

October 30, 2015

Via email and FedEx (with references) to

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Re: The City of Benicia's Revised Draft Environmental Impact Report
for the Valero Benicia Crude-by-Rail Project

Dear Ms. Million,

On behalf of the undersigned groups, we submit the following comments on the City of Benicia's Revised Draft Environmental Impact Report (Revised Draft EIR) for the Valero Benicia Crude-by-Rail Project (the Project). The Project, if approved, would allow the Valero refinery to receive up to 70,000 barrels per day of crude oil by train, causing significant and irreversible impacts on communities and the environment.

The City released a Draft EIR for public comment in June 2014. After receiving numerous comments pointing out the deficiencies in the Draft EIR, the City recirculated the Revised Draft EIR in August 2015. Although the Revised Draft EIR discloses new significant environmental impacts, it still fails to address many of the comments we previously submitted. Accordingly, we incorporate our prior comments on the Draft EIR by reference. As described below, the Revised Draft EIR does not meet the requirements of the California Environmental Quality Act (CEQA) because it fails to properly analyze, disclose, and mitigate the Project's significant environmental impacts.

I. The Revised Draft EIR fails to accurately state the Project's objectives and baseline.

In the Revised Draft EIR the City continues to claim, without support, that there will be no net increase in throughput (and thus no increase in air pollution and other negative impacts) because the Project does not increase the refinery's air permit limits. (Revised Draft EIR at 2-6, 2-20.) Under CEQA, the baseline consists of "the physical environmental conditions in the vicinity of the project, as they exist at the time . . . environmental analysis is commenced." (14 Cal. Code Regs. ("Guidelines") § 15125(a).) In other words, the baseline is the actual physical conditions that exist at the site—not hypothetically permitted conditions. (*Communities for a Better Env't v. S. Coast Air*

Quality Mgmt. Dist. (2010) 48 Cal.4th 310, 315.) Therefore, the City cannot use the hypothetically permitted throughput levels as the baseline and must instead disclose the actual throughput.

The City also continues to claim that the Project will reduce marine imports, Revised Draft EIR at 2-3, 2-13, 2-19, 2-20, but that is unlikely for two reasons. First, because there is no evidence that the refinery is currently operating at capacity, the Project could simply increase the total amount of crude that Valero refines. Rail imports would be additional to marine imports, rather than replacing them. And even if the refinery were operating at capacity, the Project would not reduce marine imports if the crude imported by rail replaces crude currently imported by pipeline. The Revised Draft EIR asserts that the Project's crude will not replace crude imported by pipeline, but it provides no reasoning or facts to support that assertion. (*Id.* at 2-19.) In short, there is no binding commitment from Valero that the refinery will reduce marine imports proportional to rail imports. In the absence of such a commitment, the refinery could continue to receive marine imports *and* add rail imports.

II. The Revised Draft EIR fails to disclose the type of crude oil that will be transported by rail to the Valero refinery.

The Revised Draft EIR is fatally flawed because it does not identify the type of crude oil that the Project will enable Valero to import by rail and refine. (*See* Revised Draft EIR at 2-23.) This nondisclosure violates CEQA and cripples the analysis of environmental impacts. In *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, the First District Court of Appeal specifically rejected an EIR for a refinery project that failed to disclose detailed information about the crude slate that a refinery was already processing compared to the crude slate it would process if the project under consideration were approved. (*Id.* at 88-89 [finding that “the EIR fails as an informational document because the EIR’s project description is inconsistent and obscure as to whether the Project enables the Refinery to process heavier crude”].) As the court noted, if “a project proponent can pick and choose who sees pertinent data . . . then a stake is driven into the ‘heart of CEQA’ by preventing the information necessary for an informed decision from reaching the decisionmakers and the public.” (*Id.* at 88.)

As we explained in our prior comments, the City’s analysis rests primarily on its claim that Valero will blend crude imports to stay within “the yellow box in Figure 3-8” of the Draft EIR, which demarcates the ranges of sulfur content and API gravity permitted under Valero’s BAAQMD permit. (Draft EIR at 3-13 to 3-14.) But the analysis notes that the blends Valero has refined over the last three years “is much narrower” than

what the permit allows. (Draft EIR at 3-14.) This might, as the City suggests, imply practical limits on Valero’s refining capability, but more realistically, it demonstrates that the BAAQMD permit leaves significant wiggle room for Valero to alter the crude blends it refines going forward.

Consequently, there are several unanswered questions with regard to this Project. Will importing tar sands, oil shale, and other “heavier” crudes require Valero to shift the distribution of blends it refines to a different region of the yellow box? Will the distribution of blends expand, or narrow even further? More significantly, what impacts to the environment will result when a shift occurs, even if the blends stay within the yellow box? For example, shifting toward the highest allowable mass fraction of sulfur content would increase sulfur dioxide emissions. Will this result in impacts to air and water quality close to the refinery? The Revised Draft EIR fails to address these questions and does not allow for a proper consideration of the potential impacts.

Furthermore, the BAAQMD permit does not speak to crude characteristics beyond density and sulfur. Crude oil constituents vary greatly, including differences in the content of coke, asphalt, asphaltenes, resins, copper, iron, mercury, nickel, lead, titanium, vanadium, residue nitrogen, and volatile organic compounds (VOCs).¹ Each of these compounds could have serious negative impacts on air quality. These compounds could also affect water quality, as effluent discharge, air pollution fallout, or in the event of accidental release.² Mercury is illustrative. The San Francisco Bay already experiences high levels of mercury pollution, including from local refineries’ air emissions, which ultimately deposit into water systems and biomagnify through food chain systems.³ Crude oils can vary in their mercury content by many orders of magnitude,^{4,5} meaning

¹ United States Geological Survey, *Heavy Oil and Natural Bitumen Resources in Geological Basins of the World*, Open File-Report 2007–1084 (2007), available at: <http://pubs.usgs.gov/of/2007/1084/OF2007-1084v1.pdf>.

² Helen Wake, *Oil refineries: a review of their ecological impacts on the aquatic environment*, 62 *Estuarine, Coastal, and Shelf Science* at 131-40 (2005)

³ Sigi Ocker, *The Legacy of Mercury Pollution in California’s Bay Area*, EcoWatch (2014), available at: <http://ecowatch.com/2014/03/21/mercury-pollution-california-bay-area>.

⁴ *Heavy Oil and Natural Bitumen Resources*, supra note 1, at 14

⁵ Environmental Resources Management, *Bay Area Petroleum Refinery Mercury Air Emissions, Deposition, and Fate* (June 2009) at A-3 (finding average mercury concentrations in crude at Bay Area refineries ranged from 1.52 to 14.69 ppb), available at:

changes to the crude Valero refines could have far-reaching impacts on regional water pollution. These crude characteristics are also vitally important to know when assessing the risk and impacts of spills, explosions, and clean up resulting from accidents along the rail line.

Even incremental fluctuations in the chemical composition and quality of the crude slate refined at the Refinery could cause significant, and currently un-assessed, environmental impacts. For instance, the *City of Richmond* case addressed the Richmond's failure to study the impacts of a one percent increase in sulfur in the Chevron Richmond Refinery's crude slate. (*City of Richmond*, 184 Cal.App.4th at 77.) Two years later, a pipeline ruptured at the refinery, sending 15,000 local community members to nearby hospitals. The United States Chemical Safety Board determined that a 0.8 percent increase in the amount of sulfur in Chevron's crude blend was the root cause of the accelerated pipe corrosion.

