



# 2008 AASHTO Subcommittee on Materials Asheville, NC

## FHWA Recycling Program

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FHWA – Office of Pavement Technology



# Key Points Of FHWA Recycling Policy

- This is not a new policy - renewed focus w/ \$ of materials sky rocking & **GREEN**
- Recycled materials should get first consideration in overall materials selection process.
- Recycling can offer engineering, economic and environmental enhancements.
- Life Cycle Cost benefits assessment is warranted.
- Restrictions prohibiting recycled material that are without technical basis should be removed.

# Reasons for Highway Industry's to be pro-recycle



- Cost savings potential
- life cycle cost and engineering performance enhancement
- Reduction in landfill impacts
- Stewardship of our environment
- Carbon Foot Print



# Highway Industry Recycling

- Clean up our own "Home"
  - Asphalt & Concrete Pavement
- Asphalt
  - ETG for RAP
  - ETG for WMA
  - NAPA/AASHTO/FHWA RAP workshop IN & TX
  - In-place Asphalt Recycling Workshop
    - 1<sup>st</sup> Workshop held June 2008 - more to come
- Concrete
  - FHWA/RMRC & US EPA National Review on RCA
  - New TA - Use of RCP as Aggregate in Hydraulic-Cement Concrete Pavement
  - Concrete Pavement Technology Program (CPTP)
  - Building Partnership with Industry & U.S. EPA
  - 2 Lift Concrete Construction

# FHWA Environmental Stewardship Areas of Interest

- Warm Mix Asphalt
- Use of Alternate & Recycled Materials
- Surface/Stormwater runoff issues
- Green Highways Partnership program
  - Reuse & Recycling
  - Watershed-Driven Stormwater Management
  - Conservation and Ecosystem Protection



# FHWA Recycling Team

<b>Michael Arasteh</b> <b>Resource</b> <b>Center – East</b>	<b>Bryan Cawley</b> <b>UT Division</b>	<b>Jason Dietz</b> <b>CA Division</b>	<b>Darrin Grenfell</b> <b>Texas Division</b>
<b>Charles</b> <b>Luedders</b> <b>Central Federal</b> <b>Lands Division</b>	<b>Steve Mueller</b> <b>Resource</b> <b>Center,</b> <b>Lakewood</b>	<b>Robert</b> <b>Orthmeyer</b> <b>RC – Mid West</b>	<b>Michael</b> <b>Rafalowski</b> <b>Pavement</b> <b>Technology</b>
<b>Brian Smith</b> <b>RC – Mid West</b>	<b>Butch</b> <b>Waidelich</b> <b>UT Division</b>	<b>Jack Youtcheff</b> <b>RD&amp;T</b> <b>Pavement</b>	<b>Connie Hill</b> <b>Office of</b> <b>Environment</b>



