



Alaska Department of Transportation & Public Facilities

Road Weather Information System (RWIS) Update for ITS Alaska

Lisa Idell-Sassi

11/20/2019

Our mission is to ***Keep Alaska Moving*** through service and infrastructure.

RWIS Summary

roadweather.alaska.gov

70 sites located on connected highway system:

- 63 Full RWIS sites
- 4 - data only
- Some - camera only
 - Not all are DOT cameras
- RWIS on 511.Alaska.gov and the mobile apps (only sites with a camera)

State of Alaska

myAlaska My Government Resident Business in Alaska Visiting Alaska State Employees

Alaska Department of Transportation & Public Facilities

Road Weather Information System

DOT&PF State of Alaska

rwis iways

DOT&PF > Iways > RWIS

Select a location, area, or corridor

☒ RWIS ☐ TDP ☐ Camera

ALASKA UNITED STATES

Denali 6190 m

Anchorage

YUKON

Chukotka

Gulf of Alaska

ROAD WEATHER

- » RWIS Home
- » myRWIS
- » About RWIS
- » About TDP
- » RWIS Glossary
- » RWIS Website FAQs
- » Alaska Weather Links
- » Contact RWIS Manager

» 511 - Traveler Information

RWIS HELP

Please note: You must have Acrobat Reader to open any documents on this page. If you do not have Acrobat Reader, [click to download the FREE software.](#)



Available Data

Data Types Available (not all sites have all data types):

- Atmospheric Temperature
- Dew Point
- Relative Humidity
- Wind Speed, Direction, Max Speed
- Snow Depth
- Precipitation
 - Occurrence, Accumulation, Intensity, and type of precipitation
 - Depends on the site and the sensor installed
- Barometric Pressure
- Pavement Temp (surface, subsurface and 6ft TDP)
- Surface Friction and Grip (@ Select sites for our M&O Personnel only)
- Camera Images

RWIS Website Upgrades

Select by Area, Corridor, or Site:

