COLORADO
Department of Transportation

Floyd Hill Design // CMGC
Technical Team

May 19, 2023

1. Introductions & Agenda Review
2. Project Updates
3. Maintenance Presentation & Discussion
4. Wrap Up & Next Steps

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Meeting Agenda

May 19, 2023

Project Updates

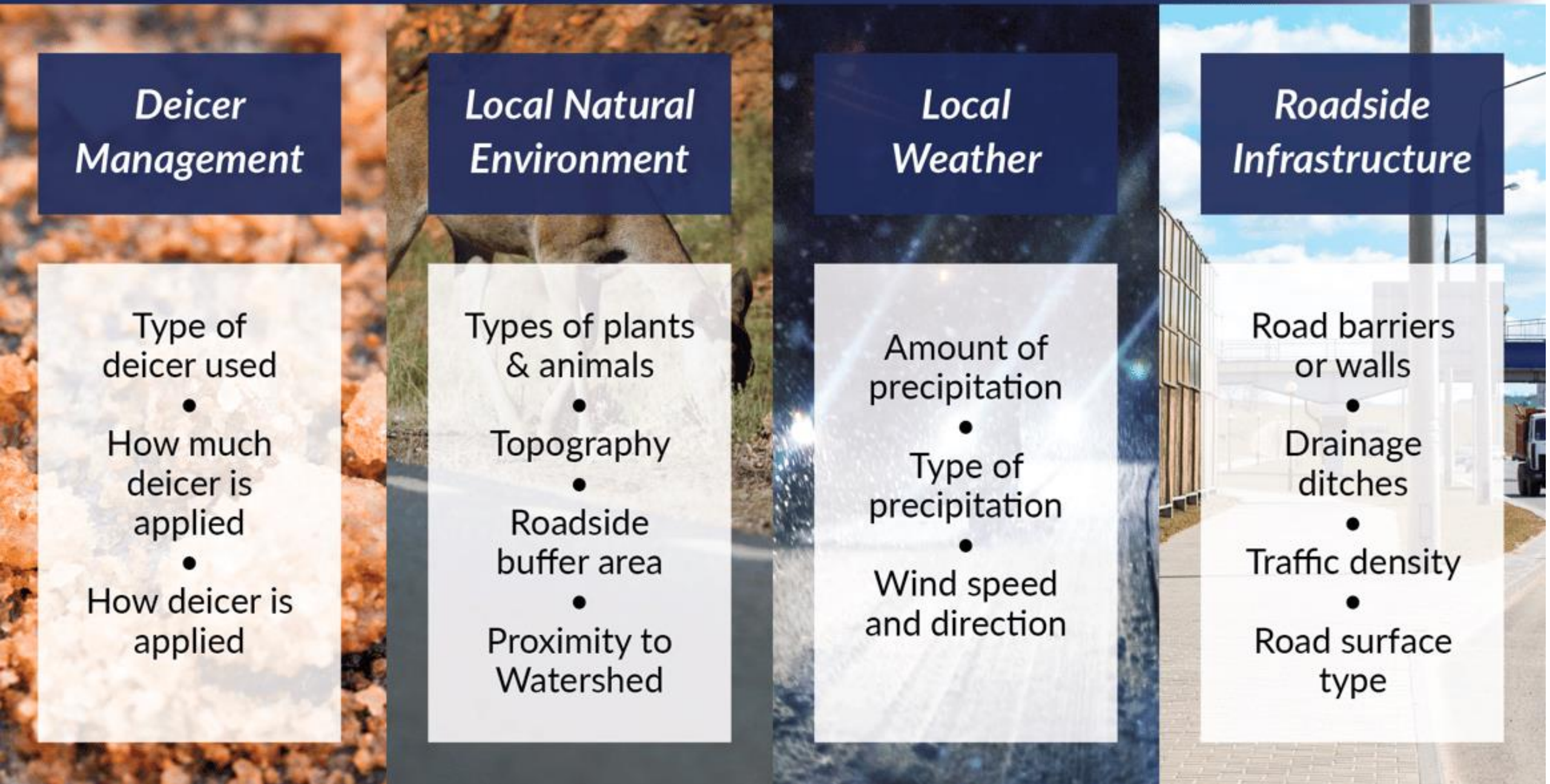
- Early Projects
- Environmental Updates
- Utilities
- Other Updates?

