



# Emulsion Task Force (ETF)

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# Background on PPETG

- Established in 1991 – (Jim Sorenson of FHWA)
- Promote the institutionalization of the concepts of pavement preservation
- Parent group of **“Emulsion Task Force”**

# Mission of PPETG

The **FHWA PPETG** will advance and improve the state of the practice in the area of **pavement preservation** by working collaboratively with:

- Federal
- State
- Local Agencies
- Industry
- Academia

# Goals of PPETG

- Pavement preservation **acceptance** and **implementation** by Agencies
- **Support preservation programs** at the federal, state, and local levels
- Identify and **address stakeholder needs**
- **Support preservation centers** for excellence/regional organizations
- **Integrate** pavement preservation into pavement management / asset management

# Working Agenda

- Advocate the **implementation** of Pavement Preservation
- Expand **Training and Certification** Efforts
- In Conjunction with the Pavement Preservation Road Map Advance Pavement Preservation **Research**
- Examine **Impacts of New Policies** on Pavement Preservation Implementation

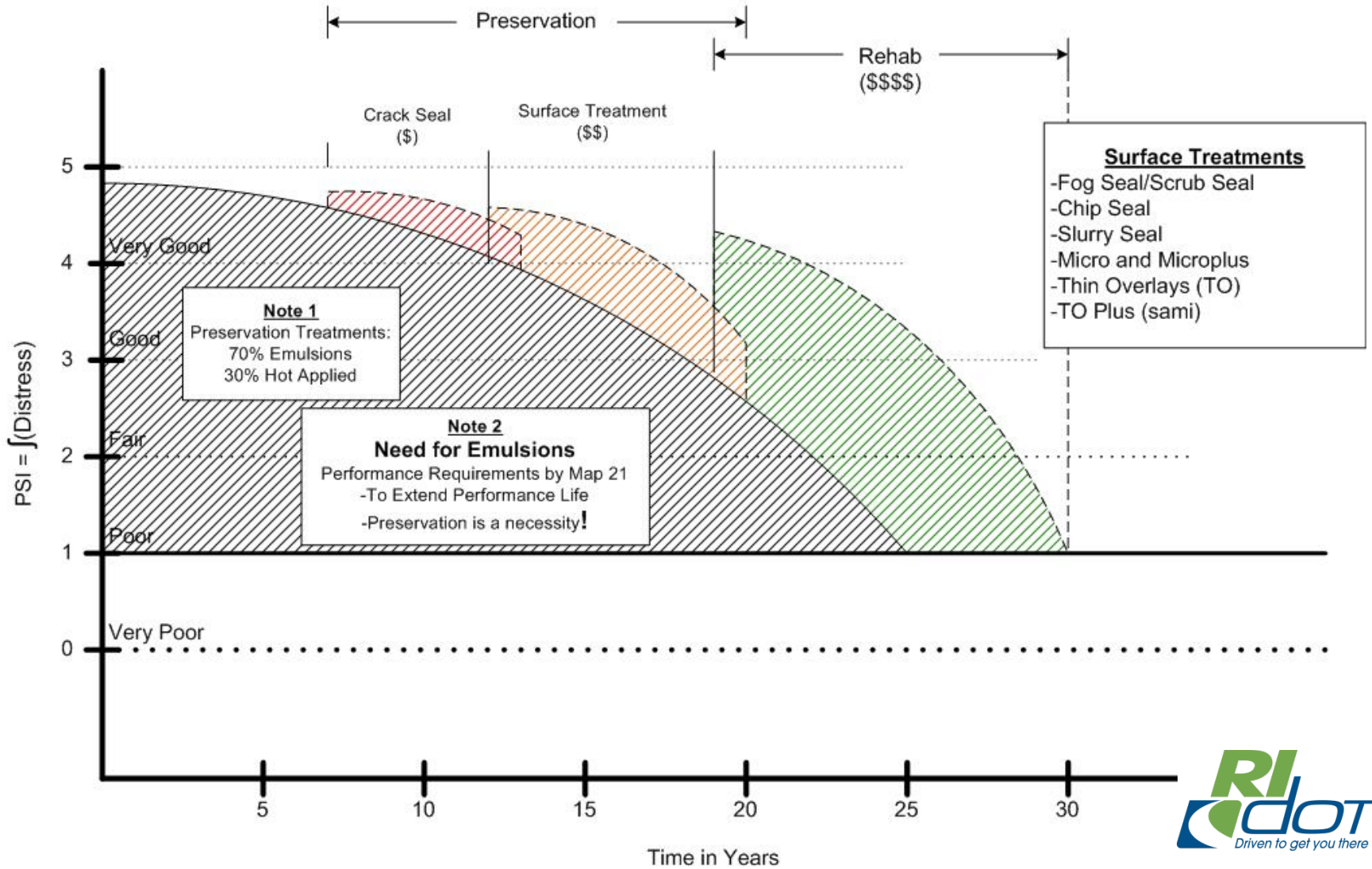
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## Working Agenda (cont.)