Select a location, area, or corridor

Greater Anchorage Area

Greater Fairbanks Area

Greater Juneau Area

Kodiak Island

Corridors

Anchorage - Fairbanks

Anchorage - Homer

Anchorage - Delta Jct - Tok - Valdez

Fairbanks - US/Canada Border

Southeast Alaska

Sites

Airport Way @ Cowles Street Fairbanks

Airport Way @ Eielson Street

Alaska Highway @ Canadian Border MP 1221.8

Alaska Highway @ Dot Lake MP 1355.2

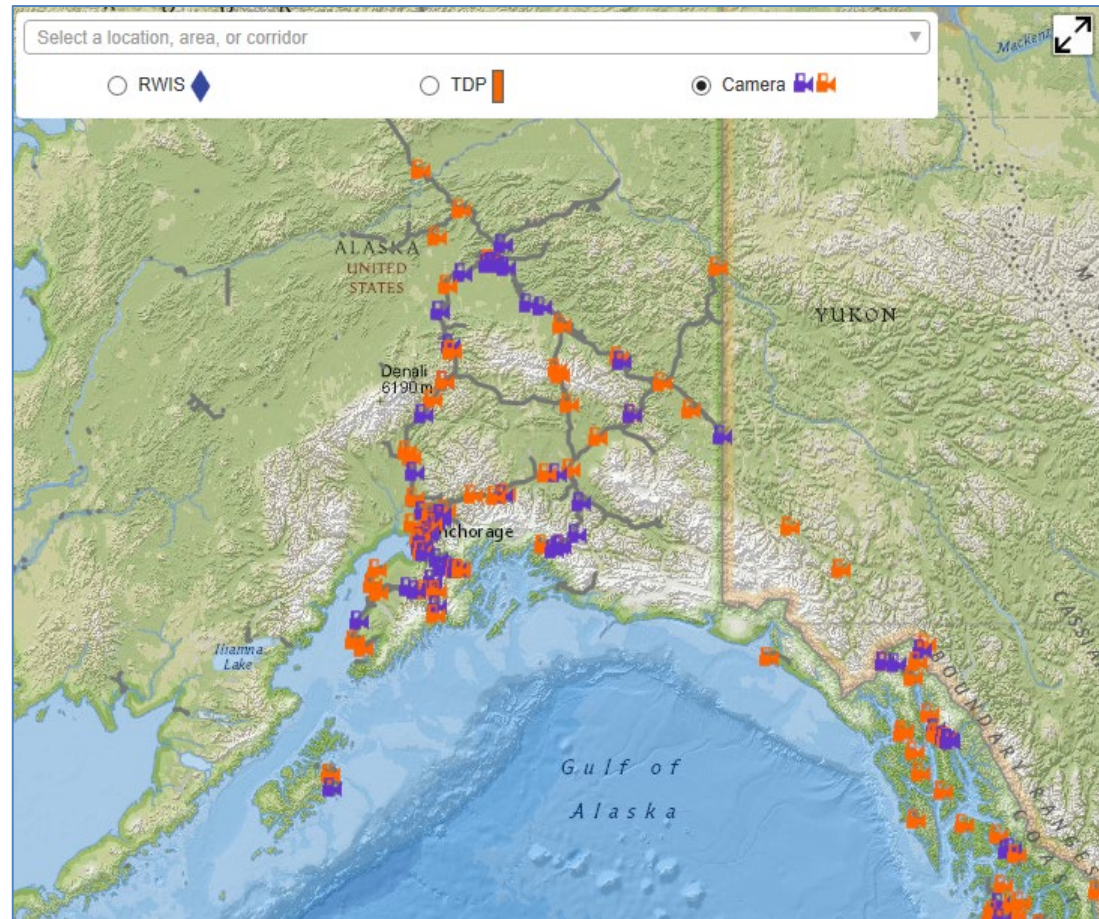
Badger Road @ Elvira Avenue

Badger Road @ Old Richardson Highway

Camp Road @ Whittier Tunnel

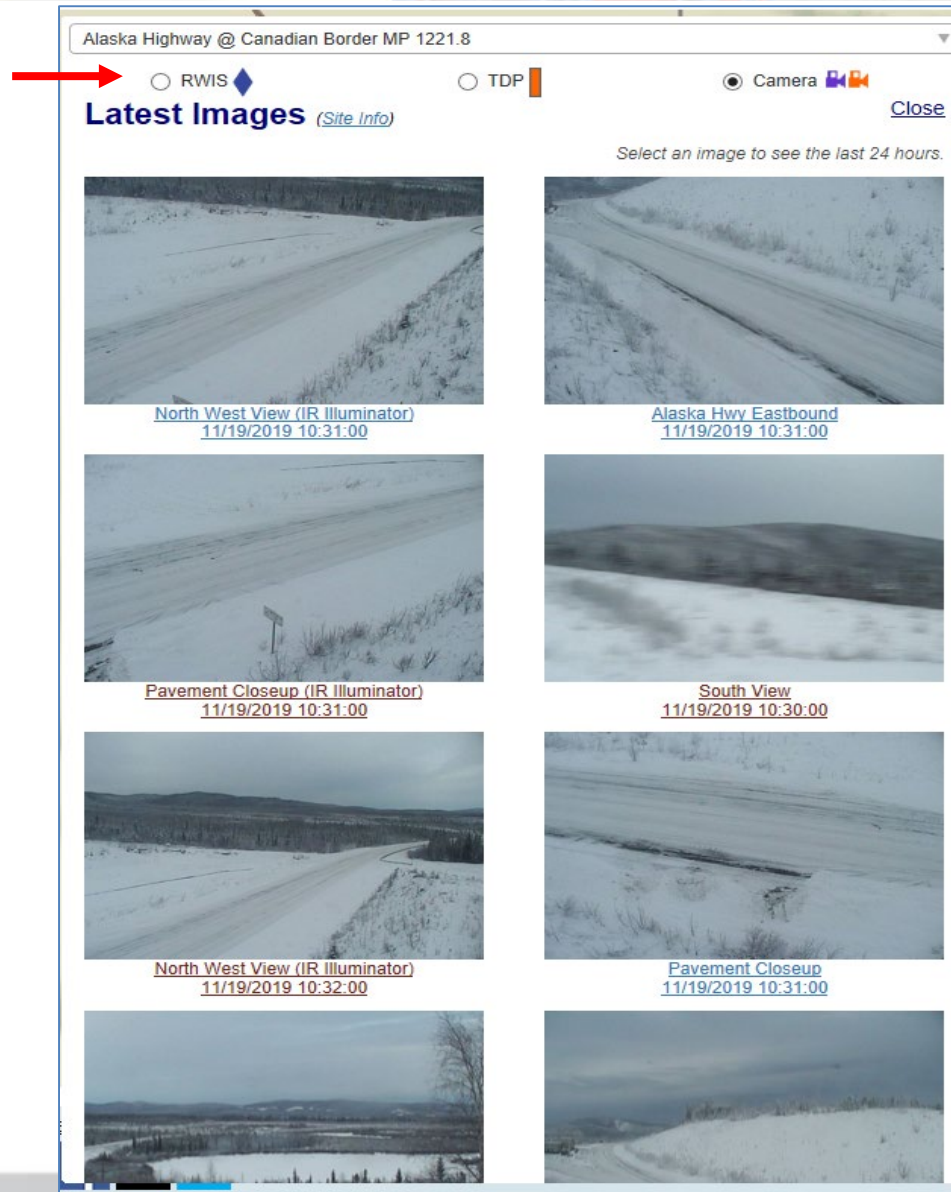
RWIS Website Upgrades

- No more static maps
- New GIS Interface using Leaflet
- Responsive Design
- Radio buttons for toggling between RWIS, TDP, and Cameras



RWIS Website Upgrades

On each site, toggle between RWIS, TDP (if installed) or Camera buttons at the top.




RWIS Site Summaries


Clicking “Site Info”




Will open up this page



☒ RWIS 

☐ TDP 

☐ Camera 

RWIS Summary [\(Site Info\)](#)

RWIS Site Information

Alaska Highway @ Canadian Border MP 1221.8

Site Information	
Site ID	37
Organization	ADOT&PF
ESS Vendor	Vaisala
Latitude (degrees)	62.621359
Longitude (degrees)	-141.010619
Altitude (meters)	589
Route IDs	1160000X000
Milepoint	0.445
Borough	non-borough area
Census Area	Southeast Fairbanks
NWS Forecast Office	Fairbanks / 224
Public Forecast Zone	Northway
NWS Site Identifier	ALCA2



Site Description


Site Location

The Alaska Highway @ Canadian Border RWIS ESS is located just to the west of the US Customs on the right side of the westbound lane. The ESS pole sits on a ridge just about even with the Customs Complex; the ESS is exposed to wind and weather from all directions. A tipping bucket precipitation gauge provides rainfall amounts during the summer and fall shower season. There is a fixed camera that provides a multiple road views to the east. Some reflective light from the Custom's complex provides a few nighttime images. There is also an infrared illuminator at this site. The Northway DOT Maintenance Station, approximately 35 miles to the west, is responsible for the eastern portion of the Alaska Highway border area.

Site Rationale

The Alaska Highway is a major road entry portal into Alaska. Except for Northway, there is extremely limited weather information from the border to Tok. In addition to the extreme cold, this area is subject to winds and blowing snow. Having a road weather resource is essential for traveler safety and for allocating resources to maintain the roadway.

