Recycling Task Force
Report to AASHTO
Subcommittee on Materials

AASHTO Subcommittee on Materials
Lincoln, New Hampshire
August 14, 2007
Recycled Materials Resource Center

Workshops

RAP ETG

Challenge
Recycled Materials Resource Center

- New Contract Awarded
- University of New Hampshire
  - University of Wisconsin @ Madison
- New Vision
  - Expanded background
  - Integrated Approach to implementation
  - Coordination of initiatives & Industry
Recycled Materials Resource Center

- **What Do You Need?**
  - Specific Materials or Applications
- **$ 500,000 Annually - 4 Years**
- **Pooled Fund Support**
Workshops

- Reuse/Recycling Workshop (GHP)
  - August 29, Maryland
- Shingles & Foundry Sand Workshop
  - October 31 - November 2, Chicago
  - Information Available at Desk
RAP ETG

- Established in Spring 2007
- FHWA, 5 State DOTs, Industry, Academia
- Consolidate Information
- Regional Demonstrations of High RAP Use
Survey Results

- 45 Responses (Including Ontario)
- Contacting Remaining States
- Will Distribute Results
- Feedback Needed
Questions

- % RAP Allowed & Used
  - Mix Type
  - Plant Type
- Special Requirements
- Major Obstacles
  - Specifications
  - Industry Use
Questions

- Research Needs
- Experience with “High Percentage” Use
- Ownership of RAP
Findings

- Most States Allowed RAP use
- Most Specifications Limited Practical Use of Higher Percentages
- Some Differences on Mix Type
- Few Limits Based on Plant Type
  - Georgia
  - Hawaii
  - Massachusetts
  - New Hampshire
  - South Carolina
Intermediate Mixes -- Specified

[Map of the United States with different states colored based on the specified intermediate mix percentages.]

Legend:
- 0%
- 10%
- 15%
- 20%
- 25%
- ≥30%
- n/a
Specification Barriers

- Quality Concerns
- Consistency of RAP
- Durability of Mixes
- Ability to Meet Volumetric Requirements
- Stiffness of Binder
- Use with Polymers
Industry Barriers

- Control of RAP
- Dust & Moisture
- Increased QC
- State Specifications
Recent Experience Using >25% RAP
“High RAP” Experience

- Limited Experience
- Some Restrictions on Mix Type
  - Base Courses More Common
- Responses Indicated Interest to Learn More
Research Needs

- Modulus of RAP Mixes
- Fatigue Concerns
- Final Effective Binder Grade
- Performance of High RAP Mixes
- Need to Bump Binder Grade
- How to Better Control RAP - Fractionating
ETG Next Steps

- Highlight Success Stories
- Technology Transfer
- Guide Document for Subcommittee on Materials?
Challenge

- Be Proactive
- Distant Rumbles of Mandates
- Talk With Industry Partners & RMRC
- Communicate Needs
- TS Chairs - Include Recycled/Reclaimed Materials in Standards
Questions?