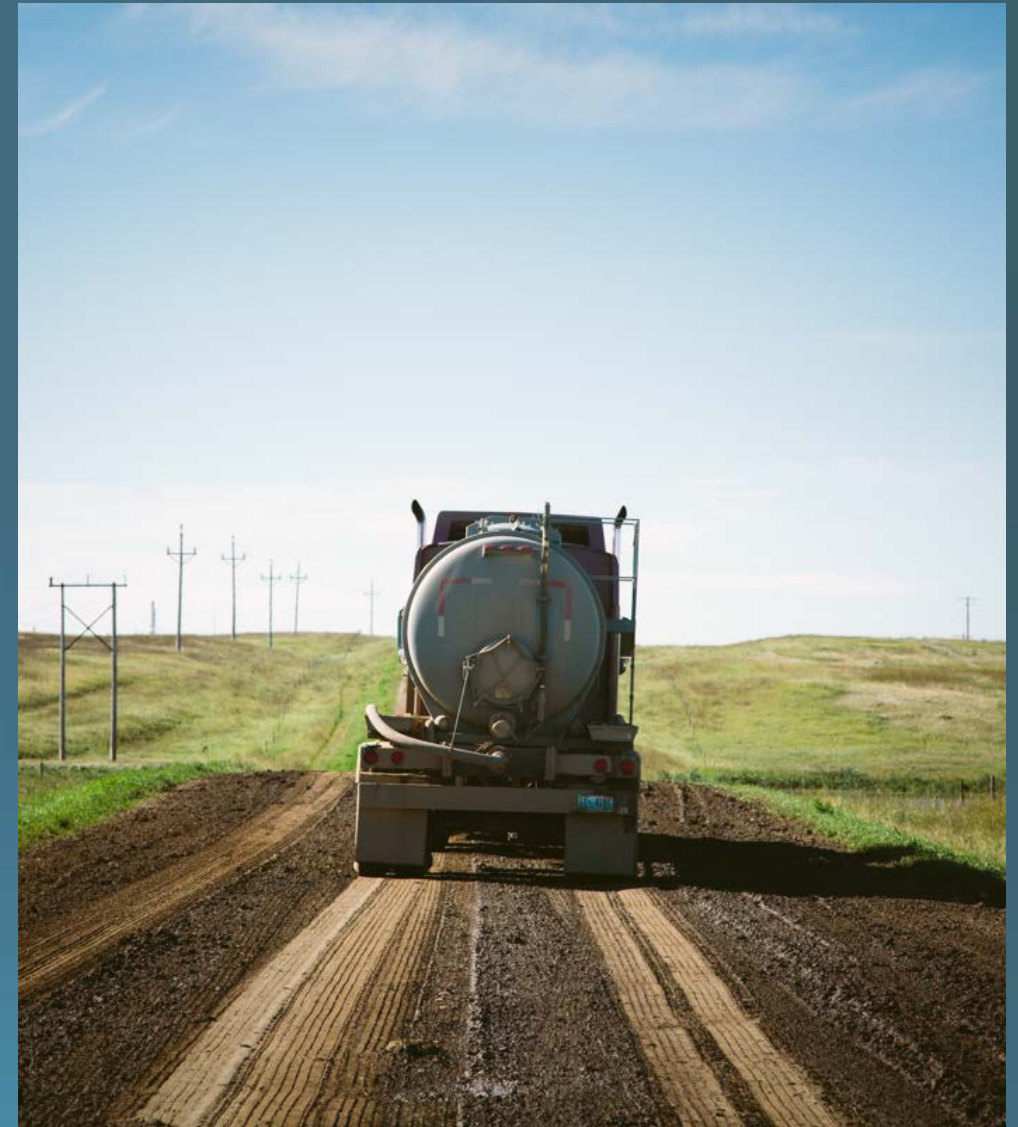
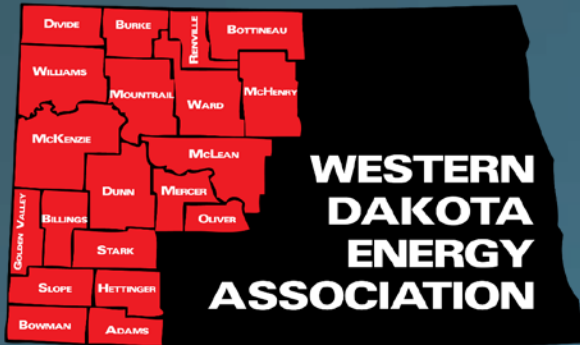


