

Fire Weather Operating Plan for the Des Moines Iowa National Weather Service Forecast Office

References: National Weather Service Directives 10-4 and Supplements

The National Weather Service office in Des Moines officially adopted a formal Fire Weather Program in February of 2002. Due to the type of terrain and vegetation in the state of Iowa the main emphasis of the Fire Weather program is on prescribed burns, which are primarily done by the U.S. Fish and Wildlife Service and the Army Corp of Engineers. These are our primary customers for the Spot Fire Weather Forecast in the Des Moines WFO. The Nature Conservancy Group will also contact the National Weather Service for the purpose of a Spot Fire Weather Forecast. The Nature Conservancy Group is a private company that gets government grants and contracts to do spot burns. They work all over the state of Iowa but WFO DMX will be responsible to give them a spot burn forecast for only those locations within our County Warning Area, or CWA..

The National Weather Service Forecast Office in Des Moines has Fire Weather Responsibility for all 51 counties that make up our County Warning Area (CWA). The prescribed burns are generally done within the grassland areas of Union Slough Wildlife Refuge and the Neal Smith Wildlife Refuge across Central Iowa. The Des Moines NWS Forecast Office may also receive requests from the Army Corp. of Engineers (COE) for burns near the dams or reservoirs. WFO DMX will not provide Spot Fire Weather Forecasts to private contractors or any company in the private sector. There are a couple of exceptions however. If a private company gets a federal contract or grant to conduct spot burns in central Iowa, then they are entitled to our forecast products. All other external customers must get forecasts from other sources. If you are unsure of a customer requesting a spot forecast, then contact the WCM or MIC on station or the regional FW Focal Point for approval of forecast issuance.

Normally, there are two main periods for which prescribed burns are planned although you may get requests at any time. The primary periods for spot burn forecast requests are during the spring, before Agreen-up...from early April through late May, and again in the fall...from late September through early November. Actual dates depend on weather conditions.

2 . Fire Weather Products

The Des Moines NWS Forecast Office will not issue a routine suite of Fire Weather Products. There are no large forested areas in the forecast area and the primary fuel across Iowa is tall grass prairie, which is managed by the U.S. Fish and Wildlife Service, who extensively monitors and schedules prescribed burns for these areas to keep them under control. Therefore the Fire Weather Products shall consist primarily of two products...the General or Zone Forecast (or the Digital Zone Forecast) and the Spot Fire Weather Forecast.

General Forecasts

Upon request from the FWS, the COE, or any other federal, state or county agency, the National Weather Service in Des Moines shall provide a general forecast for any area at any time requested, out to 7 days. A general forecast is one that consists of the same meteorological parameters as stated in the Zone Forecast Product. These parameters are the forecasted surface wind speed and direction, out to 5 days if requested, sky condition, precipitation chance, precipitation type and temperature. The requesting agency must provide input such as location and day of interest before a general forecast shall be given.

Spot Fire Weather Forecasts

There are two types of spot (also called site specific) forecast products: Those for prescribed burns and those for wildfires. Spot forecasts are site specific and will include such elements as relative humidity, mixing height, inversion heights, forecasts of when an inversion will break 20 foot wind speed and direction and transport wind speed and direction. The content of the spot forecast for prescribed burns is determined by the customer.

In the event of a wildfire, the National Weather Service Office in Des Moines will comply with a request for a Spot Fire Weather Forecast, no matter who requests the information.

3. Spot Fire Weather Forecast Procedures

The following procedures are the policy that the NWS office in Des Moines has established for handling requests for a Spot Fire Weather Forecast. However, the forecaster should use good judgment for non-standard requests for a spot fire weather forecast.

FOR THE DAY PRECEDING THE BURN

- 1) On the day before the planned burn, the requesting agency or their representative should call the National Weather Service office in Des Moines and ask for a general forecast for the area involved. The customer may also request a spot forecast for the next day through the internet by going to the DMX homepage, clicking on fire weather, then spot fire and completing the request.
- 2) While obtaining the general forecast, the requesting agency should notify the NWS office in Des Moines that a prescribed burn is planned for the next day and a spot forecast may be requested the next day, if they have not already requested a spot forecast through the internet. The customer must provide the location of the prescribed burn along with the ignition time and the estimated length and terrain information and any other information that will be pertinent to the prescribed burn.

ON THE DAY OF THE BURN

- 1) If a decision is made by the agency requesting a Spot Fire Weather Forecast to go ahead with the burn, the burn manager or a member of the burn team from the requesting agency should make the request for a spot forecast by going through the internet. Customers should go to www.crh.noaa.gov/dmx then click on the fire weather link, then the spot fire link and proceed to fill out the request and then hit the send button.
- 2) The agency requesting the Spot Fire Weather Forecast shall then receive the Spot Fire Weather Forecast for the area of concern via the internet.
- 3) The agency who has requested the Spot Fire Weather Forecast from the NWS in Des Moines shall provide the NWS with at least one observation preferably during middle part of the burn. This mid burn observation will be used by the NWS office in Des Moines for verification of our forecast.