The Revised Draft EIR simply ignores this variability in crude oil and accordant variability in risk, essentially assuming that all crudes are created equal. Rather than disclosing or discussing the highly varied chemical makeup of crude, the different constituent pollutants' effects on the environment, and the effectiveness of control measures like the refinery's SWPPP and BAAQMD permit, the City's analysis simply "call[s] for blind faith in vague subjective characterizations." (*City of Richmond*, 184 Cal.App.4th at 85.) This violates CEQA as a matter of law.

III. The Revised Draft EIR improperly limits the geographic scope of the impacts analysis.

The Revised Draft EIR limits the geographic scope of its analysis of up-rail impacts to three northern/northeastern UPRR rail routes between the Roseville Yard and the California border (e.g., Oregon to Roseville, Nevada to Roseville (northern), Nevada to Roseville (southern)): "[t]he DEIR and this Revised DEIR assume . . . that all Project-related crude would be routed through Roseville using any or all of three routes along the existing UPRR rail system to the north and northeast of Roseville." (Revised Draft EIR at 2-24.)

However, the Revised Draft EIR itself acknowledges that Project-related crude could reach Roseville from other rail routes, such as two UPRR rail routes in southern

http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/sfbayme rcury/Hg_Air_Dep_SFB_Refineries%20_WSPA.pdf.

California that run between the Roseville Yard and the state border⁶: “it is possible that Project-related crude oil could reach the refinery through Roseville using routes from southern California.” (Revised Draft EIR at 2-24, fn. 6; *see also* Figure 1-2 for Union Pacific Crude Network routes in southern California.) The Revised Draft EIR also states that Project-related crude might enter the state “via any of the North American freight railroad tracks, which are shown in Figure 1-1” due to track-sharing agreements, although “it is more likely that UPRR’s existing crude network would be used to transport Project-related crude” because “the UPRR rail line already provides rail access for the Refinery and because Refinery personnel have indicated that UPRR would serve the Project.” (Revised Draft EIR at 2-24.)

Moreover, the Project could import crude oil by rail from New Mexico, Texas, Utah, Colorado, and Wyoming. As evident in Figure 1-2, crude oil from New Mexico and Texas is likely to be brought in on the southern UPRR rail routes not analyzed by the Revised Draft EIR, and crude oil from Utah, Colorado, and Wyoming could also come in through those southern routes. As stated by the Revised Draft EIR, New Mexico and Texas are likely sources of crude: “[t]ank cars carrying crude oil for the Project will arrive at the Roseville Yard from a variety of potential North American crude oil sources including, but not limited to, locations in Texas, North Dakota, Oklahoma, New Mexico, or Canada.” (Revised Draft EIR at 2-21.) Indeed, New Mexico, Wyoming, and Utah have provided a large percentage of the crude-by-rail imports to California in recent years.⁷ According to the California Energy Commission, since 2009, the highest volumes of crude oil imports by rail into California have come (in order of volume) from Canada, North Dakota, New Mexico, Wyoming, and Utah, followed by Colorado, Washington, and other states, as illustrated in the table below.

⁶ One southern UPRR crude route enters California near Primm, NV, and another southern route enters California near Yuma, AZ; both routes continue north through the Central Valley (through Bakersfield, Fresno, Merced, Stockton, Sacramento) to the Roseville Yard.

⁷ California Energy Commission. 2015. Crude Imports by Rail. *Available at* http://energyalmanac.ca.gov/petroleum/statistics/2015_crude_by_rail.html

Crude Imports By Rail to California, expressed in barrels

	2009	2010	2011	2012	2013	2014	2015 to date	Total
Canada			155,296	193,569	3,472,049	1,520,288		5,341,202
North Dakota	3,353	496,886	1,112,665	704,207	1,348,682	1,191,758		4,857,551
New Mexico				153,318	411,725	1,159,712	849,104	2,573,859
Wyoming					441,398	694,101	677,972	1,813,471
Utah						933,632	176,965	1,110,597
Colorado	30,983				500,708	146,889		678,580
Washington	11,155							11,155
Others			94,070	37,331	122,211	90,699		344,311
Total	45,491	496,886	1,362,031	1,088,425	6,296,773	5,737,079	1,704,041	

Source: California Energy Commission,

http://energyalmanac.ca.gov/petroleum/statistics/2015_crude_by_rail.html

The likelihood that Project oil trains will use southern routes in California is further confirmed by an analysis of PHMSA records on accidents involving trains carrying petroleum crude oil in recent years. The PHMSA database indicates that crude oil originating from New Mexico, Texas, Utah, and Wyoming enters California on southern routes, including UPRR routes passing through the UPRR railyard in Bloomington, California.⁸

Because the use of other rail routes in addition to the three outlined northern routes is foreseeable, the EIR must analyze all potential rail routes between the state boundary and the Roseville Yard, including the two southern routes described above. The Revised

⁸ Pipeline and Hazardous Materials Safety Administration. 2015. Office of Hazardous Materials Safety, database at <https://hazmatonline.phmsa.dot.gov/IncidentReportsSearch/Welcome.aspx>.

Draft EIR must also analyze impacts along rail routes coming into California from Canada, North Dakota, New Mexico, Wyoming, Utah, Colorado, and Washington, at minimum, since these are foreseeable crude oil sources for the Project. Because there are few crude network rail routes coming from those states (see Figure 1-2), analysis of impacts along those rail routes is entirely feasible.

IV. The Revised Draft EIR improperly omits any discussion of the disproportionate impact of the Project on low-income communities of color.

In 2012, the California Attorney General’s office released a report entitled “Environmental Justice at the Local and Regional Level – Legal Background.”⁹ The report states that existing law imposes obligations on local governments to evaluate environmental justice impacts when approving specific projects and planning for future development. It also clarifies the need for transparency in statements of overriding consideration, especially in the context of disclosing environmental justice concerns with a proposed project, which must be stated “plainly.”

The Revised Draft EIR fails to meet this legal mandate in two distinct respects. First, because the Revised Draft EIR does not divulge that the Project will enable the refinery to switch to a lower quality oil feedstock, it fails to assess the increased pollution from refining dirtier oil, including the increased emissions of criteria and toxic pollutants. Second, in finding the impact of the risk of a crude oil train derailment to be significant and unavoidable, Revised Draft EIR at 2-90, the revised analysis still underestimates that impact by omitting any discussion of the disproportionate impact this hazard poses to low-income communities of color.

A recent report, “Crude Injustice on the Rails,” evaluates the disparate risk from oil trains in California.¹⁰ The report compares the “blast zone” (the one-mile evacuation area that the US DOT recommends in the case of an oil train derailment, spill, or fire) with US census block data representing populations meeting one or more of the following criteria: low-income; people of color; and/or from linguistically isolated households. The

⁹ Environmental Justice at the Local and Regional Level, Legal Background, June 2012, May 2012, *available at*

http://oag.ca.gov/sites/all/files/agweb/pdfs/environment/ej_fact_sheet_final_050712.pdf.