# Wise Roads

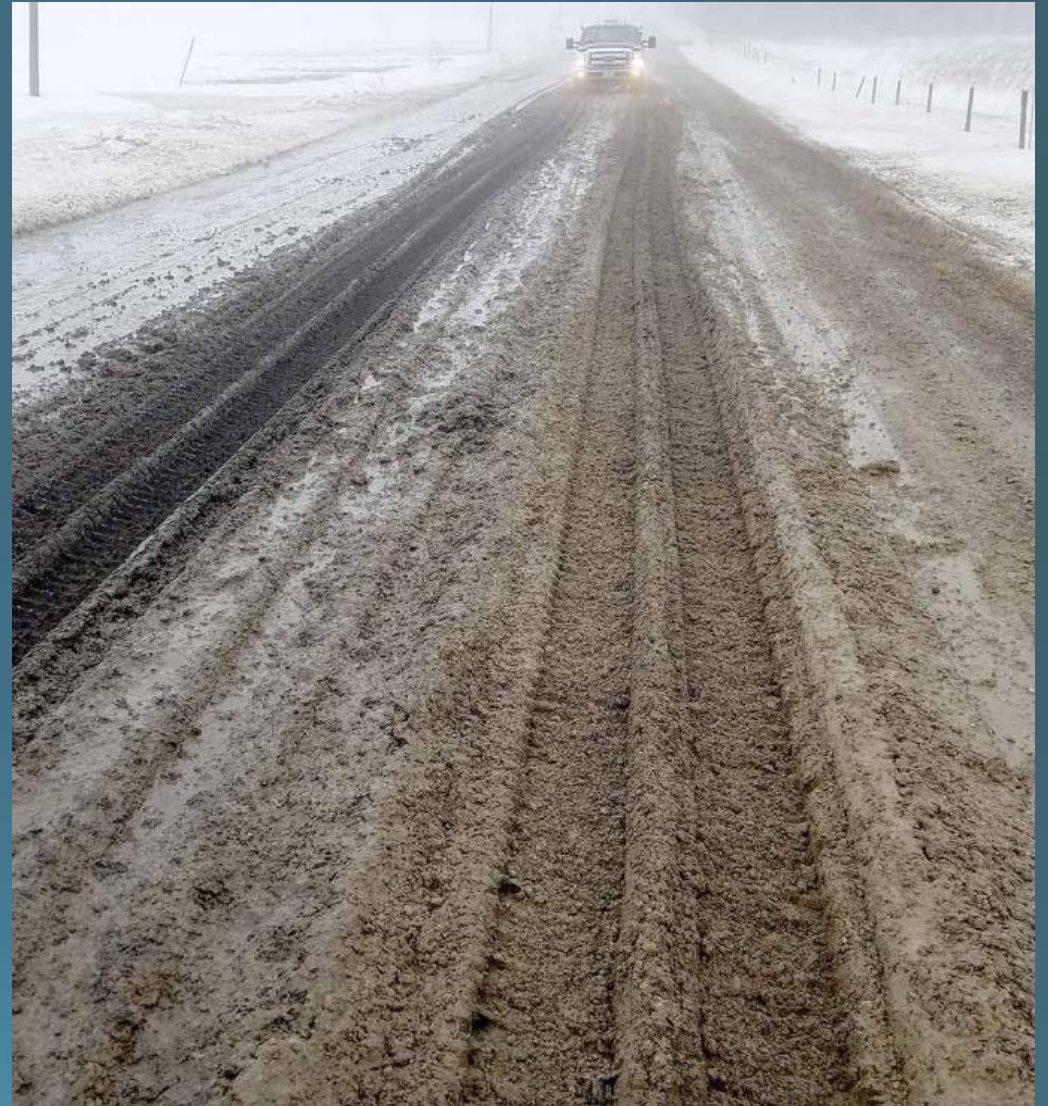
Weather Information System to Effectively  
Reduce Oilfield Delays and Disruption



Presented by Geoff Simon  
The Future of North Dakota Roads  
July 21, 2020

**Problem:** When inclement weather strikes, local governments impose weight restrictions on gravel roads that prohibit the movement of oilfield truck traffic until road conditions improve.

**Solution:** Provide accurate weather information, especially precipitation data, to allow road managers to more precisely identify roads that require temporary weight restrictions, and exclude those that do not.





