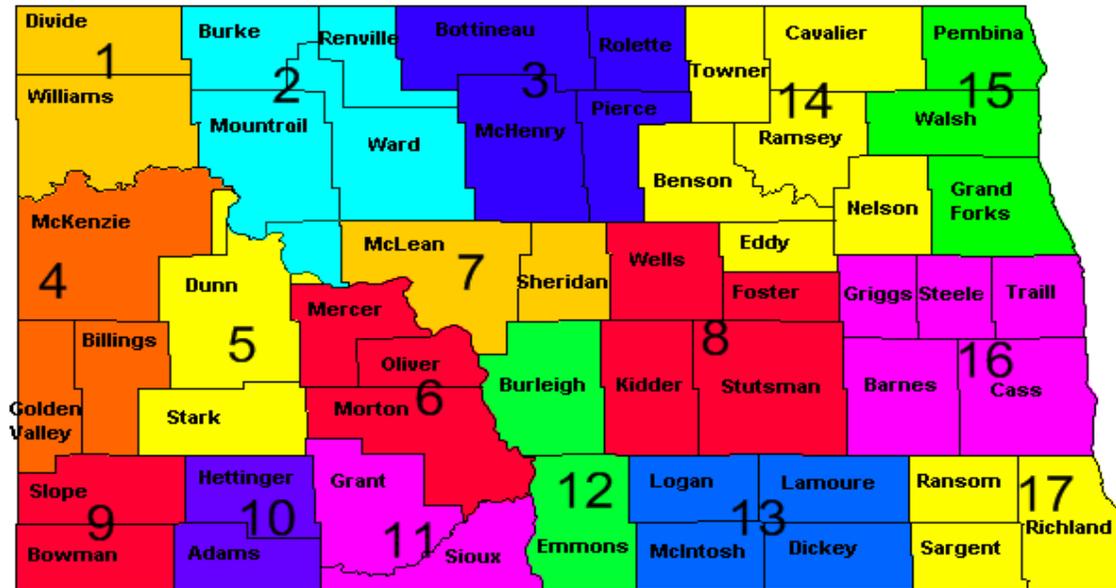


What is the Rangeland Fire Danger Index?

The North Dakota Rangeland Fire Danger Index provides an indication of rural fire potential, including its ability to spread. The index contains five ratings – low, medium, high, very high, and extreme. Should a fire ignite, it is more likely that it would grow in size on higher index days.

North Dakota is broken up into 17 different fire danger groupings. These divisions are based on predominant vegetation types, and average soil moisture and topography. The Rangeland Fire Danger Index is issued by the National Weather Service daily around 5 a.m. CDT (4 a.m. MDT) with a specific rating for each of the 17 fire danger groupings. It can be found online at www.weather.gov/bis.



North Dakota Rangeland Fire Danger Index County groups

What does the Rangeland Fire Danger Index mean to me?

Your local fire service recommends certain guidelines based on the fire danger index rating. The North Dakota Rural Fire Danger Guide <http://www.nd.gov/des/planning/fire-danger-awareness/> describes recommendations. For specific information on burn bans, you need to contact your local fire officials, sheriff's office, or the North Dakota Department of Emergency Services or Fire Marshall.

What sort of fire danger exists with the indices? The following chart describes the general danger with each.