¹⁰ Crude Injustice on the Rails, Communities for a Better Environment and ForestEthics, June 2015, *available at*

<http://www.forestethics.org/sites/forestethics.huang.radicaldesigns.org/files/Crude-Injustice-on-the-Rails.pdf>.

results show that the transport of crude oil by rail presents a clearly disproportionate impact: Californians of color are more likely to live in the oil train blast zone. Eighty percent of the 5.5 million Californians with homes in the blast zone live in environmental justice communities. The following table from the report illustrates this data for the ten largest cities that could be traversed by oil trains:

Percentage of people in the oil train blast zone that live in environmental justice communities in the ten largest California cities on oil train routes:			
Los Angeles	82%	San Jose	91%
Fresno	85%	Sacramento	89%
Long Beach	85%	Oakland	92%
Bakersfield	77%	Stockton	94%
Fremont	100%	San Bernardino	100%

Irrespective of which of the rail routes the Project will ultimately use, approval of this Project will have disparate impacts on communities of color.

Title VI of the 1964 Civil Rights Act prevents federal funds from being used to encourage racial discrimination. For instance, in 2010, the Federal Transportation Administration withheld \$70 million in funding from the Bay Area Rapid Transit agency for the agency’s failure to take into account the impact of its airport connector expansion on low-income people of color. Moreover, California Government Code section 11135 also targets discrimination in any local government program that receives funding or financial assistance from the state. If the state-funding agency determines that the local government has violated the statute by using state funds in an activity that creates a racially discriminatory impact, Government Code section 11137 authorizes that state agency to “curtail” state funding in whole or in part to the local agency.

The City of Benicia and its Community Development Department are recipients of state and federal funds.¹¹ Approval of this Project will create and add to the disproportionate impact that communities of color already face from industrial

¹¹ See, e.g., City of Benicia, Chapter 3-Department Level Budgets FY 2015-2017, available at http://www.ci.benicia.ca.us/vertical/sites/%7B3436CBED-6A58-4FEF-BFDF-5F9331215932%7D/uploads/Chapter_3_-_Department_Level_Budgets.pdf.

infrastructure, pollution, and hazards. Failure to adequately address those impacts, in particular by omitting them from the discussion and balancing of significant and unavoidable impacts, violates CEQA and federal and state civil rights statutes.

V. The Revised Draft EIR's analysis of alternatives is inadequate and violates CEQA.

The Revised Draft EIR's analysis of alternatives is wholly inadequate and belies the City's inconsistent position about its own authority to set limits on the Project's scope. The Revised Draft EIR lays out what amount to straw man alternatives that it summarily rejects as legally infeasible. In reality, the alternatives presented are not infeasible, because the City is authorized to limit the Project's scope, meaning the Revised Draft EIR should have given them meaningful consideration. And if the alternatives actually are infeasible, as the City claims, then the Revised Draft EIR violates CEQA as a matter of law by failing to consider a reasonable range of alternatives. Either way, the analysis fails.

As proposed, the Project would allow crude shipments in unit trains "of 50 or up to 100 tank cars," and "[t]wo 50-car trains would be dispatched from the Roseville Yard to the Refinery each day." (Revised Draft EIR at 2-8.) Alternative 1 would limit shipments to one 50-car train per day, and the No Project Alternative would allow no shipments at all. (*Ibid.*) The Revised Draft EIR does not claim that the City is preempted from precluding all rail shipments through selecting the No Project Alternative. Why, then, is it preempted from limiting shipments to one 50-car train per day through adopting Alternative 1? Or, to take the logic in the other direction, if the City is preempted from limiting shipments to one 50-car train per day, why can it approve a project limited to two 50-car shipments per day, rather than having to allow unlimited shipments, whenever and however often Valero wishes? Clearly, the City has authority to limit or condition the Project's scope, and it cannot use preemption doctrine to arbitrarily bind its own hands in support of a desired outcome. Federal railroad law does not, as the City suggests, allow the project to move forward only as precisely proposed, and the Revised Draft EIR should meaningfully consider other options.

Moreover, the Revised Draft EIR violates CEQA even if the City is correct that Alternatives 1 and 2 are legally infeasible. An EIR must consider alternatives that are feasible and that accomplish the basic objectives of the project. (Guidelines § 15126.6.) According to the Revised Draft EIR, the No Project Alternative does not accomplish the primary goals of the project, and Alternatives 1 and 2 are both legally infeasible. (Revised Draft EIR at 2-8 – 2-9.) Thus, by its own conclusions on the matter, the City

offers as workable alternatives only the proposed Project and Alternative 3, an offsite unloading terminal that would simply shift some of the Project's onsite impacts elsewhere. Presenting these two options falls far short of the "reasonable range of alternatives" that CEQA requires. (*Citizens of Goleta Valley v. Bd. of Supervisors*, (1990) 52 Cal. 3d 553, 566.)

The City cannot have it both ways. Offering alternatives and then dismissing them as infeasible does not meet CEQA's requirement to consider feasible alternatives.

VI. The Revised Draft EIR fails to properly mitigate the Project's up-rail air quality impacts.

The Revised Draft EIR focuses solely on the air quality impacts of the Project's trains in up-rail communities. Although the document admits that the Project will cause significant air quality impacts in all counties crossed by trains, Revised Draft EIR at 2-27, it nonetheless concludes that no mitigation is available, *id.* at 2-38.

If an EIR concludes that a project will have a significant impact, CEQA requires the lead agency to adopt all feasible mitigation measures or alternatives that reduce that impact to a level of insignificance. (Pub. Res. Code § 21081, 21002.) Mitigation is especially important here because all of the counties the Project's trains will cross, except Siskiyou County, are in non-attainment for at least one criteria air pollutant. (*Id.* at 2-40.) Contrary to the City's claims, there are many feasible mitigation measures available for the Project. Most notably, as explained above, the City could reduce the Project's impacts by limiting the number of rail cars that can be unloaded per day or otherwise reducing the capacity of the Project. Valero is not a rail carrier as defined by federal law, and the City is not preempted from regulating Valero's actions.

The City also raises, but summarily dismisses, the possibility of requiring contributions to off-site mitigation fee programs in up-rail communities. (Revised Draft EIR at 2-38 to 2-39.) Such payments could fund emissions reductions in the affected communities, thus reducing the impact of the Project. (*See Save our Peninsula Comm. v. Monterey Cnty. Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 140 ["Fee-based infrastructure mitigation programs have been found to be adequate mitigation measures under CEQA."].) The Revised Draft EIR claims that such measures are not feasible because they are preempted. (*Id.* at 2-39.) But requiring *Valero*, which is not a rail carrier, to contribute to a mitigation fund in no way regulates or manages rail operations.

The Revised Draft EIR also notes that existing mitigation fund requirements in Placer County and Sacramento County might not be triggered by the Project. (*Id.* at 2-

38.) But that is beside the point—there is nothing prohibiting the *City* from requiring these measures as a condition of the project. The mitigation measure is clearly outside the scope of what federal law preempts, and the City should require it for all communities in which there will be significant air quality impacts.

VII. The Revised Draft EIR fails to properly analyze, disclose, and mitigate the Project’s greenhouse gas impacts.

Although it discloses a new significant greenhouse gas impact, the Revised Draft EIR fails to correct many of the flaws in the original Draft EIR. First, the Revised Draft EIR incorrectly focuses on the emissions generated just in California, rather than all emissions. (Revised Draft EIR at 2-54, 2-55.) Because greenhouse gases are global pollutants, emissions caused by the Project outside of California will have impacts in California, and thus must be fully analyzed in this report.

Furthermore, the Revised Draft EIR again downplays the greenhouse gases that will be emitted from the transport of the crude oil and from refinery operations by assuming that any rail imports would offset marine imports. (*Id.* at 2-59, 2-60.) As explained above, there is no guarantee that there will be any reduction in marine imports due to the Project.

