



**California Natural Resources Agency**  
**DEPARTMENT OF FISH AND WILDLIFE**  
 Office of Spill Prevention and Response  
 1700 K Street, Suite 250  
 Sacramento, CA 95811  
<http://www.wildlife.ca.gov>

**EDMUND G. BROWN JR. Governor**  
**CHARLTON H. BONHAM, Director**



November 24, 2014

Mr. Murry Wilson  
 San Luis Obispo County Department of Planning and Building  
 976 Osos St., Rm. 200  
 San Luis Obispo, CA 93408-2040

Re: Phillips 66 Company Rail Spur Extension And Crude Unloading Project Revised Public Draft Environmental Impact Report And Vertical Coastal Access Project Assessment, SCH# 2013071028, dated October 2014; California Department of Fish and Wildlife, Office of Spill Prevention and Response Comments.

Dear Mr. Wilson:

Thank you for the opportunity to review the Phillips 66 Company Rail Spur Extension And Crude Unloading Project Revised Public Draft Environmental Impact Report And Vertical Coastal Access Project Assessment, dated October 2014 for the Phillips 66 Company Rail Spur Extension Project located in the southwestern unincorporated area of San Luis Obispo County. The document addresses the environmental impacts that may be associated with the 7,000-foot eastward extension of an existing rail spur off of the Union Pacific rail mainline, a crude oil railcar unloading facility, and associated above-ground pipelines. Trains would deliver crude oil to the Santa Maria Refinery (SMR) for processing.

Below are California Department of Fish and Wildlife, Office of Spill Prevention and Response (CDFW-OSPR) comments on the subject document. The review focused on the Introduction, Project Description, Biological Resources, and the Hazards and Hazardous Materials sections of the report.

1) Section 2.3.10, Spill Containment and Response Facilities, states the system would be sized to contain the contents of one rail car as well as foam and water that would be released for fire suppression. However, on page 4.4-38 it states, "The capacity of the storage tanks and drain boxes would be sufficient to hold three full tanker cars of oil." This discrepancy should be clarified and if secondary containment will have capacity for only one rail car volume of spilled oil, additional justification should be provided that documents why this would be sufficient.

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2) Section 2.0, Project Description, states "No Bakken crude would be delivered to the SMR as part of the project." Section 2.6, Crude Oil Changes from Rail Spur Project, states two future crude by rail sources that could be delivered to the refinery via rail are Canadian. It also states given the design of the refinery, unit trains will need to deliver heavy crudes similar to what is currently being processed. Some diluted bitumen crude oils have been known to sink if spilled into a water body and therefore be more difficult to

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contain and recover. This should be mentioned and spill contingency plans for this project should take this into account if this type of crude oil (diluted bitumen) is considered for this facility. | CF&W 02

3) Section 4.4.1.7 Biological Resources, Mainline Rail Routes, evaluates potential biological impacts and it states "...a query was conducted that includes a CNDDDB review of all sensitive biological resources within 300 feet on each side of the rail line routes to develop a general list of potential plant and wildlife species that may be directly impacted by a derailment crude oil spill." It also states, "Because the analysis of impacts to these resources is limited to available data, the documented occurrences are only intended to serve as a minimum baseline for describing the potential impact that could occur under a scenario of train derailment, fire, and oil spill." With that understanding, additional information should be provided as to why 300 feet on each side of rail line was chosen. | CF&W 03

4) Section 4.4, Mitigation Measure Bio-1, it is unclear if the focused Nipomo Mesa lupine survey prior to initiation of project activities will be conducted during the normal blooming period for this species in addition to conducting the survey during a normal rainfall season to determine presence/absence of this plant. It is also unclear how the 3:1 mitigation ratio was selected if this plant species is impacted. | CF&W 04

5) Section 4.4, Mitigation Measure Bio-5a, it is unclear why a 2:1 acreage mitigation ratio for potential impacts to dune habitat was selected. | CF&W 05

6) Section 4.4, Mitigation Measure Bio-8b, it is unclear why a minimum of 26.5 acres was selected to mitigate for loss of burrowing owl habitat. | CF&W 06

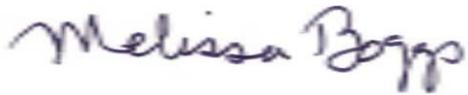
7) Section 4.4, page 4.4-46 discusses oil spills and potential impacts to biological resources. It states, "The probability of a crude oil train release incident exceeding 100 gallons would range between one every 45 years to once every 76 years depending upon the rail route used to get to the SMR. It is unclear which references were used to calculate these spill probabilities so an evaluation of the accuracy can be made. This section also mentions that Patriot Environmental Services (an oil spill cleanup contractor) is located in Santa Ynez. Please verify Patriot Environmental Services has a facility in Santa Ynez. | CF&W 07

8) Section 4.4.5 Cumulative Analysis, pg 4.4-48 states if all of the crude by rail projects travel via the Roseville area, it estimates, "...along this route the probability of a 100 gallon or greater oil spill has been estimated to be once in 138 years." And additional spill probabilities are provided for different routes. Again, it is unclear which references were used for how these spill probabilities were calculated so an evaluation of the accuracy can be made. | CF&W 08

9) Section 4.7 Hazards and Hazardous Materials, describes different oil spill release scenarios, but pin hole leaks in pipelines that are normally not detected with smart pigging technology was not discussed; but should be considered. | CF&W 09

Thank you for the opportunity to review and comment on this DEIR. Please contact me at (805) 594-6165 if you have any questions regarding these comments.

