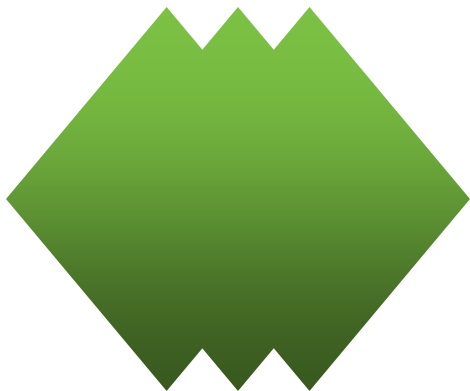


# *Using Geospatial Technology for Asset Management: Peer Exchange*



*Katie Zimmerman, P.E.  
Applied Pavement Technology, Inc. (APTech)*

*April 12, 2010*

*GIS-T 2010*

*Charleston, West Virginia*

# Setting the Stage

- Strong interest in applying GIS and geospatial technology to asset management
- Moving forward has been a challenge
- 2005 Peer Exchange
  - Managing change
  - Data Integration
  - Communication



# Peer Exchange Objectives

- Advance the use of GIS and geospatial technology for asset management applications
  - Recognize changes since the 2005 peer exchange
  - Determine asset management needs
  - Identify existing gaps between needs and capabilities

# Planning Committee

- Katie Zimmerman, APTech
- James Hall, University of Illinois Springfield
- Terry Bills, ESRI
- Coco Briseno, Caltrans
- Chris Chang, FHWA
- Jeff Price, VDOT
- Mark Sarmiento, FHWA
- Omar Smadi, CTRE
- Tom Palmerlee, TRB

# Participating Agencies

- Participating Agencies

Caltrans

Iowa

New Jersey

Ohio

Virginia

Washington

West Virginia

- Invited representatives from Asset Management, GIS , IT, Maintenance & Operations, Data

# Pre-Peer Activities

- Preliminary Questionnaire
  - Summary of current practice
  - Used to identify areas of focus
- Follow-up Questionnaire
  - Investigated select areas in more detail
    - Agency needs
    - Data requirements
    - Organizational challenges
    - Resources

# Peer Exchange Activities

- Peer Exchange held April 11, 2010
- Peer Exchange Format
  - Panel Discussions
    - Agency Needs
    - Data Requirements
    - Organizational Challenges
  - Breakout Sessions
  - Presentations & Next Steps

# Recommendations – Agency Needs

1. Cross asset decision support within GIS
2. Developing risk-based approaches to asset management using GIS technology
3. Best practice in communicating spatial information with executives & the public
4. Developing data and systems to support operations management
5. Functionality needed for safety analysis



# Recommendations – Data Requirements

1. ROI of good data management
2. Critical components of good data management for asset management
3. Best practices in using GIS for asset management, including other industries

# Recommendations – Organizational Challenges

1. Methods to quantify ROI
2. Synthesis on openness of data & legal/tort statutes leading to research on organizational risk & data transparency
3. Methods to cross livability data and assessment needs with asset management

# Recommendations – Organizational Challenges (cont)

4. Methods to reduce redundancy & project redos through better planning
5. Feasibility of assigning “asset managers” for the lifecycle of a project
6. Methods of incorporating innovations and information sharing into transportation agencies

# Expected Products

- Research Recommendations
- Electronic Circular (E-Circular)
  - Questionnaire responses
  - Recommendations
  - Research needs statements
- Others?
  - Webconferences
  - TRB Session

# Promotion of Recommendations

- AASHTO Committees & Subcommittees
  - Standing Committee on Research
  - Asset Management Subcommittee
  - Others
- TRB Committees
- FHWA

# Closing Thoughts

- The Peer Exchange provided:
  - An opportunity for practitioners to learn about practices in other agencies
  - Networking
  - Specific recommendations for advancing the use of geospatial technologies in asset management