Oil industry truckers justifiably complained that road restrictions are at times imposed more broadly than necessary.

Local Government and Oil Industry Roundtable - Watford City 12/12/18

# Wise Roads Project

- Install research-grade weather stations in areas with heavy oilfield traffic
- Make data publicly available through NDAWN network & LoadPass restriction map
- Provide training to road managers through LTAP



# Scope of Wise Roads Project

- Install up to 50 weather stations in the oil-producing counties
- Prioritize areas with significant drilling and production activity
- Locate stations to fill gaps in existing RWIN (DOT) and NDAWN networks
- Stations will be owned by NDAWN, operational costs covered by WDEA



# LTAP Research Probe the Road

- Soil moisture and temperature probes will be installed in road beds at four locations this summer
- Probes will measure each roadbed's moisture content at six inches, and two, four and six feet.
- The four stations are in Williams (Epping), Mountrail (Powers Lake), McKenzie (Hawkeye), and Dunn (Medicine Hole) counties.



# Expected Benefits of the Project

- More narrowly defined local road restrictions and more geographic zones established
- Significant savings to oil industry thru improved productivity and reduced revenue loss due to shut-in wells
- Use of weather data for research to evaluate the performance of road building materials
- Ancillary benefits to agriculture producers, i.e., soil temperature, precipitation, wind speed, etc.

**From:** LoadPass Notification System  
<cms@loadpasspermits.com>  
**Sent:** Tuesday, July 09, 2019 10:05 AM  
**To:** Geoff Simon <geoff@ndenergy.org>  
**Subject:** Notice from Dunn : Restriction Added:  
**Zone 1** County Gravel roads

LoadPass Notification

The following restriction has been added:

**County:** Dunn

**Active Date:** 7/9/2019

**Road:** Zone 1 County Gravel roads

**URL:** <https://permits.loadpasspermits.com/n/1613>

Due to the wet conditions, we will be restricting Zone 1 to 12,000GVW at 10:00am mst until further notice. At this time all other zones will remain open. Please refer to the Zone map for location.

[Load Pass Zone Map](#)

