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May 8, 2007

Maureen Parkes
Contra Costa County Planning Commission
Community Development Department
651 Pine Street, 4th Floor
Martinez, CA 94553

RE: Comments on the ConocoPhillips Rodeo Refinery Expansion Project and Final Environmental Impact Report (File # LP052048)

TRANSMITTED VIA FACSIMILE AND U.S. MAIL

Dear Ms. Parkes:

The Attorney General of the State of California submits the following comments on the ConocoPhillips Rodeo Refinery Expansion Project ("Project") and the Final Environmental Impact Report ("FEIR"). The Attorney General provides these comments pursuant to his independent power and duty to protect the natural resources of the State from pollution, impairment, or destruction in furtherance of the public interest. (*See* Cal. Const., art. V, § 13; Cal. Gov. Code, §§ 12511, 12600-12; *D'Amico v. Board of Medical Examiners*, 11 Cal.3d 1, 14-15 (1974)). These comments are made on behalf of the Attorney General and not on behalf of any other California agency or office. We have only recently had the opportunity to review the FEIR for the refinery expansion Project and wanted to provide the following comments for the Planning Commission's consideration. Please provide a copy of this letter to the members of the Planning Commission on our behalf.

While the County should be commended for addressing the climate change issue in its FEIR, because of the failure to properly evaluate and mitigate global warming impacts, the County should not approve this Project, because the County's analysis violates the California Environmental Quality Act, Public Resources Code § 21000, *et seq.* ("CEQA"). The County has failed to address the significance of the Project's contribution to cumulative global warming impacts and therefore does not require any specific mitigation measures to address those impacts. Because any increase in emissions will make it more difficult for the State to achieve the greenhouse gas reductions required by Assembly Bill 32, and this Project standing alone will produce a large, quantifiable increase in annual greenhouse gas emissions, the FEIR must evaluate global warming impacts and discuss feasible alternatives and mitigation measures to avoid or reduce those impacts. We also note the particular irony here of a Project designed to

generate hydrogen—a clean fuel—that itself generates significant quantities of CO₂ in the process.

Global Warming in California

The Intergovernmental Panel on Climate Change of the United Nations recently published its finding that overwhelming evidence establishes that global warming is occurring and is caused by human activity.¹ With respect to impacts in the state, the California Climate Change Center reports that temperatures are expected to rise 4.7 to 10.5 F by the end of the century.² These increases would have serious consequences, including substantial loss of snow-pack, an increase of as much as 55% in the risk of large wildfires, and reductions in the quality and quantity of agricultural products.³ Additionally, the report predicts increased stress on the State's vital resources and natural landscapes.⁴ Global warming will also slow the progress toward attainment of the ozone air quality standard by increasing the number of days that are meteorologically conducive to the formation of ozone.⁵ The FEIR includes a summary of these impacts, and notes that oil refining is responsible for approximately 5.6 % of the total Bay Area greenhouse gas ("GHG") emissions. FEIR at pp. 2-3.

California's Actions to Address Global Warming

On June 1, 2005, Governor Schwarzenegger issued Executive Order S-3-05. The Order recognized California's vulnerability to global warming and the need for implementation of mitigation measures to limit the impacts to the State. This Order set the following GHG emission reduction targets for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce emissions to 1990 levels; by 2050, reduce emissions to 80 percent below 1990 levels. California is working diligently to identify all opportunities for major greenhouse gas reductions.

Assembly Bill 32, the California Global Warming Solutions Act of 2006, codified at Health and Safety Code Section 38500, et seq. ("AB 32"), was signed into law by the Governor on September 27, 2006. The bill demonstrates that the Legislature recognizes the serious threats

¹ "Climate Change 2007: The Physical Science Basis, Summary For Policymakers" (Fourth Assessment Report of the IPCC, February 2007).