Maintenance

Main Topics:

- Winter Maintenance Practices
- Deicer Products and Environmental Impacts
- CSS Processes and Collaboration

WHAT INFLUENCES DEICER ENVIRONMENTAL IMPACT?



Deicer Management

Type of deicer used
•
How much deicer is applied
•
How deicer is applied

Local Natural Environment

Types of plants & animals
•
Topography
•
Roadside buffer area
•
Proximity to Watershed

Local Weather

Amount of precipitation
•
Type of precipitation
•
Wind speed and direction

Roadside Infrastructure

Road barriers or walls
•
Drainage ditches
•
Traffic density
•
Road surface type

HOW CAN DEICERS ENTER THE ENVIRONMENT?

Reduce deicing environmental impact by using a naturally high performing deicer that gives you more power with less product

ICE SLICER

A TRUE COMPLEX CHLORIDE

Twice the Complex Chlorides of Treated Salt Naturally

Naturally Occurring Complex Chlorides

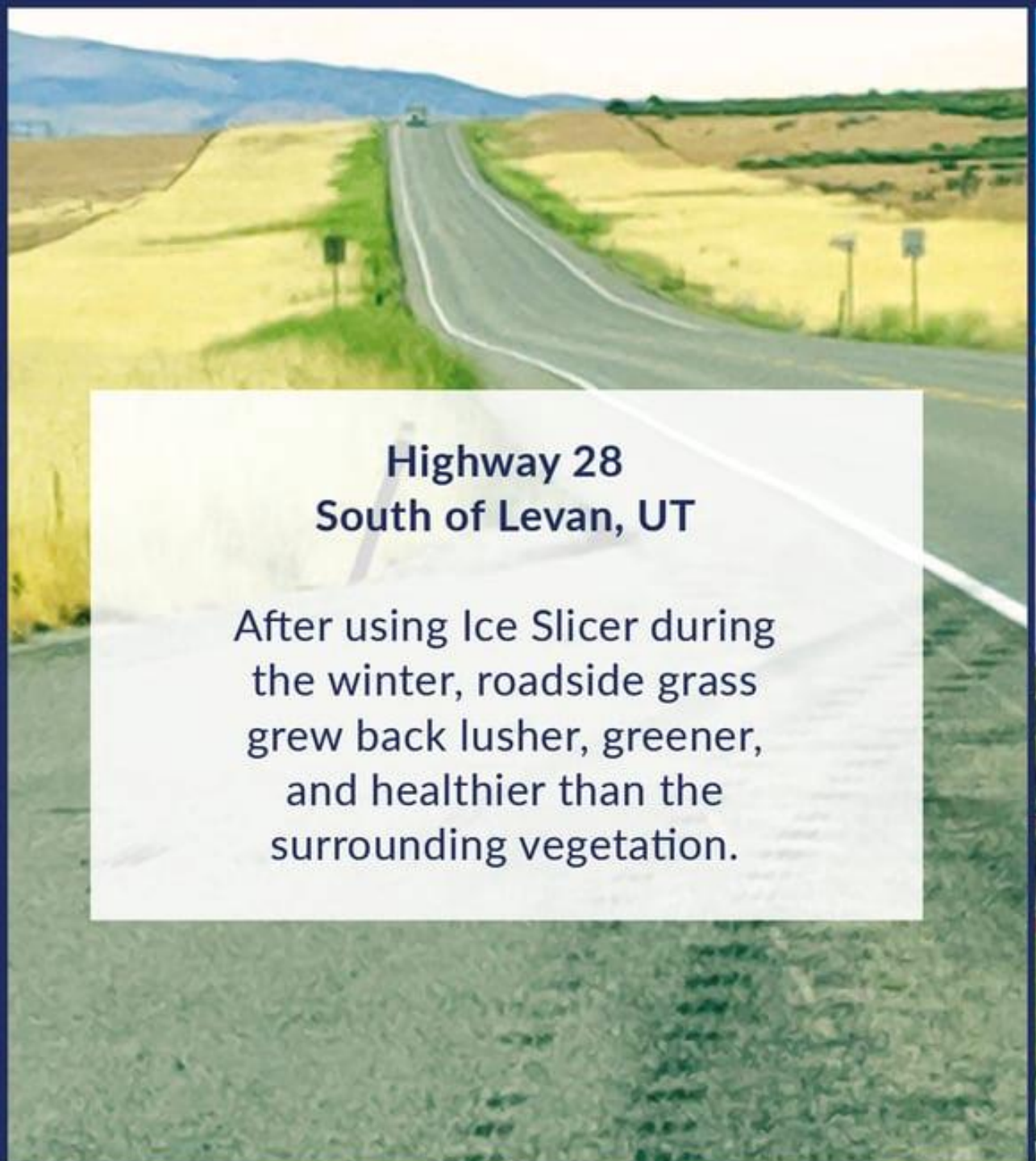
Ice Slicer has the equivalent of over 9 gallons per ton of liquid Calcium Chloride, and over 4 gallons of Magnesium Chloride. Treated salt would need over 14 gallons of liquid to get what Ice Slicer has naturally.

