Montana Demographics

• State Highway System Description
  o 11,357 Total Centerline Miles (not including gravel)

• Construction Program
  o Average # Annual Projects: 100 – 120
  o Budget
    • Avg Total Annual Letting: ~$350M (CN $ only)
    • Pavement Preservation: $48M in 2015

• Pavement Preservation Treatments
  o Seal and Cover
  o Overlay
  o Mill – Fill
  o Microsurfacing
  o In-Place Recycle
State Animal

- Is: Grizzly Bear

- Should Be: Bobcat
In-Place Methods

- Pulverizing (FDR)
- Cold In-Place
- Hot In-Place
Pulverizing

- MDT’s most common in-place recycle method
- 72 projects, beginning in mid 90’s
  - 25 in the past 5 years
  - 10 stabilized with cement
- Design standards greatly limit when we pulverize
  - Primarily road width restrictions & existing pavement thickness
- Spec states that final product has max 50% PMS
Cold In-Place

- 16 projects
  - 6 in the past 5 years

- Cracking Concerns
  - Reflective cracking – sometimes immediate, sometimes not
  - When immediate, it leaves us wondering

- Currently – Always overlay over a CIPR
  - Is CIPR beneficial at this point (compared to a mill-fill?)
Hot In-Place Recycle

• 2 Projects, ~ 20 years ago
• 2013, MDT met with Pave Over to discuss HIPR
• 2014, MDT with Dustrol and Gallagher Asphalt
• 2014, MDT Maintenance Division has potential candidate
  o Moving forward with HIPR, but as an Alternate
How is it Working?

• Pulverize
  o Good/Continued success
  o Need proper project, quality survey
  o Biggest C.O. history of MDT was a pulverization project
  o Formed Subgrade Stabilization Team (creating formal process)

• CIPR
  o Varied success
  o Must question if it’s worthwhile and cost effective
  o Mill/Fill will produce a smoother ride and isn’t much more expensive
  o Increased risk to MDT

• HIPR
  o Minimal experience
  o Learning more about it
  o Need a successful project to help “sell the process”
  o Maintenance likely moving forward with bidding alternate