² Amy Lynd Luers, Daniel R. Cayan et. al, *Our Changing Climate: Assessing the Risks to California* (July 2006) at p. 2. The report was prepared by the Climate Change Center at the direction of CalEPA pursuant to its authority under Executive Order S-3-5.

³*Id.* at p. 2,10.

⁴*Ibid.*

⁵Climate Action Team Report, Executive Summary, p.xii (CalEPA March 2006).

that global warming poses to California.⁶

To combat these threats, AB 32 requires reduction of the State's GHG emissions to 1990 levels by 2020,⁷ a time well within the 2030 planning horizon of this Project. This emissions cap is equal to a 25% reduction from current levels.⁸ The bill directs that by June 30, 2007, the California Air Resources Board ("CARB") shall publish a list of discrete early action GHG emission reduction measures that will be implemented by 2010.⁹ Included in CARB's identification of early action measures is a low carbon fuel standard – which will require oil refineries and shippers such as ConocoPhillips to reduce 20% by the year 2020 the amount of carbon dioxide emissions released in the production and use of motor vehicle fuel. *See* Governor's Executive Order S-01-07 (January 2007). "The standard will be measured on a lifecycle basis in order to include all emissions from fuel consumption and *production*, including the 'upstream' emissions that are major contributors to the global warming impact of transportation fuels." *Id.* (emphasis added). CARB will follow by adopting more comprehensive regulations that will go into effect in 2012 to require the actions necessary to achieve the GHG emissions cap by 2020.¹⁰ The legislation also encourages entities to voluntarily reduce GHG emissions prior to 2012 by offering credits for early voluntary reductions.¹¹

To further combat global warming, California is embracing the development of alternative technologies which will reduce reliance on fossil fuels. In April, 2004, the Governor signed Executive Order S-7-04 (issued April 20, 2004) calling for the development of the California Hydrogen Blueprint Plan emphasizing that development of hydrogen and fuel cell technologies should employ "policy strategies to ensure hydrogen generation results in the lowest possible emissions of greenhouse gases and other air pollutants."

California Environmental Quality Act

CEQA and its implementing Guidelines provide that in any of the following situations, a finding must be made that the project may have a significant effect on the environment:

- (1) A proposed project has the potential to degrade the quality of the environment, curtail

⁶ Health & Safety Code § 38501.

⁷ Health & Safety Code § 38550.

⁸ 9/27/2006 Press Release from the Office of the Governor, available at <http://gov.ca.gov/index.php?/print-version/press-release/4111>.

⁹ Health & Safety Code § 38560.5.

¹⁰ Health & Safety Code § 38562.

¹¹ Health & Safety Code §§ 38562(b)(3), 38563.

the range of the environment, or to achieve short-term, to the disadvantage of long-term, environmental goals.

(2) The possible effects of a project are individually limited but cumulatively considerable. As used in this paragraph, "cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

(3) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.¹²

As part of the analysis carried out in an EIR, the agency must formulate mitigation measures and examine alternatives to the proposed project. CEQA mandates that public agencies refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects.¹³

As the Court of Appeal concluded in *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720 [internal quotation omitted]:

"[o]ne of the most important environmental lessons evident from past experience is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant, assuming threatening dimensions only when considered in light of the other sources with which they interact. Perhaps the best example is air pollution, where thousands of relatively small sources of pollution cause a serious environmental health problem. CEQA has responded to this problem of incremental environmental degradation by requiring analysis of cumulative impacts."

The ConocoPhillips Project

ConocoPhillips proposes to expand the refining and production capacity of its existing Rodeo refinery by up to 30 percent, or 1,000,000 gallons per day (approximately 791,000 gallons of gasoline and 290,000 of diesel and jet fuel - a 35 and 20% increase, respectively). Increasing the capacity of the existing refinery will entail construction of a heavy gas oil hydrocracker and a sulfur recovery unit. The expansion of the refinery will cause an increase of approximately 62,590 metric tons/year of carbon dioxide. FEIR, pp. 2-6.