- **Endorse Advancement** of New Treatments and Technologies in Pavement Preservation
- **Sanction** and Support **Emulsion Task Force Efforts**

Note: MAP21 – Recognizes Pavement Preservation

## PERFORMANCE ENHANCEMENT THROUGH PAVEMENT PRESERVATION



# PPETG Emulsion Task Force

(ETF)



## Original Mandate

### 1) *Advance the Effort to Develop Performance Based Methods & Specification for Emulsions (SPG)*

- **Protocols for design**
- **Protocols for performance**
- **Protocols for inspection & acceptance**

### 2) *Encourage Adoption of Uniform National Standards*

- **AASHTO**
- **FHWA**

# Current Membership (2013 – Present)

**Co-Chair- Chris Lubbers - Kraton Polymers**

**Co-Chair- Colin Franco RI DoT, TSP2,  
PPETG, SOMtrls, RRAC, SHRP2, LTPP**

## **Members From:**

- Industry: AEMA/ ARRA/ ISSA**
- Academia: CSU/ Tx A&M/ U.WISC/ NC State**
- State DOT's: TX, IA, RI, LA, MN**
- FHWA**
- National Center PP (NCP)**

# Current Subcommittees (2013 – Present)

## 1. Residue Recovery and Testing

- Arlis Kadrmas (Chair)                      BASF - AEMA

## 2. Design Group

- **Spray** – Gary Hicks (Co-chair) - CSU
- **Mix** – Jim Moulthrop (Co-chair) - Fugro FP2

## 3. Supplier Certification and Quality Assurance

- Todd Shields (Chair) – IN DOT

## 4. Recycling Emulsions

- Todd Thomas (Chair) – COLAS/ARRA

## 5. Research

- Darren Hazlett (Chair) – TxDOT

- ❖ **SWG (Special Working Group)** – Coord. the emulsion binder specifications among all the subcommittees/among treatments

## Added Tasks (2013 – Present)

- ✓ **Develop Performance Specifications and Design Standards** for Adoption by AASHTO for All Emulsion Treatments and Uses in Pavement
- ✓ Work with the PPETG to **Facilitate Adoption of Emulsion Treatments** in Pavement Preservation

## Accomplishments – Pre 2013

- Low Temperature Recovery Method
  - Plan for Interlab Study and data collection (ongoing)  
PP 72
  - Precision and bias study with AMRL for TP 72

# ETF Reenergized Mission - 2013

- \*
  - 1) Advance the Effort to Develop Performance Based Methods & Specification for Emulsions
  - 2) Encourage Adoption of Uniform National Standards
    - Develop AASHTO STDs for all the Emulsion Treatments (listed on next slide)
      - a) Material Specs
      - b) Design Practices
      - c) Construction Guide Specs

\*Note: The original mandate was not forgotten.

# ETF Reenergized Mission - 2013

## Emulsion Treatments Requiring AASHTO Stds

1. Chip Seal
2. Micro surfacing
3. Tack Coat
4. Fog Seal
- 5. Scrub**
- 6. Sand Seal**
7. Slurry Seal
- 8. Foam Asphalt Stabilization**
- 9. Bonded Surface Treatment (NOVA Chip)**
10. Cold Mixes
  - » **Virgin**
  - » **Recycled**
  - » CIR

## Accomplishments - 2014 / 2015 (cont.)

### Emulsion Binder Specifications

- M 140 – Revised to 2014 (At AASHTO SOM)
- M 208 – Revised to 2014 (At AASHTO SOM)
- M 316 – Revised to 2014 (At AASHTO SOM)



# Accomplishments - 2014 / 2015

## Micro-surfacing

- Micro Surfacing Design (At AASHTO SOM)
- Materials for Micro Surfacing (At AASHTO SOM)
- Construction Guide Spec (CGS) AASHTO/FHWA?
- Best Practices - Forward to FHWA

# Accomplishments - 2014 / 2015 (cont.)

## Chip Seal

- Emulsified Asphalt Chip Seal Design Practice (At AASHTO SOM)
- Materials for Emulsified Asphalt Chip Seal (At AASHTO SOM)
- Construction Guide Spec (CGS) AASHTO/FHWA?
- Best Practices – Forward to FHWA

# Accomplishments - 2014 / 2015 (cont.)

## Slurry Seals

- Design Specifications – Forward to AASHTO
- Design Practice – Forward to AASHTO
- Construction guide specs – In Progress
- Best Practices – In Progress

# Accomplishments - 2014 / 2015 (cont.)

## Fog Seals

- Design Specification – Forward to AASHTO SOM
- Design Practice – Forward to AASHTO SOM
- Construction guide specs – In Progress
- Best Practices – In Progress

# Accomplishments - 2014 / 2015 (cont.)

## CIR with Emulsion

- Design Specifications – Forward to AASHTO SOM
- Design Practice – Forward to AASHTO SOM
- Construction guide specs – In Progress
- Best Practices – In Progress

# Next Steps

## Short Term Plan

- Complete drafting of AASHTO Stds for Emulsion treatments
- QA Protocols for Emulsion treatments starting with microsurface and chip seals
- Research
  - Studies
  - Update Roadmap

## Next Steps (cont.)

### Long term Plans

- Promoting Emulsion Technologies through PPETG
- Large Scale Studies / Research
  - NCHRP
  - Pooled Fund
- QA Protocols for Emulsion Treatments
- **Develop a SPG Specification for Emulsion Using Superpave Principles. (Original Mandate)**

# QA Protocols – Emulsion 2015

## 1) National Accepted Standards:

- Specs (Performance Specs)
- Practices (Design Methods)
- Construction Guide Specs

## 2) Materials QA:

- Acceptance Testing (Agency)
- QC - Quality Control (Contractor)
- IA - Independent Assurance (Agency)
- New Process / Product Acceptance Procedures

## 3) Materials Certification:

- Agency Acceptance Plans
- QC Plans (Contractor)
- Vendor Supplied Material Certifications



## QA Protocols – (Cont.)

### 4) Education and Training:

- Define the training needs for Agency / Contactor Staff
- Education and Training Resources
  - NHI
  - TCCC
  - Industry Sponsored Training
- Certification Program for Contractor Agency Field Staff
  - National Center for Pavement Preservation

# Questions

