

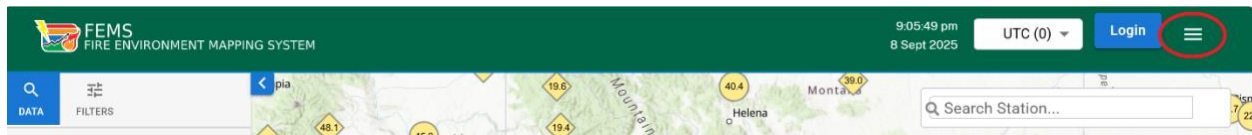
FEMS Fire Danger Module

IMPORTANT: Beginning October 1, 2025 Fire Environment Mapping System (FEMS) is the operational and authoritative NFDRSv4 database.

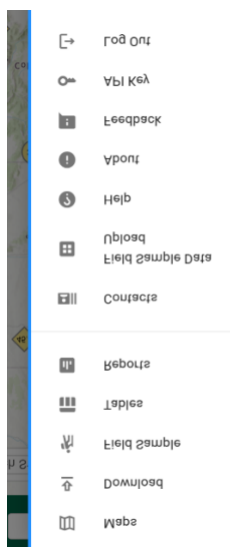
FEMS is a map-based application that displays Weather, Fire Danger and Field Samples. Navigation is based on a series of buttons, check boxes and sliders:

Functionality of FEMS is through the “Hamburger” icon in the upper right of the opening screen.

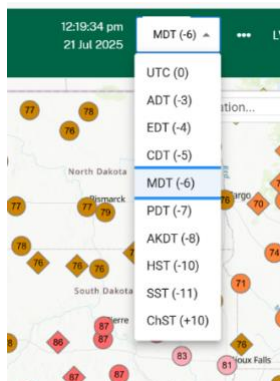
1. Click on the “Hamburger” icon in the upper right:



2. A list of menu options will appear; selections will vary with user roles:



3. Data can be displayed in UTC or Standard Time:



Accessing Fire Danger

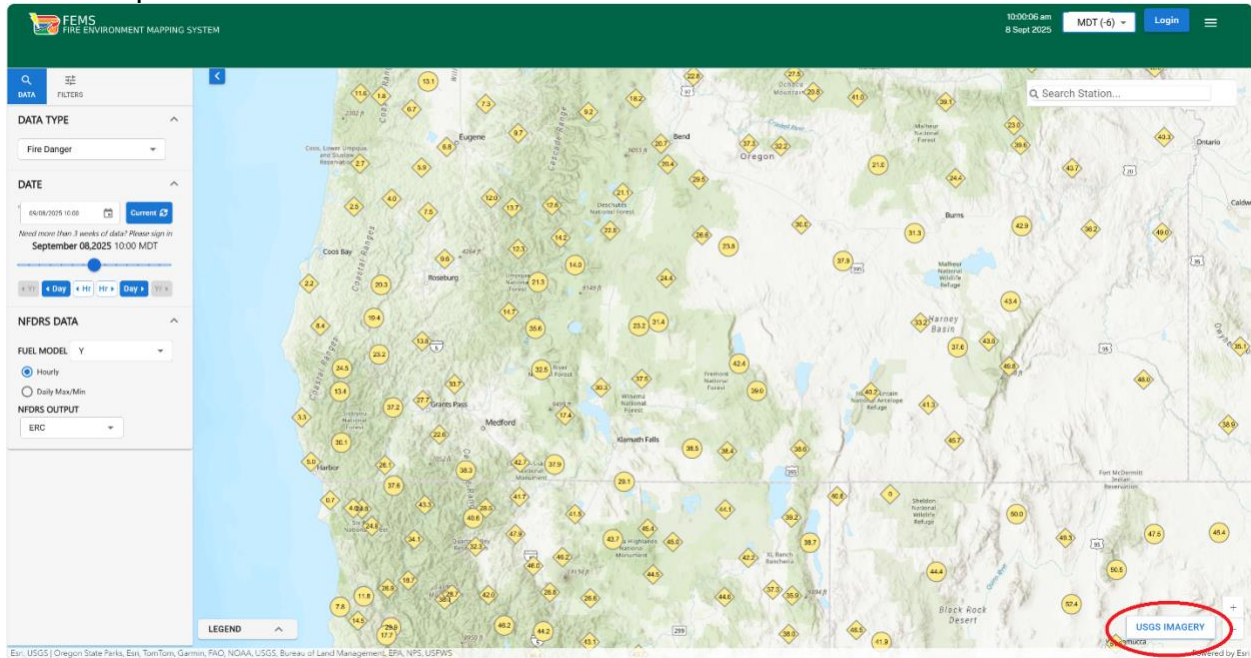
Fire Danger can be accessed by either the Map or Tables Menu.

