA Guidelines §15126.6(e)(2)). If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, such as truck loading facilities in Kern County, this "no project" consequence should be discussed (CEQA Guidelines §15126.6(e)(3)(B)). With regard to availability of future crude supplies to the SMR see Response CBE-78.
CBE-71	The commenter states that the RDEIR does not supply sufficient information to support a statement of overriding considerations, but such a statement would only be considered and adopted by the County decision makers and only if the project is approved. A statement of overriding considerations may be based on evidence within the record as a whole and need not be based on the RDEIR alone, as provided for in CEQA Guidelines §15093. The County will need to develop a statement of overriding consideration only if the decision makers decide to approve the proposed project and will base any such statement on substantial evidence in the record. The commenter expresses a general opinion that the RDEIR is inadequate. It does not address any concern or issue specifically related to the adequacy of the RDEIR or the proposed Project.