# Expected Benefit: Great Photos!

2019-07-12 08:58:53 PM



NDAWN - 3NW Hawkeye



# Expected Benefit: Road Condition

2019-07-12 09:33:41 PM

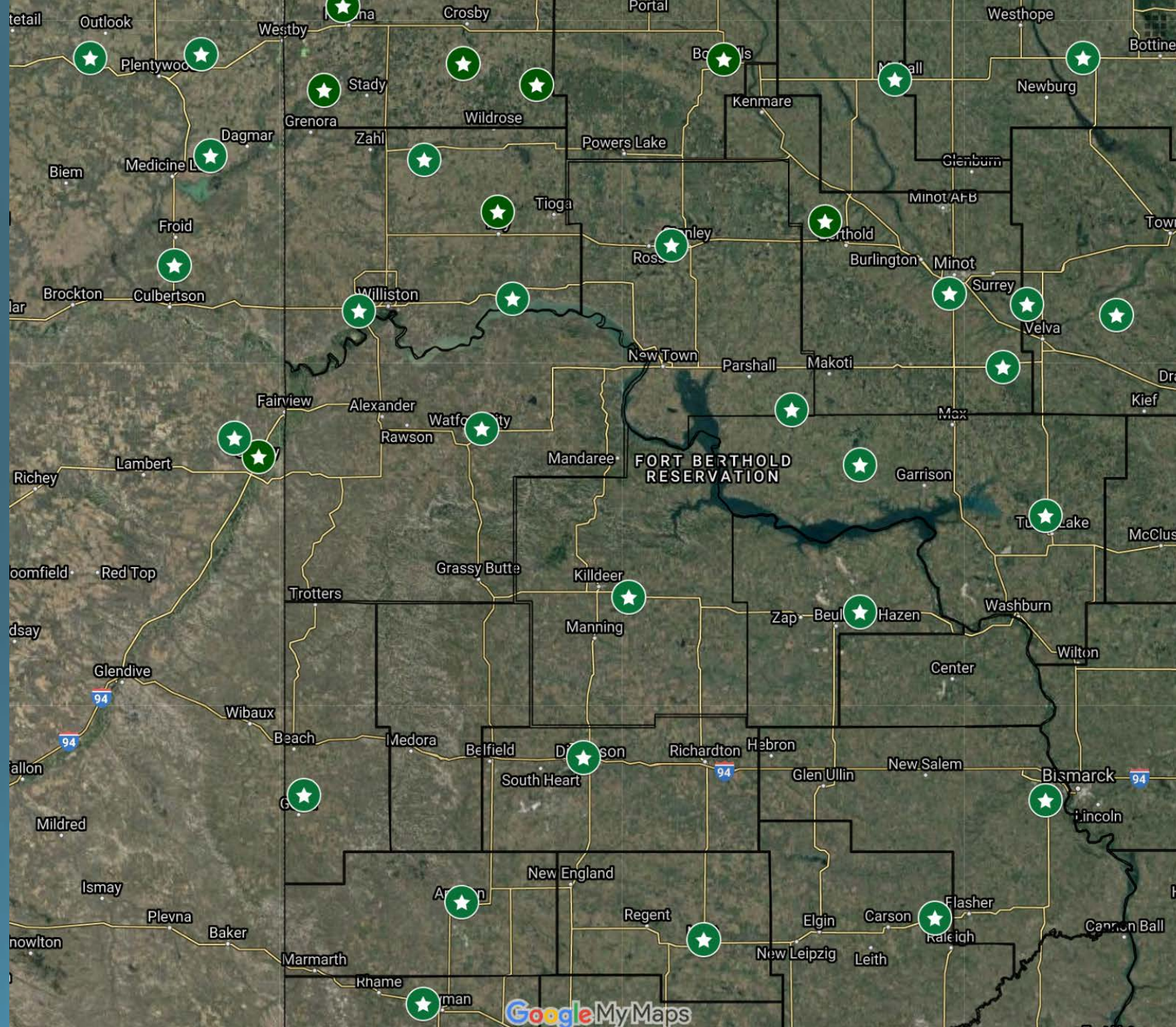


NDAWN - 4NW Rat Lake

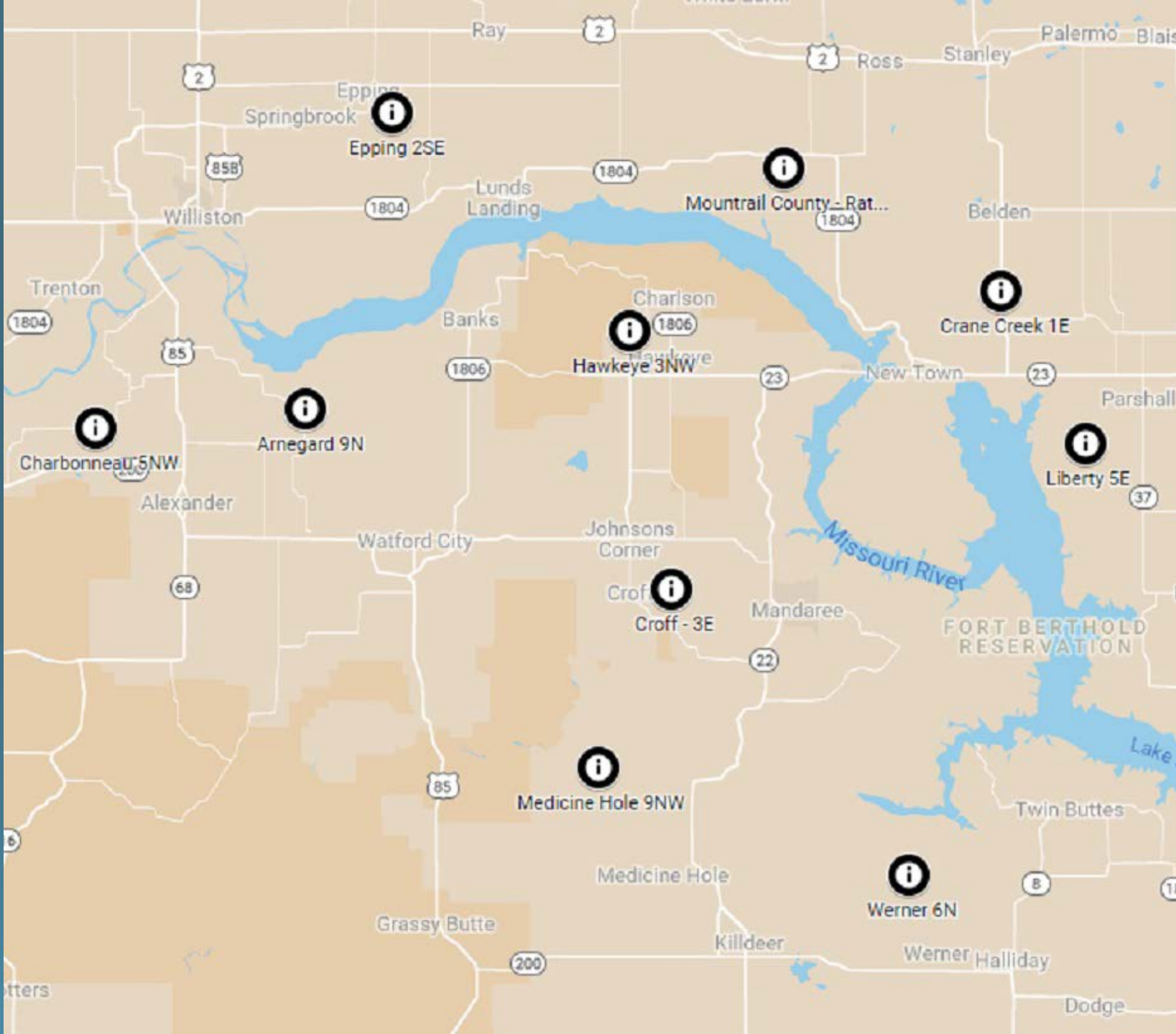
# Measuring Wise Roads Success

- Establish baseline data regarding extent and duration of restrictions from LoadPass Road Restriction Notification System
- By comparing restrictions imposed with weather information, develop a “before and after” snapshot of local policy improvements
