



IOWA DEPARTMENT OF NATURAL RESOURCES

# Air Quality News

## Environmental Services

## Updated Meteorological and Elevation Data Available for Use in Air Dispersion Modeling

When the EPA released updates to the AERMOD modeling system on June 27, 2022, they included updates to AERMET, the preprocessor used to generate meteorological data for use in AERMOD. The updated modeling programs and information about the changes made to AERMET can be found on EPA's Support Center for Regulatory Atmospheric Modeling (SCRAM) website (<https://www.epa.gov/scram>).

Due to the AERMET modifications, the DNR reprocessed the meteorological data used in dispersion modeling for air construction permit applications. The revised meteorological data files (Version C) are available on the [Meteorological](#) Data page on the DNR's website.

In addition, the DNR has downloaded and processed the most recent elevation data available from the United States Geological Survey (USGS). The DNR recently discovered some isolated errors in the previous data that could result in incorrect elevations being used in modeling analyses. The new data corrects these errors and reflects current elevations across the state. Moving forward, the DNR will update the elevation data each time a new five-year meteorological dataset is released.

The previous elevation data was available in County-sized files. Due to the way the data is currently provided by USGS, the new data files cover a larger area, each covering one degree of latitude and longitude. The revised elevation data files are available on the [Elevation Data](#) page on the DNR's website. A map is provided on the website depicting the coverage of each file.

The sensitivity of AERMOD to the changes being introduced by the reprocessed meteorological and elevation data was tested. Users can expect the new meteorological data to cause a negligible amount of change to predicted concentrations. The effect of the elevation data varies from no change to an increase or decrease of several micrograms per cubic meter. This will vary by location depending on if the terrain has been altered in the area since the last time the data was updated, or in cases where errors in the old data have been corrected.

Air construction permit applicants should begin using the new data immediately. The previous versions of the data can be used in cases where it has been previously approved in a dispersion modeling protocol.

Please contact Brad Ashton at [Brad.Ashton@dnr.iowa.gov](mailto:Brad.Ashton@dnr.iowa.gov) or by phone at (515) 725-9527, with any questions or comments on this update.

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