The Revised Draft EIR also does not cure the prior draft’s error in illegally deferring mitigation of GHGs and co-pollutants. In response to comments that the lower quality crude oil feedstock delivered by the Project will increase emissions of these pollutants from the refinery, the Revised Draft EIR cursorily states that “pursuant to State law the Refinery currently participates in the AB 32 emissions reporting and cap-and-trade programs. Any change in GHG emissions generated at the Refinery due to implementation of the Project would be accounted for in these programs.” (Revised Draft EIR at 2-61.) However, nothing in AB 32 excuses agencies from complying with CEQA by evaluating, disclosing, and mitigating impacts. Indeed, compliance with existing applicable standards does not excuse agencies from determining whether the Project nonetheless has significant environmental impacts. (*See Communities for a Better Env’t v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 114, *disapproved of on other grounds by Berkeley Hillside Pres. v. City of Berkeley* (2015) 60 Cal.4th 1086.)

Finally, the Revised Draft EIR mistakenly asserts that all mitigation is infeasible, including requiring Valero to pay for mitigation credits. (*Id.* at 2-58.) To the contrary, as explained above, nothing in federal law prohibits the City from requiring such payments or from requiring Valero to reduce the size of the project.

VIII. The Revised Draft EIR fails to properly analyze, disclose, and mitigate the Project's hazards impacts.

Although the Revised Draft EIR discloses a new significant hazards impact from foreseeable upsets and accidents, Revised Draft EIR at 2-90, it nonetheless fails to adequately analyze, disclose, and mitigate the Project's hazards impacts. The Revised Draft EIR contains a confusing and inadequate description of two reports prepared by consultants, assumes that the Project will use a certain type of tank car while simultaneously claiming that the City is preempted from requiring that tank car to be used, and attempts to minimize the risk of the Project by citing new federal standards that will not adequately address any of the problems outlined in this letter. The Revised Draft EIR also incorrectly claims that the City is preempted from imposing any mitigation measures.

a. The Revised Draft EIR's discussion of the MRS and Barkan reports is conclusory and inadequate.

The Revised Draft EIR presents new data in the form of a Quantitative Risk Analysis by MRS and a report by Dr. Christopher Barkan. (*See* Revised Draft EIR, appx. F.) The end result of these analyses is presented in the form of charts showing the risks of spills, injuries, and fatalities. However, the Revised Draft EIR fails to adequately explain, in plain language, the inputs, methodology, and conclusions of these reports. It includes virtually no information about how these charts were created, other than saying that an explosion of tank cars "was evaluated" and that spill rates were determined taking in account "major risk factors." (*Id.* at 2-93, 2-94.) Readers are directed to Attachment 2 of Appendix F for further explanation, but the EIR itself must contain this basic information. "Information scattered here and there in EIR appendices, or a report buried in an appendix, is not a substitute for a good faith reasoned analysis." (*Envtl. Prot. Info. Ctr. v. Cal. Dep't of Forestry & Fire Prot.* (2008) 44 Cal. 4th 459, 493 [internal quotation marks omitted].)

The Revised Draft EIR also fails to clearly explain how the Barkan and MRS reports relate to each other, and the extent to which the MRS report relies on data from the Barkan report or vice versa. For example, the Barkan report, which is an attachment to the Quantitative Risk Analysis, apparently calculates the frequency of a spill, but not an explosion or a secondary release from a fire or thermal tear in a tank car. (*Id.* at 2-93.) It is unclear why the analysis is segregated in this manner.

Each report contains troubling omissions. The Barkan report states that the conditional probability of release for CPC-1232 tank cars is 0.132. (*Id.*, appx. F, attach. 1 at 8.) Similar to the previous report, this report does not explain where this number comes from or how it was derived, except to say that it was “developed using statistical results and methods from the RSI-AAR Project TWP-17 report” and assuming certain average conditions, including that the train was going only 26 miles per hour. (*Ibid.*) Given that trains may travel up to 40 or 50 miles per hour, the conditional probability of release is invalid on its face. Tellingly, this number is inexplicably different from the conditional probability of release used in the prior Draft EIR, which was 0.103. (Draft EIR, Appx. F at 5.)

The Quantitative Risk Analysis prepared by MRS is also lacking relevant information. The report fails to explain, in a simple and concise manner, how MRS calculated the risk of injuries and fatalities for this particular project. Instead, readers are expected to simply trust the model, which was apparently developed by MRS and is not a standard model used in these types of analyses. (*Id.*, appx. F, attach. 2 at 3.) Has this model been validated or deemed reliable? If so, by whom? Troublingly, neither the attachments nor the EIR itself explains why the largest rupture considered involves only 240,000 gallons and eight tank cars. Accidents involving higher-volume spills and many more cars, such as the Lac-Mégantic disaster (over a million gallons of petroleum and at least 20 tank car breaches), can and have occurred.¹² (*Compare* Revised Draft EIR at 2-94 *with* 2-74, 2-75.)

b. The Revised Draft EIR improperly assumes that the Project will use only CPC-1232 tank cars in the near term.

The Revised Draft EIR also underestimates the risk of accidents in the near term by assuming that Valero will use CPC-1232 tank cars, rather than the more common DOT-111 tank cars, until new tank cars are phased in starting in 2020. The report notes that only 25 percent of the tank cars carrying crude today are CPC-1232 tank cars. (Revised Draft EIR at 2-74.) The majority of the remaining 75 percent are presumably DOT-111 cars. (*Id.* at 2-79.) Yet the risk analysis methodology assumes that Valero will use only CPC-1232 tank cars. (*Id.* at 2-93, appx. F at 48.) The City cannot have it both

¹² See Earthjustice, Crude By Rail Across America, Map Feature, *available at*: <http://earthjustice.org/features/map-crude-by-rail>; NRDC, “It Could Happen Here: The Exploding Threat of Crude by Rail in California” (June 2014), *available at*: <http://www.nrdc.org/energy/files/ca-crude-oil-by-rail-FS.pdf>.

ways. If federal law preempts it from requiring CPC-1232 tank cars, the City cannot analyze the risk of accidents assuming that only CPC-1232 tank cars will be used.

c. The Revised Draft EIR inappropriately tries to minimize the hazards impacts of the Project by citing irrelevant data and playing up safety improvements that are unlikely to reduce risks.

In Table 4.7-2, the Revised Draft EIR cites Federal Railroad Administration data on train accidents to claim that less than one percent of train accidents result in a release of hazardous materials. (*Id.* at 2-66.) It is unclear how these data relate to the transport of crude by rail. The table does not distinguish oil-train accidents from other types of accidents, nor does it specify whether the “hazmat releases” and “cars carrying hazmat” include crude oil trains. (*Id.* at 2-65.) The fact that the number of cars carrying hazmat in this chart has declined from 2005 to 2014 suggests that rail cars carrying crude are not included, as the number of carloads of crude oil have increased exponentially over the past few years. Indeed, crude oil is not included in the definition of “hazardous” for these purposes and likely would not be included in the figures in Table 4.7-2. (*See* 49 C.F.R. § 171.8.) Thus, the trends showing decreasing accidents and hazmat releases are misleading in this context, and this data should be further explained or removed.