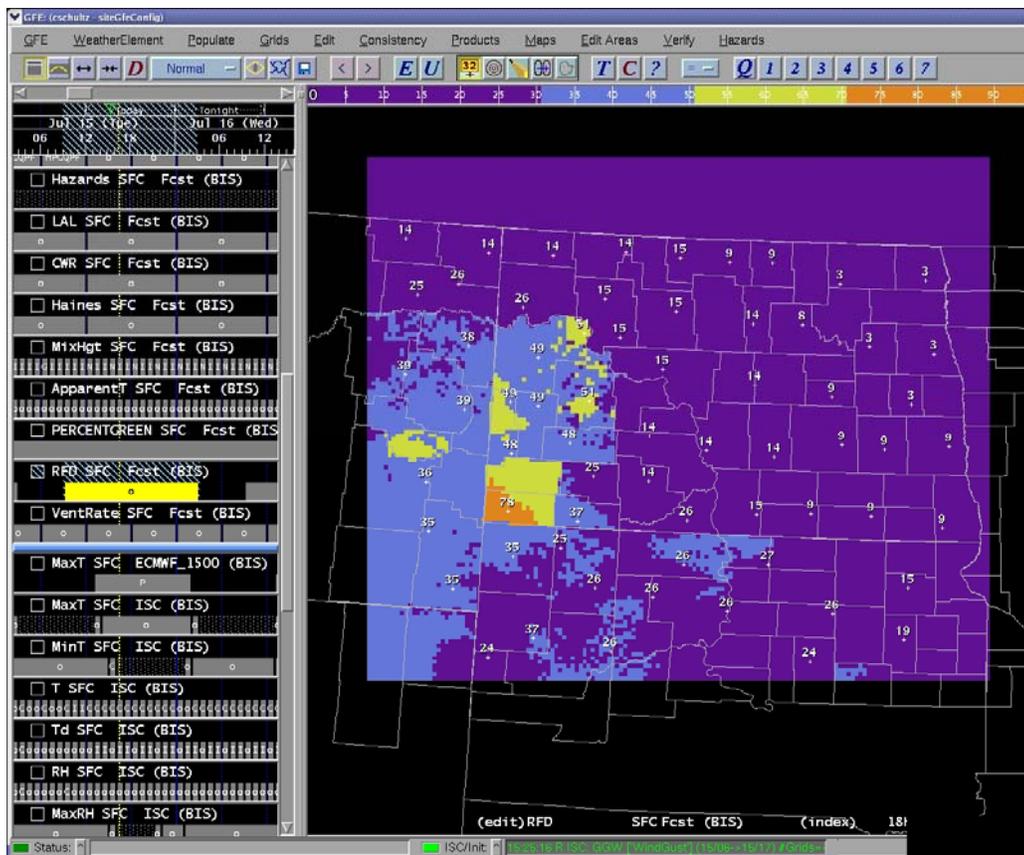
Index	Fire Danger Description
Low	Weather and fuel indicators show the probability of erratic fire behavior is low.
Medium	Weather and fuel conditions indicate some potential for erratic fire behavior with moderate rates of spread.
High	Fires are active. Expect moderate and occasional high rates of spread.
Very High	Fires spread rapidly and show erratic behavior. Dangerous burning conditions exist.
Extreme	Potential for large fire exists. Fires spread rapidly. Extreme fire behavior is probable. Critical burning conditions exist.

How is the Rangeland Fire Danger Index Calculated?

Scientifically! The National Weather Service calculates the fire danger index every day using both the latest weather forecast information, as well as data on vegetative greenness for each of the 17 fire danger groupings. The index is based on the science of fire, and not on whether or not a burn ban is in effect for a given area. As a result, the fire danger index can and does change from day to day!

What goes into the fire danger index calculation? Well, first and foremost, the vegetative greenness, provided by fire managers from state and federal agencies that monitor the dryness of fuels. The index is based on the potential for non-agricultural grasslands to carry fire. As a result, it is important to know not only how dry the resident grasses are, but how much dead grass is left underneath the live vegetation. Even a relatively green pasture can support a dangerous wildfire if there is sufficient dead grass underneath the new growth. However, if the total greenness is high because there is little dead grass, then the fire danger may be only low or medium, no matter how hot and windy a certain day is.

What about the weather forecast information? The heat and wind must have something to do with the fire danger index, right? You bet it does! The index calculation is influenced by the forecast high temperature, minimum relative humidity, winds, and even by the amount of cloud cover predicted during the afternoon. Hot, windy, and low humidity days are the most critical because they allow dry grasses to easily ignite, and wildfires to spread rapidly. The National Weather Service produces graphical, or gridded, forecast elements for the next seven days using a wide variety of information ranging from satellite and radar data to weather balloon observations, computer weather prediction models, and local experience. A scientific calculation is then run in the forecast editing software to derive the fire danger from the afternoon weather and greenness values.



Graphical Forecast Editor used by the National Weather Service forecasters to graphically predict elements going into the Rangeland Fire Danger Index. An edit tool applies a scientific calculation to the weather grids and percent greenness values to create a number corresponding to a low, medium, high, very high, or extreme fire danger.