

Washington State Department of Transportation Advanced Snowplow Project



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Why Change.....



- Reduce Collisions and Tort Liability
 - Efficiently dispatch resources to the most critical locations
 - Documentation of snow and ice control measures including
 - Location and times of snowplowing activities
 - What chemicals we are placing, where and when

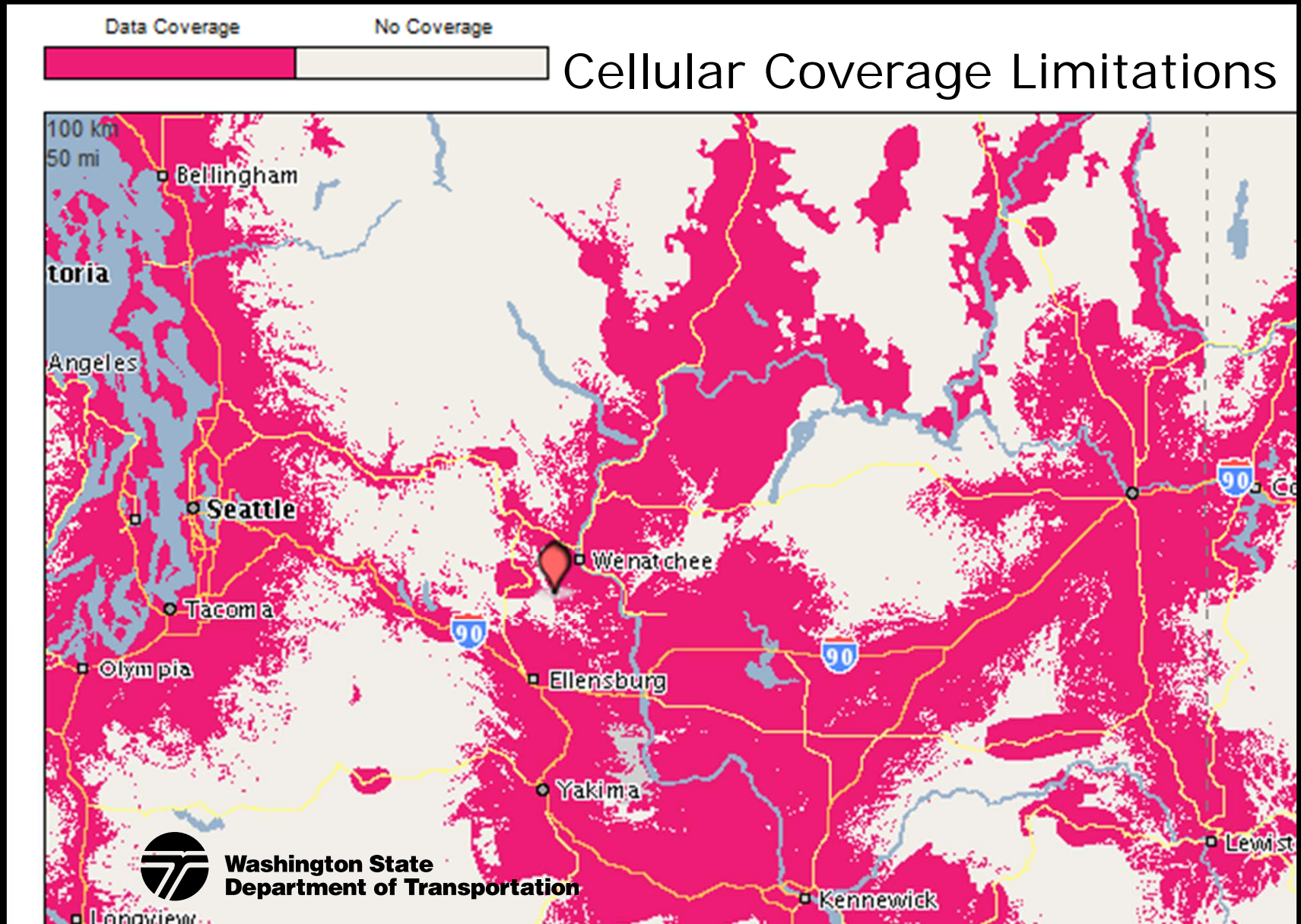
Development....