The Revised Draft EIR further attempts to downplay the risk of the Project by citing the new federal rule on tank car and operational standards. That rule is far from a panacea. The speed limits in the rule do not apply universally, and even when they do apply, they do not reduce risk of accidents significantly, allowing trains to travel at 40 or 50 miles per hour. The new tank cars built to the upgraded DOT-117 design standards will make up only a small proportion of the future fleet—a large percentage of the existing fleet will be retrofitted to a standard that is weaker than the new DOT-117 design standard. The new and retrofitted tank cars will puncture at speeds of 9.6 to 12.3 miles per hour, far below the speed limits allowed in the rule. Furthermore, rail operators are not required to provide notice and information about routes and crude quality to towns impacted by the Project: notice requirements apply only to operators carrying 1 million gallons of Bakken crude or more, and notice is made to the state and does not necessarily reach individual communities along the rail lines. (*See generally Hazardous Materials:*

Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains, 80 Fed. Reg. 26643 (May 8, 2015).¹³

The report also mentions Positive Train Control as a mitigation measure, but fails to disclose that a portion of the Feather River Canyon along one of the routes the trains would use has not yet been upgraded. (Revised Draft EIR, appx. F at 47.) In November 2014, eleven cars carrying grain derailed in this area, spilling their contents down the canyon and into the river.¹⁴ Although Congress required the railroads to complete installation of Positive Train Control by the end of the year, the railroads sought, and recently received, an extension until December 31, 2018.¹⁵ The City's implication that there is nothing to worry about because of these supposed improvements is misleading and inappropriately minimizes the risk of an accident.

d. The Revised Draft EIR improperly rejects feasible mitigation measures.

Despite the significant hazards impacts of this Project, the Revised Draft EIR continues to claim that no mitigation is available. (Revised Draft EIR at 2-105.) However, as explained above, the City could reduce the Project's impacts by limiting the number of rail cars that can be unloaded per day or otherwise reducing the capacity of the Project. Valero is not a rail carrier as defined by federal law, and the City is not preempted from regulating Valero's actions.

The Revised Draft EIR also erroneously concludes that mitigation along the mainline is infeasible because it may be preempted. 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 burdensome on interstate commerce. (49 U.S.C. 20106(a)(2); *see, e.g., So. Pac.*

¹³ *See also* Earthjustice, Analysis of 7 Hidden Dangers in the New Federal Oil Tank Car Rule, available at <http://earthjustice.org/sites/default/files/files/7%20Things%20CBR%20Rule%205%2013.pdf>.

¹⁴ Dave Marquis, "Derailment sends section of train into the Feather River Canyon," *ABC10 News*, Nov. 26, 2014, available at: <http://www.abc10.com/story/news/local/california/2014/11/26/train-derailment-feather-river-canyon/70133634/>

¹⁵ "Obama Signs Bill Delaying Deadline for Train-Safety Equipment Installation," *Associated Press*, Oct. 29, 2015, available at: http://www.nytimes.com/2015/10/30/us/obama-signs-bill-delaying-deadline-for-train-safety-equipment-installation.html?_r=0

Transp. Co. v. Pub. Utility Comm'n of the State of Or. (9th Cir. 1993) 9 F.3d 807, 812.) The Revised Draft EIR contains no analysis whatsoever about whether certain individual mitigation measures can meet this standard.

IX. The Revised Draft EIR fails to properly evaluate or mitigate significant hydrology and water quality impacts.

There are several crucial deficiencies with the Revised Draft EIR's analysis of hydrology and water quality impacts. As an initial matter, many of the concerns raised by the public in comments on the Draft EIR remain unaddressed, including whether the increase of crude-by-rail to the refinery will actually decrease marine delivery; the impacts from any changes in the type of crude oil refined; the failure to assess the condition of railroad infrastructure or the potential effects from sea level rise and storm surge on tracks along the San Francisco Bay and Suisun Marsh; and the lack of cumulative impacts analysis regarding other projects that are likely to increase rail traffic along the routes now being considered by this Project.

Furthermore, the additional information included in the Revised Draft EIR suffers from two major problems with regard to water quality impacts. First, the Revised Draft EIR's assessment of up-rail impacts does not include harms from normal, day-to-day rail operations, and no mitigation is provided for these significant impacts. Second, the Revised Draft EIR underestimates many of the risks leading to and stemming from a rail accident or oil release that could significantly impair water quality, and it does not consider feasible means of mitigating these harms.

a. The Revised Draft EIR fails to consider the impacts to water bodies from normal rail operations.

With regard to Section 4.8, Hydrology and Water Quality, the Revised Draft EIR makes almost no changes with the exception of adding a single page regarding "Uprail Impacts and Mitigation Measures," and a short section summarizing such impacts. (Revised Draft EIR at 2-125.) However, the Revised Draft EIR's analysis of up-rail impacts includes little more than conclusory assertions that there will be no impacts under normal operating conditions. This approach is legally insufficient, and it overlooks important water quality impacts related to normal rail operations.

The fundamental problem with the Revised Draft EIR is that the City analyzes up-rail water impacts only insofar as they relate to an accident or oil spill. Yet transporting crude by rail creates potentially significant impacts to water quality simply by its normal

operation. For example, rail transportation regularly deposits polycyclic aromatic hydrocarbons (“PAHs”) and heavy metals into the proximate environment.¹⁶ PAHs already pose a problem for aquatic ecosystems close to the Benicia refinery,¹⁷ and expanded crude-by-rail operations resulting from this Project will result in the deposit of this toxic substance into such areas and other up-rail waterways.

Similarly, the day-to-day transportation process could contaminate up-rail waterways through air pollution fallout. The Revised Draft EIR states that “locomotive exhaust emissions and fugitive emissions from tank cars would result in a net increase of air pollutant emissions within the air districts along the three [possible travel] routes,” including exceedances of allowable NO_x emissions in every air district that Project-related trains might pass through. (Revised Draft EIR at 2-31.) This harm to air quality is alarming in and of itself, but it also threatens water systems that are susceptible to aerial deposition of pollutants.

While the Revised Draft EIR recognizes that crude-carrying rail cars would “traverse numerous creeks, rivers, wetlands, aqueducts, canals, and sloughs” and are “in proximity to numerous lakes and marine waters,” Revised Draft EIR at 2-125, it fails to assess the fact that PAHs, heavy metals, and other pollutants may deposit or leach into these waterways even without a spill or accident. Instead, the Revised Draft EIR summarily asserts that, “[u]nder normal operating conditions,” Project-related crude oil transportation would have “no impact” on water quality or hydrology issues, with no explanation for reaching this conclusion. (*Ibid.*) The City should acknowledge that rail operations can pollute water even under normal operating conditions, and it should identify and evaluate the Project’s contribution to the problem.