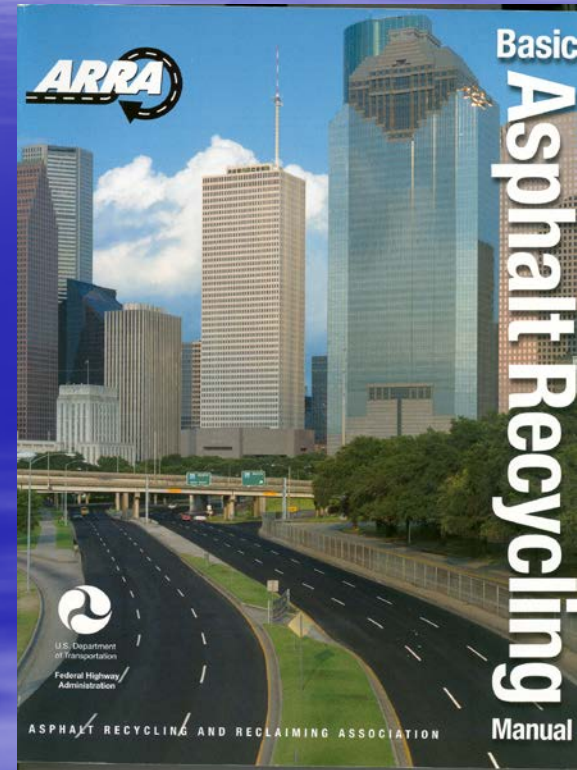
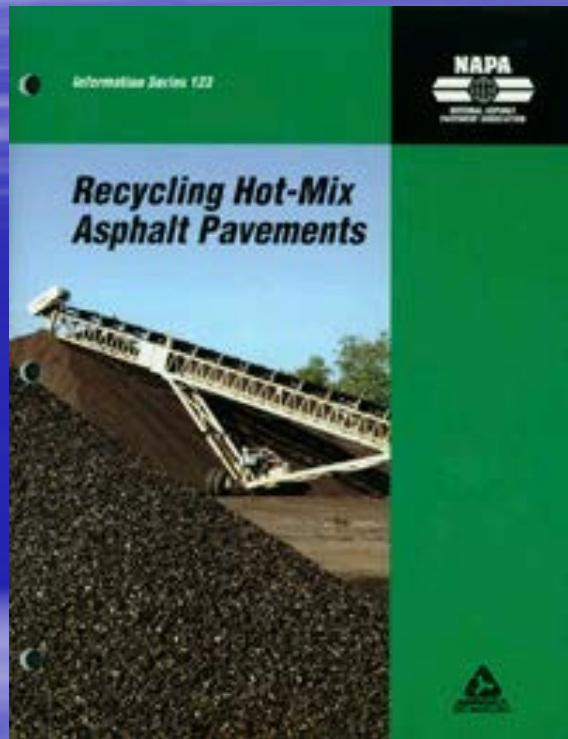
# Green Highways Partnership

Stewardship, Safety, & Sustainability

- **Voluntary Program**
- **Through partnering**
  - establish sound environmental practices – not necessary new, but better focused
  - applied early in design/planning stages
  - shared among the DOT/DNR partners.
- **GHP seeks to incorporate - into all aspects of the highway program**
  - environmental streamlining
  - Environmental Stewardship
  - recycling technology.
- **“Better Than Before” Theme!!!**
- **Started in mid-Atlantic Region**
- **Three Teams**
  - **Recycle/Reuse**
  - **Watershed-Driven Stormwater Management**
  - **Conservation & Ecosystem Protection**

# Industry Resource Partners in Recycling

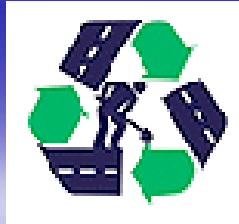
- AASHTO
- NAPA
- NCAT
- ARRA
- ACPA
- PCA
- U.S. EPA
- IRC
- RMRC
- NRMCA
- NOSAJ
- And there are more



# Partners for helping the Reuse of Industrial By-Products

- The Industrial Resources Council (IRC)
  - American Coal Ash Association
  - Construction Materials Recycling Association
  - Foundry Industry Recycling Starts Today
  - National Council for Air and Stream Improvement
  - National Slag Association
  - Slag Cement Association
  - Rubber Manufacturers Association

