

# AASHTO CES- Air Quality, Climate Change & Energy Subcommittee

## Research Update & Voting Results and Ranking

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# Research Update Outline

- Program Schedule
- Voting Results
- Discussion and Recommendations
- Study Recently completed
- Next Steps

# NCHRP Program Schedule

July 2018	AQCCES review and ranking of proposals
July/August 2018	Volunteers complete Research Statements/Scopes for short listed topics
September 2018	Complete/finalize Scopes and email to Natalie, Colleen and Melissa and Chris ( <i>for RC/Chair/VC/AASHTO staff Review</i> )
November 1 2018	NCHRP Research Need Statements (RNS) <i>Submittals to NCHRP (Research Coordinator/AASHTO)</i>
Spring 2019	NCHRP Selection
Apr/Jul 2019	Panels formed
Jul/ Oct 2019	RFP released
Oct 19/Feb 20	Contractors Selected

# 2018 Topics Submitted

- 1086-Mining the California Truck Survey for Emissions Modeling
- 1087-Understanding Emissions from Extended Idling by Trucks
- 1088-Streamlining Transportation Conformity Processes
- 1093-Low Cost Air Quality Sensors for DOT Air Quality Specialists
- 1096-Best Practices for Streamlining Project-Level Analyses for Air Quality
- 1095-Co-Benefits and Trade-Offs of Low-Carbon Policies in the Transportation Sector

# Voting and Ranking Results

ID#	Research	Cost	Time-frame (yrs)	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Total No of Votes	Rank by Total Rank 1 Votes	Weighted	Rank by Weighted
1086	Mining the California Truck Survey for Emissions Modeling	\$100-249K	1-2	0	0	3	3	3	7	16	5	34	6
1087	Understanding Emissions from Extended Idling by Trucks	\$500-750K	2-3	0	3	5	3	3	3	17	5	53	4
1088	Streamlining Transportation Conformity Processes	\$500-750	2-3	8	5	2	2	0	0	17	1	87	1
1093	Low Cost Air Quality Sensors for DOT Air Quality Specialists	\$100-249K	2-3	2	0	3	3	4	5	17	4	46	5
1095	Co-Benefits and Trade Offs of Low Carbon Policies in the Transportation Sector	\$100-249K	2-3	3	3	1	5	5	1	18	3	63	3
1096	Best Practices for Streamlining Project-Level Analyses for Air Quality	\$250-499K	2-3	5	6	3	1	1	1	17	2	78	2

Based on 18 voting states

# Discussion and Recommendations

- Full NCHRP (highly competitive)
- First choice-
  - #1088 - Streamlining Transportation Conformity Processes (\$500-750K)
- Second choice-
  - #1096 - Best Practices for Streamlining Project-Level Analyses for Air Quality (\$250-499K)

# 3<sup>rd</sup> Ranking

- 1095 - Co-Benefits and Trade Offs of Low Carbon Policies in the Transportation Sector

# Changes to Program

- **NCHRP 25-25 Ended**
  - 25-25 one of four “suballocations” from “main” NCHRP
  - Performed small-scope, short-duration research for SCOE
  - Tasks selected by SCOE; 113 tasks completed since FY 2003
- **Moving Forward**
  - All research proposals submitted through regular NCHRP processes
  - Submission by AASHTO’s Standing Committee on Environment and Sustainability (CES), State DOT, or FHWA
  - Projects selected by AASHTO’s Special Committee on Research and Innovation (R&I)
    - **R&I members have little to no environmental expertise**
  - Research panels selected by NCHRP



# Considerations

- Is the problem national in scope?
- Will the research results substantially contribute to project delivery?
- Will the results save money and/or time?
- Will the research outcome be implementable and/or measurable?
- Will the research results help resolve compelling problems with legal/regulatory compliance, or resolve ambiguities with the regulatory community?
- Can the importance of the problem and research solution be explained to a non-environmental audience?
  - Will the research topic appear duplicative, in title or substance?

# Studies Recently Completed

**25-25/Task 96: Quick Reference Guide for Traffic Modelers for Generating Traffic and Activity Data for Project-Level Air Quality Analyses.**

<http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=3971>

## **Project Background**

There is a frequent disconnect between the traffic data needed for project-level air quality analysis and the traffic data provided by traffic modelers. The disconnect leads to waste in processing and time and introduces project risk by introducing uncertainty into the NEPA and Transportation Conformity process. The challenge stems from different technical vocabulary and knowledge-base of air quality and transportation modelers. State DOTs need guidance that can bridge the gap between air quality and traffic modelers by articulating air quality needs with an understanding of common language and tools available to traffic modelers.

# AASHTO SCOE Strategic Plan\* Research Road Map for Air Quality (2015) – Key Elements

## **Policy Analysis and Decision-Making (2)**

- Re-authorization, Streamlining Project Development, Pending CEQ/FHWA Guidance on GHGs, Environmental performance measures

## **Environmental Planning and Process Requirements**

- Programmatic Agreements/Categorical Findings, Reference Cases for Modeling, CMAQ Programmatic Eligibility, Climate Change, Big Data

## **Environmental Impacts and Consequences**

- IECI, Multi-pollutant approaches, PEL for health & transport, CMAQ

## **Analysis Tools**

Model Improvement (2), Streamlining, Accuracy/Uncertainty (1),  
Traffic/Fleet , Climate Change

## **Strategies and Best Practices(1)**

BPs for IACC for PM, GHGs , Renewable energy

## **Implementation Challenges**

## **Emerging Issues**

ATFs, Electric Vehicle Charging Stations, Implications of NAAQS revisions