The Revised Draft EIR also fails to identify or implement ways to mitigate the Project’s impacts. Although the City takes the position that it is preempted from regulating rail emissions, it uses this conclusion to foreclose recognized mitigation measures that are legally feasible under CEQA. For example, Valero could be required to

¹⁶ Wilkomirski, *et al.*, *Railway transportation as a serious source of organic and inorganic pollution*, 218 *Water Air Soil Pollut.* at 333-45 (2011), available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096763/>

¹⁷ Daniel Oros, *et al.*, *Polycyclic aromatic hydrocarbon (PAH) contamination in San Francisco Bay: A 10-year retrospective of monitoring in an urbanized estuary*, 105 *Env’t Research* 1 at 101-18 (2007); see also B. Thompson, *et al.*, *Relationships between sediment contamination and toxicity in San Francisco Bay*, 48 *Mar. Environ. Res.* at 285-309 (1999).

contribute to up-rail communities' water pollution control efforts, either through purchasing emissions offsets or by directly funding air or water quality programs. (*See, e.g., Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 141 [upholding traffic impact mitigation fees].) The City could also require Valero to fund wetland restoration or other ecosystem improvement projects that benefit or protect water quality. (Guidelines § 15370(e) [“Mitigation’ includes ... [c]ompensating for the impact by replacing or providing substitute resources or environments.”]; *see also City of Petaluma v. Cnty. of Sonoma*, No. A134559, 2014 WL 795657, at *14 (Cal. Ct. App. Feb. 28, 2014) (unpublished decision) (upholding an EIR that relied in part on wetland banking as a mitigation measure). The Revised Draft EIR’s failure to even consider such mitigation options violates CEQA.

b. The Revised Draft EIR’s analysis of impacts related to water quality from a spill or accident is fundamentally flawed.

The Revised Draft EIR also includes a new analysis of hydrology and water quality impacts related to an accident or crude oil spill in the Hazards and Hazardous Waste section. (Revised Draft EIR at 2-114 to 2-116.) However, this discussion falls well short of what CEQA requires. The quantitative risk assessment prepared for the Revised Draft EIR miscalculates the true risk of an accident or spill, which consequently underestimates the risk to water resources. And even where the analysis identifies significant impacts, it wrongly brushes aside mitigation measures as legally infeasible. In reality, the Project entails an even greater accident-related risk than the Revised Draft EIR surmises, and there are feasible mitigation measures that the City could implement to address such impacts.

Even with these incorrect assumptions, the Revised Draft EIR acknowledges that an up-rail derailment or accident could cause “substantial degradation to surface water and/or groundwater quality” and associated ecosystems. (Revised Draft EIR at 2-115.) While the analysis discounts this risk because “the incident would need to occur in the vicinity of a water body . . . [or] in a groundwater recharge area,” it correctly recognizes that spills into waterways would make cleanup efforts more difficult, as would certain topographical or terrain features like steep slopes or deep channels or ditches. (*Id.* at 2-115.) Moreover, the Revised Draft EIR notes that “depending upon the location of an oil spill . . . there may be no oil spill containment or cleanup equipment immediately available, and it could take some time for emergency response teams to mobilize,” which “could allow enough time for the spill to affect water resources.” (*Id.* at 2-116.) These unique challenges would exacerbate impacts to water systems.

Despite such acknowledged significant impacts, the City adopts no mitigation measures. (*Ibid.*) In fact, the only mitigation measure even contemplated is “requiring compliance with SB 861,” which requires oil carriers to have an oil spill contingency plan approved by the state Office of Spill Prevention and Response, but that measure is rejected on preemption grounds. (*Ibid.*) As discussed above, the City’s analysis of the preemption issue is incorrect. Moreover, even if federal law prohibits the City from regulating UPRR, there is no question that it could require Valero to mitigate impacts to water resources that result from an accident or spill. For example, providing additional funding, bonding, personnel, or other resources to response agencies located close to important water bodies would be legally and practically feasible, and it would directly reduce the risk of serious impacts to up-rail water resource. The Revised Draft EIR’s failure to even consider any feasible mitigation measure to address this significant impact violates CEQA.

X. The Revised Draft EIR fails to properly evaluate and mitigate significant impacts to biological resources.

The Revised Draft EIR’s analysis of the Project’s impacts on biological resources is fundamentally flawed. The Revised Draft EIR fails to address most of the concerns about the Draft EIR that were raised in public comments. Furthermore, the Revised Draft EIR suffers from numerous deficiencies: (a) it improperly limits the geographic scope of analysis; (b) its identification of special-status species and sensitive habitats affected by the Project is too narrow; (c) it erroneously claims that the Project under normal operating conditions will have no significant impacts under significance criteria (b) through (f); (d) its analysis of impacts to special-status species under normal operating conditions is fundamentally flawed; and (e) it fails to propose feasible mitigation measures to reduce significant impacts to special-status wildlife species from crude oil spills, train derailments, and explosions.

a. The Revised Draft EIR improperly limits the geographic scope of the biological resources impacts analysis.

Although the Revised Draft EIR claims that it analyzes the “uprail impacts” between the Roseville Yard to the State Border and points beyond, including the southern routes within California and routes to the Project-related crude oil’s point of origin, Revised Draft EIR at 2-25,¹⁸ the biological resources impacts analysis only considers the

¹⁸ The Revised Draft EIR states: “The analysis in this EIR considers the potential effects of the Project regardless of whether they could occur within the Refinery boundary,

three northern routes. As explained above, the Revised Draft EIR's restriction of the geographic scope of analysis is arbitrary and violates CEQA.

b. The Revised Draft EIR's identification of biological resources affected by the Project is improperly narrow.

Section 2.7 of the Revised Draft EIR limits its analysis of species and sensitive habitats to those that occur within 300 feet of three northern/northeast rail routes, improperly excluding those that lie beyond 300 feet but occur within the potential impact zone of the Project. The Revised Draft EIR provides no justification for why 300 feet is a sufficient distance for analyzing impacts under normal operating conditions or accident scenarios. Noise pollution from oil trains extends more than 300 feet from the tracks. (Draft EIR at 4.2-32.) Air pollution such as NO_x emissions, the deposition of heavy metals from oil trains, and the impacts from oil spills, derailments, and explosions can extend well beyond 300 feet. For example, numerous recent oil train derailments and explosions have spilled crude oil into waterways, and harms have been geographically extensive. The oil train derailment and explosion near Aliceville, Alabama, in 2013 spilled an estimated 750,000 gallons of crude oil into a wetland system, causing widespread damage far beyond 300 feet.

c. The Revised Draft EIR erroneously claims that the Project, under normal operating conditions, would "cause no impact" to biological resources under significance criteria (b) through (f).

The Revised Draft EIR claims that the Project, under normal operating conditions, "would not have a substantial adverse effect on any riparian habitat or other sensitive natural community" under criterion (b), and "would not interfere substantially with the resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites" under criterion (d) "because the presence of any such habitat or community located

between the Refinery and the Roseville Yard, between the Roseville Yard and the State border via the three routes described above, via a southern route within California, or beyond the State line to the Project-related crude oil's point of origin. Potential effects of the Project within the Refinery boundary and from the Refinery to the Roseville Yard are addressed in the DEIR except as noted below. Uprail impacts, i.e., those potential impacts that may occur between the Roseville Yard to the State border and points beyond, are addressed in a new subsection within each resource discussion called 'Uprail Impacts and Mitigation Measures.'" (Revised Draft EIR at 2-25.)

within or along the tracks under baseline conditions demonstrates tolerance with trains passing via the tracks.” (Revised Draft EIR at 2-42 to 2-43.) However, the Revised Draft EIR provides no evidence to support the claim that the presence of a riparian habitat, sensitive natural community, wildlife corridor, or wildlife nursery site along the tracks means that it is not experiencing adverse impacts. Such generalized and conclusory statements unsupported by factual information are specifically prohibited under CEQA.