Map Option

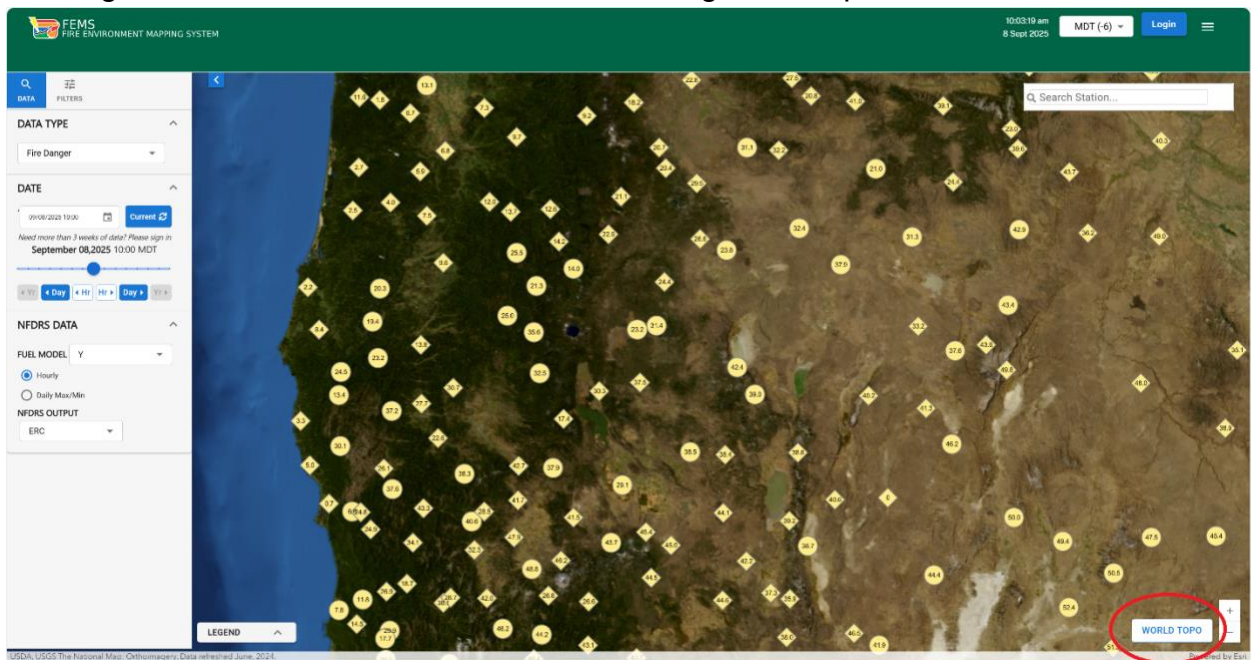
Navigating Maps

Two options are available for viewing the map.

World Topo is the default.



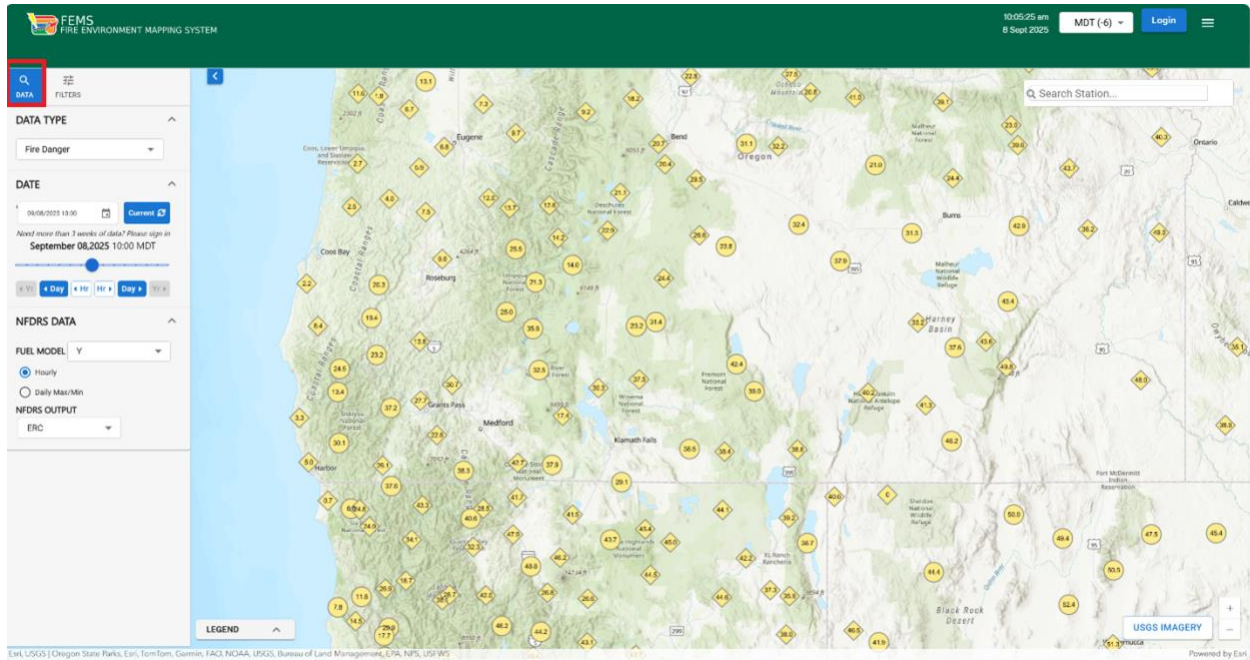
Clicking on the “USGS IMAGERY” label will change the map.



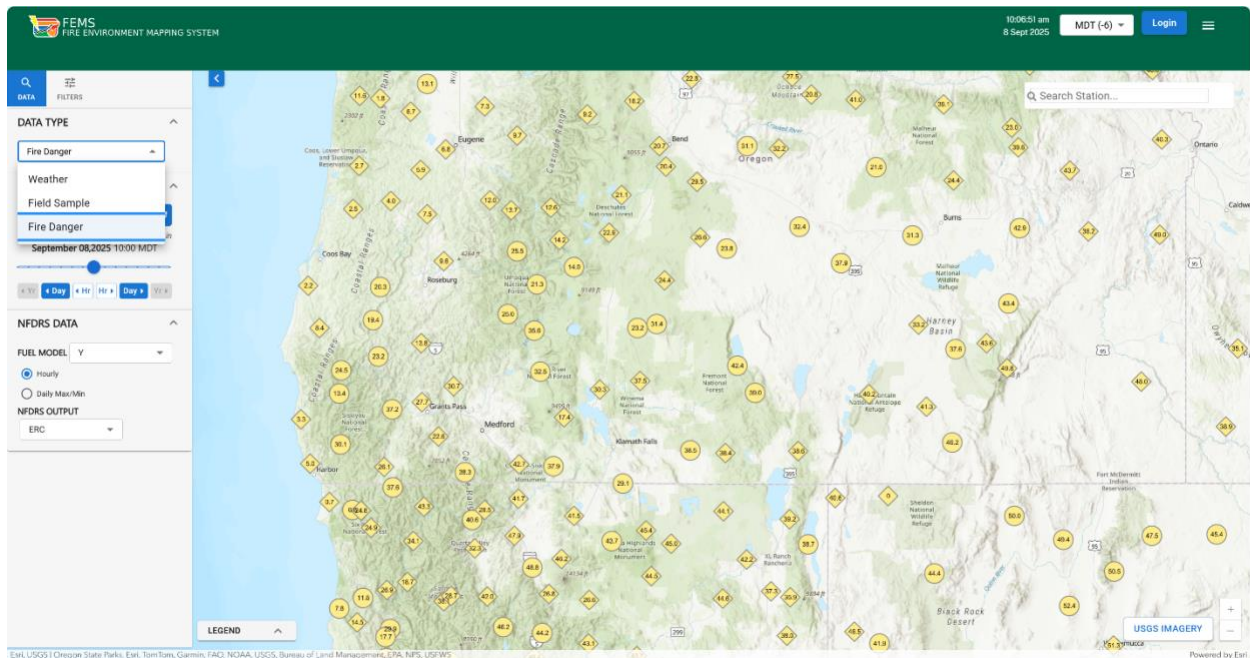
Zoom Capability, the map can be enlarged to locate the desired area or weather station.