Road Weather

- » [RWIS Home](#)
- » [myRWIS](#)
- » [About RWIS](#)
- » [About TDP](#)
- » [RWIS Glossary](#)
- » [RWIS Website FAQs](#) 
- » [Alaska Weather Links](#)
- » [Contact RWIS Manager](#)

- » [RWIS Site Data](#)
- » [RWIS Site MetaData](#)
 - » [Site Information](#)
 - » [Measured Variables](#)
 - » [Site Photos](#)
 - » [Site Diagram](#) 

- » [511 - Traveler Information](#) 

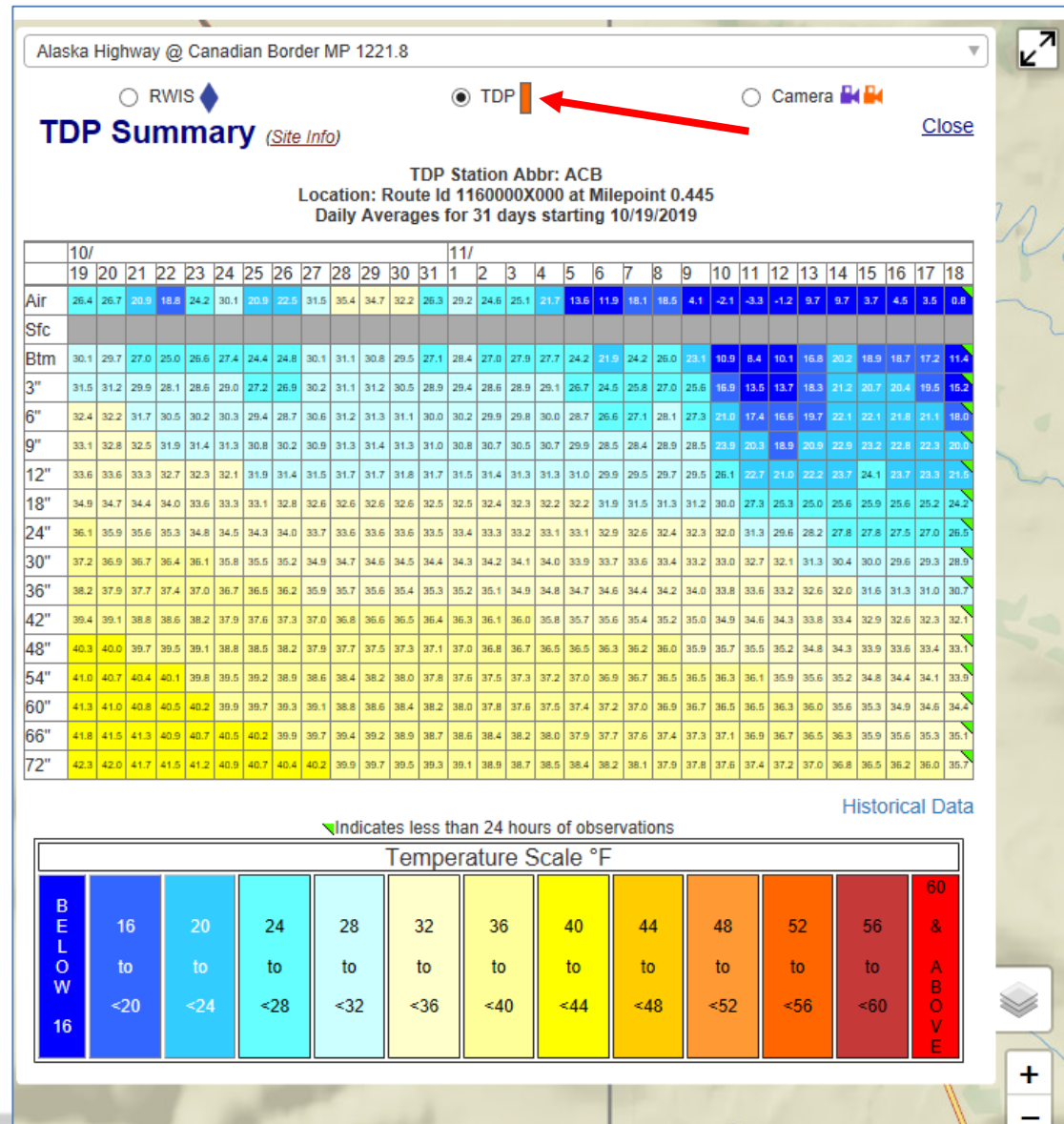


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RWIS Website Upgrades

Temperature Data Probe Data

- Some located at RWIS sites
- Some at ATR Sites (TDPs are managed by Matt Murphy, CR/Highway Data)
- Call Matt with questions on TDPs ☺



