



LINKS

MesoWest

ROMAN

Help

Great Lakes Forest
Fire Compact

U of Utah Dept. of
Atmospheric
Sciences

NWS Fire Weather

Login to Great Lakes

Login:

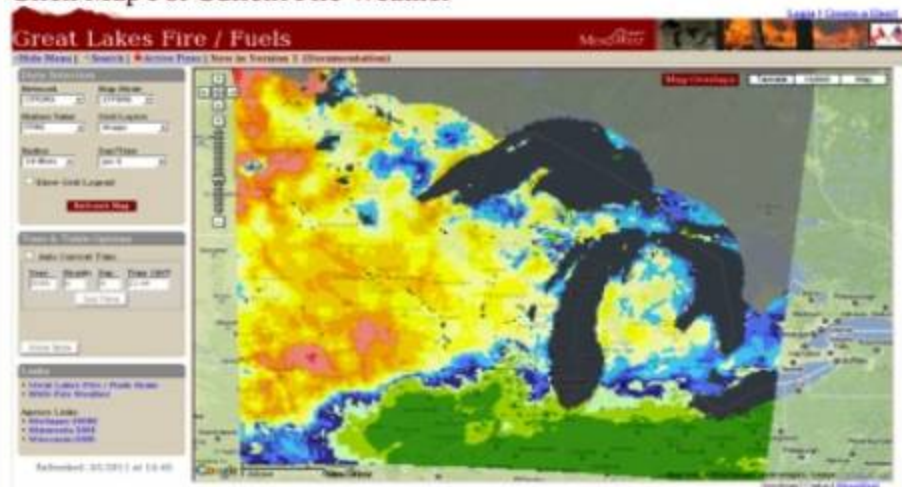
Password:

Login

Create a User

Great Lakes Surface Weather and Fire Indices

Click Map For Current Fire Weather



If logged in, your default profile will be used

Web-Based Fire Weather for the Lake States

Robert Ziel, Lake States Fire Science Consortium

University of Utah Department of Atmospheric Sciences



AGENCY LINKS

Michigan DNRE

Minnesota DNR

Wisconsin DNR

Tasks At Hand

- Discuss the background of fire weather in the Lake States and the reasons for the Great Lakes Fire/Fuels Project
- Highlight the NWS website and access to forecast information
- Reflect on CFFDRS Fire Weather Index Sys.
- Reinforce understanding of the Mesowest project at the University of Utah and what is behind the curtain at Great Lakes Fire/Fuels
- Explore navigation and use of the systems

Situation Assessment

- What you should consider in go-no go decision:
 - Will it accomplish your objectives?
 - What is risk associated with spread and fire intensity?
 - Do you anticipate smoke problems?
 - Is holdover fire expected?

How important is
good weather information?

History of Lake States Fire Weather

[Login](#) | [Create a User!](#)

Great Lakes Fire / Fuels

MESO WEST



[Hide Menu](#) | [Search](#) | [Active Fires](#) | [New in Version 1 \(Documentation\)](#)

- National Fire Danger Rating System Network provided once a day Observation
- Remote Automated Weather Stations (RAWS) replaced them in the 90's



Questions? Contact [MesoWest](#)

History of Lake States Fire Weather

Increasing web presence with RAWs & stand-alone software



Wisconsin Fire Indices

- National Fire Danger Rating System (NFDRS)
- Canadian Forest Fire Danger Rating System (CFFDRS)



Last Revised:



dnr.wis.gov

The Official Internet Site for the Wisconsin Department of Natural Resources

101 S. Webster Street, PO Box 7921, Madison, Wisconsin 53707-7921, 608.260.2621

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Minnesota Department of Natural Resources
events | a-z list | newsroom | about DNR | contact us

Recreation | Destinations | Nature | Education / safety | Licenses / permits / regs.

Home > Forestry > Wildfire > Reports >

Current wildfire information

- Statewide fire danger
- Current fire restrictions
- Statewide status report
- DNR forestry area status reports
- Fire location map

Fire management

- Wildfire information center
- DNR fire behavior forecast
- Fire danger indexes
- Prescribed burn policy
- Firefighter positions

Burning permits & information

- Burning permits information
- Apply for burning permit online

Education & assistance

- Wildland fire training
- Firewise
- Wildfire prevention
- Rural fire

Observed Canadian fire danger indexes

Updated 12:00 CST Wednesday March 02, 2011

Station	'F	RH	P24h	Wind	FFMC	DMC	DC	ISI	BUI	FWI
Baudette	8.0	37	0.0	3	83.0	6.0	15.0	6.0	2.0	1.0
Cass Lake	4.0	38	0.0	4	81.1	3.3	11.2	3.8	1.8	0.7
Detroit Lakes	8.0	39	0.0	3	80.2	3.8	15.0	4.7	1.5	0.6
Hibbing	4.0	0	0.0	6	98.6	6.0	15.0	6.0	22.7	15.8
Little Falls	5.0	52	0.0	4	77.9	5.1	15.0	5.5	1.3	0.6
Mn Valley	10.0	46	0.0	3	78.6	6.2	15.2	6.2	1.3	0.6
Redstn	6.0	59	0.0	5	65.9	2.6	7.8	2.8	0.8	0.3
Seagull	3.0	39	0.0	9	83.2	6.0	15.0	6.0	3.4	2.6

Interpretation

The following chart is a statewide generalized fire danger rating chart for the Canadian Fire Weather Index. It is based on a five class danger rating system, i.e., low, moderate, high, very high, and extreme. The distribution is based on weather records from 1985 - 1998. Low days occurred 45% to 50% of the time, moderate - 30%, high days - 12% to 15%, very high days occurred 7%-8% of the time, and extreme days were 2%-3%. This is not meant to be used as a staffing guide. Each weather data coupled with its fire occurrence a drought code of 380, it does not mean means that the drought code only gets to April 1 and November 1.

Index	Low	Moderate	High
FFMC	0-81	81-88	88-90
DMC	0-13	13-28	28-42
DC	0-80	80-210	210-2
ISI	0-4	4-8	8-11
BUI	0-19	19-34	34-54
FWI	0-5	5-14	14-21

- Michigan, Minnesota, and Wisconsin all had fire weather pages.
- Software is becoming obsolete with more frequent crashes

WEATHER & FIRE DANGER INFORMATION UPPER PENINSULA

NLP WX & FIRE DANGER	SLP WX & FIRE DANGER	MIDNR WILDLAND FIRE PAGE	OTHER FIRE REFERENCES	
FORECAST PRODUCTS		2006 FIRE SEASON REFERENCE		
MICFFDRS Fire Danger Forecast: AM(0830ET) PM(1600ET)		DOE LAKE	Week Season	FWI Record
NWS-MQT Fire Wx Fcast US Fire Wx Page		DRUMMOND IS.	Week Season	FWI Record
NWS Fire Weather Watch/Red Flag Warning		GWINN	Week Season	FWI Record
GRIDDED FORECASTS: Graphical Gridpoint		HIGH BRIDGE	Week Season	FWI Record
Eastern Area Modeling Consortium		KENTON	Week Season	FWI Record
Forecast Maps: Current 12hr 24hr 36hr 48hr		KEWEENAW	Week Season	FWI Record
NWS Prognostications: 6-10 Day 8-14 Day		LABRANCHE	Week Season	FWI Record
NWS 30/90 Day Forecast		PELKIE	Week Season	FWI Record
NWS Marquette Fire Weather Program		RACO	Week Season	FWI Record
CURRENT REPORTS		RANDVILLE	Week Season	FWI Record
Aft. Report (1430 EDT) Hourly Report		REXTON	Week Season	FWI Record
Wkly Summary (0530 & 1430 EDT)		RUDYARD	Week Season	FWI Record
Overnight Rain (hrly) Recent Rainfall		SENEY	Week Season	FWI Record
Marquette: Radar, Satellite		SPINCING LAKE	Week Season	FWI Record
ROMAN RAWs NCAR Wx		STONINGTON	Week Season	FWI Record
Great Lakes Fire & Fuels Mesowest		WAKEFIELD	Week Season	FWI Record
Current Drought Monitor		WATERSMEET	Week Season	FWI Record
Current Palmer Z Index		WAUSAUKEE	Week Season	FWI Record
MIDNR Fire Danger Adjective Criteria		MICFFDRS Weather Station Locations		

History of Lake States Fire Weather

[Login](#) | [Create a User!](#)

