

HYSPLIT Pollution Dispersion Maps

EHP provides maps of dispersion models to show where emissions from a site end up on average over a year or more. The site could be existing or proposed. These maps have proven to be effective tools for guiding the siting of air quality monitors, bolstering community outreach efforts, and starting conversations about community health and air quality. We can provide maps in interactive digital format or as printable handouts. These maps show relative levels of emissions from a facility and so cannot be used to determine whether any area would be safe or unsafe.

EHP generates dispersion maps using HYSPLIT developed by the National Oceanic and Atmospheric Administration (NOAA). HYSPLIT determines how pollution travels from a source based on a wide range of factors including terrain characteristics, impacts of solar radiation, horizontal and vertical mixing, inversion events, and pollution deposition. A full list of the HYSPLIT model components can be found in the NOAA Air Resource Lab's [technical description of the model \(arl.noaa.gov/hysplit\)](http://arl.noaa.gov/hysplit).

Our maps also rely on High Resolution Rapid Refresh (HRRR) weather data. This dataset is used by NOAA to forecast weather across the country, providing weather data on a 3km-square grid with 50 vertical intervals. NOAA generates this dataset using inputs from radar stations, ground-, aircraft-, and buoy-based weather stations, and weather satellites. The information provided includes precipitation, wind, temperature, pressure, cloud cover, and more. The full list of the several hundred variables provided by HRRR can be found [on NOAA's website \(rapidrefresh.noaa.gov/hrrr\)](http://rapidrefresh.noaa.gov/hrrr).

To request a map from EHP for a facility you're concerned about, scan the QR code to the right to fill out a request form. In order to create a map, we will need the following:

1. Location of the facility of concern
2. A description of the type of facility
3. Contact information
4. Desired map format(s)

If you have any questions, please contact Nathan Deron at nderon@environmentalhealthproject.org.



**Scan the code to
request a map.**