LOGIN FEATURES

- For those with an LDAP Login (SOA):
 - Wind Rose Data for each site
 - RWIS Data Query (longer date range queries)
 - Subscribe to TDP Reports

Alaska Highway @ Canadian Border MP 1221.8

☒ RWIS ☐ TDP ☐ Camera

RWIS Summary [\(Site Info\)](#) [Close](#)

Atmospheric Data		Last Updated: 11/19/2019 16:00:00
Air Temperature	5 °F	
Dew Point	2 °F	
Relative Humidity	87 %	
Wind Speed	3 mph	
Wind Direction	SW	
Wind Speed Maximum	4 mph	
Wind Direction of Maximum Speed	SW	
Precipitation Occurrence	None	
Precipitation Accumulation	0.00 in	
Precipitation Accumulation (1 Hour)	0.00 in	
Precipitation Accumulation (3 Hours)	0.00 in	
Precipitation Accumulation (6 Hours)	0.00 in	
Precipitation Accumulation (12 Hours)	0.00 in	
Precipitation Accumulation (24 Hours)	0.00 in	

[View Atmospheric Summary Page](#)

Pavement Surface and Subsurface Data			
Pavement Sensor Location	Date/Time	Surface Temperature	Subsurface Temperature

[View Surface Summary Page](#)
[View Site Queries](#) [View Extremes Summary Page](#)

Publicly available

myRWIS - Alaska's Road Weather System

Add/Update Site Views

Select Corridor or Area: Greater Juneau Area

Select RWIS Site: Egan Drive/Glacier Highway @ MP 3

Select Camera View: Glacier Hwy / Egan Drive South View

Add Update

Site Name - View Name

Egan Drive/Glacier Highway @ MP 3 - Glacier Hwy / Egan Drive South View

Egan Drive/Glacier Highway @ MP 3 - Egan Drive / Glacier Hwy North View

Egan Drive/Glacier Highway @ MP 3 - Old Glacier Hwy

Egan Drive/Glacier Highway @ MP 3 - Gastineau Channel / Airport View

Glacier Highway @ Cohen Drive MP 21 - Glacier Highway North (IR Illuminator)