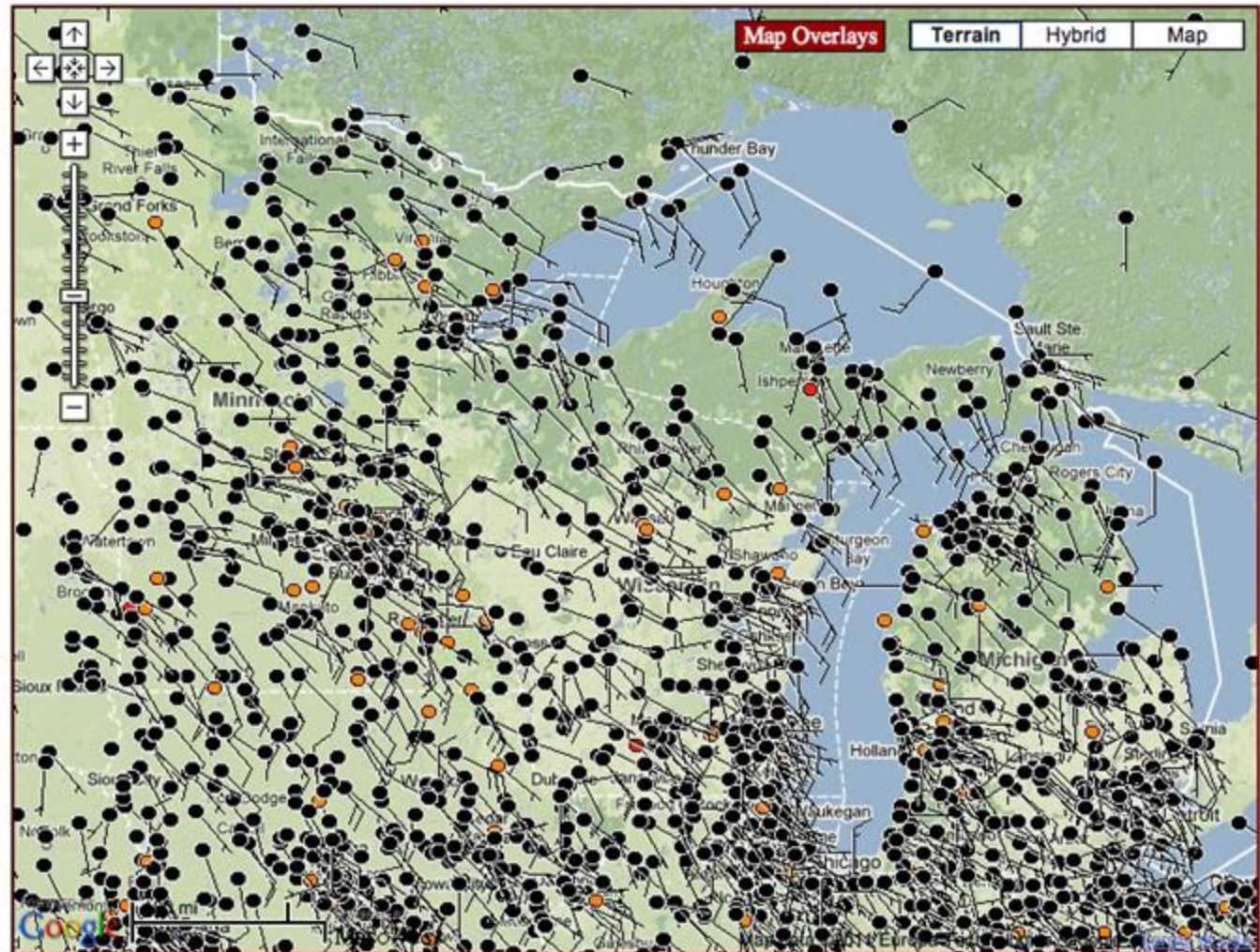
Great Lakes Fire / Fuels

MESO WEST

[Hide Menu](#) | [Search](#) | [Active Fires](#) | [New in Version 1 \(Documentation\)](#)



- Obsolete software led to Great Lakes Forest Fire Compact Project with USFS Redesign Grant
- Contract with Mesowest is opportunity

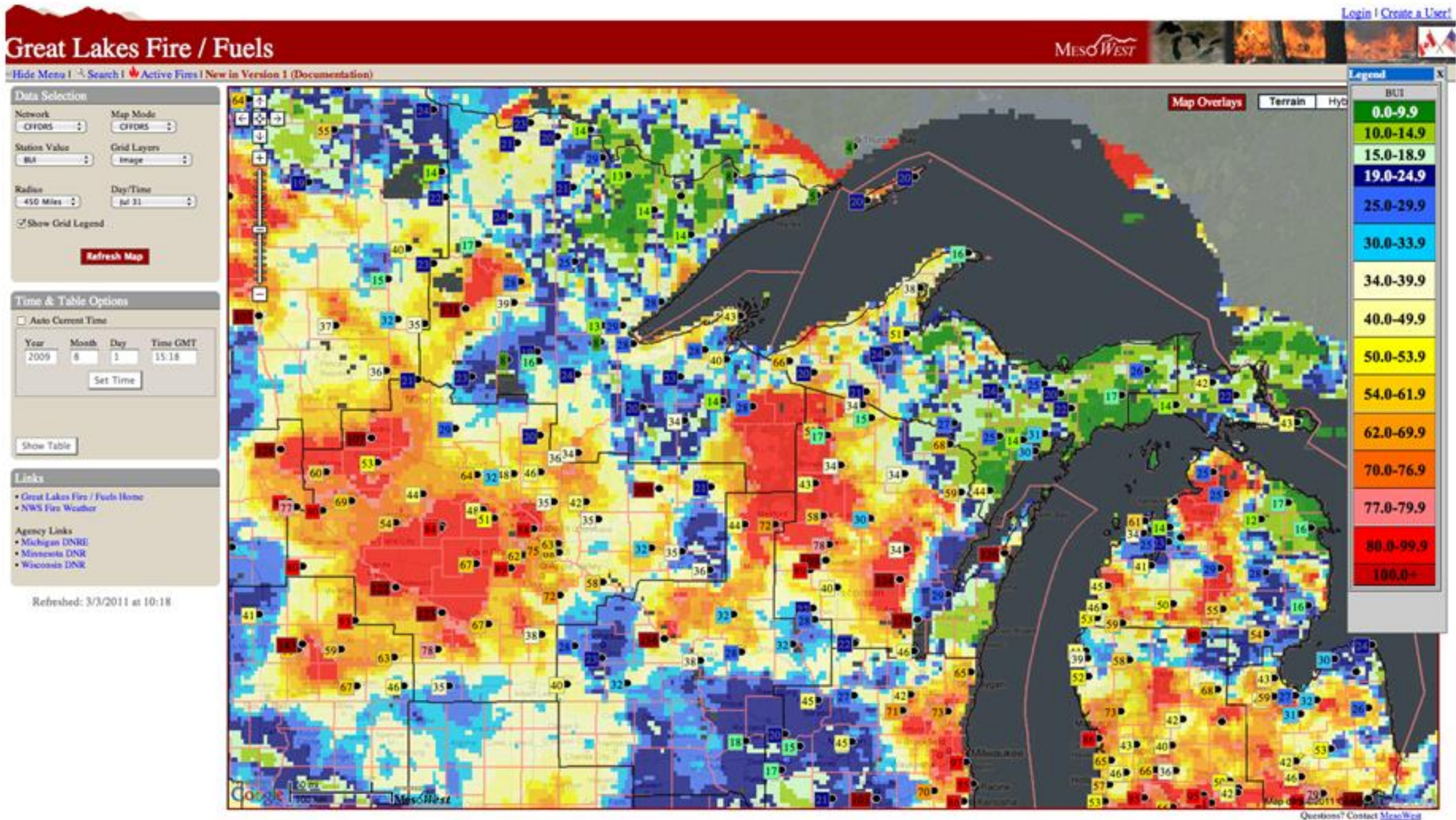


Questions? Contact [MesoWest](#)

Great Lakes Fire/Fuels

<http://glffc.utah.edu>

- Based on Mesowest technology and resources
- Operational in 2011



Questions?



Situation Assessment

- What you should consider in go-no go decision:
 - Will it accomplish your objectives?
 - What is risk associated with spread and fire intensity?
 - Do you anticipate smoke problems?
 - Is holdover fire expected?
- **What the new NWS “Fire” Website provides:**
 - Localized access to current weather conditions
 - Localized access to NDFD forecast products
 - Climate Prediction Center (CPC) outlooks



- Comprehensive set of NWS links & Info
- Watches & Warnings highlighted
- Other map references and products

- Current Hazards**
 - National NWS Map
 - U.S. Threats
 - Briefing Page
- Fire Situation**
 - Nat. Sit. Report
 - Wildland Fire Upd
 - Large Incidents Map
 - InWeb
- Forecasts**
 - Fire WX Fcst (FWF)
 - Fire WX Watch/Red Flag
 - NFDRS
 - Rangeland Fire Dngr
 - Fire Danger Indices
 - Point Fcst Matrices
 - SPC Fire Weather
 - Predictive Services
 - SPC Severe Weather
 - NHC Tropical
 - HPC Precipitation
- Current Conditions**
- Outlooks**
 - Up To 3 Months
 - Year Long
 - Predictive Services
- Drought/Precip**
- Observed Precip.**
 - Precip. For Past Year
 - Drought Assessment
- Fuels**
- Admin**
- GACCs**
- Other Agencies**

Click desired location on map for forecast and additional information or

Go



- Watches/Warnings
- Fire Perimeters
- Spot Forecasts
- Day-1 Precip
- Day-1 Outlook
- None

- Today's Outlook
- Tomorrow's Outlook
- Day 3-8 Outlook

Enter Location

by... example

Address 125 South State Street
Salt Lake City, UT

City Modesto, CA

ZIP Code 83204

County Valley County, MT

Lat/Lon 42.86 N, 112.41 W

Misc. Grand Canyon

- Get info in KML format**
- Current Warning Products **KML**
 - Active Fire Perimeters **KML**
 - Spot Forecast Requests **KML**
 - Day-1 Precip. Forecast **KML**
 - Day-1 Outlook **KML**





- Location Zoom by...
- Localized forecast products, spot request, and mesowest observations

- + Current Hazards
 - National NWS Map
 - U.S. Threats
 - Briefing Page
- + Fire Situation
 - Nat. Sit. Report
 - Wildland Fire Upd
 - Large Incidents Map
 - Incweb
- + Forecasts
 - Fire WX Fcst (FWF)
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 - SPC Fire Weather
 - Predictive Services
 - SPC Severe Weather
 - NHC Tropical
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 - Up To 3 Months
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- + Drought/Precip
 - Observed Precip.
 - Precip. For Past Year
 - Drought Assessment
- + Fuels
- + Admin
- + GACCs
- + Other Agencies

Click desired location on map for forecast and additional information:

Map Satellite Terrain

Ely, MN 55731

Lat: 47.90°N Lon: -91.87°W Forecasts for zone: MNZ011
NWS Office: DLH

Preserve Your View: [Permalink](#) or [Bookmark](#)

Point Forecast Information...