- Collaborate with UGPTI to monitor its progress in evaluating road building materials and report improvements that are developed
- Difficult to measure, but Wise Roads will produce improvements in government/industry relationship through improved communication and better understanding of each others’ needs and concerns
- Another intangible will be improved relationships with landowners who realize financial and management benefits from the project

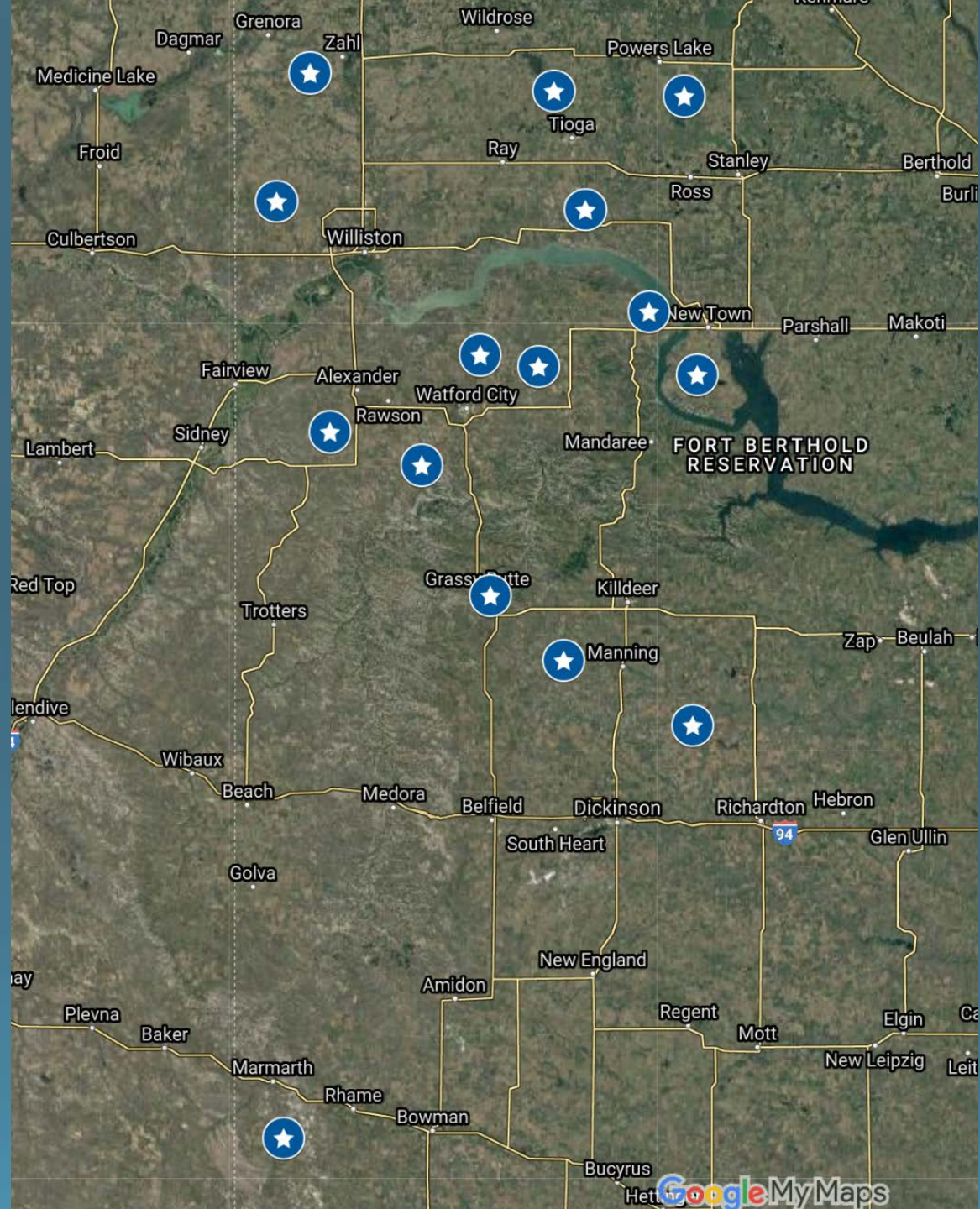
# NDAWN Stations Before Wise Roads Initiated