- Communication Strategies
 - Limited cellular network coverage
 - Radio Network possibilities
- Equipment Interfaces
 - Utilize existing precision application controllers
 - Operator Inputs
- Statewide Mapping
 - Data stewardship (WSDOT wanted ownership of its data)

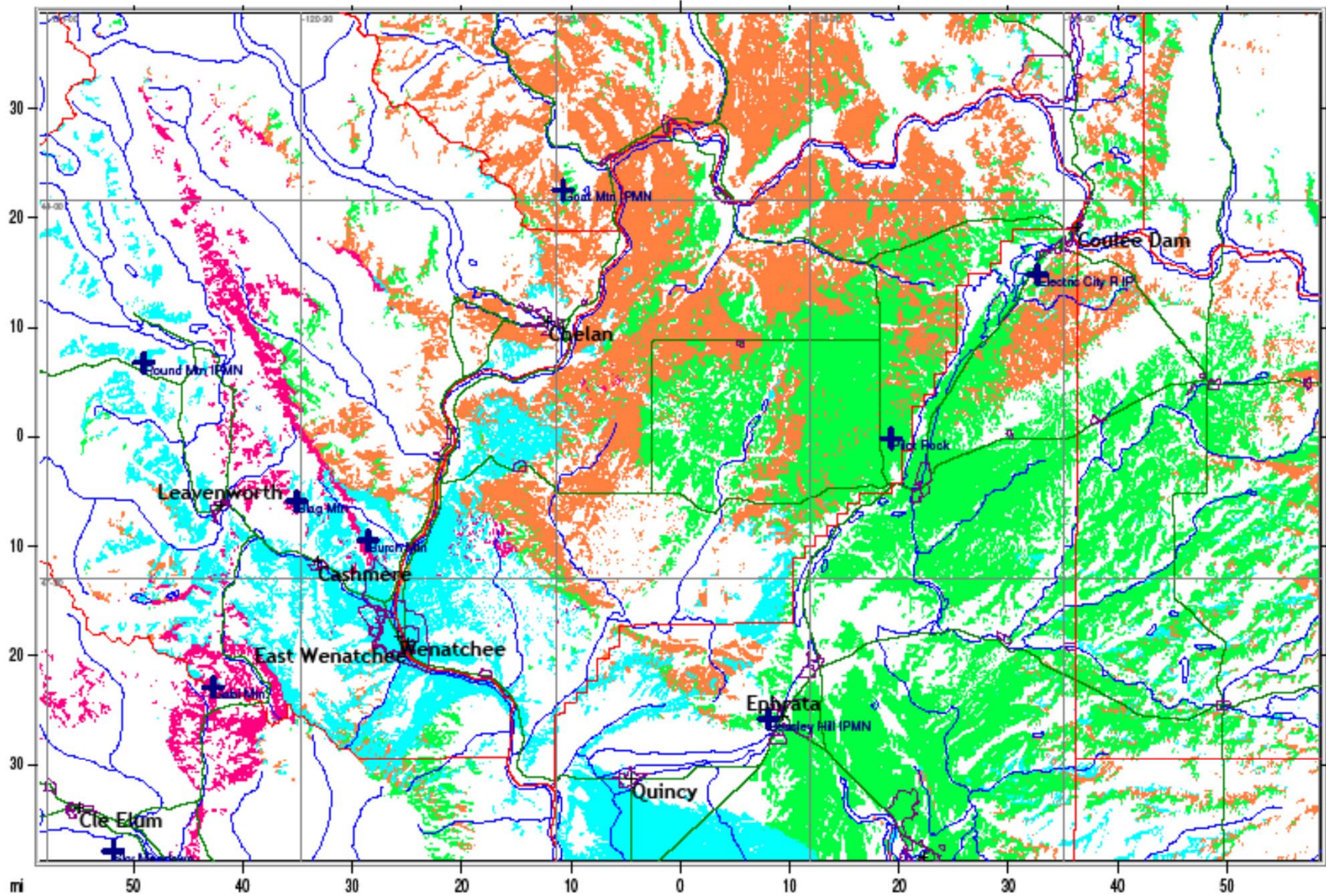


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Communications



Gabi, Burch, Goat and Pilot Rock



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700 Mhz IP Radio Coverage

Gabi - Burch
Goat - Pilot Rock

County Borders City Borders Highways Water Features Lat/Long Grid

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Equipment Interfaces.....