[Fire Weather](#)
[7-Day](#)
[Hourly Graph](#)
[Digital/Tabular](#)
[Tabular](#)

Additional Info (opens in new window)...
[DLH Fire WX Page](#) · [WX Planner](#) · [Full Fire Wx Fcst](#)
[FARSITE: WTR File](#) · [WND File](#)
[Request Spot Forecast](#) · [MesoWest Obs. \(50 mile radtn\)](#)

Red Flag Warning
Fire Weather Watch
Hazardous Weather Outlook

Map data ©2011 Google - [Terms of Use](#)

Watches/Warnings
 Fire Perimeters
 Spot Forecasts
 Day-1 Precip
 Day-1 Outlook
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by... example

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Get info in KML format

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Active Fire Perimeters [KML](#)

Spot Forecast Requests [KML](#)

Day-1 Precip. Forecast [KML](#)

Day-1 Outlook [KML](#)

View map by GACC Region...

Today's Outlook
 Tomorrow's Outlook
 Day 3-8 Outlook

NWS NDFD Products

- Fire Weather Planning Forecast

.TODAY...
SKY/WEATHER.....SUNNY (5-15 PCT).
MAX TEMPERATURE.....
 ABOVE 7500 FT....57-62.
 BELOW 7500 FT....63-68.
 24 HR TREND.....3 DEGREES COOLER.
MIN HUMIDITY.....
 ABOVE 7500 FT....10-14 PCT.
 BELOW 7500 FT....7-11 PCT.
 24 HR TREND.....1 PCT WETTER.
20-FOOT WINDS.....NORTHEAST AROUND 5 MPH SHIFTING TO THE
 SOUTH AROUND 10 MPH IN THE AFTERNOON.
10000 FT MSL WINDS..SOUTHWEST 12 MPH.
CHC OF PRECIP.....0 PCT.
LAL.....1.
HAINES INDEX.....5.
MIXING HEIGHT.....10600 FT AGL.
TRANSPORT WINDS.....SOUTH 7 KNOTS.
VENT CATEGORY.....GOOD (74200 KNOT-FT).

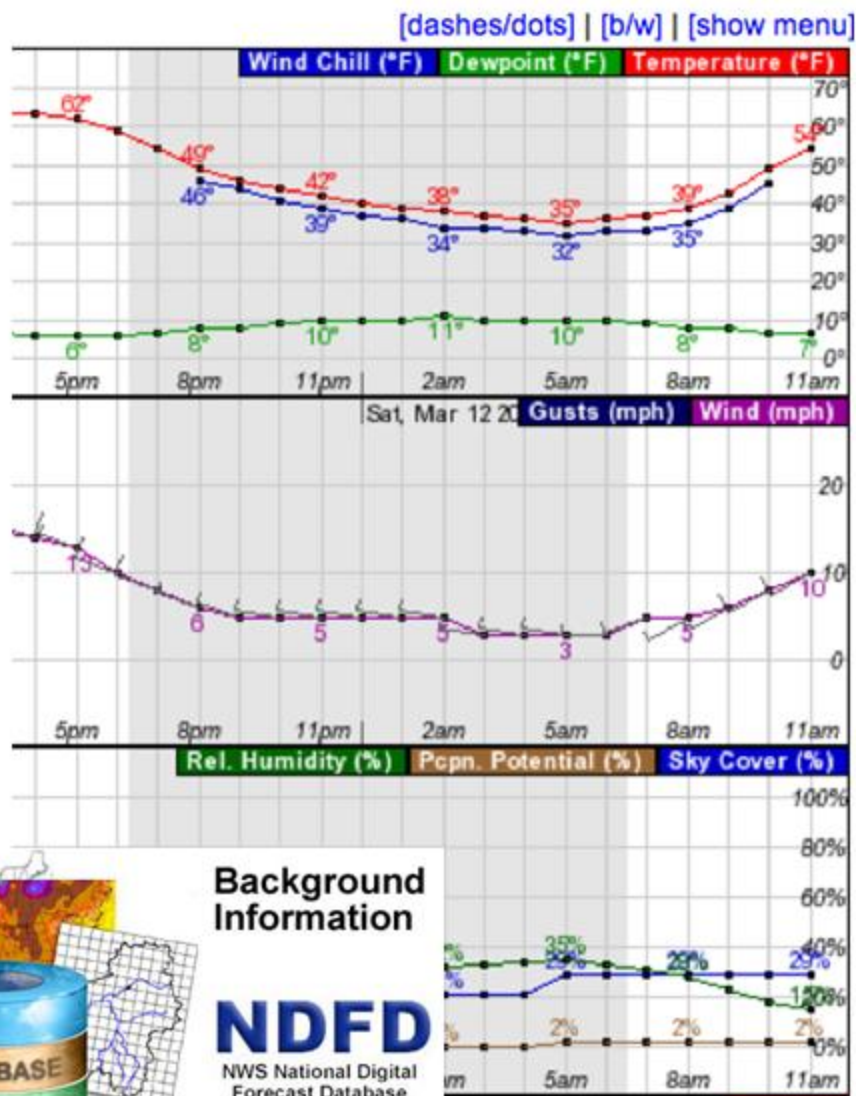


**Background
Information**

NDFD
NWS National Digital
Forecast Database

NWS NDFD Products

- Fire Weather Planning Forecast
- Hourly Graphs & Tables



NWS NDFD Products

- Fire Weather Planning Forecast
- Hourly Graphs & Tables
- Request Spot Forecast

[Back to Marquette fire weather page](#)

MARQUETTE SPOT FORECASTS

for

Thursday

← **Mar 10 2011** →

[CALENDAR](#)

[Submit a new Spot Request](#)



Pending Question Complete

Name	Ignition Time	Status
No Entries		

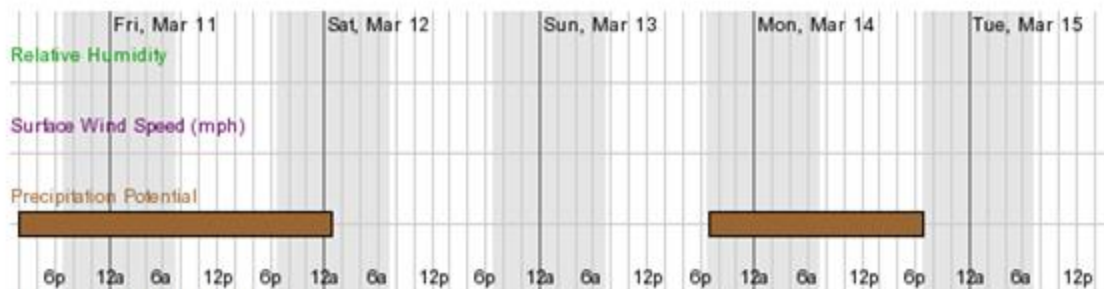


Background Information

NDFD
NWS National Digital Forecast Database

NWS NDFD Products

Weather Planner



Saturday, March 12 at 2am

Surface Wind: SSE 9mph

Relative Humidity: 82% Precipitation Potential: 30%

Element	Min	Max	Element
Temperature (°F)	<input type="text"/>	to <input type="text"/>	Surface Wind Speed (mph)
Relative Humidity	<input type="text"/>	to <input type="text"/>	Sky Cover
Surface Wind Speed (mph)	<input type="text"/>	to <input type="text"/>	Precipitation Potential



Background Information

NDFD
NWS National Digital
Forecast Database

Latitude/Longitude Entry

(i.e. 42.134) or deg min sec (i.e. 42 23 34)
n longitude for locations in Western Hemispr

Longitude:

- Fire Weather Planning Forecast
- Hourly Graphs & Tables
- Request Spot Forecast
- Weather Planner
- 7-Day Forecast
- FARSITE Wind & Weather Files
- Local Forecast Office Page
- Localized Mesowest Observation Map

Questions?