A second component of the Project entails the construction of a new hydrogen plant

¹² Public Resources Code § 21083(b); see also Cal.Code Regs., tit. 14 § 15065.

¹³ Public Resources Code § 21081; see also, *Mountain Lion Foundation v. Fish and Game Commission*, 16 Cal.4th 105, 134 (1997).

owned, operated and built by Air Liquide that would generate hydrogen via steam gas turbines using fossil fuels, such as refinery gas and/or natural gas provided by PG&E. The hydrogen plant is the major source of green house gas emissions from the Project, emitting a minimum of 1.17 million metric tons of carbon dioxide per year into the atmosphere. FEIR, 2-6; DEIR 3-5. It appears that the hydrogen plant will produce a surplus capacity to meet future needs, possibly providing hydrogen for use in fuel cell technologies.

FEIR's Analysis of Greenhouse Gas Impacts

Responding to criticism that the environmental analysis failed to address climate change, the County included a five-page section entitled "Greenhouse Gases" in the FEIR. This new information has not been subjected to public review. See CEQA Guidelines, §15088.5. The FEIR provides a background on climate change, noting the international scientific consensus that human sources of GHG have contributed, and will continue to contribute to, global warming. The new section also lists some of the potential catastrophic impacts to California, including loss of snow pack, sea level rise, more extreme heat days per year, and high ozone days. The FEIR also lists sources for California's total GHG emissions, noting that in 2004, California produced 492 million gross metric tons of carbon dioxide-equivalent greenhouse gas emissions and that industrial sources, including oil refining, are the source of 21% of the State's GHG emissions. Further, the FEIR notes, oil refining accounts for approximately 5.6% of the Bay Area's GHG emissions.

Quantifying the carbon dioxide emissions resulting from the Project, the FEIR estimates that operation of the Project will produce 1,232,585 metric tons of carbon dioxide per year directly and another 19,049 metric tons per year from indirect electricity use, for a total of 1,252,634 metric tons of carbon dioxide per year. FEIR at 2-6. However, the estimate in the FEIR does not take into account GHGs other than carbon dioxide, such as nitrous oxides, methane and sulfur hexafluoride, so it is likely that the FEIR understates the Project's GHG emissions.

Regarding AB 32, the FEIR acknowledges that "the Refinery, including the Proposed project, will be subject to AB 32" (FEIR, p. 2-4), but notes that at the present time, there are no State rules or regulations in place that define a "significant" source of GHG emissions, and that there are no applicable facility-specific GHG emission limits or caps. The FEIR concludes that "it is not possible to draw conclusions about the significance of the Proposed Project impacts on global warming in the absence of established thresholds" and therefore the FEIR does not make a significance finding. FEIR at 2-7.

Because the FEIR does not make a significance finding, there is no ostensible trigger for imposing specific mitigation measures that are tailored to address global warming impacts. Even though a commenter noted that California's refineries could save enough energy by implementing programs to cut 13 % of the current electricity consumption, avoiding more than 370,000 tons of CO₂ per year, the FEIR does not acknowledge that any strategies to reduce GHG emissions from the refinery's current operations exist.

The FEIR Must Consider Global Warming Impacts

The Governor's Executive Order and AB 32 inform agencies' obligations under CEQA. The existence of global warming is indisputable; it is causing significant environmental impacts in California and will cause future catastrophic impacts if GHG emissions levels are not substantially reduced; and many incrementally small but cumulatively significant sources of emissions are being approved and permitted every day.

