



# What Is Geospatial Measurement of Air Pollution (GMAP)?

For more  
information  
please visit:

[Geospatial Measurement of  
Air Pollution - GMAP](http://www.ct.gov/airpollution)  
([ct.gov](http://www.ct.gov))



GMAP stands for Geospatial Measurement of Air Pollution. Connecticut's GMAP vehicle is equipped with a variety of instruments used for the geospatial measurement of air pollution.

The GMAP vehicle can detect and record the concentration of 16 different pollutants — including toxic vapors, particulate matter, and greenhouse gases — in real-time, while the vehicle is in motion. The data collected can be plotted over satellite imagery using GIS mapping tools. The GMAP vehicle enables our staff to:

- ◆ Investigate air quality concerns
  - ◆ Measure the ambient concentration of many different pollutants
    - ◆ Pull ambient air samples for laboratory analysis
- ◆ Identify sources of pollution that have gone undetected using traditional inspection techniques
- ◆ Fill the gap between our ambient air monitoring stations and known sources of air pollution that are subject to emission testing

While GMAP monitoring will be conducted state-wide, DEEP will prioritize GMAP monitoring in disadvantaged and environmentally overburdened communities, as well as at sources of air pollution that pose the greatest risk to public health and the environment.

# GMAP Vehicle FAQs

What pollutants does the vehicle measure?

The GMAP vehicle has the ability to measure the following pollutants, though not all 16 pollutants will be measured during every trip: benzene; toluene; ethylbenzene; m-, o-, p-xylene; nitrogen dioxide; ozone; sulfur dioxide; black carbon; formaldehyde; 1,3-butadiene; ammonia; coarse and fine particulate matter; styrene; methane; and carbon dioxide. The vehicle also has the ability to measure the total volatile organic compound concentration and to pull ambient air samples for laboratory analysis.

Why is this vehicle driving around my neighborhood?

GMAP vehicle monitoring locations are chosen based on a number of targeting criteria. A location may be selected due to Enforcement Division priorities or an environmental justice initiative. The presence of the vehicle in an area **does not** necessarily mean there is an air quality problem or any threat to public health.

Who is operating the vehicle?

The vehicle is operated by DEEP staff who work in the Bureau of Air Management, Enforcement Division. Staff have received extensive training on safe operation of the vehicle and its equipment.

When and for how long will the vehicle perform monitoring in an area?

Each location is monitored based on a case-by-case protocol generated by DEEP staff. Monitoring at one location may be conducted several times in a day, and possibly for multiple days.

How do DEEP staff determine if there is an air quality problem in an area?

DEEP staff carefully review and analyze all data gathered during GMAP vehicle monitoring activities. If they find elevated pollutant levels, additional GMAP monitoring may be conducted and/or additional investigation may be performed using other equipment or techniques. If a specific source of pollution is identified, DEEP will address the issue to ensure that the source is in compliance with relevant state and federal air pollution regulations.

How can I obtain the results of GMAP vehicle monitoring in an area?

For results of specific GMAP vehicle monitoring projects, please visit: [Geospatial Measurement of Air Pollution - GMAP \(ct.gov\)](#). Note that all data is subject to a complex review and analysis. Furthermore, some areas may require additional investigation using other equipment or techniques. Therefore, it may take several months for the final results of GMAP vehicle monitoring to be compiled and posted.

Is it safe to be near the vehicle when it is operating?

Yes. The vehicle does not emit any harmful substances or pose any danger to the public beyond that of a typical passenger vehicle. Please exercise the same level of caution that you would when in the vicinity of a passenger vehicle.

Questions?

For additional information, please contact Lakisha Stephenson of the Compliance Analysis and Coordination Unit at (860) 424-3729 or [Lakisha.Stephenson@ct.gov](mailto:Lakisha.Stephenson@ct.gov).