Development of Transportation Air Quality Planning Tool for Transportation Agencies

Technology Transfer Activities

by

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Table of Contents

Technology Transfer Activities

1 Outputs

The project developed a comprehensive air quality planning tool designed to support transportation agencies in evaluating and mitigating vehicular emissions.

1.1 Output #1

Published a detailed technical report summarizing the development and applications of the MOVES-based air quality planning tool. Disseminated findings through conference presentations and submitted research for peer-reviewed publications.

1.1 Output #2

Developed an Excel-based air quality planning tool that integrates the latest advancements in the MOVES model. Specific calculators were tailored for project types, including Electronic Open-Road Tolling (EORT), telework programs, transit bus upgrades, and electric vehicle adoption.

1.1 Output #3

Participated in a Live Technology Demonstration session during the 8th Annual Fall Conference of C2M2, held on August 22, 2024, in Columbia, SC. The demonstration highlighted the functionality and application of the developed air quality planning tool.

2 Outcomes

The outcomes of the project include enhanced capabilities for transportation agencies and improvements in air quality assessment methods.

2.1 Outcome #1

Delivered two training workshops to educate transportation professionals on the usage and application of the tool. These sessions enhanced understanding and ensured effective adoption of the tool in routine air quality assessments.

2.2 Outcome #2

Incorporated updated emission modeling techniques and practical tools into state and local air quality planning processes. This ensures agencies can conduct precise and consistent evaluations for CMAQ-funded projects.

2.3 Outcome #3

Improved the overall process for evaluating air quality impacts of transportation projects by implementing user-friendly tools and methodologies. This streamlined the process for funding applications and enhanced regulatory compliance.

3 Impacts

The project outcomes have created significant impacts in regulatory compliance, air quality improvements, and public health.

3.1 Impact #1

Increased adoption of the tool among state and local agencies for CMAQ-funded project evaluations. This has enhanced the accuracy and consistency of emission reduction assessments.

3.2 Impact #2

Contributed to public health improvements by reducing vehicular emissions. The tool supports better resource allocation and decision-making, enabling agencies to implement impactful air quality improvement strategies.