Sincerely,

A handwritten signature in dark ink that reads "Melissa Boggs". The signature is written in a cursive, flowing style.

Melissa Boggs,  
Senior Environmental Scientist

**Responses to California Department of Fish and Wildlife Comments**

CF&W-01	<p>The three parallel 20,000 gallon rectangular storage tanks (approximately 60,000 gallons total volume) have been sized to contain the contents of one rail car as well as the foam and water that would be released from the fire suppression system. These storage tanks are feed via below grade drain boxes and 16-inch diameter drain lines. The capacity of the storage tanks, drain boxes, and the 16-inch diameter drain lines would be sufficient to hold three full tanker cars of oil. Therefore, the capacity of the entire secondary containment (storage tanks, drain boxes, and associated pipelines) would be three full tanker cars.</p>
CF&W-02	<p>Impact WR.3 (Section 4.13 Water Resources) discusses the issue of diluted bitumen crude oils sinking if spilled into waterways. This impact discussion talks about the spill into the Kalamazoo River, which involved a diluted bitumen crude oil. Mitigation measure BIO-11 requires that the Oil Spill Contingency Plan meet all of the provisions of Senate Bill 861, which would assure that the Oil Spill Contingency Plan addressed this response to diluted bitumen crude oils.</p>
CF&W-03	<p>The 300-foot survey was chosen since this represented the area that would definitely be affected in the event of an oil spill on the mainline. As discussed in the RDEIR the topography or terrain in the area of the oil spill would affect the extent of the potential impacts. Hills, valleys, low areas, and other land features can affect how a release is contained or migrates over the ground surface. A release in an area with a steep slope can accelerate the rate of oil migration and cause the spill to cover a greater area. Releases near low areas or confined valleys could pool and contain the oil and reduce aerial coverage of the release. Spills that flow into a drainage ditch or channel might flow greater distances from the release site due to the funneling of the oil in the channel. Smaller drainage channels generally flow into larger channels, which potentially could empty to a surface water feature, thus increasing the impacts of the spill. A spill released to level, flat ground would generally not migrate as far from the release site. Depending upon the location of the spill an area much larger than 300 feet from the mainline could be impacted. Use of the 300-foot survey data was sufficient to allow a determination of the significance of impact and to identify a typical range of biological resources that could be impacted in the event of an oil spill along the mainline.</p>
CF&W-04	<p>BIO-1 has been revised to clearly state that the surveys for Nipomo Mesa lupine would be conducted during the normal blooming period and a normal rainfall period.</p> <p>The mitigation ratio of 3:1 for replacement of this species was selected by the EIR consultant based on previous mitigation ratios that have required approval from CDFW on other projects in the region.</p>
CF&W-05	<p>The mitigation ratio of 2:1 for replacement of this habitat was selected by the EIR consultant based on previous mitigation ratios that have required approval</p>

**Responses to California Department of Fish and Wildlife Comments**

	from CDFW on other projects in the region.
CF&W-06	The CDFW Staff Report recommends the habitat loss be mitigated and provides best practices. Included in these best practices, CDFW recommends that permanent impacts be mitigated through the permanent conservation of similar vegetation communities comparable to, or better than, that of the impact area. The CDFW Staff Report specially does not propose a specific mitigation ratio. The EIR proposes that the permanent loss of 26.5 acres of suitable habitat be mitigated through the permanent conservation of 26.5 acres of equally suitable habitat. This mitigation measure is considered sufficient to reduce permanent impacts to this species habitat.
CF&W-07	<p>The oil spill probability was developed for each mainline rail route using data for the specific routes that took into account track class, tank car design, as well as other factors. The accident and release probability analysis was done by Dr. Christopher P.L. Barkan, PhD, who is a Professor at the University of Illinois at Urbana-Champaign, and is the George Krambles Faculty Fellow, and Executive Director - Rail Transportation and Engineering Center – RailTEC. Dr. Barkan is considered one of the world experts on rail accident rate assessments. Appendix H.2 of the RDEIR contains a detailed report on the method and estimation of the accident rates used in the RDEIR for trains on the mainline.</p> <p>Patriot Environmental Services does not have an office in Santa Ynez. They maintain eight locations within California with Bakersfield and Santa Paula being the closest locations to the SMR. The text in the FEIR has been modified to remove reference to Santa Ynez.</p>
CF&W-08	For the cumulative analysis the release rate for Roseville to Sacramento was taken as 0.1855 per million miles for CPC-1232 tank cars based upon the data from the Barkan Report (see Appendix H.2). It was estimated there would be six crude unit trains per day using this 16 mile stretch of track, plus the 250 trains per year for the Rail Spur Project. This equaled 39,040 annual crude oil train miles along this stretch of track. Using these numbers the annual release rate was calculated as 0.0072, or one per 138 years. This release probability is only for the 16 mile stretch of track between Roseville and Sacramento.
CF&W-09	<p>The discussion on the pipeline spills is for the above ground pipeline that would run from the crude unloading pumps to the SMR crude oil storage tanks. This is an in on-site facility pipeline that would not be required to be smart-pigged. Since the pipeline is entirely above ground and located along an access road, it is highly unlikely that a pin hole leak would go undetected.</p> <p>The pipeline will be inspected prior to each shipment. Therefore, pinhole leaks will be easily detected before there would be any significant accumulation of crude oil that could impact the environment or water resources.</p>