Double The Enhanced Chlorides

The Benefits to Enhanced Chlorides

Adding enhanced liquid chlorides to salt can improve a product's performance. It also comes with some challenges. Salt isn't great at holding liquids, so you often have messy equipment and you can lose a lot of the product through leaching.

All the Benefits without the Problems



Highway 28
South of Levan, UT

After using Ice Slicer during the winter, roadside grass grew back lusher, greener, and healthier than the surrounding vegetation.

Temple Square
Salt Lake City, UT

Before Ice Slicer: Replaced 9 pallets of grass and 1/3 of the plants due to deicer damage.

After Ice Slicer: Replaced 0 pallets of grass and very few plants due to deicer damage

PUBLIC SAFETY

ENVIRONMENTAL SAFETY

Ice Slicer Improves Road Safety And Protects All 4 Environmental Categories

Reduces accidents by restoring traction faster than white salt

Lasts longer on road surface to reduce re-freezing

Covers more lane miles than white salt and salt/sand mixtures

Natural red hue makes it easier to see where it has been applied

60+ trace minerals to buffer effects of chlorides and nourish plant life

Eliminates need for dusty road aggregates, reduces PM pollution

Minimal effect on biochemical O_2 demand, does not clog waterways

No added chemicals and dyes to harm wildlife

ICE SLICER®

- ✓ 60 + naturally occurring minerals
- ✓ Soil enriching nutrients
- ✓ Environmentally safe

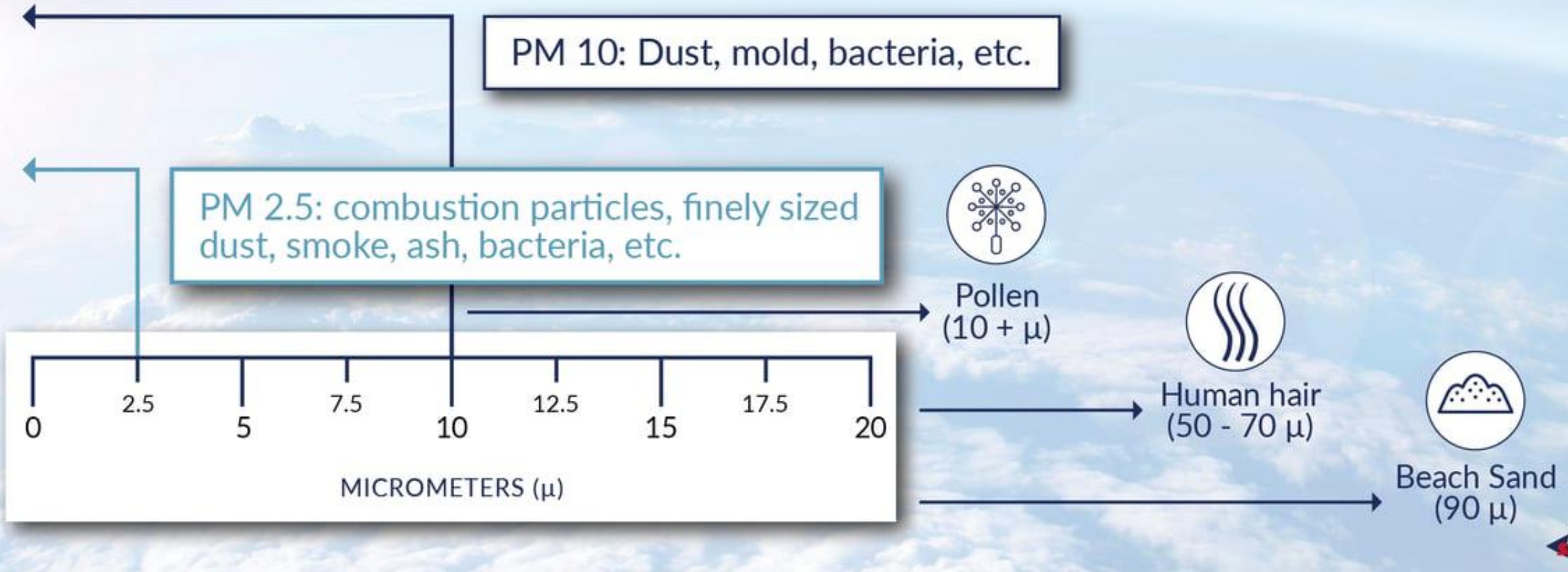
Roadside vegetation after a winter of using Ice Slicer®