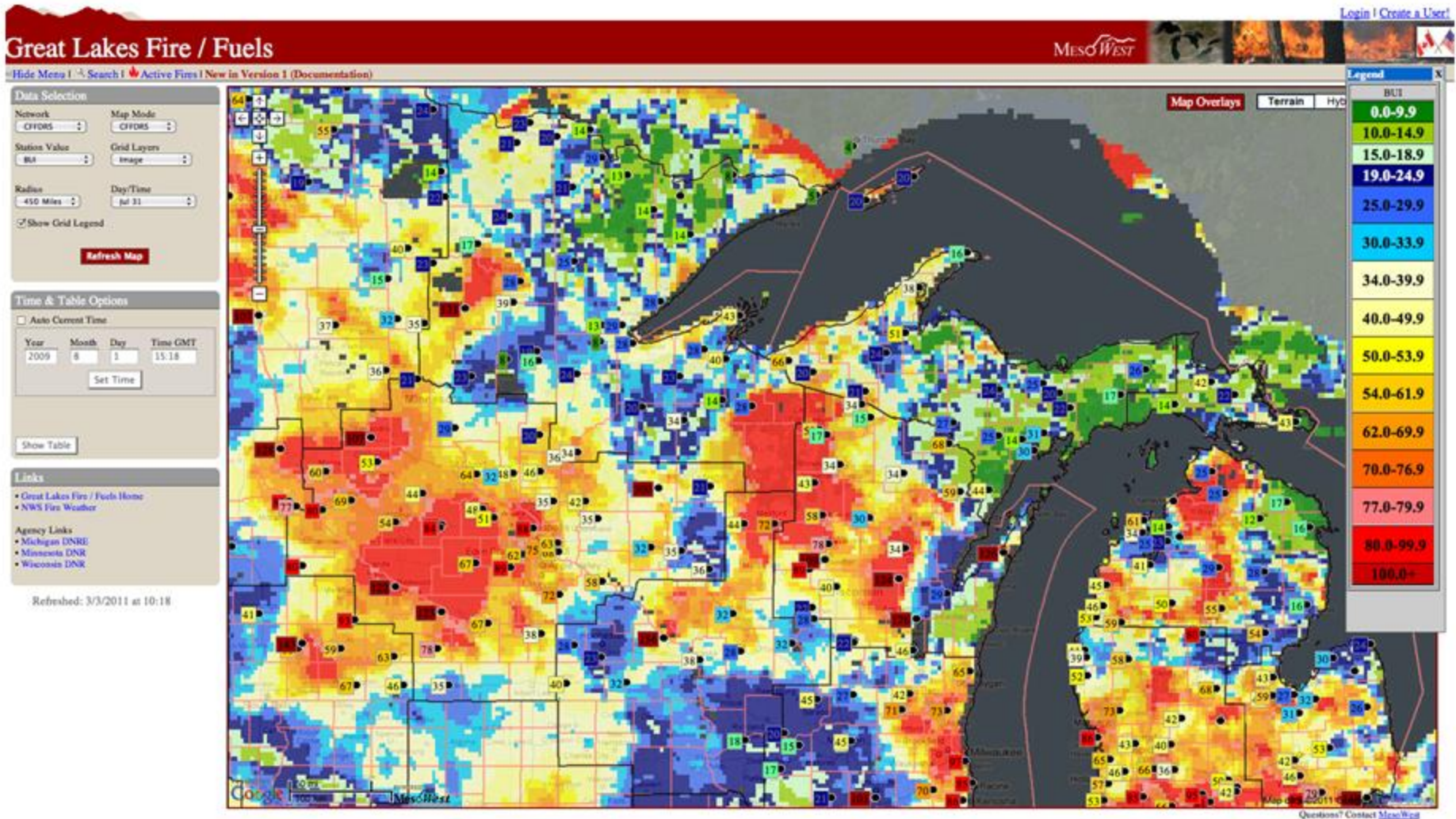
Situation Assessment

- What you should consider in go-no go decision:
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 - What is risk associated with spread and fire intensity?
 - Do you anticipate smoke problems?
 - Is holdover fire expected?
- What the new NWS “Fire” Website provides:
 - Localized access to current weather conditions
 - Localized access to NDFD forecast products
 - Climate Prediction Center (CPC) outlooks
- **What Great Lakes Fire/Fuels provides**
 - Expanded access to NDFD forecast products
 - Detailed and distributed estimates of fuel moisture/flammability and fire danger & fire behavior

Great Lakes Fire/Fuels

<http://glffc.utah.edu>

- Based on Mesowest technology and resources
- Operational in 2011





MESO WEST



THE UNIVERSITY OF UTAH



ROMAN

Real-time Observation Monitor and Analysis Network

Great Lakes Fire / Fuels



MESO WEST



University of Utah Software Development

- MesoWest: started over 15 years ago for operational use by National Weather Service forecasters, researchers, and the public
- ROMAN: started in 2002 with support by federal land agencies to improve access to fire weather information
- Many other applied research and development efforts related to operational analysis and forecasting applications

Sources of Data

Observations

- Interagency Remote Automated Weather Station (RAWS) network, NWS Automated Surface Observation System (ASOS), Enviro-weather (MI)
- Real Time Mesoscale Analysis (RTMA) for grids of temperature, relative humidity, and windspeed “observations” (blends 1hr fcsts w surface obs)
- Multisensor Precipitation Estimator (MPE) for grids of precipitation “observations”

Forecasts

- National Weather Service (NWS) National Digital Forecast Database (NDFD) Forecast Grids
 - Updated @12:30, 18:30, 00:30, 06:30 Central Time each day
 - Up to two forecast days included.
 - First day has accumulated precipitation from MPE incorporated

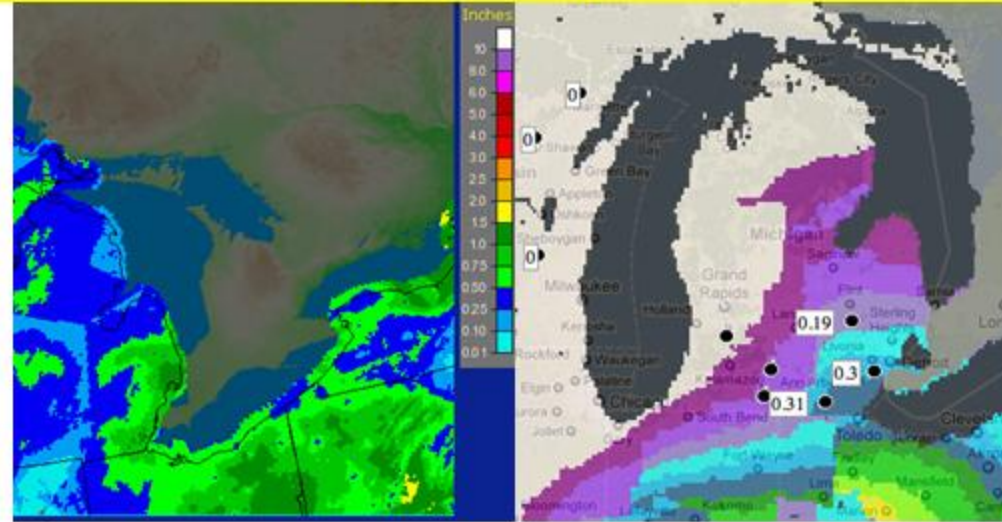


**Background
Information**

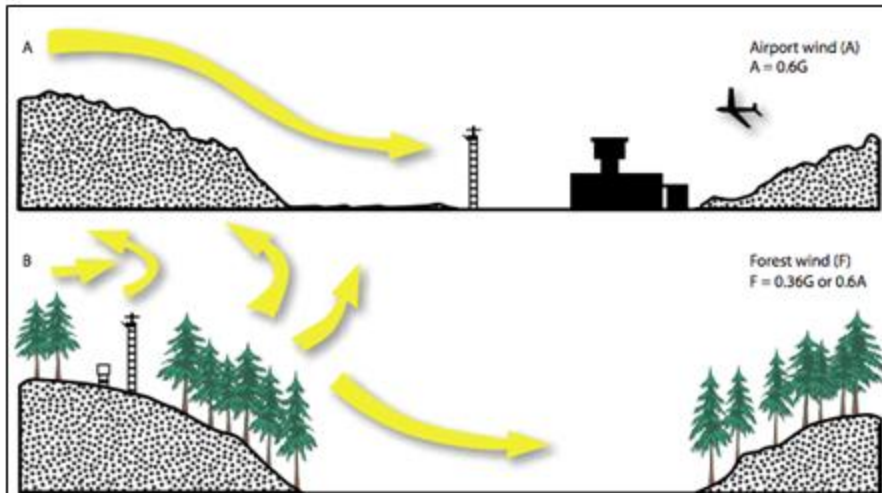
NDFD
NWS National Digital
Forecast Database

Caution about wind and precipitation

- NWS ASOS stations and NDFD forecasts may produce higher winds than we typically see at RAWS stations.
- Wind based CFFDRS codes (ISI, FWI) may be over or under-



- MPE precipitation estimates used in gridded calculations will have radar biases
- NDFD Gridded forecast estimates of precipitation are generalized. They don't capture local variation well but are only temporary.



RTMA/NDFD Grid Domain (MI, MN, & WI)

[Login](#) | [Create a User!](#)

Great Lakes Fire / Fuels

MESO WEST



[Hide Menu](#) | [Search](#) | [Active Fires](#) | [New in Version 1](#)

Data Selection

Network: CFFDRS
Map Mode: CFFDRS

Station Value: Temp
Grid Layers: Image

Radius: 300 Miles
Day/Time: Mar 10

Show Legend

[Refresh Map](#)

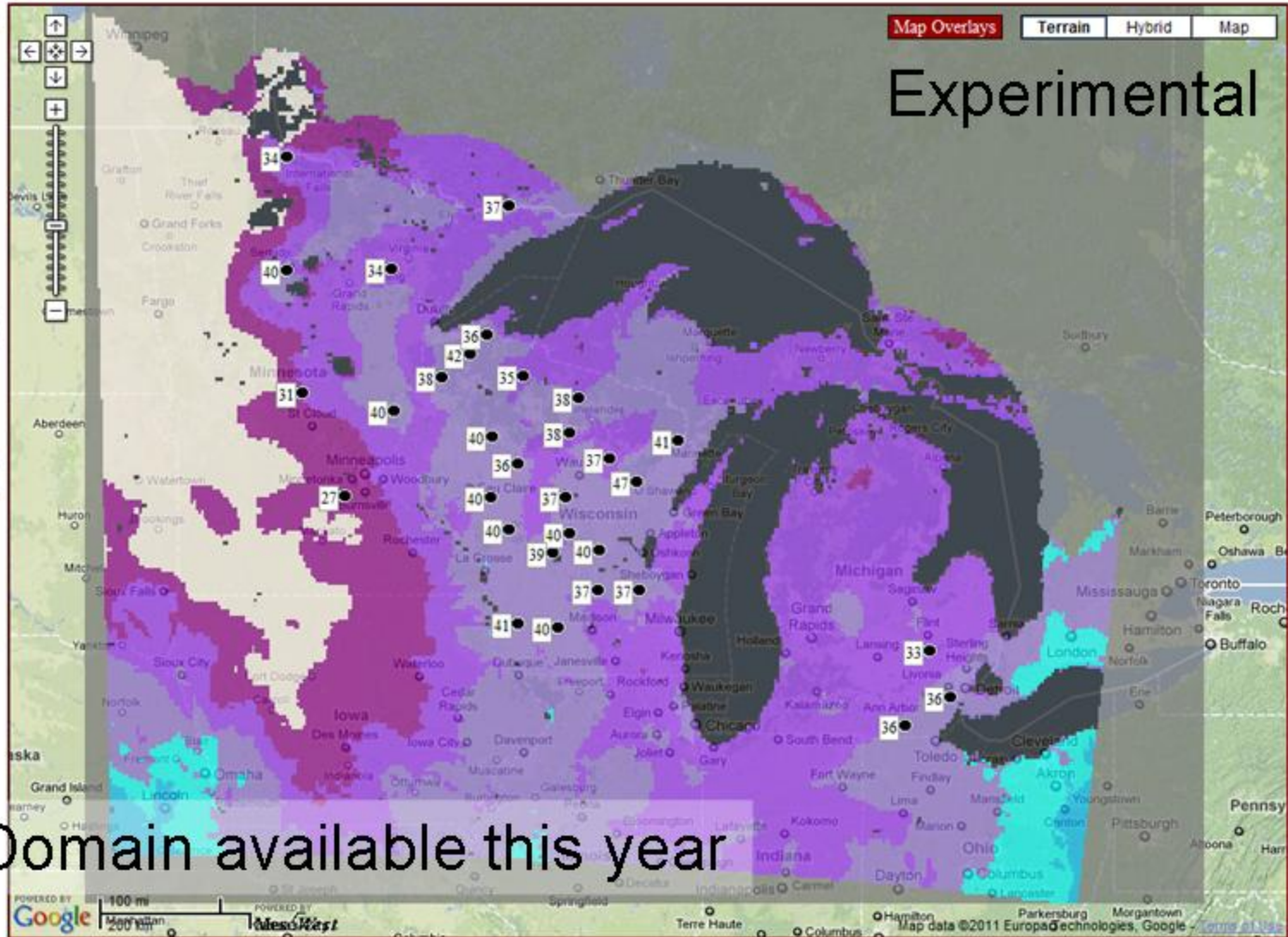
Time & Table Options

Auto Current Time

[Show Table](#)

