CALIFORNIA AIR RESOURCES BOARD

January 2026

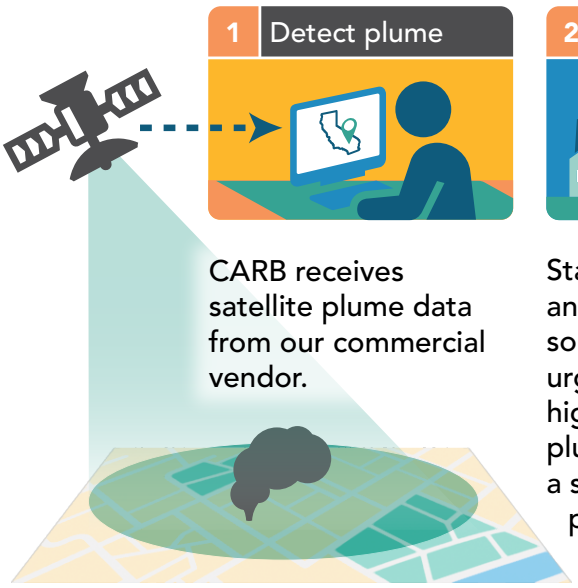
# California Satellite Methane Project Fact Sheet

The California Air Resources Board's California Satellite Methane Project (CalSMP) uses the latest science and satellite-based technology to identify highly concentrated methane plumes across the state. Satellites capture images of methane leaks, which appear as plumes trailing away from the source of emissions.

## GOALS

- Detect methane sources
- Support timely action to reduce emissions
- Protect California communities
- Share data publicly
- Raise global awareness of CARB's efforts through data transparency

## HOW IT WORKS



**1 Detect plume**

CARB receives satellite plume data from our commercial vendor.

**2 Identify source**

Staff evaluate data quality and identify the plume's source. CARB takes urgent action for rare high-priority emission plumes (HPEPs) that pose a safety concern due to proximity to residents.

**3 Contact facility**

CARB works with state & local government partners on plume mitigation. Facility operators are notified about leaks detected.

**4 Address issue**

Operators take action. Plume and action data are made public after 30 days.

**5 Verify compliance**

Where appropriate, CARB confirms regulation compliance.

## KEY STATISTICS, MAY-DEC 2025

**83**
successful scans

**~110,000**
square kilometers scanned

Prevented emissions from the oil and gas sector alone are equal to taking **~19,000** cars off the road for one year

**>$800,000**
natural gas losses avoided

**>$3 million**
societal benefits delivered from $CH_4$ climate impact

## HOW SATELLITE DATA CAN HELP

Reduce emissions and slow climate change by fixing leaks

Find and fix rare safety hazards quickly

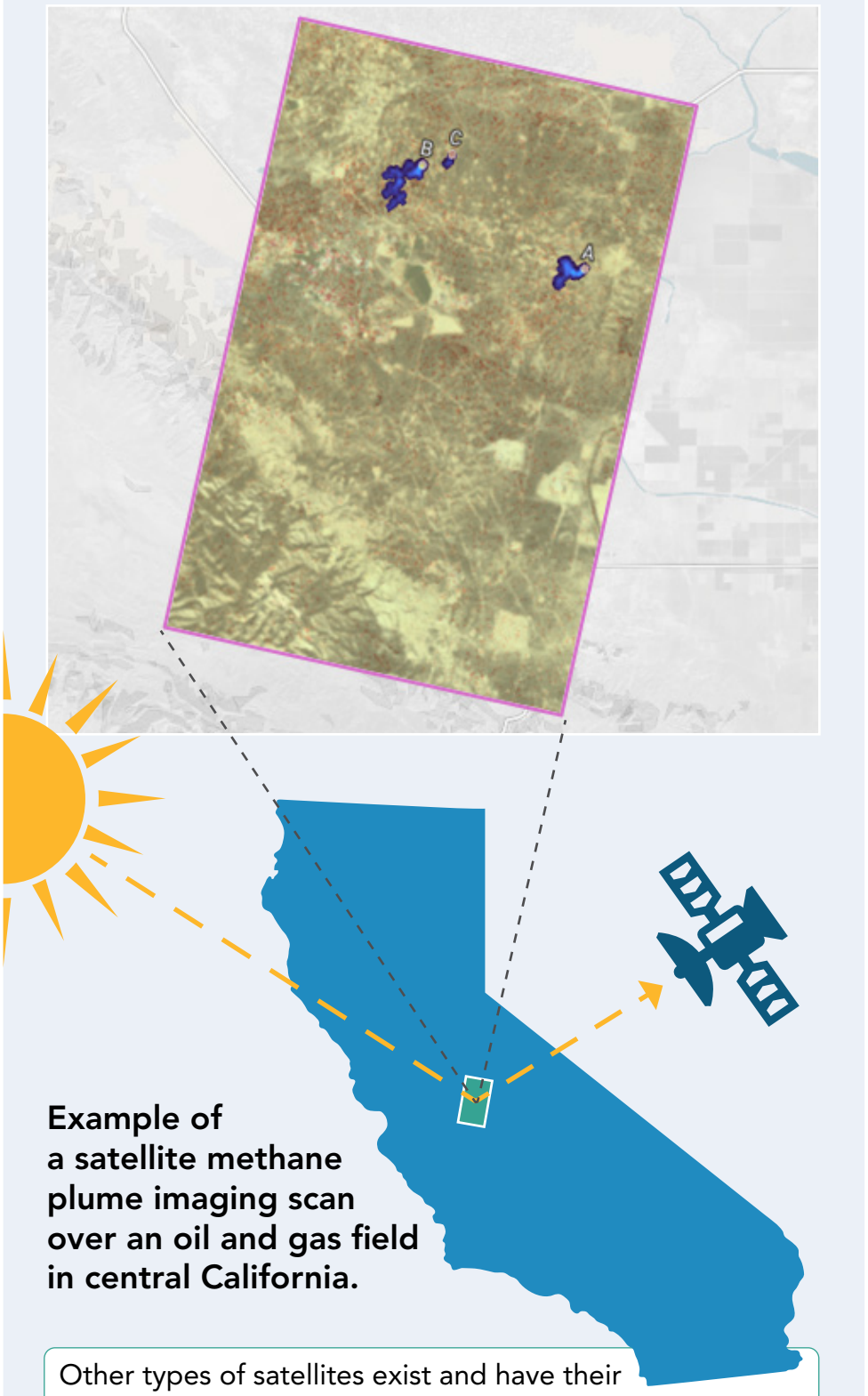
Support existing regulations targeting methane emissions

Set a global example showing the effectiveness of using satellite data to reduce methane emissions

## LEARN MORE

California Satellite Methane Project:
*arb.ca.gov/calsmp*

## SATELLITE METHANE PLUME IMAGE




**Example of a satellite methane plume imaging scan over an oil and gas field in central California.**

Other types of satellites exist and have their own important roles in methane detection, but plume imaging technology is most useful for pinpointing large, single sources of methane.