

**CALTRANS PROBLEM STATEMENT  
FOR  
POTENTIAL NATIONAL INTEREST**

**I. PROBLEM TITLE**

Air Quality Mitigation Measures

**II. RESEARCH PROBLEM STATEMENT**

Past research studies are inconclusive regarding effects of sound walls on localized air pollution impacts. Sound walls have been advocated by some groups for localized particulate matter (PM) impact mitigation.

**III. LITERATURE SEARCH SUMMARY**

Yet to be performed

**IV. RESEARCH OBJECTIVE**

To investigate whether sound walls can serve as a mitigation measure for Particulate Matter (PM) and mobile source air toxics (MSAT).

**V. ESTIMATE OF PROBLEM FUNDING AND RESEARCH PERIOD**

**Recommended Funding:**

\$500,000

**VI. URGENCY, PAYOFF POTENTIAL, AND IMPLEMENTATION**

Air quality mitigation measures are critically needed for PM and MSAT, for Caltrans to continue to meet future transportation needs. Unlike carbon monoxide (CO) and ozone, technology and fuel improvements may not be sufficient to mitigate the project-level PM10, PM2.5, and MSTTA emissions increase directly with truck travel, which is projected to go up substantially in the future with a much larger role in goods movement.

Please contact the Caltrans member of your committee, sub committee, or task force to express interest or contact Wes Lum at Caltrans ([wes.lum@dot.ca.gov](mailto:wes.lum@dot.ca.gov)).