# **WFCA**

# Forest Road Surfacing Basic Design Principles and Applied Practices



November 8-9, 2018 · Coeur d'Alene, ID



# Forest Road Surfacing Basic Design Principles and Applied Practices

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# Workshop Agenda - Nov. 8, 2018

8:30 am

**DAY ONE** 

Introduction, Expectations, and Workshop Overview

10:00 am

# **Common Road Surfacing Issues**

- The What, Where, and When Factors: Geology, Soils, Aggregate, Road Prism and Maintenance.
- How They Make a Difference in Costs, Water Quality and Safety.

# 9:30 am Break

## 10:00 am

# **Soils Engineering – Relating Basic Properties to Road Surface Design**

- Subgrade
- Soil Classification
- Soil Moisture Content and Density

# 12:00 pm Lunch (included with registration)

# 1:00 pm

# Soils Engineering – Relating Mechanical Properties to Road Surface Design

- Potential Soil Strength vs. Actual Soil Strength
- Geosynthetics
- Subgrade Stabilization

# 2:30 pm Break

3:00 pm

# **How to Access Local Rock Sources**

- *Geology Considerations*
- Rock Source Suitability
- Rock Classification Methods
- Aggregate Production and Development

## 4:00 pm

# Summary and Q&A

5:00 pm Adjourn

# Workshop Agenda – Nov 9, 2018

8:00 am

**DAY TWO** 

# Does the Rock Meet My Needs?

- Gradation
- Durability
- Dust Abatement
- Recycling Aggregate
- Use of RAP

### 9:30 am Break

10:00 am

# **Commonly Used Aggregate Design Methods**

- AASHTO 1993 Rut Equation
- USDA Forest Service STP
- OR Dept. of Forestry Surfacing Guidance
- Using What Has Worked in the Past

# **12:00 pm** Lunch (included with registration)

### 1:00 pm

# **Surfacing Design Example Problems**

- Year-round Haul
- · Seasonal Haul
- · Restricted Haul

# 2:30 pm Break

3:00 pm

# Road Surfacing BMPs and Sediment Reduction

- Mechanics of Sediment Production from Forest Roads
- Mitigating Surfacing Erosion
- BMPs

### 4:00 pm

# Summary and Q&A

4:30 pm Adjourn

# Road Surfacing Principles & Practices



# **About the Speaker**

**René Renteria** is a civil/geotechnical engineer with over 30 years of experience in pavement and geotechnical engineering, with the USDA Forest Service and including 10 years with the Oregon DOT. His current responsibilities include pavement and materials engineering for both paved and unpaved roads on the national forests in Oregon, Washington, and Alaska.

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# **Workshop Location**

The session will be held at the Coeur d'Alene Resort at 115 S 2nd St, Coeur d'Alene, ID.

# **Lodging Information**

Reduced rate lodging is available at the Coeur d'Alene Re sort by calling (208) 209-5031 and mentioning Road Surface Workshop.

# Registration

The registration fee is \$325 if received by either 11/1 or \$395 if received after 11/1. The registration fee includes a book of speaker materials, lunch and refreshments. Checks should be made payable to Western Forestry and Conservation Association. Purchase orders, VISA/MasterCard, and Ameri can Express are accepted. Tax id # 930-331-712. No refunds for cancellations within 1 week of either session, but substitutions are always welcome.

# **Society of American CFE Credits**

By attending either workshop, participants will be eligible for CFE credits through the Society of American Foresters.

# **Registration questions?**

Call Melinda at (503) 226-4562 or melinda@westernforestry.org

Western Forestry and Conservation Association 4033 SW Canyon Rd., Portland, OR 97221 503-226-4562 • Fax: 503-226-2515

# Register online at westernforestry.org

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