To the contrary, the scientific evidence, detailed below and in our 2014 comments on the Draft EIR, indicates that the Project’s oil trains would result in increased impacts to habitats, natural communities, movement corridors, and nursery sites along the tracks, including substantial adverse impacts from (1) noise disturbance, (2) barriers to movement, and (3) pollution through the emissions of contaminants such as NO_x and heavy metals. Importantly, numerous scientific studies demonstrate that the presence of a community or species in a disturbance zone does not equate to the absence of impacts. Significant impacts may still be occurring that lower reproductive success, reduce body condition, increase stress levels, lower survival and abundance, and disrupt community structure and ecosystem function. For example, a recent study by Ware et al. (2015), which measured the impacts of noise pollution on a songbird community, found that the species or community presence does not mean that impacts are not occurring. In response to traffic noise, 31 percent of the bird community avoided the area, and overall body condition decreased significantly for the individuals that stayed in the noise-affected area, likely because an increase in vigilance decreased their foraging efficiency. The study concluded that “noise degrades habitat that is otherwise suitable, and that the presence of a species does not indicate the absence of an impact.”¹⁹ It stands to reason that if some noise causes adverse impacts, more noise would exacerbate those impacts. The EIR must analyze this.

The Revised Draft EIR also claims, without basis, that “[u]nder normal operating conditions, Project trains also would not have a substantial adverse effect on federally protected wetlands” under criterion (c) because “no wetland removal, fill, hydrological interruption, or other effect on such resources would occur.” (Revised Draft EIR at 2-42 to 2-43.) However, as detailed in our comments on Hydrology and Water Quality, many adverse impacts to water bodies would result from normal Project operations including the deposition of polycyclic aromatic hydrocarbons (PAHs), heavy metals, and air pollution fallout from NO_x and other airborne pollutants.

¹⁹ Ware, H.E. et al. 2015. A phantom road experiment reveals traffic noise is an invisible source of habitat degradation. PNAS 112: 12105-12109.

Finally, the Revised Draft EIR makes the erroneous claim that the Project “would not conflict with” criteria (e) and (f) because “the passage of Project trains along existing tracks would result in no change to existing conditions relative to such plans.” (Revised Draft EIR at 2-42 to 2-43.) However, Project oil trains would clearly change existing conditions of these plans because of the higher risks from trains carrying petroleum crude oil (i.e., higher risk of derailments resulting in oil spills and explosions) and the increased frequency of trains on the tracks leading to increased noise pollution, air pollution, barriers to movement, and other train-related impacts. Illustrating the higher level of train-related impacts, the Revised Draft EIR estimates that Project-related freight rail trips would result in a *12 to 36 percent increase* in train trips along the routes, as shown in Figure 1-3. (Revised Draft EIR at 2-133.) In sum, the Revised Draft EIR violates CEQA in failing to adequately analyze and mitigate the significant Project impacts to biological resources under significance criteria (b) through (f).

d. The Revised Draft EIR’s analysis of impacts to special-status species is fundamentally flawed.

The Revised Draft EIR’s analysis of impacts to special-status species under significance criterion (a) is fundamentally flawed on several counts. First, the Revised Draft EIR claims that there will be no impacts to special-status plants, based on the argument that there is limited potential for plants to occur along the rail routes:

Although there are numerous special status plants documented within 300 feet of the three uprail routes the existing operations of train transportation and track maintenance limits the potential for special-status plants to occur along rail routes. The addition of trains transporting Project-related crude on established rail corridors would not impact special-status plants.

(Revised Draft EIR at 2-44.) This claim directly contradicts the Revised Draft EIR’s finding that numerous special-status plant species occur within 300 feet of the three up-rail routes analyzed: 38 special-status plant species along the Roseville to Oregon route, 40 species along the Roseville to Nevada (northern) route, and 11 species along the Roseville to Nevada (southern) route. (Revised Draft EIR, appx. E.) In addition, special-status plants face adverse impacts from normal operation due to deposition of PAHs, heavy metals, and air pollutants such as NO_x, as well as the need for increased track maintenance, particularly because

heavy oil trains increase damage to railroad tracks.²⁰ The Revised Draft EIR must evaluate and mitigate these impacts.

Second, the Revised Draft EIR claims, without providing any evidence, that the increased frequency of trains would not “substantially increase noise impacts to special status wildlife within the uprail study area beyond existing operations” because “[w]ildlife species are expected to soon habituate to the more frequent noise.” (Revised Draft EIR at 2-44.) To the contrary, numerous studies show that noise pollution has a wide range of adverse impacts on species and ecosystems across a broad range of taxa.²¹ Noise pollution can drive changes in community structure and species interactions,²² drive or contribute to declines in abundance,²³ lower reproductive success,²⁴ increase

²⁰ See, e.g., Vartabetian, R. “Why are so many oil trains crashing? Track problems may be to blame,” *Los Angeles Times*, Oct. 7, 2015, available at <http://www.latimes.com/nation/la-na-crude-train-safety-20151007-story.html>

²¹ Barber, J.R. et al. 2009. The costs of chronic noise exposure for terrestrial organisms. *Trends Ecol Evol* 25: 180–189; Francis, C.D. and J.R. Barber. 2013. A framework for understanding noise impacts on wildlife: An urgent conservation priority. *Front Ecol Environ* 11(6): 305–313.

²² Francis, C.D. et al. 2012. Noise pollution alters ecological services: enhanced pollination and disrupted seed dispersal. *Proceedings of the Royal Society B* 279: 2727–35.

²³ Bayne E.M. et al. 2008. Impacts of chronic anthropogenic noise from energy-sector activity on the abundance of songbirds in the boreal forest. *Conservation Biology* 22(5): 1186-93; Fahrig, L. and T. Rytwinski. 2009. Effects of roads on animal abundance: An empirical review and synthesis. *Ecol Soc* 14(1): 21; Goodwin, S.E. and W.G. Shriver. 2011. Effects of traffic noise on occupancy patterns of forest birds. *Conservation Biology* 25:406–411; Blickley, J.L. et al. 2012a. Experimental evidence for the effects of chronic anthropogenic noise on abundance of Greater Sage-Grouse at leks. *Conservation Biology* 26(3): 461–71; Francis, C.D. and J.R. Barber. 2013. A framework for understanding noise impacts on wildlife: An urgent conservation priority. *Front Ecol Environ* 11(6): 305–313.

²⁴ Habib, L. et al. 2007. Chronic industrial noise affects pairing success and age structure of ovenbirds *Seiurus aurocapilla*. *Journal of Applied Ecology* 44: 176-184; Halfwerk, W. et al. 2011. Negative impact of traffic noise on avian reproductive success. *Journal of Applied Ecology* 48: 210–219.

stress levels,²⁵ decrease foraging efficiency,²⁶ and reduce activity levels.²⁷ Increased traffic volumes, analogous to the increased train activity that will result from the Project, have been shown to increase the magnitude of impacts to wildlife.²⁸ Importantly, a recent review of noise impacts on wildlife found that individuals that are assumed to have “habituated” to noise pollution may in fact experience significant fitness costs: “research . . . indicates that acclimation to a stressor might not release an organism from costs to fitness”; and further that “behavioral modifications among individuals confronted with noise—even those individuals that outwardly appear to habituate—can lead to decreased fitness.”²⁹

Third, although the Revised Draft EIR correctly concludes that the Project will have significant adverse effects on special-status wildlife species and migratory birds due to collisions with Project trains, Revised Draft EIR at 2-44, the City fails to identify and implement feasible mitigation measures to reduce these significant impacts. The Revised Draft EIR only considers reducing train speeds, which it acknowledges would reduce the severity of impacts. (Revised Draft EIR at 2-44-45.) However, the City determines that this mitigation measure is pre-empted by federal law, and fails to adopt other feasible mitigation measures. (Revised Draft EIR at 2-45.) As detailed in these comments, the City’s analysis of the preemption issue is flawed. However, even if federal law were to preempt the City from regulating UPRR, the City could nonetheless require Valero to

²⁵ Blickley, J.L. et al. 2012b. Experimental chronic noise is related to elevated fecal corticosteroid metabolites in lekking male greater sage-grouse (*Centrocercus urophasianus*). PLoS ONE 7(11): e50462.