Mendenhall Loop Road @ Goat Hill - bottom

North Douglas Highway MP 4.4 - North Douglas Hwy

Remove Move Up Move Down

Display Time Control

Seconds: 5 seconds

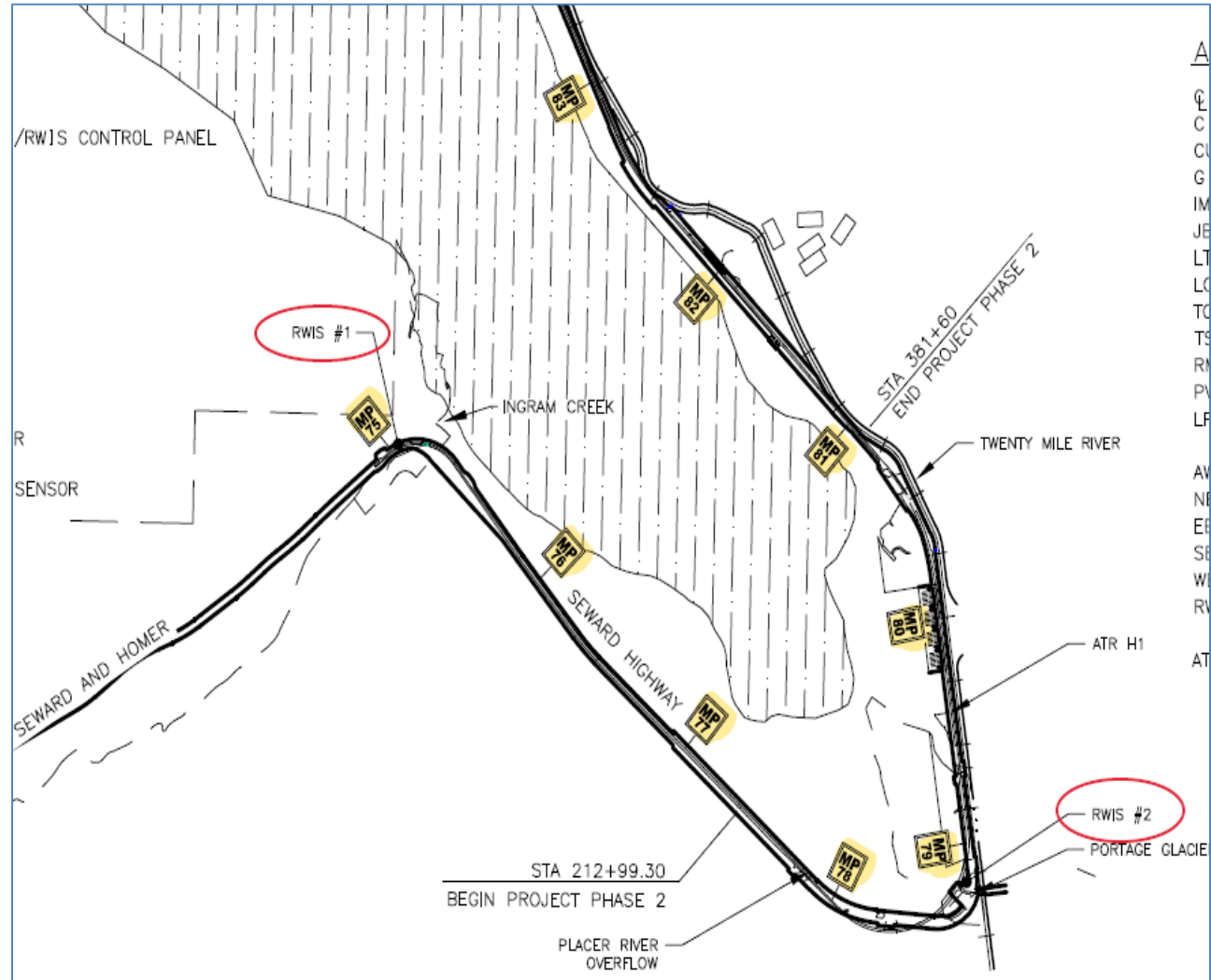
Ongoing RWIS Website Tasks

- Still working on improvements - We want your feedback!
 - Usability and flow issues? Map navigation issues? Etc.
- Working on moving our RWIS data, images to Azure.
- Looking to move our website to the cloud
- Transitioning to an open source polling software called IRIS (Integrated Roadway Information System – MNDOT)