Data Tab:

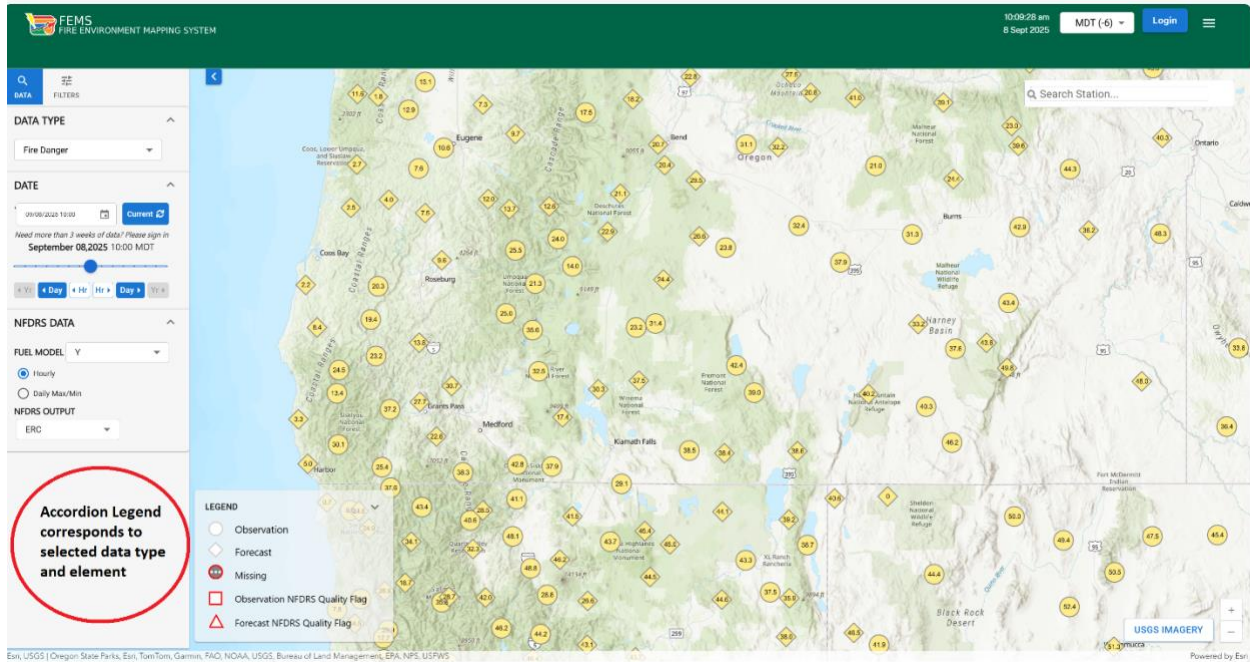
Under the “Data” tab, accordion menus and radial buttons will aid selections:



Selections on the left will determine what the map displays:

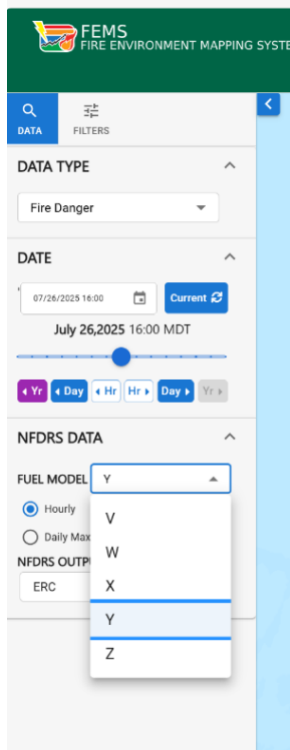


The Legend corresponds to the selected data type and element:

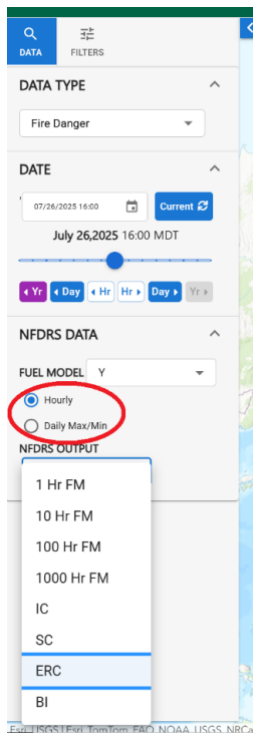


Here the selected data type is Fire Danger.

Select the desired Fuel Model:



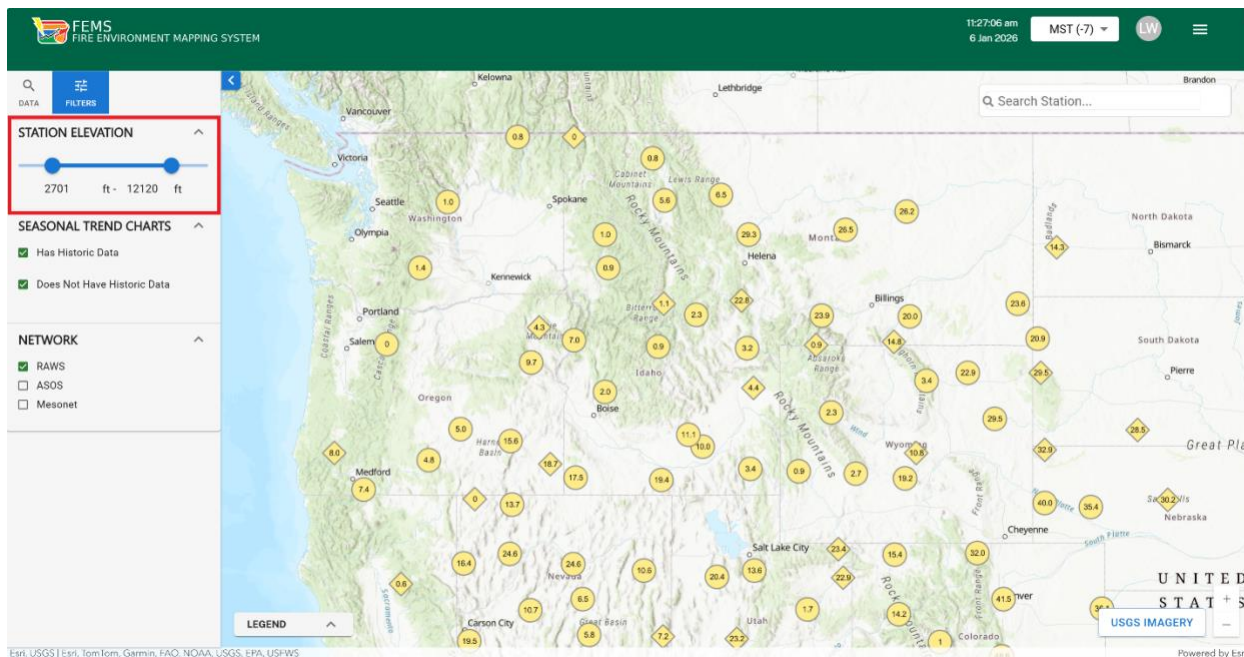
Select the desired NFDRS Output to be displayed on the map:



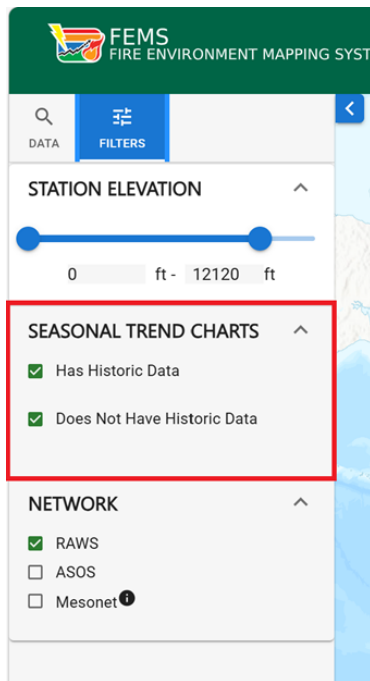
Filter Tab:

Under the “Filter” Tab there are several filter options to narrow the stations displayed.

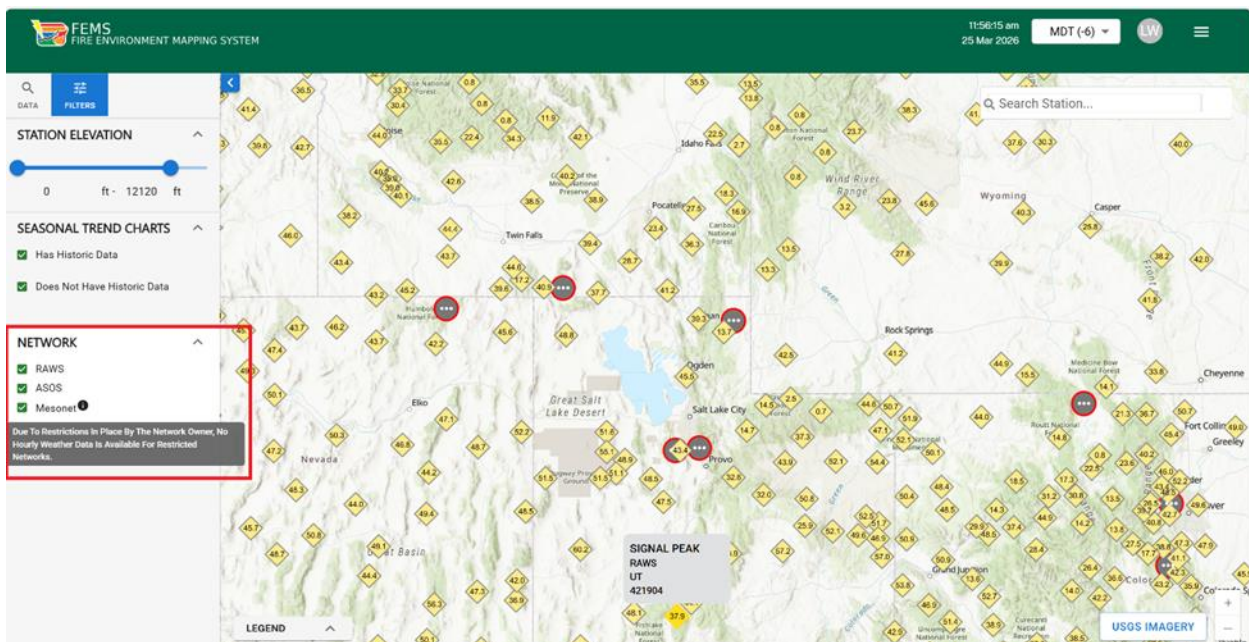
“Station Elevation” can be adjusted to only display stations at a desired elevation by adjusting the slider bar.



“Seasonal Trend Charts” check boxes filter out stations with or without historical data.



“Networks” check boxes will display only the selected networks.

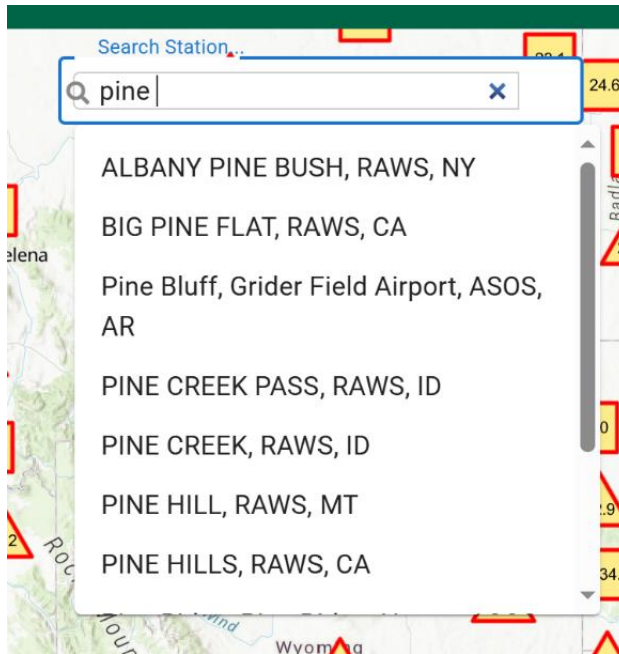


Restricted Mesonets

While hourly weather data is not available for Restricted Mesonet Networks, hourly and daily fire danger indices are available.

Dynamic Search:

The dynamic search function can be used to display the desired weather stations:



To display the fire danger data, click on the station icon. All Fire Danger Indices will display. The map view will only display three days of observations and forecasts. Additional data is available on the “Go To Table” Option. The table format is the default display.

