

# Caltrans Air Quality Research – National Programs

## Overview

The [Transportation Research Board \(TRB\)](#) and its various cooperative research programs carry out a great deal of transportation-related research. The [National Cooperative Highway Research Program \(NCHRP\)](#), in particular, has carried out many air quality-related projects. Caltrans staff members have sometimes been involved as research panel members or expert resources.

The [American Association of State Highway and Transportation Officials \(AASHTO\)](#) is the main national organization of state transportation departments. AASHTO has a Standing Committee on the Environment (SCOE) that tracks environmental issues related to transportation and funds/directs research through NCHRP targeted at smaller, more immediate questions than the general NCHRP program does. SCOE has an air quality subcommittee that has long included a Caltrans representative.

Caltrans and other AASHTO members have also been involved in "[pooled-fund](#)" projects, with the [Federal Highway Administration \(FHWA\)](#) and other states, to look at certain large-scale national issues. State participants who allocate research funds to these programs are actively involved in developing the research work program and receive advance results of the work.

## Contents

- Selected major NCHRP projects that Caltrans air quality staff members have been involved with as panel members
  - [25-18](#) (Particulate-Matter (PM2.5 and PM10) Apportionment for On-Road Mobile Sources) [Completed; not published]
- AASHTO Committees related to air quality work
  - [Standing Committee on the Environment \(SCOE\)](#)
    - Air Quality Subcommittee
  - [Standing Committee on Planning \(SCOP\)](#)
- Selected "NCHRP 25-25" short research projects for AASHTO that Caltrans air quality staff members have been involved with in some capacity
  - [Task 18](#) (Recommended Approaches to Communicating Air Toxics Issues and Transportation Project-Related Analyses in NEPA Documents) [Completed; [Final Report](#)]
  - [Task 42](#) (Determine alternative calculations for fine particulate emission factors other than AP-42 applicable to calculate re-entrained dust on transportation projects) [Complete; not published]
  - [Task 59](#) (Evaluate the Interactions between Transportation-Related Particulate Matter, Ozone, Air Toxics, Climate Change, and Other Air Pollutant Control Strategies) [Complete; [Final Report](#)]
  - [Task 70](#) (Assessment of Quantitative Mobile Source Air Toxics in Environmental Documents) [Complete; [Final Report](#)]
  - [Task 78](#) (Programmatic Agreements for Project-Level Air Quality Analyses Using MOVES, CAL3QHC/R and AERMOD) [Started in 2012]

- Task 89 (Establishing Representative Background Concentrations for Quantitative Hot-spot Analyses for Particulate Matter) [Started in 2013]
- Pooled-Fund projects related to air quality
  - [National Near-Road Study](#) (FHWA air toxics [MSAT] study, required by a NEPA lawsuit settlement agreement for a Nevada project)
    - Field work complete; data collected in Las Vegas NV and near Detroit MI.
    - [Final report](#) (PDF) available for Las Vegas work
    - [PooledFund.org listing](#)
  - [Near-Road Air Quality Studies](#) (started in 2013; mainly addressing state issues but with FHWA participation)
    - Priorities drafted for initial work.
    - No reports available; project is in the formation and contracting process as of late 2013.
- Selected Other NCHRP studies of interest for air quality analysis
  - [NCHRP 25-07](#) Improving Transportation Data for Mobile Source Emissions Estimates
  - [NCHRP 25-08](#) Impact of Highway Capacity Improvements on Air Quality and Energy Consumption
  - [NCHRP 25-11](#) Development of a Modal-Emissions Model
  - [NCHRP 25-15](#) Short-Term Monitoring for Compliance with Air Quality Standards
  - [NCHRP 25-21](#) Predicting Short-Term and Long-Term Air Quality Effects of Traffic-Flow Improvement Projects
  - [NCHRP 25-25 Task 18](#) Recommended Approaches to Communicating Air Toxics Issues and Transportation Project-Related Analyses in NEPA Documents (Note: current NEPA Air Toxics analysis is governed by [FHWA guidance](#).)