Precision Application Controllers.....



Equipment Interfaces.....

Operator Input Devices.....

Weather conditions: **Clear**

Road conditions: **Bare & Dry**

Work operations #1: **Snow blower**

Work operations #2: **Outer shoulder**

0 inches

Load liquid

CMA

route 1

Accumulation
Selection

Material
Action

Material
Selection

Route #
Selection

Operator
Logged OUT

Work codes
Selection #1

Work codes
Selection #2

Weather
Selection

Road cond.
Selection Next

F1

F2

F3

F4

F5

←

A

B

C

D

≡

Equipment Interfaces.....

Road and Ambient Temperature Data.....



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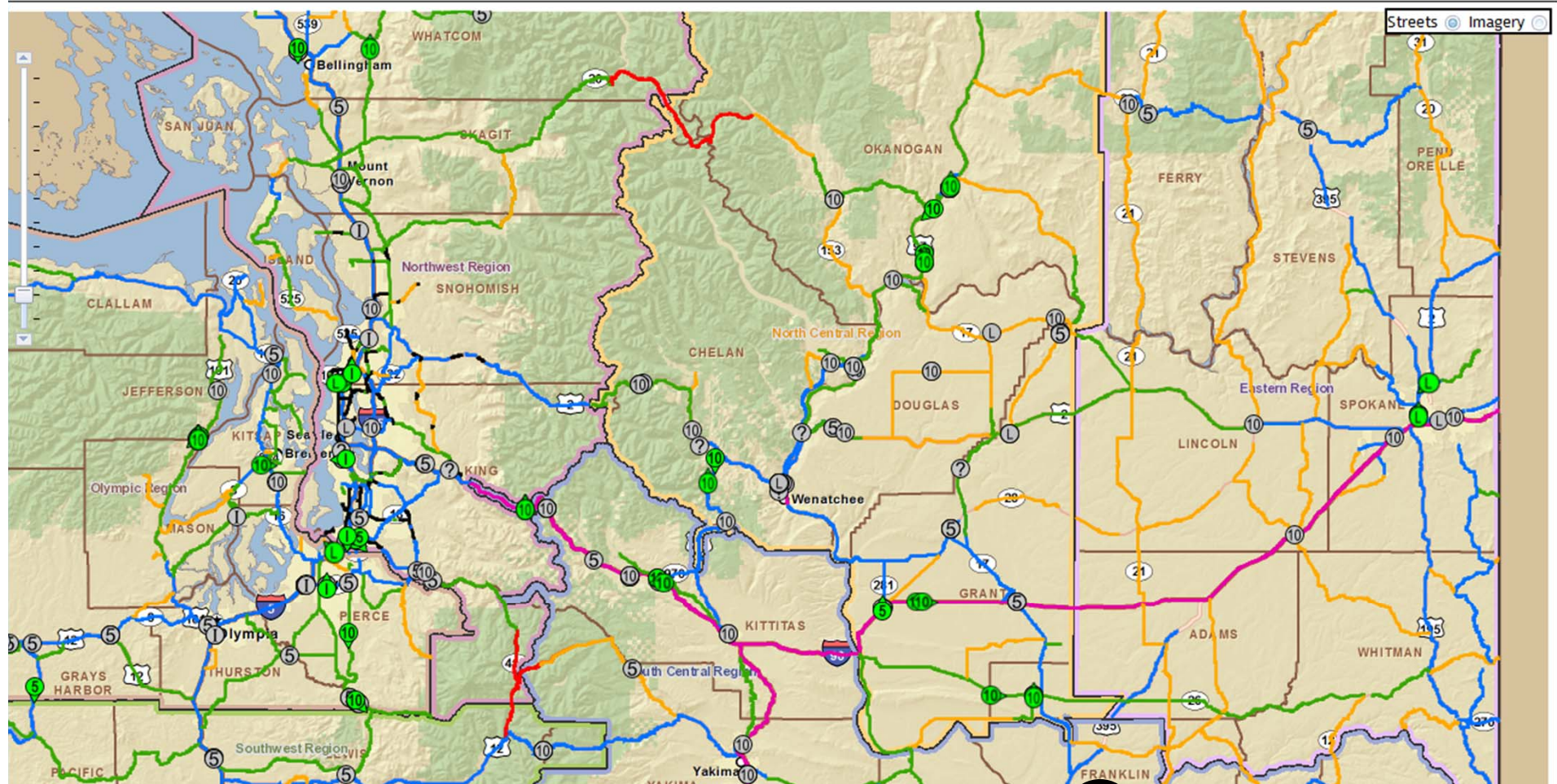


Statewide Mapping...