FEMS FIRE ENVIRONMENT MAPPING SYSTEM

DATA FILTERS

DATA TYPE: Fire Danger

DATE: 07/26/2025 (Current)

NFDRS DATA: FUEL MODEL: Y, NFDRS OUTPUT: ERC Max

LEGEND: Observation, Forecast, Missing, Observation NFDRS Quality Flag, Forecast NFDRS Quality Flag

PINE CREEK, RAWs, ID

STATION METADATA

EXPAND TO VIEW CHART

EXPAND TO VIEW OBSERVATION TABLE

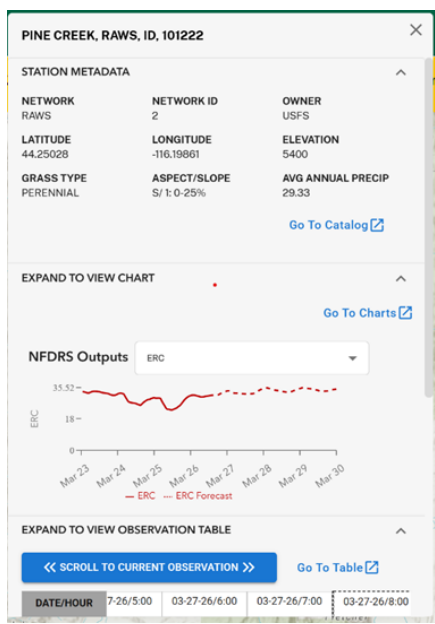
Go To Table

DATE (LST)	07/25/25 MST	07/26/25 MST	07/27/25 MST
Min 1 HR FM/Time	4.9 / 17:00	5.0 / 17:00	5.7 / 17:00
Min 10 HR FM/Time	6.1 / 18:00	5.8 / 19:00	6.1 / 0:00
Min 100 HR FM/Time	9.5 / 21:00	8.9 / 20:00	8.6 / 20:00
Min 1000 HR FM/Time	10.1 / 13:00	10.1 / 20:00	9.9 / 20:00
KBDI	374	380	385
HERB FM	30	30	30
WOODY FM	60	60	60
GS1	0.26	0.27	0.27
Max IC/Time	36.9 / 16:00	45.5 / 16:00	33.6 / 17:00
Max SC/Time	2.3 / 15:00	3.5 / 16:00	2.3 / 17:00
Max ERC/Time	55.2 / 18:00	55.9 / 18:00	56.0 / 18:00
Max BU/Time	27.8 / 15:00	33.8 / 16:00	28.1 / 17:00

USGS IMAGERY

Chart and Station Metadata:

Options are available to view the data in chart form as well as the Station Metadata by clicking the down carrots.



Go To Options:

Go To Table:

Observed Indices are depicted with solid lines.
Forecasted Indices are depicted with dotted lines.
To return to the Stations Table, click on the “View All Stations” link.

Network: RAWLS | State: ID | Agency Owner: USFS

[View All Stations](#)

Fire Danger Station Metadata Catalog Seasonal Trend Charts

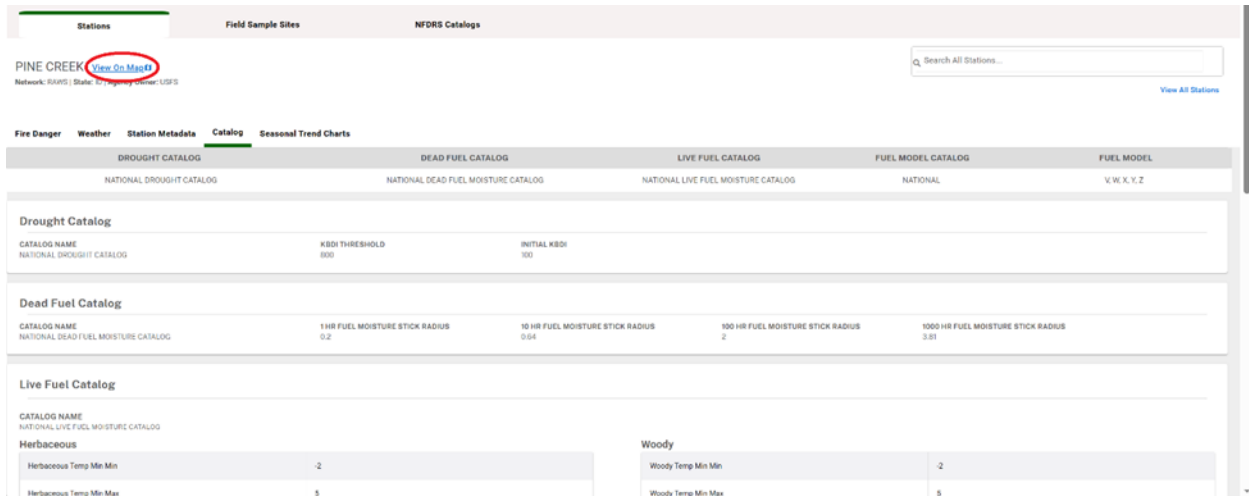
Date Range: Start Date: 07/12/2025 End Date: 08/02/2025 Fuel Model: Y

Daily Hourly

Date(LST)	Min 1 hr FM/Time	Min 10 hr FM/Time	Min 100 hr FM/Time	Min 1000 hr FM/Time	KBDI	Herb FM	Woody FM	GSI	Max IC/Time	Max SC/Time	Max ERC/Time	Max BI/Time
07/27/25	5.7 / 17:00	6.1 / 0:00	8.6 / 20:00	9.9 / 20:00	385	30	60	0.27	34.6 / 17:00	2.3 / 17:00	56.0 / 18:00	28.1 / 17:00
07/26/25	5.0 / 17:00	5.8 / 19:00	8.9 / 20:00	10.1 / 20:00	380	30	60	0.27	45.5 / 16:00	3.5 / 16:00	55.9 / 18:00	33.8 / 16:00
07/25/25	4.9 / 17:00	6.1 / 18:00	9.5 / 21:00	10.1 / 13:00	374	30	60	0.26	36.9 / 16:00	2.3 / 15:00	55.2 / 18:00	27.8 / 15:00
07/24/25	5.1 / 17:00	6.0 / 18:00	10.2 / 22:00	9.9 / 14:00	368	30	60	0.26	35.9 / 15:00	2.3 / 15:00	54.5 / 18:00	27.8 / 15:00
07/23/25	5.6 / 17:00	7.3 / 20:00	11.3 / 23:00	9.4 / 9:00	363	30	60	0.24	31.6 / 17:00	2.1 / 17:00	52.7 / 17:00	26.2 / 17:00
									23.6 /		52.8 /	24.8 /