Planned Future RWIS Sites

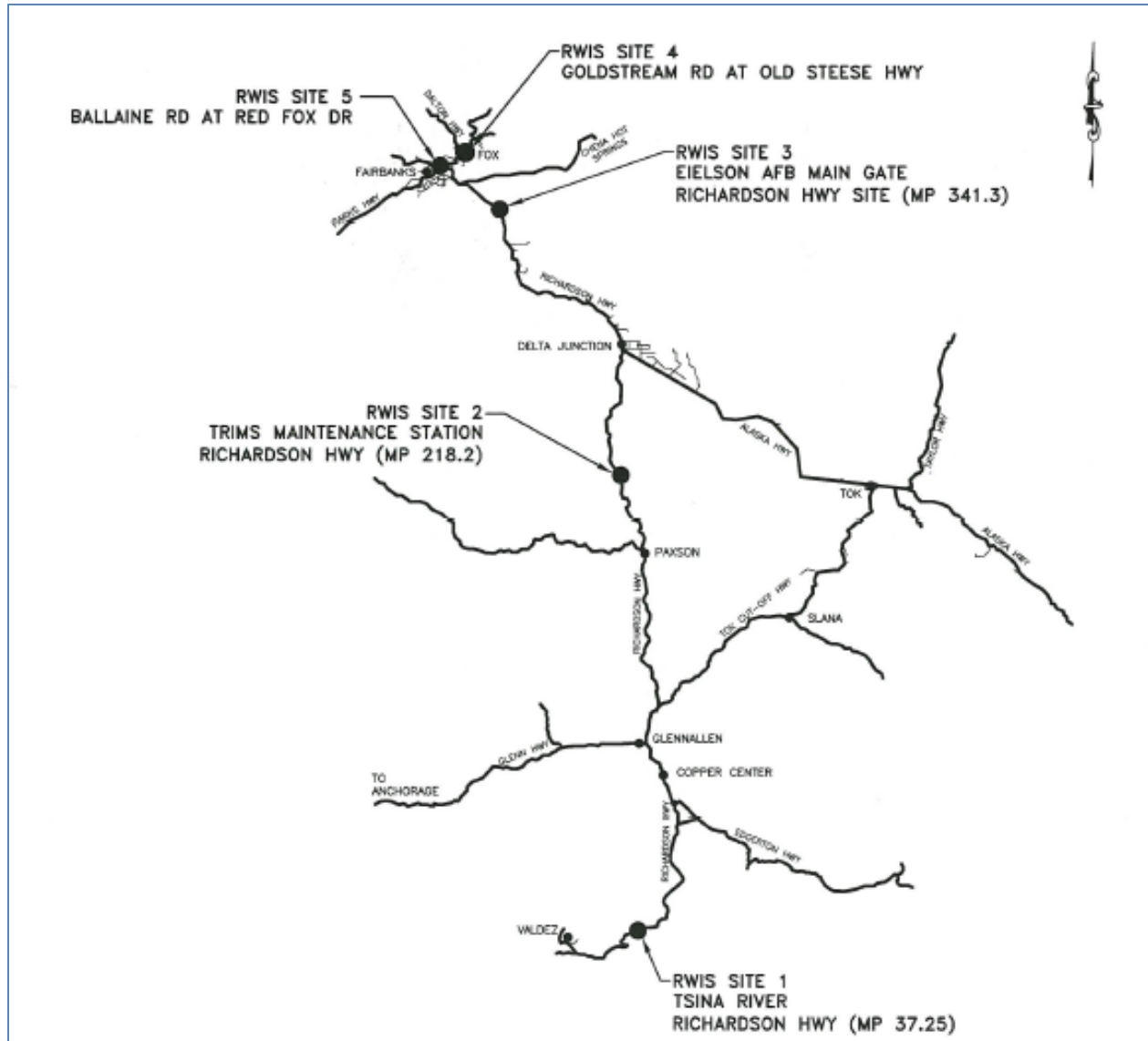
Central Region

- Moving and upgrading Portage RWIS
- Adding a new camera only site on Seward @ Ingram Creek MP 75.



Planned Future RWIS Sites

- Northern Region is adding four new sites and upgrading one existing RWIS next year.
- 3 sites in Fairbanks, one upgrade Trims, and one new site on Richardson @ Tsina River MP 37.





RWIS Partners

- **FAA**

- Collocated sites and provide links to their cameras; share power and comm.

- **NOAA / Alaska NWS**

- Data automatically provided to MADIS (Meteorological Assimilation Data Ingest System)
- <https://madis-data.ncep.noaa.gov/MadisSurface/>
- Local NWS offices and local M&O Stations

- **National Center for Atmospheric Research, Boulder CO**

- Data integrated with the MDSS data on Pikalert



Thank you!

Lisa Idell-Sassi
ITS Coordinator
907-465-8952

lisa.idell-sassi@alaska.gov