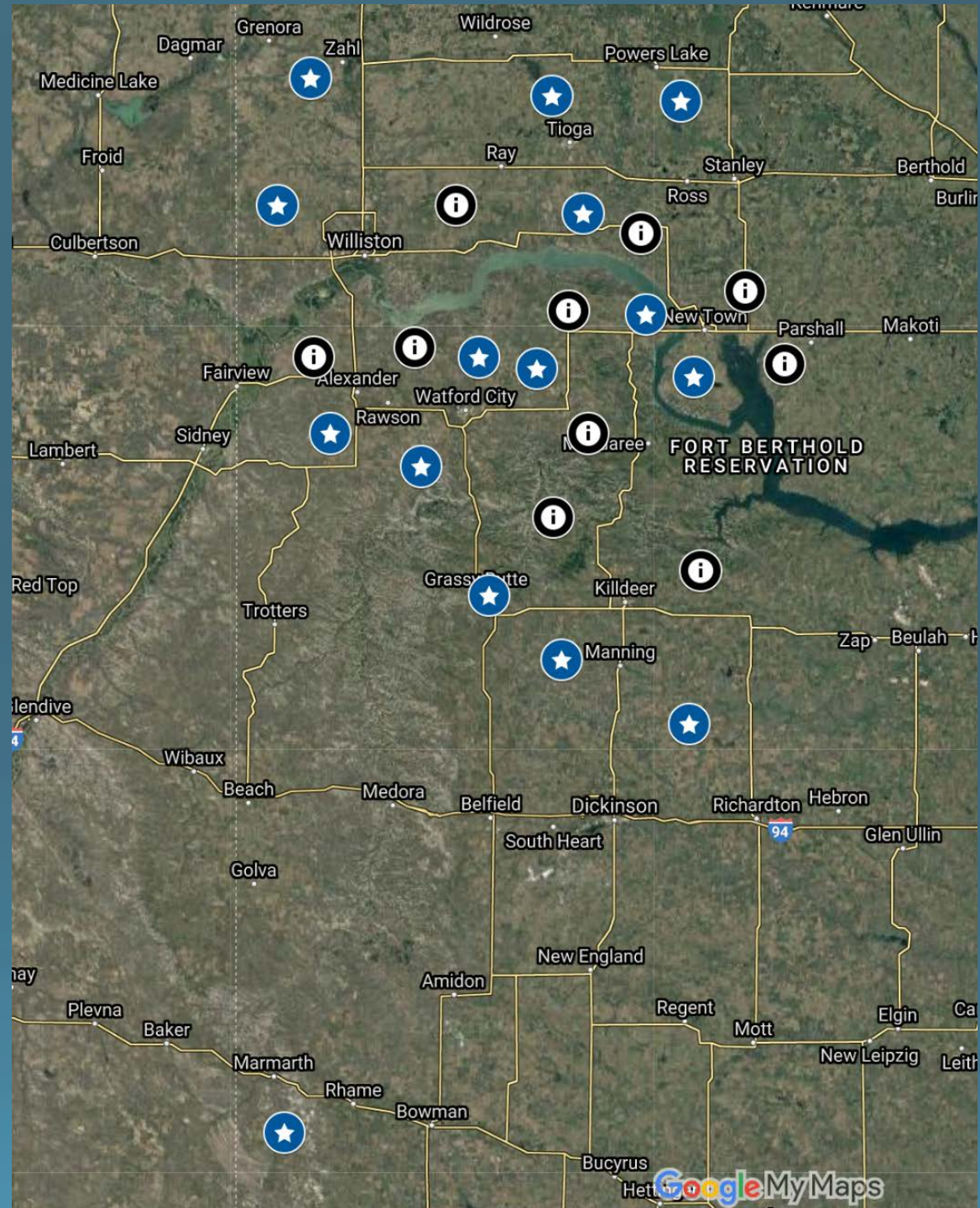
The First Ten  
Wise Roads  
Stations  
were installed  
in June 2019