Go To Catalog:

The Station Catalog for Fire Danger is available by selecting the “Go To Catalog” located with the Station Metadata:

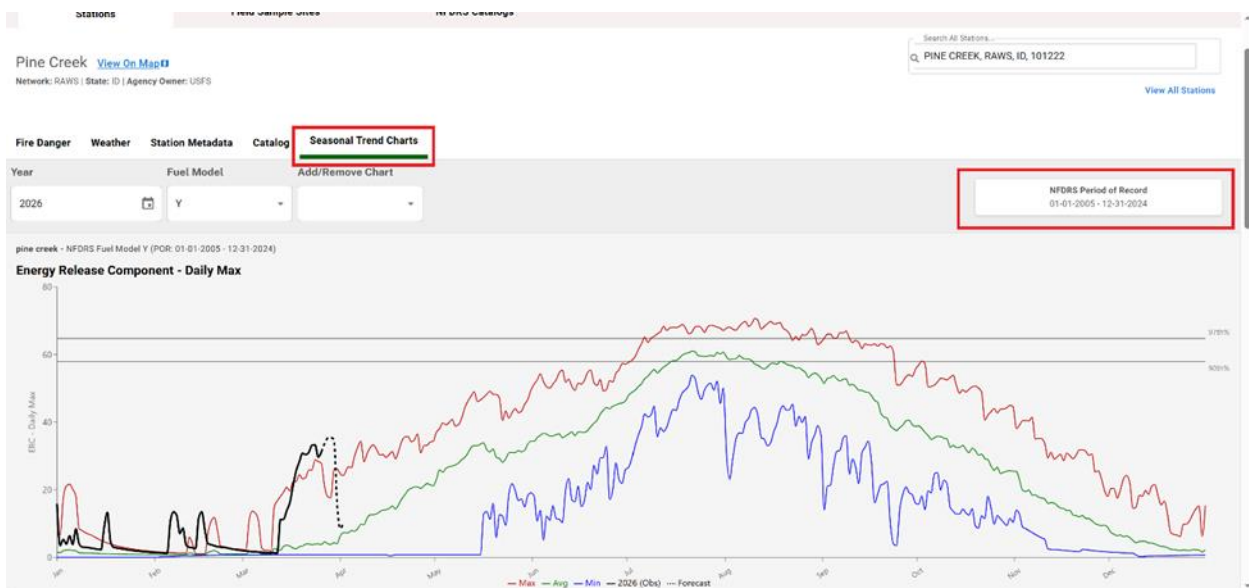


To view the station on the map, click on the “View on Map” link.

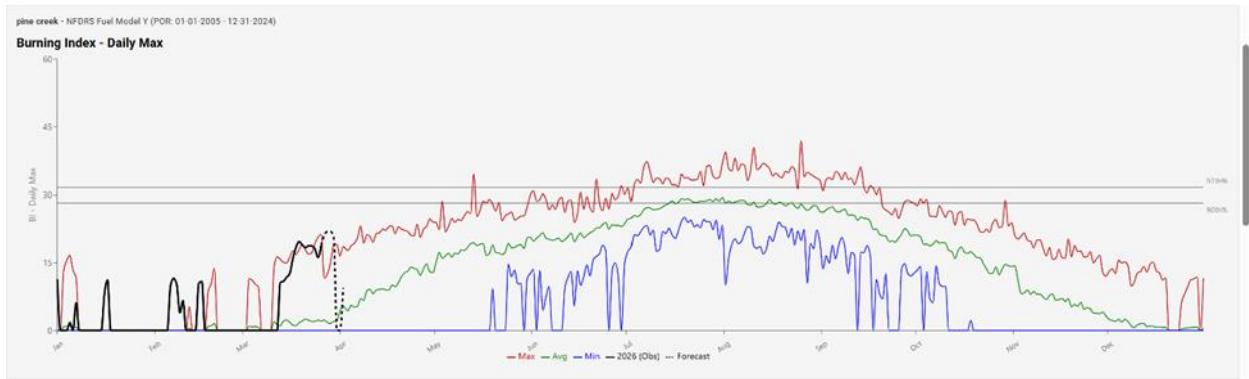
Go To Charts:

Seasonal Trend Charts are available by clicking on “Go To Charts” located with the NFDRS Output Charts:

- “Period of Record” (POR) has been updated through 12/31/2024.



Additional Indices are available by scrolling.

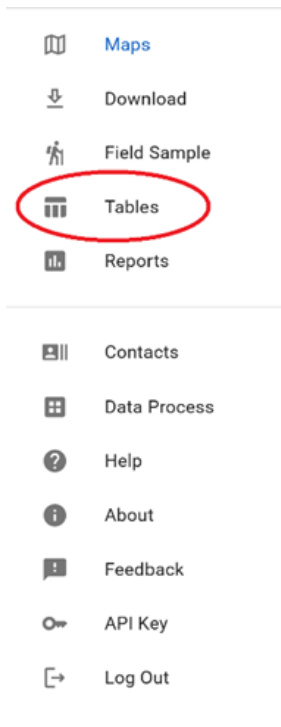


IMPORTANT: Seasonal Trend Charts are not available for all weather stations.

Seasonal Trend Charts require a period of historical weather data which is not available for recent RAWs and ASOS stations.

Tables:

Fire Danger and station information is available in table form by accessing the “Tables” option in the menu.



The “Stations” tab will open:

STATION NAME ↑	STATION ID	NETWORK	STATE	AGENCY OWNER
10K	55522198	RAWS	NM	USFS
3 MILE	102004	RAWS	ID	USFS
7 MILE RIDGE	313302	RAWS	NC	S&PF
Aberdeen, Aberdeeen Regional Airport	55522405	ASOS	SD	NWS
Abernathy 5ENE	55522971	Mesonet	TX	WestTX Mesonet
ABERNATHY MTN.	451209	RAWS	WA	S&PF
Abilene 3NE	55523687	Mesonet	TX	WestTX Mesonet

Click on the desired station or use the dynamic search view weather and station information.

Dynamic search and filters are available to isolate the desired weather station.