In an EIR, determining whether an impact is significant is an essential task: the finding triggers the lead agency's obligation to require feasible mitigation. Pub. Res. Code, § 21002.1, subd. (b). In declining to determine the significance of the Project's impact on global warming, the County argues that any such finding would be speculative since no regulatory agency has established a threshold by which to measure the significance of a single project's greenhouse gas emissions. This is erroneous because even if there is no established threshold in law or regulation, lead agencies are obligated by CEQA to determine significance. Neither CEQA, nor the regulations, authorize reliance on the lack of an agency-adopted standard as the basis for determining that a project's potential cumulative impact is not significant.¹⁴

As discussed above, the requirements of AB 32 create a point of reference for determining significance. Because the state is committed to a 25% decrease in GHG emissions, anything that produces a large increase clearly could be an obstacle to complying with AB 32 and should be considered a potentially significant cumulative impact. In this case, even though the County correctly notes that the state has not yet adopted standards for GHG emissions, the Project's emissions are so large that its global warming impacts must be considered cumulatively significant and feasible mitigation measures must be adopted. We note that AB 32 provides that CARB will give credit for voluntary GHG reductions that are undertaken before the regulations requiring specific GHG reductions are adopted. (Health & Safety Code § 38562(b)(2)).

As noted in a comment letter, approval of this Project alone would cancel out numerous greenhouse gas reduction measures proposed by the California Air Resources Board for entire industries and could account for as much new pollution as offset by hard won reduction measures for entire industries. (Proposed Early Actions to Mitigate Climate Change in California, CARB, April 2007). For example, CARB proposes an early action measure that will reduce GHG emissions by 1-2 million metric tons by requiring professional servicing of motor vehicle air conditioning systems (*Id.*, p.7, Table 1). CARB also identifies numerous GHG

¹⁴Even if a project complies with a regulatory plan adopted to address a cumulative environmental problem, this cannot automatically support a finding that the cumulative impact of a project is not significant; an agency must still consider the evidence and circumstances and determine if the possible effects of the project, even with compliance the plan, are still cumulatively considerable. *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114-116; Cal.Code Regs., tit. 14 § 15064(h)(2)).

reduction measures underway for 2007-2009 that are expected to achieve GHG reductions of 1 million metric tons *or less*, such as: manure management - 1 million; reducing venting/leaks from oil and gas systems - 1 million; electrification of agricultural engines - 0.1 million; detection, repair, and recycling equipment for sulfur hexafluoride - 0.7 million; alternate chemicals in fire suppression systems - 0.1 million; and port electrification - 0.5 million. *Id.* p. 7-8, Table 2. Where the State is pursuing these reductions in an effort to comply with AB 32, an increase of 1.25 million metric tons per year from one refinery must be considered significant. Moreover, given the huge amount of GHGs that will be emitted by the Project even under the County's less-than-thorough estimate, the Project would exceed any reasonable threshold for significance.

By declining to determine that the GHG emissions from the projects could have a cumulatively considerable impact on global warming, the County has attempted to avoid CEQA's requirement to adopt all feasible alternatives and mitigation measures to reduce the project's global warming impacts. This substantially undercuts "[t]he fundamental purpose of CEQA [which] is to ensure that environmental considerations play a significant role in governmental decision making."¹⁵

To ensure compliance with AB 32's requirement to reduce GHG emissions to 1990 levels, the County must estimate the GHG emissions from its Project and adopt feasible measures to avoid or reduce those emissions. If the Project is carried out without implementing such measures, it will be more difficult for the State to achieve the required statewide GHG reductions and will place a greater burden on other sources of emissions (and may result in greater cost to achieve the required reductions).

Allowing an agency to avoid the requirements related to mitigation simply by refusing to make a significance finding would substantially undercut "[t]he fundamental purpose of CEQA," which is to ensure that environmental considerations play a significant role in governmental decision making.¹⁶

The County Must Mitigate the Project's Impacts

Because the global warming-related impacts of the Project are cumulatively significant, the County must discuss those impacts in the FEIR and "examine reasonable, feasible options for mitigating or avoiding the project's contribution" to the problem. Cal. Code Regs., tit. 14, § 15130, subd.(b)(5). The County should recirculate the FEIR, analyzing the impacts of the Project's GHG emissions and mitigation measures to reduce those impacts. This task is within

¹⁵*Fullerton Joint Union High School Dist. v. State Bd. of Education* (1982) 32 Cal.3d 779, 797.