²⁶ Siemers, B.M. and A. Schaub. 2011. Hunting at the highway: Traffic noise reduces foraging efficiency in acoustic predators. Proceedings of the Royal Society B 278: 1646–1652.

²⁷ Bunkley, J.P. et al. 2015. Anthropogenic noise alters bat activity levels and echolocation calls. Glob Ecol Conserv 3: 62–71.

²⁸ Leblond, M. et al. 2013. Avoidance of roads by large herbivores and its relation to disturbance intensity. Journal of Zoology 289: 32-40; Gagnon, J.W. et al. 2007. Traffic volume alters elk distribution and highway crossings in Arizona. Journal of Wildlife Management 71: 2318-2323.

²⁹ Francis, C.D. and J.R. Barber. 2013. A framework for understanding noise impacts on wildlife: An urgent conservation priority. Front Ecol Environ 11(6): 305–313. This study states: “In our experience with stakeholders, habituation is an oft-cited reason for persistence and an absence of noise impacts, yet research on other stressors indicates that acclimation to a stressor not release an organism from costs to fitness.”

adopt mitigation measures to reduce impacts to special-status species from collision mortality.

For example, the City could require Valero to implement common mitigation measures to reduce wildlife collisions across a broad array of taxa.³⁰ Wildlife crossing structures, including underpasses (e.g., culverts, amphibian tunnels) and overpasses (e.g., land bridges, rope bridges, glider poles), and fencing to funnel wildlife toward crossing structures, are commonly used to reduce wildlife mortality from collisions.³¹ Many wildlife species regularly and frequently use crossing structures, including wildlife passages over and under railroads,³² and well-designed crossings have been shown to reduce mortality³³ and enhance connectivity and population viability.³⁴ Crossing

³⁰ Yanes, M. et al. 1995. Permeability of roads and railways to vertebrates: the importance of culverts. *Biological Conservation* 71: 217-222; Elmiger, C. and M. Trocmé. 2007. Developing Fauna-Friendly Transport Structures: Analysis of the Impact of Specific Road Engineering Structures on Wildlife Mortality and Mobility. In *Proceedings of the 2007 International Conference on Ecology and Transportation*, edited by C. Leroy Irwin, Debra Nelson, and K.P. McDermott. Raleigh, NC: Center for Transportation and the Environment, North Carolina State University, 2007. pp. 212-219; Craighead, A.C. et al. 2009. Bozeman Pass Wildlife Pre-And Post-Fence Monitoring Project. Craighead Environmental Research Institute, Bozeman, MT; Glista, D.J. et al. 2009. A review of mitigation measures for reducing wildlife mortality on roadways. *Landscape and Urban Planning* 91: 1-7; Grilo, C. et al. 2008. Response of carnivores to existing highway culverts and underpasses: implications for road planning and mitigation. *Biodiversity Conservation* 17: 1685-1699; Jacobson, S.L. 2005. Mitigation Measures for Highway-caused Impacts to Birds. USDA Forest Service Gen. Tech. Rep. PSW-GTR-191; Beebee, T.J. 2013. Effects of road mortality and mitigation measures on amphibian populations. *Conservation Biology* 27: 657-668; van der Grift, E.A. et al. 2013. Evaluating the effectiveness of road mitigation measures. *Biodiversity Conservation* 22: 425-448; Rytwinski, T. et al. 2015. Experimental study designs to improve the evaluation of road mitigation measures for wildlife. *Journal of Environmental Management* 154: 48e64.

³¹ Glista et al. 2009, van der Grift et al. 2013, Rytwinski et al. 2015).

³² Yanes et al. 1995; Rodriguez, A. et al. 1997. Factors affecting crossing of red foxes and wildcats through nonwildlife passages across a high-speed railway. *Ecography* 20: 287–294.

³³ Niemi, M. et al. 2014. Dry paths effectively reduce road mortality of small and medium-sized terrestrial vertebrates. *Journal of Environmental Management* 144: 51-57.

structures can be placed in hotspots for wildlife collisions and should be paired with monitoring and research on efficacy.³⁵ The Revised Draft EIR's failure to consider and adopt feasible mitigation measures to reduce this significant impact violates CEQA.

e. The Revised Draft EIR fails to propose feasible mitigation measures to reduce significant impacts to special-status wildlife species from crude oil spills, fires and explosions.

In its Hazards and Hazardous Materials analysis in Section 4.7, the Revised Draft EIR determines that the Project would result in "significant and unavoidable" adverse effects on biological resources from hazardous materials spills, fires, and explosions. (Revised Draft EIR at 2-108, Impact 4.7-6.) As detailed in these comments, the quantitative risk assessment errs in underestimating the risk of an accident or spill and thus the impacts to biological resources. Moreover, the Revised Draft EIR violates CEQA in failing to consider and adopt feasible mitigation measures to reduce these significant and potentially catastrophic impacts. The only mitigation measure considered by the City is compliance with SB 861, and the City rejects this measure based on unsubstantiated preemption arguments. However, even if federal law were to preempt the City from regulating UPRR, the City could require Valero to mitigate impacts to species and ecosystems that would result from an accident or spill. For example, the City could require Valero to provide funding, personnel, and other resources to response agencies to provide for an oil spill containment and response team specialized in recovering and rehabilitating oiled wildlife and habitats.

XI. The Revised Draft EIR's analysis of cumulative impacts is fundamentally flawed.

The Revised Draft EIR fails to properly analyze the Project's cumulative impacts. It concludes that there will be not significant cumulative air quality impacts within the BAAQMD basin, Revised Draft EIR at 2-152 to 2-155, but that conclusion is based on the flawed assumption that the Project will not change the type of, or increase the amount of, crude oil processed at the refinery.

The Revised Draft EIR also improperly concludes that the Project would not result in significant cumulative impacts to biological resources or water quality because "the likelihood that two or more trains would derail in the same area is remote." (Revised

³⁴ van der Ree, R.. et al. 2009. Wildlife tunnel enhances population viability. *Ecology and Society* 14: 7.

³⁵ van der Grift et al. 2013; Rytwinski et al. 2015.

Draft EIR at 2-157; *see also id.* at 2-164.) However, this is not the correct test under CEQA. Impacts from the Project and other related projects need not occur in the exact same location for the impacts to be considered “cumulatively considerable.”

“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.” (Guidelines § 15065(a)(3).) As evident in the Revised Draft EIR at Table 5.1, there are a large number of past, present, and proposed projects, including numerous projects that will increase oil train activity on the rail routes used by the Project and/or increase crude oil transport in the Project vicinity, that when considered collectively with the Project, will undoubtedly have significant cumulative impacts on the environment.

XII. Conclusion

While the City has finally acknowledged many of the significant environmental impacts this Project would cause, the Revised Draft EIR still contains numerous flaws. The City cannot approve the Project on this document, and must revise the EIR to address the problems discussed in this letter.

Sincerely,

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