STATION NAME	NETWORK	STATE	AGENCY OWNER
PINE CREEK PASS, RAWS, ID			
PINE CREEK, RAWS, ID			
10K	RAWS	NM	USFS
3 MILE	RAWS	ID	USFS
7 MILE RIDGE	RAWS	NC	S&PF
Aberdeen, Aberdeeen Regional Airport	ASOS	SD	NWS
ABERNATHY MTN.	RAWS	WA	S&PF
Abilene, Abilene Regional Airport	ASOS	TX	NWS
Acadiana Regional Airport	ASOS	LA	NWS
ACE BASIN	RAWS	SC	FWS
ACORN WOMAN PEAK	RAWS	OR	USFS

Once the station is selected a variety of information is available.

Fire Danger Indices:

- Observed Indices are depicted with solid lines.
- Forecasted Indices are depicted with dotted lines.

- Links to view the station on the map or return to the station list are depicted in blue.

The screenshot shows the FEMS Fire Environment Mapping System interface. The 'Stations' tab is active, displaying information for 'Pine Creek'. A search bar contains 'PINE CREEK, RAWS, ID'. Below the search bar, there are tabs for 'Fire Danger', 'Station Metadata', 'Catalog', and 'Seasonal Trend Charts'. The 'Station Metadata' tab is selected, showing a 'Date Range' from 07/12/2025 to 08/02/2025 and a 'Fuel Model' set to 'Y'. A data table is displayed with the following columns: Date: HR (LST), 1 hr FM, 10 hr FM, 100 hr FM, 1000 hr FM, KBDI, Herb FM, Woody FM, GSI, IC, SC, ERC, and BI. The table contains five rows of data for dates from 08-01-2025 13:00 (MST) to 08-01-2025 09:00 (MST).

Date: HR (LST)	1 hr FM	10 hr FM	100 hr FM	1000 hr FM	KBDI	Herb FM	Woody FM	GSI	IC	SC	ERC	BI
08-01-2025 13:00 (MST)	8.4	9.7	8.3	9.3	411	32.2	61.4	0.31	17.7	1.7	54.3	24.3
08-01-2025 12:00 (MST)	9.0	10.1	8.3	9.3	411	32.2	61.4	0.31	15.7	1.7	53.4	23.8
08-01-2025 11:00 (MST)	9.5	10.3	8.3	9.4	411	32.2	61.4	0.31	13.4	1.5	52.8	22.5
08-01-2025 10:00 (MST)	9.9	10.3	8.3	9.4	411	32.2	61.4	0.31	12.0	1.5	52.5	22.2
08-01-2025 09:00 (MST)	10.4	10.3	8.4	9.4	411	32.2	61.4	0.31	10.6	1.4	52.2	21.9

Station Metadata Tab:

This tab will display the metadata associated with the station.

The screenshot shows the FEMS Fire Environment Mapping System interface with the 'Station Metadata' tab selected. The 'Location Data' section includes fields for NETWORK (RAWS), STATE ID, AGENCY OWNER (USFS), LATITUDE (44.25028), LONGITUDE (-116.10861), and ELEVATION (5400). The 'Site Characteristics' section includes fields for GRASS TYPE (PERENNIAL), ASPECT/SLOPE (S/1: 0-25%), and AVG. ANNUAL PRECIP (29.33).

Catalog Tab:

This tab will display the Station Catalog depicting the parameters associated with Fire Danger calculations.

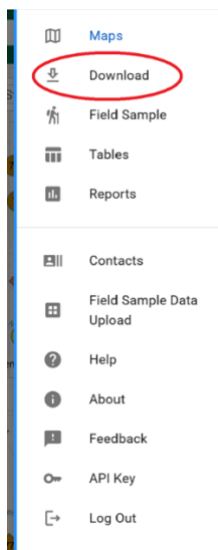
Data Download:

Additional data in FEMS is available as a Data Download.

1. Click on the “Hamburger” icon to open the Menu:



2. Select the “Download” option in the menu:



3. Select “Fire Danger” as the Data Subject Area:

FEMS Data Download

Options to refine your download will appear as you make selections.
Changes to selections may impact your available options and selections.

Data Subject Area *Required*

Fire Danger

Weather

Field Sample

Site Metadata

Fire Danger

Select a Data Set

Date Time Frequency *Required*

- Daily
- Hourly

4. Select desired Fuel Model(s).
5. Select desired Data Set:

FEMS Data Download

Options to refine your download will appear as you make selections.
Changes to selections may impact your available options and selections.

Data Subject Area *Required*

Fire Danger

Fuel Model(s) *Required*

Y X

Data Set *Required*

Select a Data Set

- Fire Danger Observation
- Fire Danger Forecast
- Fire Danger Observation and Forecast

Data Format *Required*

Select a Data Format

Date Range *Required*

Start Date: 02/01/2025

End Date: 02/01/2025

6. Select a "Data Format"
7. Select the desired "Data Range"
8. Select the desired Station or Stations.
9. Select "Download Data".

Depending on file size, a "Copy Data Link" option may be available for additional analysis.

FEMS Data Download

Options to refine your download will appear as you make selections.
Changes to selections may impact your available options and selections.

Data Subject Area Required

Fire Danger

Fuel Model(s) Required

Y X

Data Set Required

Fire Danger Observation

Date Time Frequency Required

Daily

Hourly

Data Format Required

CSV (UTC)

Time is in UTC

Date Range Required

Start Date: 02/23/2017

End Date: 03/25/2026

Start Hour 1: 00:00

End Hour 1: 23:00

Forecast data may be incomplete on day seven

Selected Station(s) Required

wagontown

- Up to 300 stations and 1 fuel model can be selected for requests that are greater than or equal to 20-years worth of data
- Up to 150 stations and 2 fuel model can be selected for requests that are greater than or equal to 20-years worth of data
- Up to 100 stations and 3 fuel model can be selected for requests that are greater than or equal to 20-years worth of data
- Up to 75 stations and 4 fuel model can be selected for requests that are greater than or equal to 20-years worth of data
- Up to 60 stations and 5 fuel model can be selected for requests that are greater than or equal to 20-years worth of data

These are your selected stations. Total stations selected: 2

Pine Creek, RAWS, ID, 101222 X Wagontown, RAWS, ID, 102712 X

[Clear All](#)

[Download Data](#) [Copy Data Link](#)