- Links**
- [Great Lakes Fire / Fuels Home](#)
 - [NWS Fire Weather](#)
- Agency Links**
- [Michigan DNRE](#)
 - [Minnesota DNR](#)
 - [Wisconsin DNR](#)

Refreshed: 3/11/2011 at 09:24



National Domain available this year

Great Lakes Fire/Fuels Website Products

At Station Locations

- Canadian Forest Fire Danger Rating System (CFFDRS)
 - Daily standard calculations for all Fire Weather Index (FWI) at midday for both current and next two days.
 - Hourly calculation of select FWI indices (FFMC, ISI, FWI)
- National Fire Danger Rating System (NFDRS)
 - Collect and display daily NFDRS indices and point forecasts for certain RAWS stations from WIMS
- Access to Mesowest interface and data

For the Gridded Overlays

- Daily estimates of actual (“observed”) weather conditions for each 5km grid cell
- 2 Days of forecasted weather conditions for each 5km grid cell
- Canadian Forest Fire Danger Rating System (CFFDRS)
 - All Daily Standard Fire Weather Index (FWI) system codes & indices calculated from gridded weather elements. Current day and 2 days of forecasts.



LINKS

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NWS Fire Weather

Login to Great Lakes

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Password:

Login

Create a User

AGENCY LINKS

Michigan DNR
Contact MI DNR

Minnesota DNR
Contact MN DNR

Wisconsin DNR
Contact WI DNR

Great Lakes Surface Weather and Fire Indices

Click Map For Current Fire Weather



Logged in, your default profile will be used

Click here to read what's new in Version 1 

Tabular Fire Weather Products

CFFDRS Database Table

CFFDRS Station Status

NFDRS Observed Database Table

NFDRS Forecast Database Table

CFFDRS Initial Values and Data Updates (Restricted Access)

Download CFFDRS by State

Welcome Screen

- <http://glffc.utah.edu>
- Login & profile access



LINKS

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Fire Compact

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Atmospheric
Sciences

NWS Fire Weather

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Password:

Login

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Minnesota DNR
Contact MN DNR

Wisconsin DNR
Contact WI DNR

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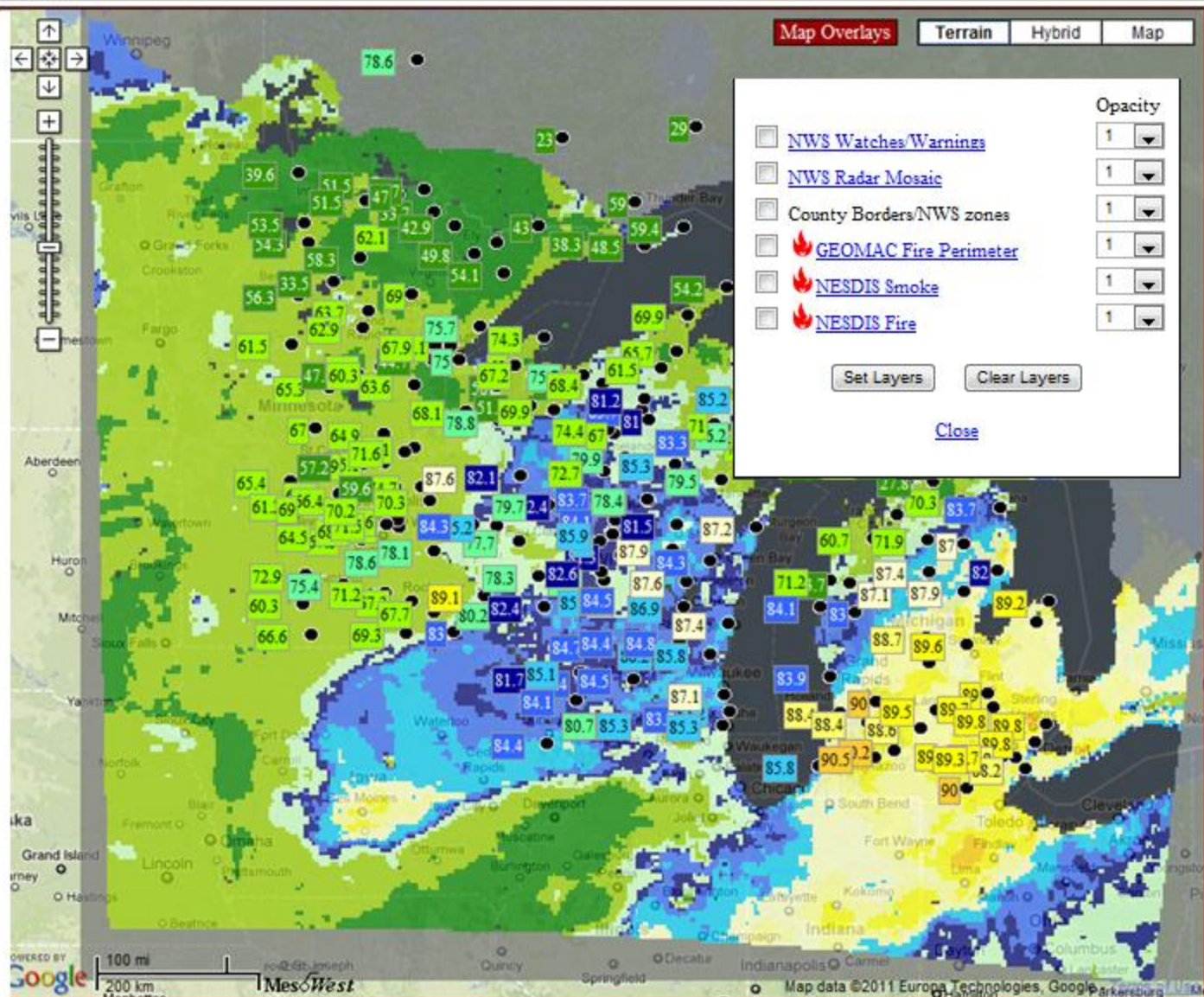
Welcome Screen

- <http://glffc.utah.edu>
- Login & profile access
- Station Network information & status
- Data Access
 - CFFDRS
 - NFDRS

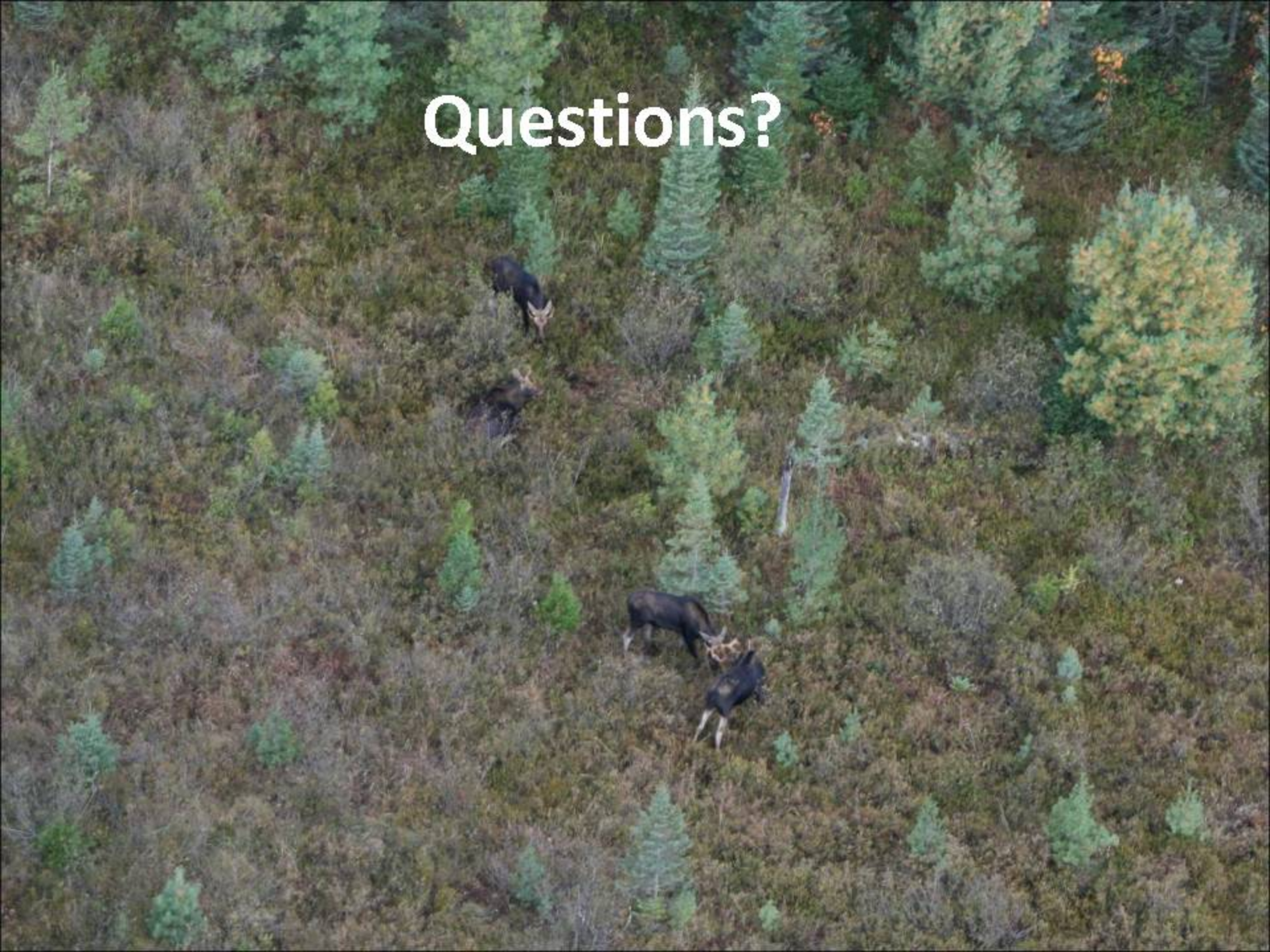


Map Screen

- Based on a Google map environment
- Zoom controls
- Map Overlays & Background
- Allows User login here too



Questions?