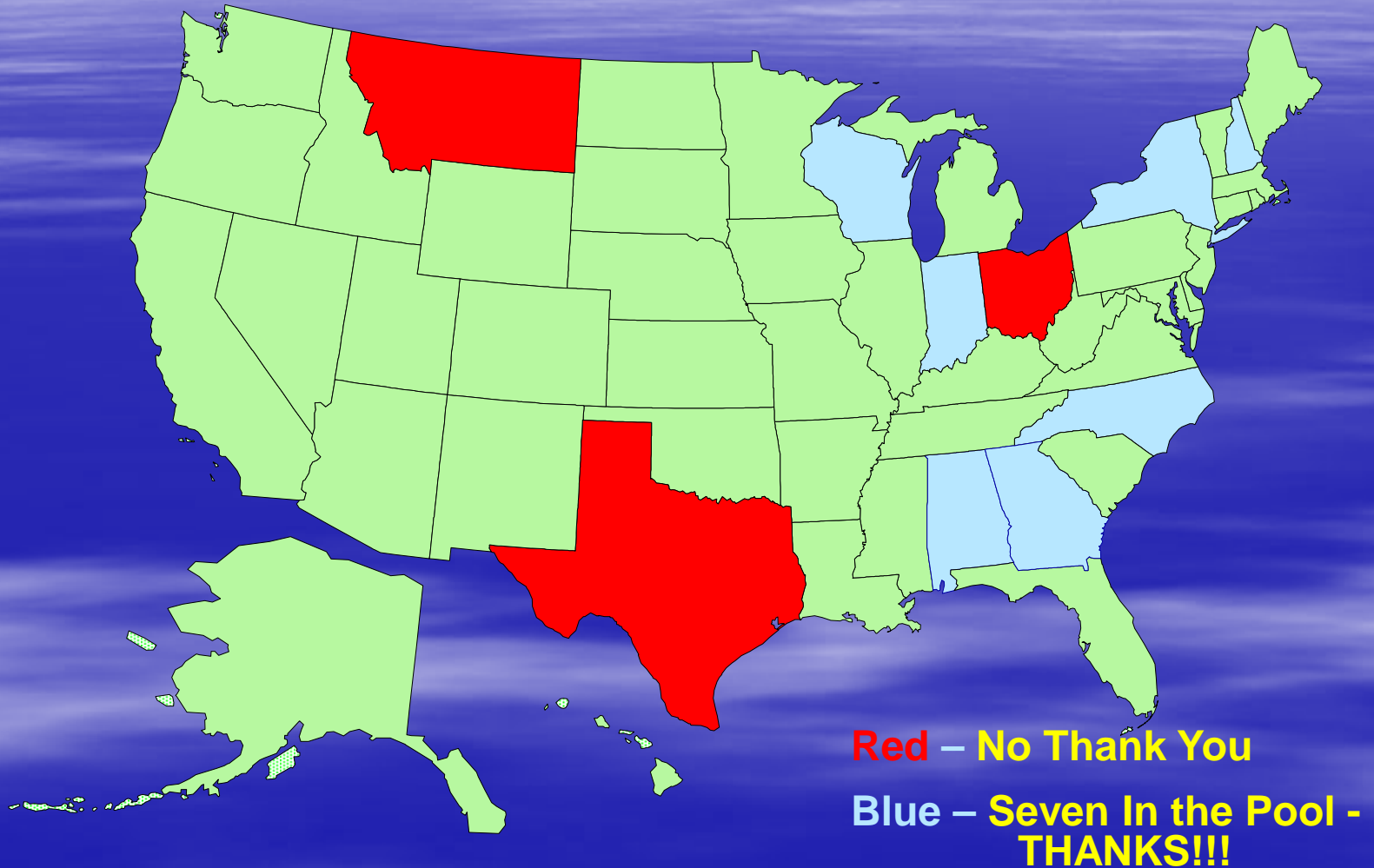




# Recycled Materials Resource Center

- National center for recycled materials technology
- Two University Center – (unofficially 3)
- Point of Contact for Research & Technical Information or whom to talk to
- Workshops and upcoming Webinars
- [www.recycledmaterials.org](http://www.recycledmaterials.org)

# Status of RMRC TPF 1177 Pooled Fund



[www.pooledfund.org](http://www.pooledfund.org)

RMRC - TPF 1177



With



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# In Closing – Thanks for the lend of your Ears!!

- FHWA and our Partners
  - Active participants and supporters of the Environmental Stewardship program.
  - Welcome **more** support and involvement from State DOTs and industry
- **YOUR** State should participate in the RMRC pooled fund study!!

