

Lake States Fire Science Consortium Smoke Management Resources

A JFSP KNOWLEDGE EXCHANGE CONSORTIUM



For Smoke Management Purposes, I Want to...

Review my State Smoke Management Plan

[MI SMP, Draft 04/23/2012](#)

[MN SMP, Updated 12/03/2007](#)

[WI SMP, Draft 03/22/2007](#)

Estimate Fuel Loads



[Digital Photo Series](#) provides detailed fuel loading information for natural fuelbeds throughout the United States. This information was used for FCCS fuelbeds.



[Fuel Characteristics Classification System \(FCCS\)](#) provides a set of pre-defined fuelbeds and allows creation of custom beds from which fuel load and fire behavior is modeled.

Evaluate Fuel Consumption/Smoke Emissions/Fire Effects

These tools work alone or in combination to evaluate site fuel & vegetation, fuel moisture and winds; producing estimates of fire behavior, fuel consumption, smoke emissions, and other fire effects.



[First Order Fire Effects Model \(FOFEM\)](#) accepts vegetative cover, fuel loading, and fuel moistures to produce modeled fuel consumption, smoke emission, & soil heating.



[Canadian Fire Effects Model \(CanFIRE\)](#) calls for inputs that characterize the site to model outputs that include Fuel Consumption, Smoke Emissions, Fire Behavior and an Ecological Summary



[Consume](#) uses FCCS fuelbeds to model fuel consumption and smoke emissions by combustion phase.

Obtain Current Fire Weather & Smoke Dispersion Info



<http://weather.gov/fire> offers local fire weather products when user provides a specific location, such as forecasted Ventilation Index, Mixing Height and

Transport Winds. [Left sidebar menu](#) includes upper air soundings under *current conditions* and smoke tools under *air quality*

Determine Current and Forecast Fuel Moisture Conditions



[Great Lakes Fire and Fuels](#) provides historic, current, and forecast fuel moistures using CFFDRS FWI codes.

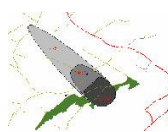


[Canadian Wildland Fire Information-FWI](#) provides maps depicting historic, current and forecasted FWI conditions across Canada



NFDRS [reported fuel moistures](#) for specific locations as well as forecasted estimates using [points](#) & [national gridded forecasts](#).

Determine How Far Downwind Air Quality is Impacted



In flat and rolling terrain, the [Simple Smoke Screening Tool](#) - a simple graphical tool with a few basic inputs and [VSmoke](#) - a more detailed model - depict modeled smoke trajectory and concentration with an input wind.

Determine Smoke Plume Trajectory (forward/backward)



[Fire Information and Smoke Trajectories](#) uses the HYSPLIT model and National Weather Service weather forecasts to produce smoke trajectories from fire sites.

Find Air Quality Monitoring Information



Michigan [Current/Forecast Reports](#)
Minnesota [Current/Forecast Reports](#)
Wisconsin [Current/Forecast Reports](#)
Ontario [Current/Forecast Reports](#)

Other Smoke Management Resources



[Wildland Fire Air Quality Tools](#) can be linked from your incident in WFDSS or access directly here. Wide variety of assessment products is available.



[Land Atmosphere Near Real Time Data](#) provides imagery for approximately 40 products from the MODIS, AIRS, MLS and OMI instruments. Worldview interactive viewer does not work with IE.

[Interagency Real Time Smoke Monitoring](#)