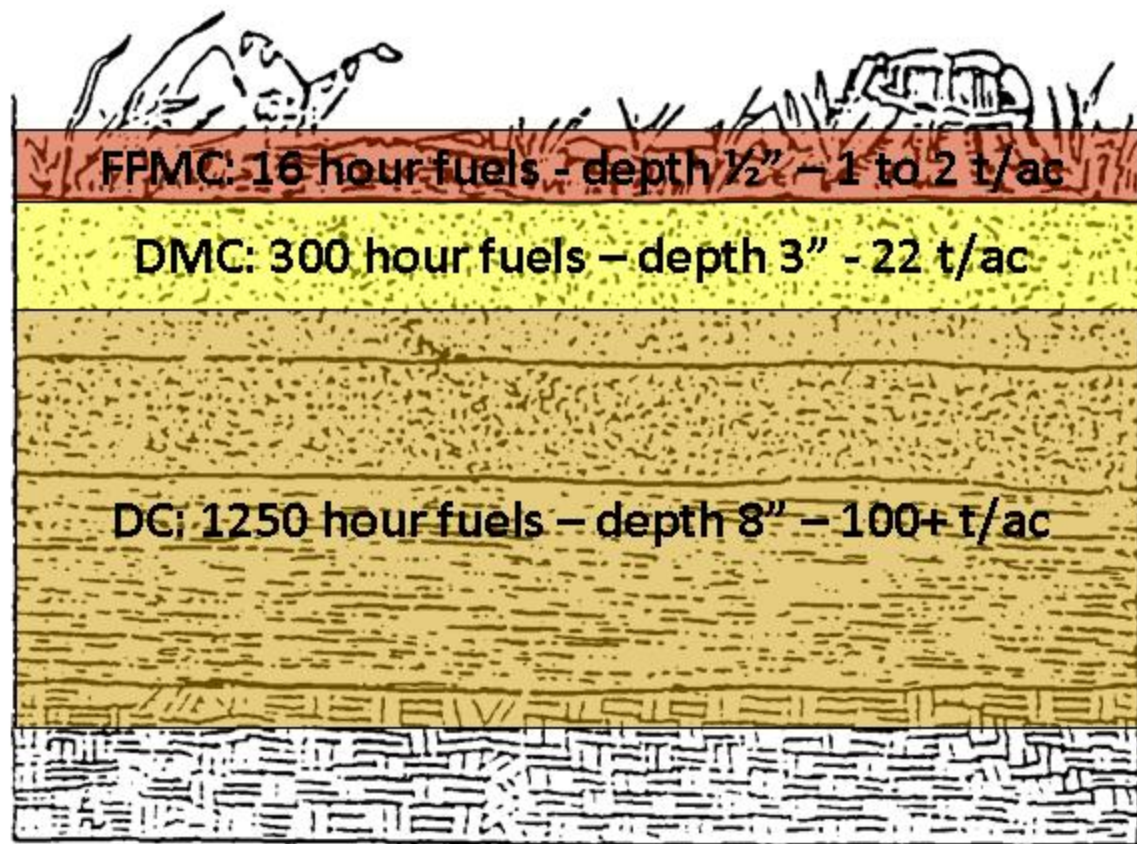
CFFDRS Mode



Why is Canadian Forest Fire Danger Rating System emphasized?

- **Fire Weather Index (FWI)** system requires only 4 weather elements for the calculation (temp, rh, windspeed, rainfall). Reason(s) for changes in code values easily understood.
- Fewer options in the calculation of codes, facilitating grid calculations and display
- Intermediate moisture codes (***Duff Moisture Code – DMC & Buildup Index – BUI***) seem to capture summer seasonality and fire effects.

A very short CFFDRS Primer: CFFDRS Fuel Moisture Codes cumulates day to day changes



- **Fine Fuel Moisture Code**
 - Represents fuel moisture in litter & fine fuels.
- **Duff Moisture Code**
 - Represents fuel moisture in upper organic layer and may reflect live fuel trends
- **Drought Code (~1250-hr DFM)**
 - Represents fuel moisture in deep organic layer.
 - May be adjusted upwards to reflect overwinter lack of precipitation.

Great Lakes Fire/Fuels Thresholds

FFMC	DMC	DC	ISI	BUI	FWI	FDR
0.0-59.9	0.0-5.9	0.0-14.9	0.0-1.9	0.0-9.9	0.0-1.9	LOW
60.0-74.9	6.0-9.9	15.0-49.9	2.0-2.9	10.0-14.9	2.0-3.9	
75.0-80.9	10.0-12.9	50.0-79.9	3.0-3.9	15.0-18.9	4.0-4.9	
81.0-82.9	13.0-19.9	80.0-99.9	4.0-5.9	19.0-24.9	5.0-7.9	MOD
83.0-84.9	20.0-24.9	100.0-199.9	6.0-6.9	25.0-29.9	8.0-9.9	
85.0-86.9	25.0-27.9	200.0-209.9	7.0-7.9	30.0-33.9	10.0-13.9	
87.0-87.9	28.0-33.9	210.0-229.9	8.0-8.9	34.0-39.9	14.0-15.9	HIGH
88.0-88.9	34.0-39.9	230.0-249.9	9.0-9.9	40.0-49.9	16.0-18.9	
89.0-89.9	40.0-41.9	250.0-273.9	10.0-10.9	50.0-53.9	19.0-20.9	
90.0-90.9	42.0-49.9	274.0-299.9	11.0-13.9	54.0-61.9	21.0-23.9	
91.0-91.9	50.0-59.9	300.0-329.9	14.0-16.9	62.0-69.9	24.0-29.9	VERY HIGH
92.0-92.4	60.0-62.9	330.0-359.9	17.0-18.9	70.0-76.9	30.0-32.9	
92.5-93.9	63.0-69.9	360.0-399.9	19.0-21.9	77.0-79.9	33.0-34.9	
94.0-94.9	70.0-79.9	400.0-499.9	22.0-24.9	80.0-99.9	35.0-44.9	EXTREME
95.0+	80.0+	500+	25.0+	100.0+	45.0+	

- Uses NFDRS 5 class colors
- Integrates thresholds from MI, MN & WI
- Establishes 3 bands within each class

Questions?



Great Lakes Fire / Fuels

"MAP SCREEN"



[Hide Menu](#) | [Search](#) | [Active Fires](#) | [New in Version 1](#)

Data Selection

Network: Map Mode:

Station Value: Grid Layers:

Radius: Day/Time:

Show Legend

[Refresh Map](#)

Time & Table Options

Auto Current Time

[<< Prev day](#) [Next day >>](#)

Year	Month	Day	Time GMT
2009	8	1	18:00

[Set Time](#)

[Show Table](#)

