No Boundaries Benefits

AASHTO Sub-Committee on Maintenance
July, 2016
Clark County, NV

Thomas M. Lyden, P.E. - Ohio DOT
Steven J. Cook, P.E. - Michigan DOT
Rebeecca D. Allmeroth, P.E. - Missouri DOT
Today’s Presentation

• Benefits
• Purpose
• History
• Participating States
• Innovations
  - Missouri DOT
  - Michigan DOT
• How to Participate
Why No Boundaries?

• Share New and Better
  - Equipment
  - Materials
  - Procedures

• Networking and Collaboration with other DOT’s

• Clearing House for Process and Products
  - What works
  - What doesn’t work
  - What needs more investigation
Benefits (con’t)

• Consistent Maintenance Activities among DOT’s

• Alignment on Policies, Procedures, and Specifications
  - Performance Based Maintenance
  - Transportation Asset Management
  - Shared Research (statements and outcomes)

• Face-to-Face Meetings
  - Showcase Home State Innovations and Technologies

• Cost Effective
  - Minimize Duplication of Effort
Purpose

- The No Boundaries pooled fund project (#TPF-5(330))
  - A community of practice for roadway maintenance professionals
  - Focuses on identifying innovative technologies and practices used by state DOTs
  - Promote their use by other states through marketing materials, training classes, webinars and other technology transfer efforts
- Compliments SCOM Peer Discussions and Relationships
- Focus on Spring/Summer/Fall Maintenance Needs
History

- Began in 2011
  - Developing Relationships with Fellow DOT member States
  - Build Synergy to address common challenges among DOTs
  - No Sense in Reinventing the Wheel
  - Share “home grown” & “off the shelf practices” that work

- Eight (8) Member States

- Missouri was the lead state from 2011-2015
Where We Are Today

- Ohio DOT became lead state in 2015
- Hired CTC & Associates as Contract Pooled Fund Administrator
- Twelve (12) member states
- Expanded Focus Area to include:
  - Asset Management
  - Maintenance Management
Current Members

- Centennial FDOT
- North Dakota Department of Transportation
- Illinois Department of Transportation
- Pennsylvania Department of Transportation
- New York State Department of Transportation
- Washington State Department of Transportation
- Michigan Department of Transportation
- Ohio Department of Transportation
- Virginia Department of Transportation
- Missouri Department of Transportation
Equipment & Materials

- Advanced Control System for herbicide application
- Concrete Deck Repair Trailer
- Epoxy Injection of Bridge Decks
- LED Panic Lights
- Truck Mounted Lifting Device
Asset Management

- Mobile Terrestrial Laser Scanning
- Unmanned Aerial Vehicles for Asset Monitoring
- KYDOT Lessons Learned in Data Collection, Capture and Usage
Maintenance Management

- CalTrans Maintenance Leadership Academy
- Beautifying Georgia - One Tire at a Time
Recent Innovations Implemented

• Recent Ohio Innovation Implemented in Missouri:
  - Telescoping Tree Trimmer Program
    ▪ Removing the canopy from the roadsides improves visibility and provides daylight to melt snow in the winter.
    ▪ Video of operation
Recent Innovations Implemented

• Recent Missouri Innovation Implemented in Ohio:
  - Audible TMA with Panic Lights
    ▪ The purpose of the Audible TMA is to alert drivers in a workzone and prevent the potential of a vehicle crash.
    ▪ Link to Audible TMA with Panic Lights
Present Spray Equipment - Automatic Flow Control/AVL

Present Process - Automated Flow Control

Present Process - Controller w/AVL
Benefits of Spray Truck AVL Technology

• Electronic record keeping
• GPS mapping capabilities (do not SPRAY areas pre mapped)
• Daily spray logs are sent electronically to a common server from the cab of the truck
• Operator cannot advance in creating a log without all pertinent information filled
• Touch screen technology that allows common information to be saved which increases operator efficiency
• System has the ability to sort information for annual reporting needs - NPDES (National Pollutant Discharge Elimination System) - final product is in Excel format
Invasive Species Collector App

- Uses a line for mapping
- Depth of stand is entered in field
- Crews know where to go to target invasives and what products they will need to mix for treatment
- Over time eradication or spread can be measured
- Data integrates with AVL Spray truck pilot
Performance Base Maintenance (PBM) in Roadside Contracts

- Payments based on an outcome based evaluation
- Provides a consistent level of service and rating system
- Potential for “weeding out” contractors providing poor quality work
Roadside Park Building

- 50 year life, $20K single & $35K double
- Set and ready to use in 6 hours
- Minimal maintenance requirements
- Aesthetically pleasing
How to Participate

- Transportation Pooled Fund - TPF-5 (330)
- State Planning & Research (SPR) Funds
- Annual $10,000 Contribution
  - Travel to TAC meetings
  - Communication and Training Materials
  - Quarterly Conference Calls and Information Sharing
- Kim.Linsenmayer@ctcandassociates.com