# Phase II Installation Completed Spring 2020

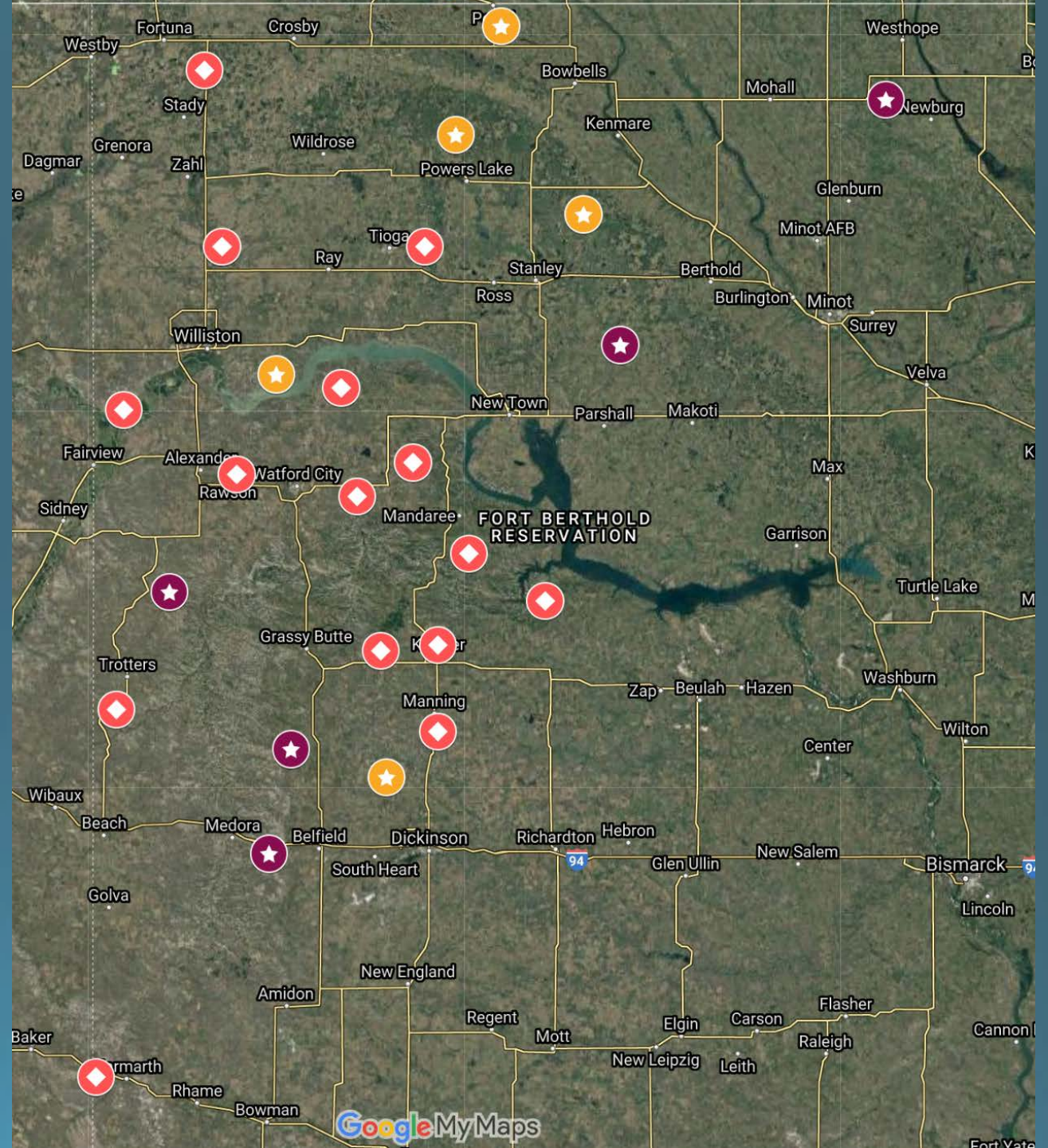


# Phase II Installation Completed Spring 2020

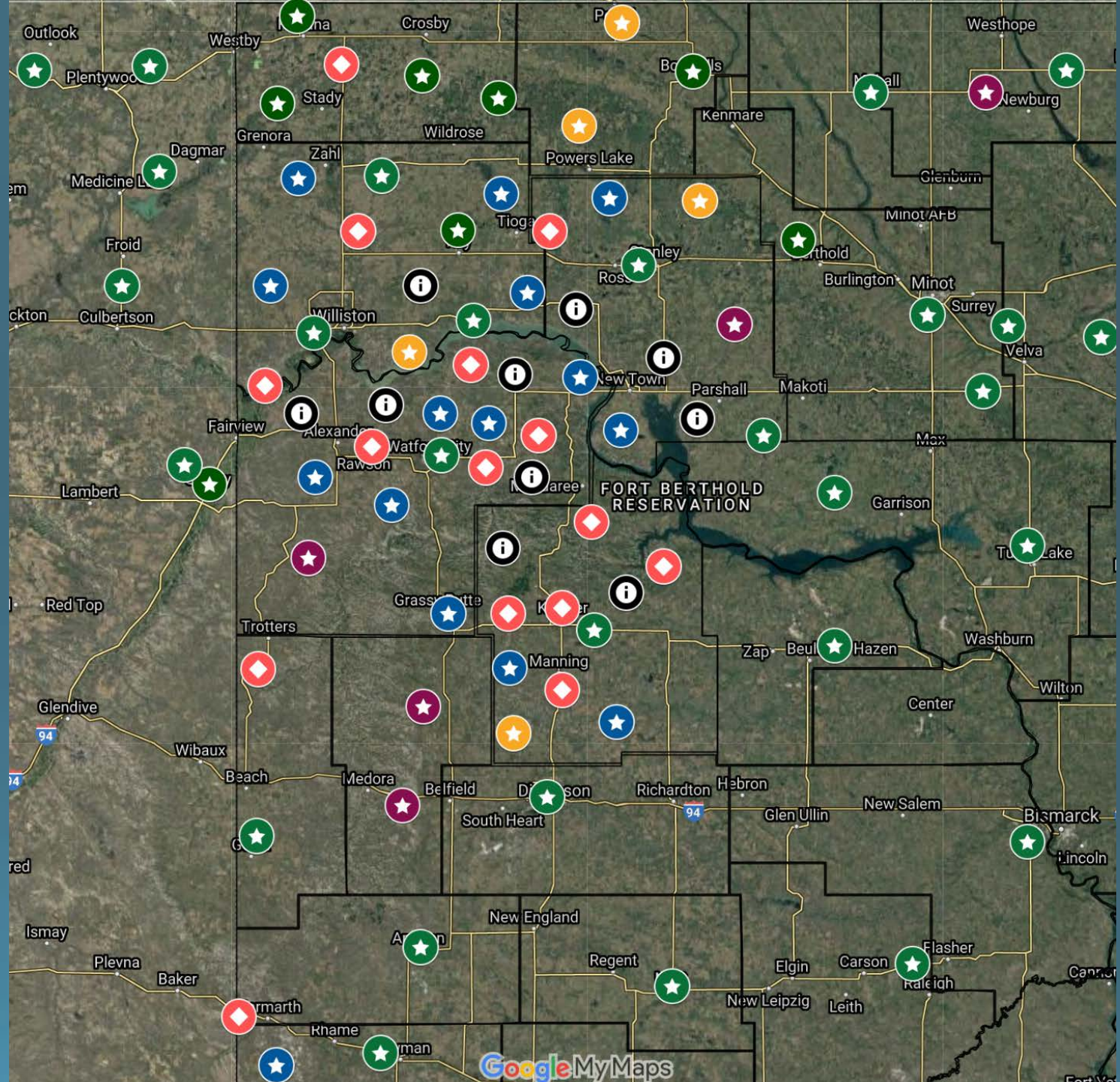


Sites are now being identified for Phase III and Phase IV

Installation begins soon



Wise Roads  
Network  
plus NDAWN  
when installs  
are complete





# Contact information:

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