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OPERATIONS

Layers Time Frame View: Tools Reports Help



WSDOT 08B86-038
2011/08/09 02:18:51 PM

Radio Call: N/A
Driver ID: N/A

Road Condition: N/A
Road Temperature: 98.000 °F

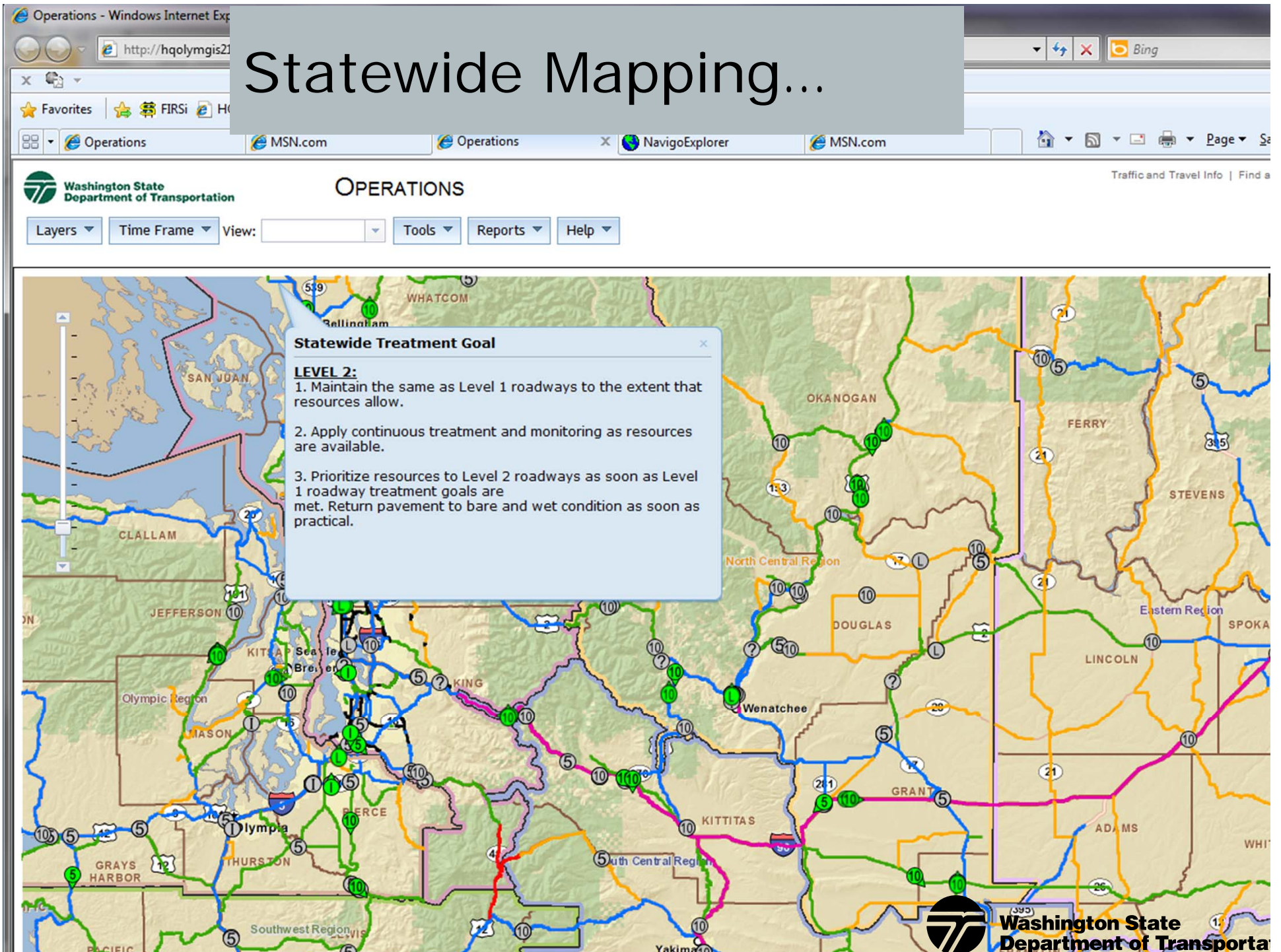


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Local intranet | Protected Mode: Off

100%

Statewide Mapping...



