UCLA Luskin Center for Innovation | Informing effective and equitable environmental policy

Aligning California's Plastic Mitigation Fund Investments with Fossil Fuel and Health Realities

The UCLA Luskin Center for Innovation's new report identifies a clear connection between fossil fuel infrastructure, plastic production, and the health burdens faced by vulnerable communities. Building on the researchers' *Three-Part Framework for Identifying Plastic-Burdened Communities*, the analysis shows that **oil wells and refineries in California are disproportionately concentrated in low-income communities of color** already exposed to multiple pollution sources and socioeconomic stressors.

The findings guide how investments from the state's Plastic Pollution Mitigation Fund can be directed for the greatest impact starting in 2027.

Plastic is responsible for a sizable and growing portion of the significant fossil fuel-related health and environmental impacts on millions of Californians.

RECOMMENDED POLICY ACTIONS

The report recommends the following policy actions:

- California's governance decisions around fossil fuels must take plastic-related environmental injustices into account.
- Communities with high exposure risks from the plastic supply chain are good candidates for comprehensive investment programs.

PLASTIC DEPENDS ON FOSSIL FUELS

Despite efforts to find alternatives, **99% of plastic is manufactured from oil and gas.** Plastic production is growing as the oil and gas industry seeks new sources of revenue to offset decarbonization efforts. Approximately 6-8% of global oil is used for plastic production, and is on course to increase to 20% by 2050. This consumption makes plastic an important driving force in the extraction and refining of fossil fuels.

ENVIRONMENTAL AND HEALTH IMPACTS

In addition to climate impacts, fossil fuel extraction and refining release many harmful pollutants. Years of public health data demonstrate **clear risks to communities with oil and gas infrastructure nearby, including higher rates of cancer, respiratory illness, and reproductive health complications.** People living nearby also face environmental hazards such as spills, explosions, and fires, as well as daily disruptions from noise and odors.

The researchers found that the communities with a high concentration of fossil fuel infrastructure also face elevated exposure to other sources of pollution, along with socioeconomic stressors, like poverty, which mean fewer resources with which to address health impacts. This underscores the need to focus on the most impacted communities as part of California's rulemaking to implement Senate Bill 54, which will raise $5 billion from the plastic industry to cut related pollution and mitigate its impacts.

POLICY BRIEF BY VERONICA HERRERA AND DANIEL COFFEE

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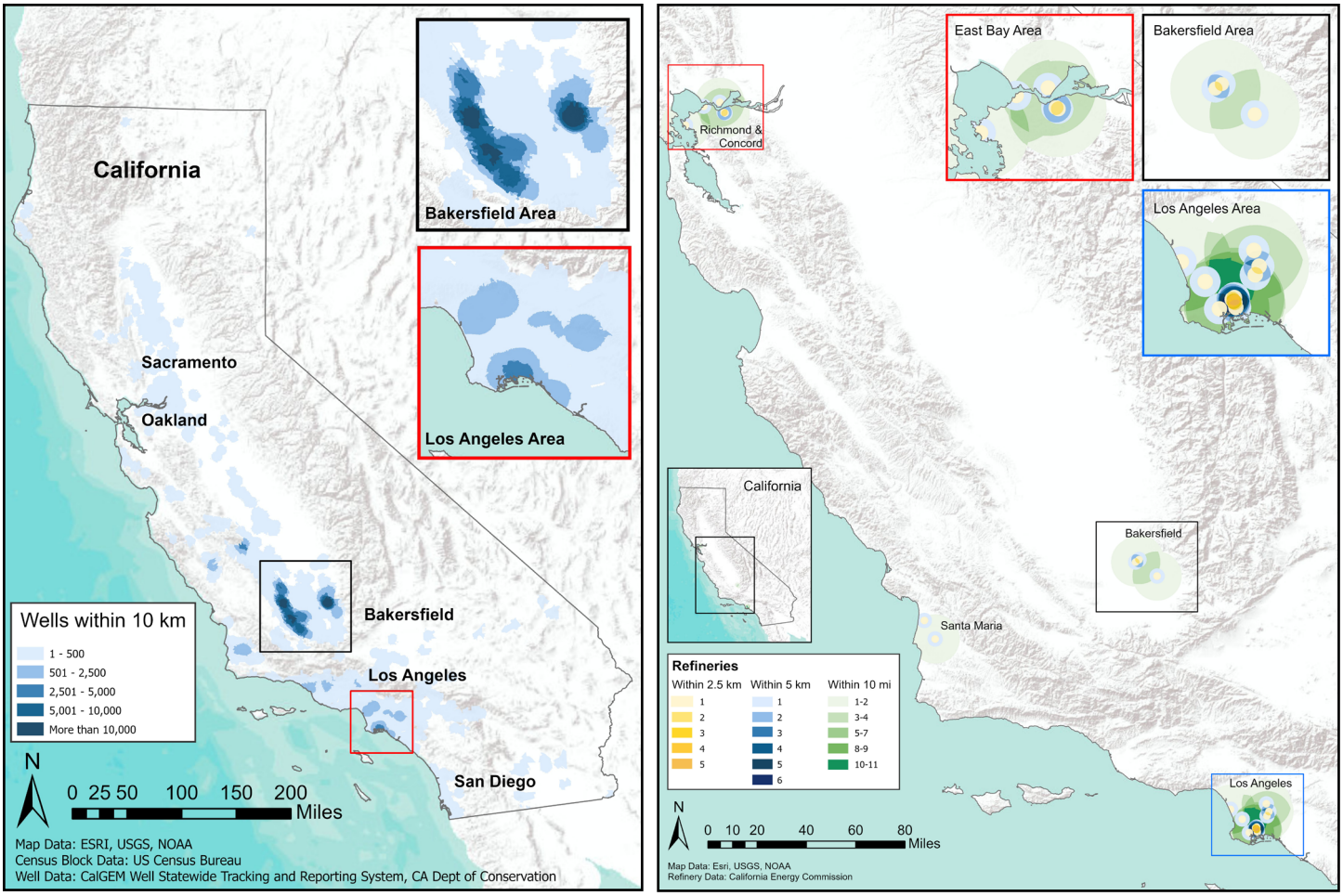
UNEVEN DISTRIBUTION OF FOSSIL FUEL FACILITIES

California's oil and gas infrastructure is highly concentrated, placing disproportionate risks on some residents. The researchers found that the communities with an elevated concentration of oil and gas infrastructure are disproportionately home to Hispanic/Latino and Black residents.

The most significant clusters of wells and refineries in California occur in the Bakersfield and Los Angeles regions. Kern County, including Bakersfield, is home to over 70,000 active or idle oil and gas wells—a majority of the nearly 100,000 statewide. Los Angeles County is home to 11 of the state's 21 operating refineries, with a particular concentration in the working-class community of Wilmington adjacent to the Port of Los Angeles.

FIGURE 1.

Distribution of oil and gas wells and refineries in California



The interactive map is available at https://innovation.luskin.ucla.edu/mapping-impacts-from-plastic-disposal-sites-in-california/.

To learn more, see *What Defines a Plastic-Burdened Community?—Part II, Plastic, Fossil Fuels, and Inequitable Site-Based Exposure Risks.*