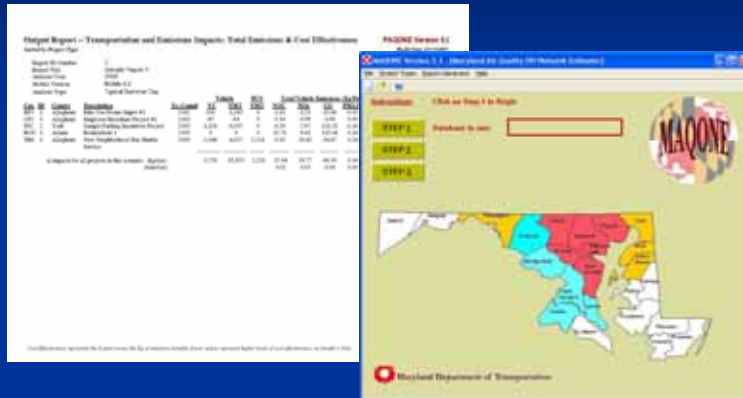


AQONE Analysis Software

Updates to the Air Quality Off-Network Estimator: AQONE



WILMAPCO Air Quality Subcommittee (AQS)

April 7, 2011

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1

AQONE Analysis Software

The Original Challenge:

Agencies needed the ability to quickly and easily calculate the benefits of projects:

- Transportation impacts
- Air quality benefits

Examples

- Control measures (conformity credits, mitigation measures)
- CMAQ projects

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2

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The issue agencies faced?

Quantifying project impacts is not a simple task.

- Staff do not do this regularly.
- No single reference.
- Data is often not readily available.
- Emissions calculations are difficult to undertake.

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3

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One Solution

- Gather relevant methodologies
- Package it with local data
- Automate the process
- Make it easy for the occasional user

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4

AQONE Analysis Software

What is AQONE?

- AQONE = Air Quality Off-Network Estimator
- Collection of sketch-level methodologies
- Automates the calculation of transportation/emission benefits
- Easy to use



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5

AQONE Analysis Software

Common Applications for AQONE

- Small project conformity credits
- Support for regions lacking regional models
- CMAQ analysis
- Scenario Testing
- 14+ years experience
- 34 Project types



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6

Project Types

Core Project Type: Emissions Only Analysis

User inputs:

- VT, VMT and/or Hours of Idling.
- vehicle types to analyze.
- Time of Day
- Location (County)

Result: Emissions Reduced



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7

Project Types

Other Project Types

- Highway/Rail/Bicycle/Pedestrian Projects
- TDM Projects
- Transit Projects
- ITS Projects
- Signalization/Traffic Flow



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8

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What now? What is the new challenge?

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9

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What now? What is the new challenge?

The importance of these types of projects is increasing

- Air quality standards are getting stricter.
- Margins are shrinking.
- In the past some TCM benefits have not been quantified...
...however may need the credits in the future.
- Going forward, every last bit of benefit matters.
- Greenhouse gas mitigation is an issue.

Quantifying benefits has taken on a renewed significance.

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10

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What now? What is the new challenge?

MOVES

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11

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The primary issues remain the same:

Agencies still need to calculate project benefits.

- Same limitations as before
- New project types, new emissions
- More scrutiny

Calculating project benefits is no easier.

- Methodologies are more complex
- MOVES



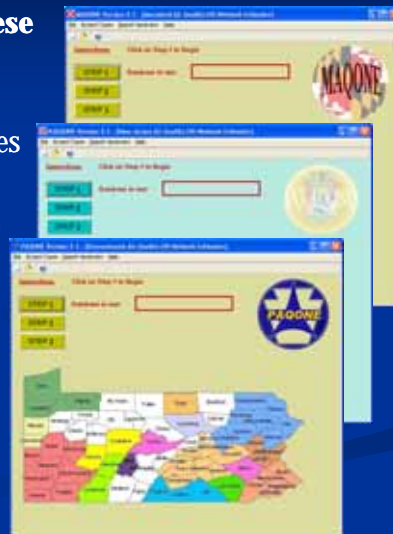
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12

AQONE Transition to MOVES

AQONE is evolving to respond to these challenges/opportunities

- Update project analysis methodologies
- Add new project types
- Consolidation/Simplification (TDM)
- Incorporate MOVES
- Platform (Visual Basic to ...)



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13

AQONE Transition to MOVES

AQONE will continue to combine state of the practice analysis techniques with locally available data.

- Continue to use EPA/FHWA guidance and current research
- Populate with local employment, traffic, transit and data
- Emissions calculations will continue parallel regional analyses
 - i.e. Replicate conformity setups as closely as possible

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14

AQONE Transition to MOVES

Why is the AQONE update starting now?

- MOVES is ready
- Parallels regional conformity in MOVES
- Opportunity to suggest new project types/other enhancements
- Will take time to develop
- Timely completion



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15

Questions?

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16