PM 2.5 VS PM 10

PARTICULATE MATTER IS MEASURED IN MICROMETERS (μ)

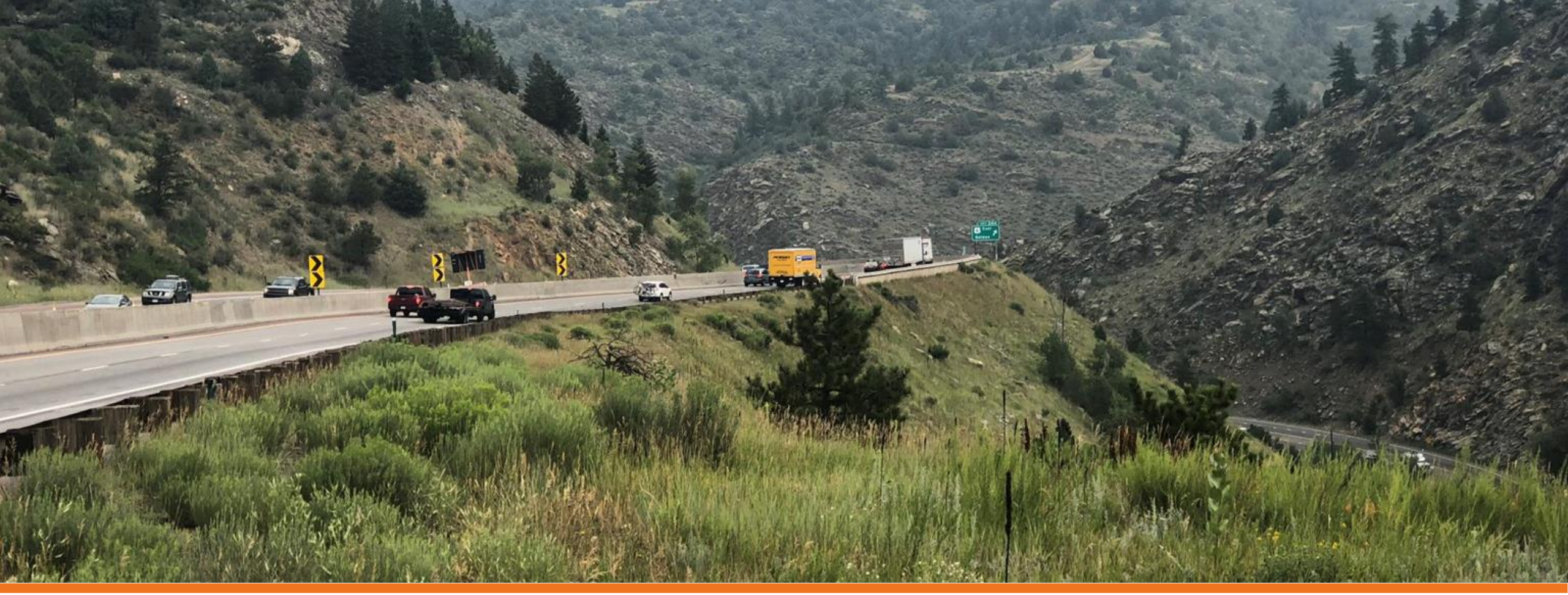
PM 10 = solid an liquid matter that is **10 μ** or less (includes PM 2.5)

PM 2.5 = solid and liquid matter that is **2.5 μ** or less



Upcoming Topics

- Greenway Site Visit: Wednesday, June 14th
- Next TT: West Section Key Issues
- Action Items
- Final Thoughts



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Thank You!

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