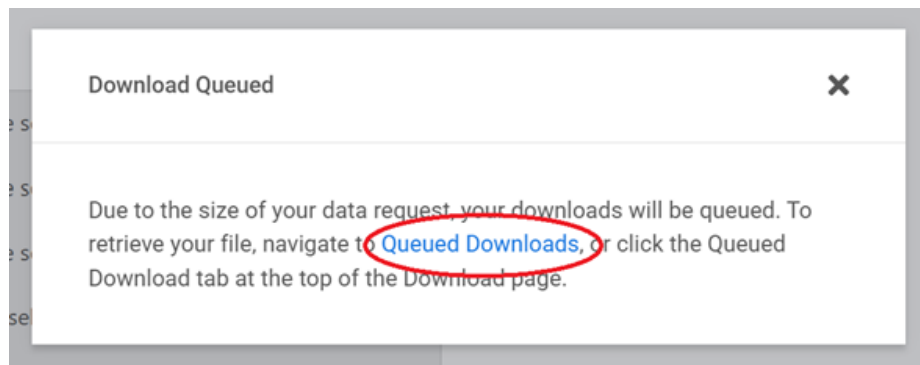
Additional selections will vary depending on the Data Subject Area.

Times displayed in Local Standard Time (LST) at the station site and are not currently adjusted for Daylight Savings Time.

Queued Download

Data sets too large for a direct download will be available on the “Queued Download” tab.

1. The “Copy Data” link will not be available.
2. After selecting the “Download Data” button a popup will appear with a link to the “Queued Download” tab.



3. Access is also available by selecting the “Queued Download” tab directly.
4. The files will be listed with their progress.
 - a. When completed, click on the file name to download

Files are available for 24 hours after the download is complete. If you clear your internet cache, the downloads will no longer be available. If a file is no longer available, you may repeat the download process.

FILE	STATUS	PROGRESS	DATE REQUESTED (MDT) ↓	DATE COMPLETED (MDT)
NFDRSDAILYSUMMARY_102004,101905,...101108_2017-02-23T00:00:00.000Z_2026-03-25T00:00:00.000Z.CSV	COMPLETED	100%	03/25/2026 11:30	03/25/2026 11:32
NFDRS06S_101222,102712,...101108_2017-02-22T12:30:00.000Z_2026-03-25T23:29:59.000Z.csv	RUNNING	0%	03/25/2026 11:20	

Rows Per Page: 10

5. Downloads will be available for 24 hours.

Zip Files

The option to Zip a download file is now available for all download formats.

FEMS Data Download

Options to refine your download will appear as you make selections. Changes to selections may impact your available options and selections.

Data Subject Area Required

Fire Danger

Fuel Model(s) Required

Y X

Data Set Required

Fire Danger Observation

Date Time Frequency Required

Daily

Hourly

Data Format Required

CSV (UTC)

CSV (LST - Local Standard Time)

ZIP (UTC)

ZIP (LST - Local Standard Time)

FEMS Data Download

Options to refine your download will appear as you make selections. Changes to selections may impact your available options and selections.

Data Subject Area Required

Fire Danger

Fuel Model(s) Required

Y X

Data Set Required

Fire Danger Observation

Date Time Frequency Required

Daily

Hourly

(Daily) Maximum/Minimum data will be downloaded from midnight to midnight local station time.

CSV (LST - Local Standard Time)

ZIP (LST - Local Standard Time)

Creating SIGS with the Data Download:

Fire Danger Indices can be displayed in a SIG format by using the Data Download feature in FEMS by selecting multiple stations.

FEMS Data Download

Options to refine your download will appear as you make selections. Changes to selections may impact your available options and selections.

Data Subject Area Required

Fire Danger

Fuel Model(s) Required

Y X

Data Set Required

Fire Danger Observation and Forecast

Date Time Frequency Required

Daily

Hourly

(Daily) Maximum/Minimum data will be downloaded from midnight to midnight local station time.

Data Format Required

CSV (LST - Local Standard Time)

Time is adjusted to time zone of station but not adjusted for daylight savings.

Date Range Required

Start Date: 03/13/2026

End Date: 04/03/2026

Forecast data may be incomplete on day seven

[Previous 5 Days And 7 Day Forecast](#)

Average Fire Danger Outputs

Selected Station(s) Required

Town Creek

These are your selected stations. Total stations selected: 3

Pine Creek, RAWS, ID, 101222 × Wagontown, RAWS, ID, 102712 × Town Creek, RAWS, ID, 101708 ×

[Clear All](#)

[Download Data](#) [Copy Data Link](#)

FEMS Data Download

Options to refine your download will appear as you make selections. Changes to selections may impact your available options and selections.

Data Subject Area Required

Fire Danger

Fuel Model(s) Required

Y X

Data Set Required

Fire Danger Observation and Forecast

Date Time Frequency Required

Daily

Hourly

Data Format Required

CSV (LST - Local Standard Time)

Time is adjusted to time zone of station but not adjusted for daylight savings.

Date Range Required

Start Date: 03/13/2026

End Date: 04/03/2026

Forecast data may be incomplete on day seven

[Previous 5 Days And 7 Day Forecast](#)

Selected Station(s) Required

Town Creek

- Up to 300 stations and 1 fuel model can be selected for requests that are greater than or equal to 20-years worth of data
- Up to 150 stations and 2 fuel model can be selected for requests that are greater than or equal to 20-years worth of data
- Up to 100 stations and 3 fuel model can be selected for requests that are greater than or equal to 20-years worth of data
- Up to 75 stations and 4 fuel model can be selected for requests that are greater than or equal to 20-years worth of data
- Up to 60 stations and 5 fuel model can be selected for requests that are greater than or equal to 20-years worth of data

These are your selected stations. Total stations selected: 3

Pine Creek, RAWS, ID, 101222 × Wagontown, RAWS, ID, 102712 × Town Creek, RAWS, ID, 101708 ×

[Clear All](#)

[Download Data](#) [Copy Data Link](#)

Depending on file size, the data may have a “Copy Data Link”.
Large files will be downloaded as a “Queued Download”.
The “Copy Data Link” (CDL) replaces the WXML functionality in WIMS.
In the Data Download select the “Copy” option to generate an API.

Additional Resources:

Copy Data Link:

[TechTip_Copy Data Link in FEMS.pdf](#)

Using Copy Data Link in Excel:

[TechTip- Using the Copy Data Link from FEMS in Excel.pdf](#)

Using FEMS Get Data Manipulation (URL):

[FEMS TechNote-2025-09-Get Data Manipulation.pdf](#)