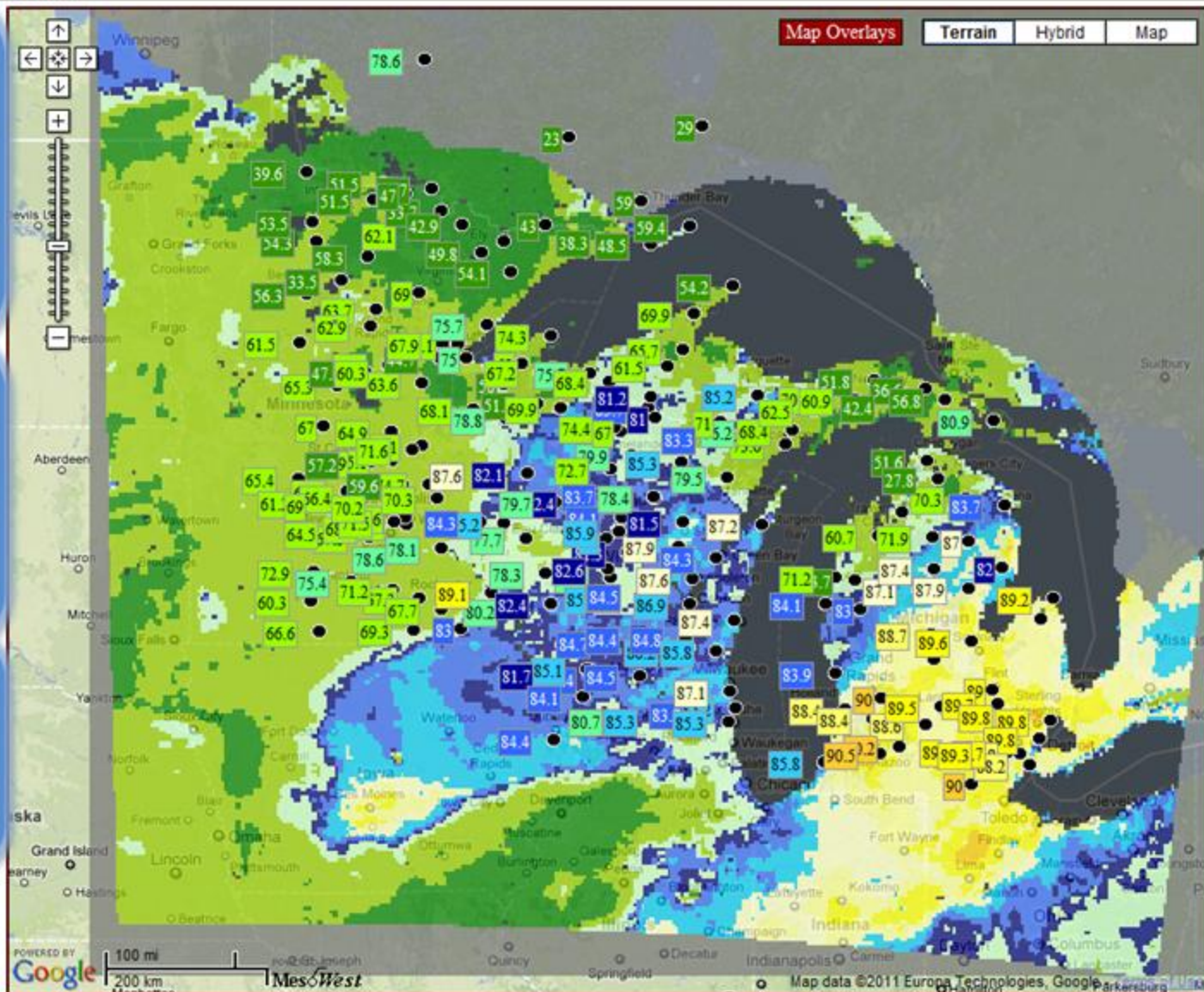
Links

- [Great Lakes Fire / Fuels Home](#)
- [NWS Fire Weather](#)

Agency Links

- [Michigan DNRE](#)
- [Minnesota DNR](#)
- [Wisconsin DNR](#)

Refreshed: 3/11/2011 at 10:10



Great Lakes Fire / Fuels

Hide Menu | Search | Active Fires | New in Version 1

Data Selection

Network: **CFFDRS** | Map Mode: CFFDRS

Station Value: FPMC | Grid Layers: Image

Radius: 300 Miles | Day/Time: Aug 1

Show Legend

Refresh Map

Time & Table Options

Auto Current Time

<< Prev day | Next day >>

Year	Month	Day	Time GMT
2009	8	1	18:00

Set Time


Show Table

Links

- Great Lakes Fire / Fuels Home
- NWS Fire Weather

Agency Links

- Michigan DNRE
- Minnesota DNR
- Wisconsin DNR



Data Selection

- Network identifies which station networks (RAWs, NWS, or all) to display

Great Lakes Fire / Fuels

Hide Menu | Search | Active Fires | New in Version 1

Data Selection

Network: CFFDRS
Map Mode: CFFDRS
Station Value: FPMC
Grid Layers: Image
Radius: 300 Miles
Day/Time: Aug 1
 Show Legend
Refresh Map

Time & Table Options

Auto Current Time
<< Prev day Next day >>
Year: 2009 Month: 8 Day: 1 Time GMT: 18:00
Set Time


Show Table

Links

- [Great Lakes Fire / Fuels Home](#)
- [NWS Fire Weather](#)

Agency Links

- [Michigan DNRE](#)
- [Minnesota DNR](#)
- [Wisconsin DNR](#)



Data Selection

- Network identifies which station networks (RAWS, NWS, or all) to display
- Map Mode identifies the type of data (CFFDRS, NFDRS, or Mesowest/Wx only) to display
 - *No wind direction available in CFFDRS mode, use mesowest mode*

Great Lakes Fire / Fuels

Hide Menu | Search | Active Fires | New in Version 1

Data Selection

Network: CFFDRS | Map Mode: CFFDRS

Station Value: FPMC

Grid Layers: Image

Radius: 300 Miles | Day/Time: Aug 1

Show Legend

Refresh Map

Time & Table Options

Auto Current Time

<< Prev day | Next day >>

Year	Month	Day	Time GMT
2009	8	1	18:00

Set Time


Show Table

Links

- Great Lakes Fire / Fuels Home
- NWS Fire Weather

Agency Links

- Michigan DNRE
- Minnesota DNR
- Wisconsin DNR



Data Selection

- **Network** identifies which station networks (RAWS, NWS, or all) to display
- **Map Mode** identifies the type of data (CFFDRS, NFDRS, or Mesowest/Wx only) to display
 - *No wind direction available in CFFDRS mode, use mesowest mode*
- **Station Value** identifies what wx element, code or index to display

Data Selection

Network: CFFDRS | Map Mode: CFFDRS

Station Value: FFMC | Grid Layers: Image

Radius: 300 Miles | Day/Time: Mar 10

Show Legend | Refresh Map

Time & Table Options

Auto Current Time:

<< Prev day | Next day >>

Year	Month	Day	Time GMT
2009	8	1	18:00

Set Time

Show Table

Links

- Great Lakes Fire / Fuels Home
- NWS Fire Weather

Agency Links

- Michigan DNRE
- Minnesota DNR
- Wisconsin DNR

Data Selection

- Grid Layers
 - None hides grid
 - Image displays grid overlay
 - Image & Data displays grid overlay and shows value for grid cell at mouse location

Data Selection

Network: CFFDRS | Map Mode: CFFDRS

Station Value: FFMC | Grid Layers: Image

Radius: 300 Miles | Show Legend:

Day/Time: Mar 10, Mar 10, Mar 11, 11 MST, Mar 11 forecast, Mar 12 forecast

Refresh Map

Time & Table Options

Auto Current Time:

<< Prev day | Next day >>

Year: 2009 | Month: 8 | Day: 1 | Time GMT: 18:00

Set Time

Show Table

Links

- Great Lakes Fire / Fuels Home
- NWS Fire Weather
- Agency Links
 - Michigan DNRE
 - Minnesota DNR
 - Wisconsin DNR

Data Selection

- Grid Layers
 - None hides grid
 - Image displays grid overlay
 - Image & Data displays grid overlay and shows value for grid cell at mouse location
- Day/Time (4 possible choices)
 - Latest daily (1800 UTC) observation
 - Latest hourly observation
 - 1st daily forecast
 - 2nd daily forecast

Data Selection

Network: CFFDRS | Map Mode: CFFDRS

Station Value: FFMC | Grid Layers: Image

Radius: 300 Miles | Day/Time: Aug 1

Show Legend

Refresh Map

Time & Table Options

Auto Current Time

<< Prev day | Next day >>

Year	Month	Day	Time GMT
2009	8	1	18:00

Show Table

Links

- [Great Lakes Fire / Fuels Home](#)
- [NWS Fire Weather](#)

Agency Links

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- [Minnesota DNR](#)
- [Wisconsin DNR](#)

Radius & Show Table

- Radius limits the stations to be displayed.
 - User can use search to center radius around location, such as fire (lat/long), city, zip code, or by clicking map at a location.

Data Selection

Network: CFFDRS | Map Mode: CFFDRS

Station Value: FFMC | Grid Layers: Image

Radius: 300 Miles | Day/Time: Aug 1

Show Legend

Refresh Map

Time & Table Options

Auto Current Time

<< Prev day | Next day >>

Year: 2009 | Month: 8 | Day: 1 | Time GMT: 18:00

Show Table

Links

- Great Lakes Fire / Fuels Home
- NWS Fire Weather

Agency Links

- Michigan DNRE
- Minnesota DNR
- Wisconsin DNR

Radius & Show Table

- Radius limits the stations to be displayed.
 - User can use search to center radius around location, such as fire (lat/long), city, zip code, or by clicking map at a location.
- Show Table displays table of data for displayed stations

Station	Date	Temp ↑	RH	Wspd	Pcp	FFMC	DMC
GLIDDEN	2011/3/12	30	61	18	0.06	71.4	3
	2011/3/11	34	61	10	0	80.4	4
	2011/3/10	35	54	7	0	78.2	3
WOODRUFF	2011/3/12	32	63	18	0.06	72.7	5
	2011/3/11	39	44	6	0	84.1	6
	2011/3/10	38	50	9	0	81.9	5

