# Smog Check Program evaluation update

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Bureau of Automotive Repair

# Background

- Pursuant to Health and Safety Code section 44024.5, BAR is required to report on the performance of the Smog Check Program.
- BAR, in cooperation with the California Air Resources Board (CARB), performs specific analyses of Smog Check data and the results of these analyses are shared with the public.
- The BAR Smog Check Performance Report (SCPR) is published every two years.
- Data collected through the Roadside Emissions Survey Program is a key data set used to evaluate the Smog Check Program.

# Introduction

- BAR is updating its roadside emissions survey data collection equipment to include an automated license plate reader (ALPR).
- The ALPR data will be used for the purpose of facilitating the efficient collection of roadside emissions survey data and improving BAR's ability to evaluate the effectiveness of the Smog Check Program in reducing emissions from motor vehicles.

# What is an automated license plate reader?

- An ALPR consists of:
  - A mobile or fixed camera that photographs a vehicle's license plate
  - Optical character recognition (OCR) software that converts the image into alpha-numeric characters of the license plate
- Typical ALPR uses include:
  - Electronic toll collection (e.g., FasTrak toll roads and High Occupancy Vehicle (HOV) lanes)
  - Enforcement of traffic laws and traffic control
  - Automated emissions testing (i.e., "clean screening" or "dirty screening")

# Automated license plate reader data collection

- BAR's ALPR privacy and usage policy incorporates all applicable requirements, including Civil Code sections 1798.29, 1798.82, and 1798.90.5, et seq.
- BAR will not merge ALPR data with DMV records that include sensitive or personally identifiable information.
- The ALPR policy is available on the BAR website at www.bar.ca.gov/alpr.

# Automated license plate reader data uses (1 of 3)

- An assessment of the model year distribution of the fleet around each test site
  - ALPR data will be used to help determine whether the vehicles tested at a specific roadside survey location are an accurate representation of local traffic
- A determination of the average age of the fleet ALPR data will be used to establish site specific patterns that will be used to adjust the roadside sample and may be used to refine the roadside vehicle selection process

# Automated license plate reader data uses (2 of 3)

- An estimate of the mode of power breakdown of the fleet
  - ALPR data will be used to help characterize smaller portions of the fleet including heavier vehicles powered by diesel, and pre-OBD vehicles that are no longer tested at roadside
- An assessment of the percentage of unregistered vehicles in operation
  - ALPR data will be matched with Smog Check histories of vehicles to help adjust the roadside findings for the presence of unregistered vehicles in the regional samples

# Automated license plate reader data uses (3 of 3)

- The impact of “cross-traffic” (i.e., vehicles registered in basic areas operating in enhanced areas, or vice versa)
    - ALPR data will be used to help determine the impact of vehicles tested and registered in areas with differing Smog Check requirements

# Next steps

- Deploy equipment to northern roadside teams – Q3 2026
- Evaluate lessons learned – Q4 2026
- Deploy equipment to southern roadside teams – Q4 2026

# Thank you

For comments and questions, please contact:

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