Challenges –

- Finding a vendor who could meet our requirements
- Agency Purchasing Rules
 - IT vs ITS components
 - IT related contract requirements
- Employee Acceptance
- Lines of Demarcation
 - Maintenance
 - Mechanics
 - IT Services



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Finding a vendor who could meet our requirements



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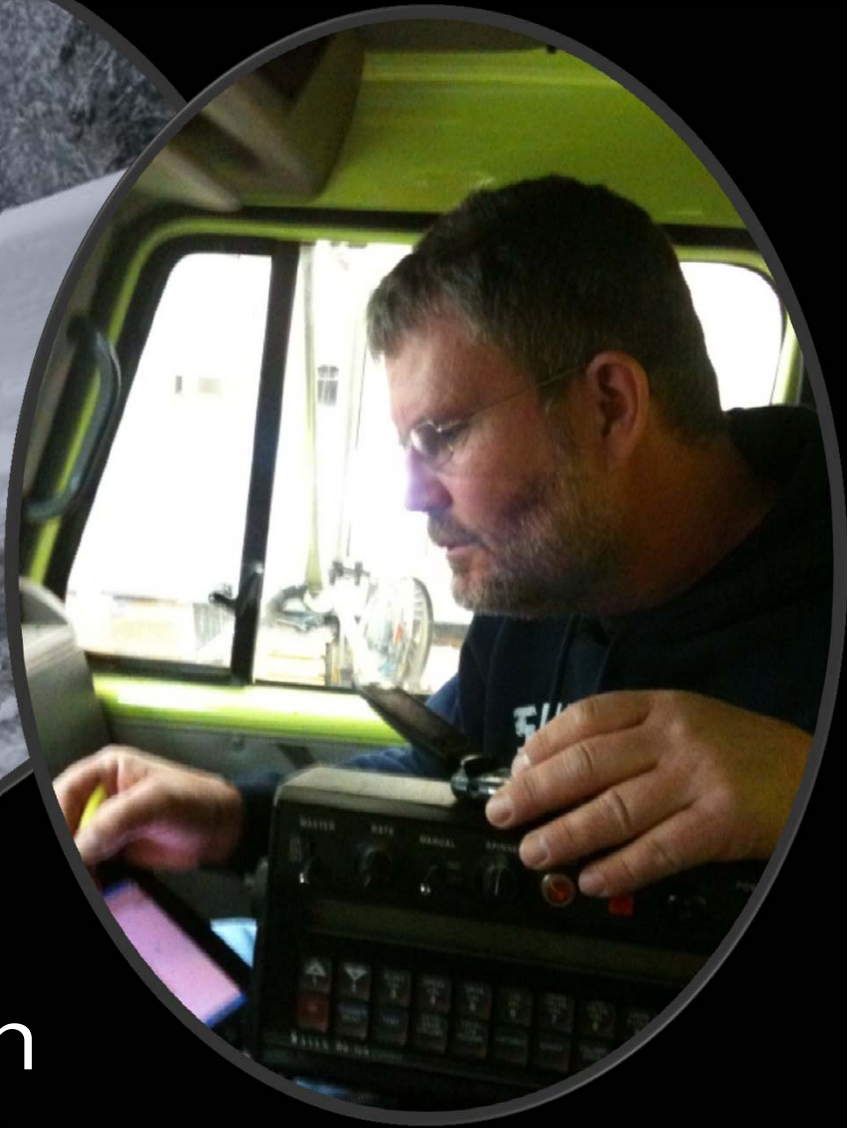
Intelligent Transportation System or Information Technology



Employee Acceptance



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Lines of Demarcation



Moving Forward

- Public Access to Map technologies
- Trucks as wireless hotspots to transfer information from remote sites
- Utilizing technology for other operations
- Expand wireless system infrastructure



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Questions.....



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