¹⁶(*Fullerton Joint Union High School Dist. v. State Bd. of Education* (1982) 32 Cal.3d 779, 797.)

the County's ability as the following examples briefly demonstrate.

Conoco could consider reducing greenhouse gas emissions by developing solar or wind power at the facility to limit the amount of electricity that will need to be imported from PG&E, regardless of whether or not the facility still remains a net exporter of energy as it claims.

Second, the County must supply more details regarding the proposed hydrogen plant so that global warming reduction measures can be developed. For example, the DEIR mentions that the plant will be built with excess capacity to service future needs; if this is the case, CEQA requires that the County publicly consider and analyze how to meet future energy needs now. Because Executive Order S-7-04 emphasizes that development of hydrogen and fuel cell technologies should employ "policy strategies to ensure hydrogen generation results in the lowest possible emissions of greenhouse gases and other air pollutants[,]" if the Project intends to meet future needs for hydrogen, the FEIR must consider strategies to ensure that hydrogen is derived in the most environmentally-beneficial way and that greenhouse gas emissions are reduced.

Because the production of hydrogen from fossil fuels is so carbon intensive, Conoco could consider a hydrogen plant that uses at least partially renewable sources to produce hydrogen. The California Hydrogen Blueprint Plan, Volume 2 (Cal/EPA May 2005) contains recommendations for successful commercialization of hydrogen in California. The recommendations include that: "The CA H2 Net should utilize 20 percent new renewable resources in the production of hydrogen for use in vehicles by 2010, and increase annually thereafter." (p.6) For just one example, DTE Energy is partnering with the U.S. DOE, the State of Michigan, and the City of Southfield to develop, build, and operate a project that will create hydrogen gas from tap water and use that gas in stationary fuel cell generators and to refuel fuel cell vehicles. DTE Energy's Hydrogen Technology Park, a \$3 million, five-year pilot project, will be capable of delivering about 100,000 kilowatt-hours of electricity per year.

Third, Conoco could reduce electricity use in the existing refinery operations which could decrease carbon dioxide emissions. NRDC estimates that California's refineries could save enough energy simply by implementing energy efficiency programs to cut 13 percent of the current electricity consumption, thereby avoiding more than 370,000 tons of carbon dioxide per year.

Finally, the County could require the Project to reduce emissions to the extent feasible, and then adopt a carbon sequestration plan that demonstrates that it will provide safe, reliable, and permanent protection against the greenhouse gases entering the atmosphere. Such a plan could range from as simple as planting trees (reforestation) to as sophisticated as a carbon capture facility; likewise, the County could reduce carbon dioxide emissions to the extent feasible, and then offset additional emissions by acquiring carbon credits or engaging in other market "cap and trade" systems. In addition, it is possible that some of the mitigation measures imposed for other impacts, for example, those discussed for transportation and traffic, air quality and energy impacts, also serve substantially to mitigate the project's greenhouse gas impacts, but

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that cannot be known until the County prepares the required analysis.

Conclusion

Global warming presents California with one of its greatest challenges. AB 32's goal of reducing in-State greenhouse gas emissions to 1990 levels by 2020 cannot be met if steps are not taken, where feasible, by local governments to reduce greenhouse gas emissions. Even though there is no rule or regulation in place from CARB that binds the County's actions, the County has the opportunity to begin addressing global warming in a constructive manner while educating the public and decision-makers. We request that the county not approve this Project unless these significant issues are addressed. Thank you for the opportunity to offer these comments. Any questions may be directed to the undersigned.

Sincerely,

/S/

JAMIE JEFFERSON
Deputy Attorney General

For EDMUND G. BROWN, JR.
Attorney General