Data Selection

Network: CFFDRS | Map Mode: CFFDRS

Station Value: FFMC | Grid Layers: Image

Radius: 300 Miles | Day/Time: Aug 1

Show Legend

Refresh Map

Auto Current Time

<< Prev day | Next day >>

Year	Month	Day	Time GMT
2009	8	1	18:00

Set Time

Show Table

Links

- Great Lakes Fire / Fuels Home
- NWS Fire Weather

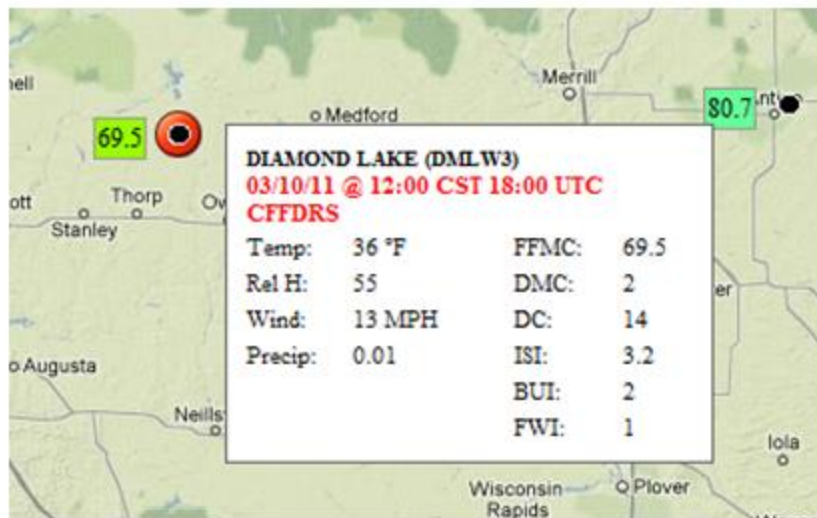
Agency Links

- Michigan DNRE
- Minnesota DNR
- Wisconsin DNR

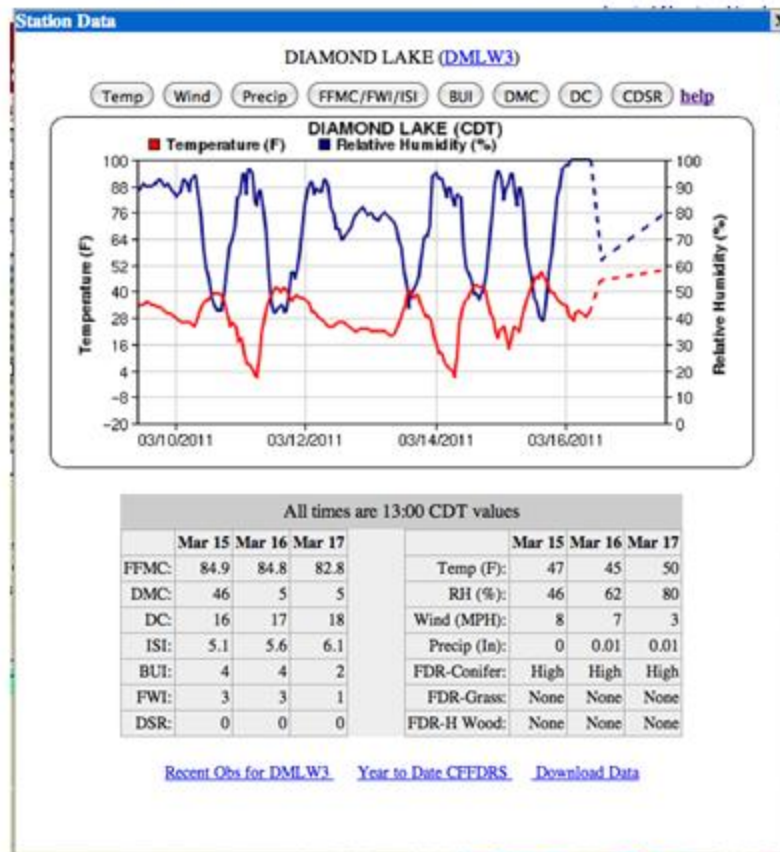
Time Options

- Auto Current Time (on) sets date and time to current, and selects observed and forecast data based on “now”
- Auto Current Time (off) allows user to select the reference date and time for display data. Grids for 2009 are available
- <<Prev Day & Next day>> allow quick one day changes.

Getting more Station Data



- Hover the mouse over the station point to get a quick view of current conditions, including current
- Click on the point to get a window with access to graphs, data snapshot and links to more data
- Year to Date CFFDRS



Year To Date CFFDRS

STATION INFORMATION

ID: WUEW3
 NAME: WAUSAUKEE
 LATITUDE: 45.3897
 LONGITUDE: -87.9653
 ELEVATION: 763 ft
 MNET: RAW5



[Surface Weather Map](#)
[Contour/Terrain Map](#)

USEFUL LINKS

[Help](#)

Change to [Metric Units](#)

Change to [GMT](#)

Change year

[Download CFFDRS Data](#)

[Change to Graphical Display](#)

[Data Quality](#)

[Station Information](#)

[Station Status](#)

[Nearby Stations](#)

[Latency Stats](#)

[Restrictions](#)

[RSS](#)

DATA COURTESY OF
[Bureau of Land Management](#)

and

Wisconsin Bureau of Forest
 Protection

CFFDRS for KEHW3 in 2011

Hourly CFFDRS are available by clicking on dates.

Using the NDFD forecast available on 3/11 at 9:00 CDT and no observed precipitation.

January 1, 2011 - 12:00 CST through March 13, 2011 - 13:00 CDT

Date	Time(CDT)	Temperature °F	Relative Humidity %	Wind Speed mph	Precipitation 24hr in	FFMC	DMC	DC	ISI	BUI	FWI
3/13	13:00	31.0	53.0	6.9	0.01	80.5	2.5	2.8	2.2	2.1	0.7
3/12	12:00	33.0	72.0	20.8	0.01	77.7	2.5	2.8	2.1	5.0	2.6
3/11	12:00	51.0	27.0	5.0	0.03	74.7	2.4	2.8	2.0	1.1	0.4
3/10	12:00	47.0	41.0	9.0	0.32	54.2	0.9	1.2	0.6	0.5	0.1
3/9	12:00	32.0	89.0	8.0	0.00	75.8	0.7	8.8	1.2	1.5	0.4

- Data table includes a year's data, with up to 2 days of forecasted codes & indices, updated 4 times a day
- When observation dates are highlighted in blue, the live link brings up hourly data.

STATION INFORMATION

ID: WUEW3
NAME: WAUSAUKEE
LATITUDE: 45.3897
LONGITUDE: -87.9653
ELEVATION: 763 ft
MNET: RAWS



[Surface Weather Map](#)
[Contour/Terrain Map](#)

USEFUL LINKS

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DATA COURTESY OF

[Bureau of Land Management](#)

and

Wisconsin Bureau of Forest

Protection

Year To Date CFFDRS

- Maps for validating station location and current weather information
- Change year provides access to history of data stored in Great Lakes Fire/Fuels.
- Download CFFDRS Data allows user to download either observation or forecast data in the database.
- Change to Graphical Display gives user access to custom graphing capabilities

A photograph of a forest fire. In the foreground, there are bright orange and yellow flames rising from the ground, with thick white smoke billowing upwards. The background shows a dense forest of trees, some of which are bare and skeletal, while others are evergreens. The overall atmosphere is hazy and smoky. The word "Questions?" is overlaid in the top right corner in a bold, black, sans-serif font.

Questions?

NFDRS & Mesowest Modes



NFDRS Map Mode

Great Lakes Fire / Fuels

MESO West

Hide Menu Search Active Fires New in Version 1

Data Selection

Network: RAWs Map Mode: NFDRS

Overlay 1: Current Daily TEN

Overlay 2: Next Daily THOU Fcst

Next Daily THOU Fcst

Next Daily KBDI Fcst

Next Daily STL Fcst

Next Daily ADJ Fcst

Current Daily Temp

Current Daily RH

Current Daily Wind Speed

Current Daily Precip

Current Daily IC

Current Daily BI

Current Daily SC

Current Daily ERC

Current Daily TEN

Current Daily HUN

Current Daily THOU

Current Daily KBDI

Current Daily STL

Current Daily ADJ

Prev Daily IC Fcst

Prev Daily BI Fcst

Next day >>

Time GMT: 2010 8 1 16:33

Set Time

Show Table

Most recent observation within 1 hr ending at 16:33 UTC 8/1/2010

POWERED BY Google MesWest

- Available only for RAWs stations maintained in WIMS. MIDNR RAWs not active.
- Includes full set of codes, indices and staffing levels for 1st fuel model in WIMS station catalog
- Displays only forecasts posted to WIMS.

Mesowest Map Mode

Great Lakes Fire / Fuels

MESO WEST

Login | Create a User!

Hide Menu | Search | Active Fires | New in Version 1

Data Selection

Network: NWS+RAWS | Map Mode: MesoWest

Overlay 1: Current Temp | Overlay 2: Current RH

Highlight Data

Radius: 100 Miles

Refresh Map

Time & Table Options

Auto Current Time

Show reports within last: 1 hr

Show Table

Links

- Great Lakes Fire / Fuels Home
- NWS Fire Weather

Agency Links

- Michigan DNRE
- Minnesota DNR
- Wisconsin DNR

Map Overlays: Terrain | Hybrid | Map

Most detailed weather info

Can include all stations in mesowest

The screenshot displays the Mesowest web application interface. The main map shows a topographic view of the Great Lakes basin with numerous weather stations marked by black dots and labeled with station numbers (e.g., 30, 32, 33, 92, 93, 94, 97, 100, 101, 86, 91, 89, 92). The interface includes a left-hand sidebar with 'Data Selection' (Network: NWS+RAWS, Map Mode: MesoWest, Overlays: Current Temp, Current RH, Highlight Data checked, Radius: 100 Miles) and 'Time & Table Options' (Auto Current Time checked, Show reports within last: 1 hr, Show Table button). The top navigation bar includes 'Great Lakes Fire / Fuels', 'MESO WEST', and 'Login | Create a User!'. The bottom of the map features a scale bar (20 mi / 50 km), 'POWERED BY Google' and 'Mesowest' logos, and a copyright notice 'Map data ©2011 Google'. A 'Map Overlays' menu is visible in the top right of the map area, with 'Terrain', 'Hybrid', and 'Map' options.

Login to Great Lakes

Login:

Password:

Login

Create a User

Should you "Create a User"?



If you login, you can:

- Configure your map display and remember it as a default profile when you login.
- Build separate profiles for each mode
- Download more than small quantities of data in single requests

Login Name: *

Full Name: *

Email: *

Affiliation:

Password: *

Retype Password: *

Submit!

*Required Field

Agency Contacts:

- Don Johnson (johnsond18@michigan.gov) for Michigan Issues
- Doug Miedtke (doug.miedtke@state.mn.us) for Minnesota Issues
- Jim Barnier (jamesd.barnier@wisconsin.gov) for Wisconsin Issues

A map of the Lake States region (Minnesota, Wisconsin, Illinois, Indiana, Michigan) is shown in the background. A semi-transparent grey box is centered over the map, containing text. In the top right corner of the map, there is an illustration of a bird perched on a branch with pine needles and cones. In the bottom left corner, there is a circular logo for the Joint Fire Science Program.

Questions?
Comments?
Visit our website to sign
up for newsletters and
announcements



<http://lakestatesfiresci.net>