

# Status of Current FHWA Noise Activities



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# FHWA Staff & Assistance

- Noise Staff
- Guidance:
  - General Policy: FHWA HQ and/or RC
  - Project Assistance: FHWA Division Office

# Status of Changes to 23 CFR 772

- Chief Counsel/OST:
  - OST has approval our request.
  - Chief Counsel need to bless final draft
- Process:
  - Notice of Proposed Rule Making
  - Public comment through Federal Register
  - Address comments, publish Final Rulemaking
  - Once Federal Register process is complete, the guidance document will be updated
- Time-line: ??? (new administration)
- Changes to State DOT noise polices

# FY06-FY08 Noise STEP Projects

- **FHWA Traffic Noise Model Version 3.0 Development (\$325,000), will:**
  - Updated code to prevent becoming obsolete
  - Re-organize the code for more efficient future software development and maintenance (plug-ins)
  - Lots of GUI upgrades identified by user community
  - GIS capability: ?!?!

**STATUS:** In-progress, beta-version is anticipated to be released in Fall 2009 for testing.

\*More during Volpe Update presentation

- **FHWA Traffic Noise Model Increased Ldn Capability (\$25,000)**
  - To make more flexible for TNM users, addressing daytime/nighttime percentages and traffic distribution.  
STATUS: Has been rolled into TNM version 3.0 release.
- **FHWA Traffic Noise Model/Pavement Validation Study (\$110,000)**
  - To determine the validity of the FHWA TNM v2.5 in relation to various parameters.  
STATUS: Part of this funding looked at ground zones and pavement types.

\*More during Volpe Update presentation

- **Tire/Pavement Noise Measurements: Temperature Effects Study (\$30,000)**
  - To better understand the impact that temperature can have on tire/pavement noise and the resulting highway traffic noise that reaches communities

STATUS: Volpe presentation to show preliminary findings
- **Tire/Pavement Noise Research Consortium Pooled Fund (\$10,000)**
  - To provide a forum for State DOTs to discuss noise issues, fund research, and share data
  - STATUS: In progress

# FY08 STEP for Noise

- \$200,000 anticipated, not guaranteed
- Submit feedback by September 22, 2008 via the website at:  
<http://knowledge.fhwa.dot.gov/cops/step.nsf/home/>
- Anticipate applying majority of funds to the beta-testing and validation of the FHWA TNM version 3.0.

# Other TNM Related Items

- Version 3.0:
  - TPF-5(158): CA, OH, PA, TX, WA (\$160,000)
    - Barrier Reflections
    - Basic DXF and GIS Import/Export Functions
    - Multi-lane Tools
    - Contour Functionality
- Future Versions:
  - Pavements Effects Implementation Study
    - More details during Volpe presentation
  - NCHRP 08-56: Truck Source Mapping



# CadnaA & SoundPlan

- Currently can not be used on Federal-aid highway projects
- Have not been deemed by FHWA to be consistent with the methodology of TNM

# Tire/Pavement Noise

- Tire/Pavement Noise 101 Workshop
- NCHRP 1-44: Measuring Tire-Pavement Noise at the Source
- NCHRP 10-67: Texturing of Concrete Pavements
- NCHRP 10-76: Initial Cost Benefits on Quieter Pavement Compared with Other Forms of Noise Mitigation.

# Noise Barrier Research

- NCHRP 25-25 Task 40: New Noise Barrier Products and Noise Barrier Approval Research and Guidelines
  - Objective is to develop guidelines for the selection and approval of noise barrier types and materials
  - STATUS: Draft final report is being finalized
- 2005-2007 Noise Barrier Inventory

# Future Activities

- Best Practices:
  - Noise & Design Build
  - Multi-modal analysis
- Redesign of FHWA noise webpage

# Noise Cross-Over Areas

- Effect of Noise on Wildlife:
  - Hydroacoustics
  - Birds
- Vibration effects on historical properties
- Effects on noise barriers on vehicle air emissions
- Quiet car/pavement effects on disabled pedestrians.

Questions ?