Georgia’s Air Quality Initiatives

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Emission Reduction Strategies

INRIX
ITS
Operational Improvements
RTOP
MLSP Operational Studies
Quick Response
511
HEROS
School Bus Retrofits
Carpool
GA Commute Options
Local SPLOST

Georgia Department of Transportation
Incident Management

• H.E.R.O. – Highway Emergency Response Operations
  – Annual Emission Reductions:
    • VOC: 12.23 (metric tons)
    • NOx: 17.18 (metric tons)
  – Provides first response to highway emergencies
  – Emphasis on removing vehicles from travel lanes
  – Expanded service along I-20 (East and West) and I-85 South as part of the 2013 CMAQ Call for Projects
Regional Traffic Operations Program

- Expanding program
- Regional Focus
  - ✓ Mainline Priority
  - ✓ Cross-Jurisdictional
- Actively Manage Traffic Flow

1000 Signals
$14 million per year
total 25 Corridors
Traffic Signal Optimization

• Metro Signal Timing (2008-2013)
  – 1,364 intersections retimed (Metro Atlanta)
  – Total savings of $101,160,000
  – Cost/benefit of 24.30 over entire project

• Statewide Traffic Signal Optimization (2014)
  – Signal systems on State Routes across Georgia
  – Partnerships with local maintaining agencies
  – Continuation of existing optimization through STIP years
MLIP Will Update 2009 Atlanta Regional Managed Lane System Plan (MLSP)

- First regional managed lanes plan in the country
- In 2009, there were no priced managed lanes in the Atlanta region (only HOV lanes)
- Identified $16 billion in managed lane projects
New Assumptions

- All new limited access capacity in metro Atlanta will likely be tolled
- Remove HOV2+ to HOT3+ conversions from plans
- Eliminate assumptions of long-term concession agreements
- Evaluate lower-cost managed lane treatments, where possible
Other Strategies Implemented

- Navigator/511
  - Cameras and electronic message signs

- Ramp Meters
  - Regulate Access onto the freeway

- Flashing Yellow Arrow
  - Reduces Vehicle Idling and Air Pollution
  - Reduction in Left Turn Crashes
CMAQ Project Selection Overview

- Atlanta MPO lead process
  - Collaboration with GDOT

- Project Emphasis Areas
  - Travel Demand Management
  - Clean Vehicle & Technology Programs
  - Transit Service Start-up Operation (and Expansion)
  - Roadway ITS / Operations / Incident Management
  - Managed Lanes
Selected Projects

Project Types by Total Federal Funding

- Advanced Traffic Management Systems (ATMS)
- Diverging Diamond Interchange (DDI)
- Incident Management
- Managed Lanes
- Signal Timing/Upgrade
- Transit Start-Up Operations and Expansion
- Travel Demand Management (TDM)

28 Projects totalling approx. $113 million
Annual Emissions Reductions

Annual Reduction in NOx and PM 2.5

(Projections from ARC CMAQ Calculator)

- DDI Projects:
  - 848,883 kg reduction in NOx
  - 53,122 kg reduction in PM 2.5
School Bus Retrofit Projects

- **1663** school bus retrofits
- **108** school bus replacements
- Over **$13,000,000** programmed through 2015
Mother-Slug Locomotive Retrofits

- “Mother” – Diesel-electric locomotive
- “Slug” – Uses excess electric power from “Mother”

Annual emission reduction
PM 2.5 - 12.29 tons
Nox - 195.93 tons
GA Commute Options: “Get More by Driving Less”

- Carpooling – Free service to match carpoolers
- Employer Services – Program Consultation, Ride-matching for employees, Tax Benefits, Teleworking
- Guaranteed Ride Home Service
- Vanpools – Find or start a vanpool
- Transit – Provide Traveler Information
- Commute Options provides incentives for switching from driving alone to another option
Metro Atlanta Commuter Patterns

82% Drive Alone
7% Telework
5% Carpool or Vanpool
<1% Bike or Walk
2% Bus
3% Train

Source: 2010 Center for Transportation and the Environment study conducted on behalf of the Georgia Department of Transportation
20% increase since 2007 in the number of commuters using alt modes 3+ days per week.

Source: 2010 Center for Transportation and the Environment study conducted on behalf of the Georgia Department of Transportation.
GCO Reduces Congestion
Georgia Commute Options

Daily Results

- Serves 1,600 Georgia employers and property managers
- Reduces 1.1 million miles of vehicle travel daily in metro Atlanta
- Eliminates 550 tons of air pollution daily in metro Atlanta
- Saves participants $500,000 in direct savings on gas and vehicle expenses, daily in metro Atlanta
Questions?

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