



July 17, 2018

Ms. Irena Asmundson
Chief Economist
California Department of Finance
915 L Street
Sacramento, CA 95814

Dear Ms. Asmundson:

Thank you for your letter dated July 17, 2018, providing comments on the Standardized Regulatory Impact Assessment (SRIA) for the proposed updated underground injection control regulations. Please find attached a summary of each of your comments followed by a Department of Conservation response.

The Department of Conservation appreciates the comments and assistance provided during the preparation and submission of the SRIA. We will append our response to the official DOF comments to the SRIA in the Initial Statement of Reasons.

Please contact me or Tim Shular at the Office of Governmental and Environmental Relations should you have any questions.

Sincerely,

Ben Turner
Assistant Director
Governmental and Environmental Relations

CC: Justin Turner, Assistant Chief Counsel, Department of Conservation

Department of Conservation
Updated Underground Injection Control Requirements
Response to Comments on Standardized Regulatory Impact Assessment (SRIA)

1. **DOF:** *The SRIA should address how the increased industry costs could decrease California oil production, which has been declining over the last few decades.*

DOC: California's oil production has been steadily declining since the mid-1980s. The Division does not believe that the costs associated with the proposed regulations are a significant determinant in the State's decreased production. The main reason for the decline that predates the Division's pending proposed regulations is California's depletion of easily recoverable oil reserves. Throughout the 20th century, California has been a nationwide leader in oil production. The State's long history of oil extraction means that most of the easily accessible oil has already been recovered via primary and secondary methods of hydrocarbon production. In most fields, the State is now in the tertiary phase of oil recovery that requires more expensive and intensive methods of oil extraction. As a result, oil recovery has decreased over time, even in the absence of strong regulations. Even in the years where the average annual price of crude oil has increased, production has only increased marginally or remained constant compared to the prior year without being able to match production levels from prior decades.

The costs of compliance identified in the SRIA are eclipsed by the value of swings in oil prices observed over the last 15 years and are likely to have a minimal to insignificant impact on oil production in the short-term. The Division believes that the costs associated with the proposed regulations will likely decrease operator profits in the short-term as operators divert funding and resources to meet the compliance requirements of the proposed regulations. However, the short-term impact of profits caused by the compliance costs of the proposed regulations are a small fraction of typical fluctuations in oil and gas prices in any given year. As such, the price of oil will have a far larger impact on operator decisions to invest in production than the cost of the regulations.

2. **DOF:** *If imports have to increase, the carbon intensity of California fuel may increase, potentially making other emissions reductions necessary to meet state goals.*

DOC: It is possible that the increasing reliance on imported oil could increase the carbon intensity of fuel used in California. However, the carbon intensity of fuels is determined by a number of factors in addition to emissions produced during transportation. For example, in some cases, the carbon intensity of crude oil, including transportation emissions, could be lower from fields in other states or nations than crude produced in California. While, according to data from the California Air Resources Board's (CARB) Low Carbon Fuel Standard program, oil from California fields has an average carbon intensity of 7 (g/MJ), some of the State's largest producing fields have relatively high carbon intensity. For example, the State's largest producing oil fields, Midway-Sunset, Kern River, South Belridge, and Cymric have a carbon intensity of 25.05 (g/MJ), 9.63 (g/MJ), 14.84 (g/MJ), and 19.23 (g/MJ) respectively. California's current primary sources of imports are Saudi Arabia and Alaska. Alaska's carbon intensity is 12.91 (g/MJ) and Saudi Arabia ranges from 8.66 to 9.35 (g/MJ).¹ As the Trans Mountain Pipeline is completed in Canada, California may consume more Canadian oil.

¹ California Air Resources Board <https://www.arb.ca.gov/fuels/lcfs/crude-oil/crude-oil.htm>

Regardless of where California's crude oil comes from, the transportation sector remains by far the largest source of carbon emissions at 41 percent. As a result, a reduction in oil production will have very little impact on overall greenhouse gas (GHG) emissions in the State compared to the actual consumption of fuel in transportation. In order to meet future GHG reduction goals, emissions reductions from the fuel sector will likely have to be driven by reducing both vehicle miles traveled as well as increasing the use of electric vehicles, biofuels, hydrogen fuel cells, and other alternative means of transportation. Even if oil production were to increase as prices rise, emissions from the fuel sector will eventually have to be reduced. The California Air Resources Board has broad authority to regulate transportation emissions and, along with the California Energy Commission provides several incentives for households and transportation companies to switch to lower emission transportation technologies. As we approach the recently enacted goal of reducing emissions 40 percent below 1990 levels by 2030, it is likely that transportation emissions will need to be cut well beyond any possible increase in fuel carbon intensity, if any, imposed by these proposed regulations.