

## DEQ Places Air Toxics Monitor in Hillsboro

### What is the purpose of the new monitor?

DEQ is placing air toxics monitoring equipment in Hillsboro to assess the air quality in this community. This is known as assessment monitoring and it provides information about air quality in an area where monitoring has never occurred or has not occurred for many years.



*DEQ Air Toxics Monitoring Equipment*

Currently, the only ambient air quality information DEQ has for Hillsboro comes from data on the many emission sources in the community, computer modeling estimates, and from a fine particulate pollution monitoring station.

When higher levels of particulate pollution are measured it indicates an increased chance that air toxics will also occur at levels that could affect public health because the pollutants share common sources, such as wood burning and vehicles. Additional specialized monitoring is necessary to determine air toxics levels. Air toxics are pollutants associated with more serious health effects such as increased risk of cancer or respiratory damage.

DEQ prioritizes monitoring for air toxics in areas where our data indicates that these pollutants could be ten or more times above clean air goals, or benchmarks.

In addition to the Portland area, DEQ has done air toxics assessment monitoring in various communities statewide. DEQ is currently collecting air toxics data in La Grande, a mid-sized community in eastern Oregon because EPA's National Air Toxics Assessment model estimated that La Grande had the fourth highest levels of certain air toxics in the state. DEQ also recently performed air toxics monitoring assessments in Klamath Falls and Medford because high levels of particulate indicated that air toxics also may be posing health risks.

### Why was Hillsboro selected?

Every five years DEQ prioritizes monitoring assessments in communities statewide. Under DEQ's 2010 Oregon Five-year Ambient Monitoring Plan, Hillsboro is the highest priority for air toxics monitoring statewide. This ranking is based upon the following criteria:

#### Modeling data

- The 2017 projections from the Portland Air Toxics Solutions model show elevated levels of air toxics caused by high emissions and poor ventilation.

#### Census data

- Rapid population growth over the last ten years contributes to increased emissions and exposures.
- Compared to other parts of the Portland Metro region, there are higher estimated impacts from air pollution on low income, minority and other sensitive populations.

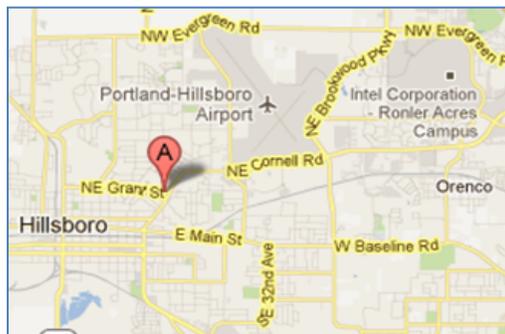
#### Monitoring data

- DEQ has never monitored for air toxics in Hillsboro.
- Particulate monitoring predicts potentially high air toxics levels in Hillsboro.

The other high priority communities in the Ambient Monitoring Plan are Gresham and Oregon City. To date, DEQ has monitored for air toxics in Portland, Beaverton, Salem, Medford, La Grande and Klamath Falls.

### Where will the Hillsboro monitoring occur and how did DEQ decide on a location?

DEQ is locating the Hillsboro air toxics monitor at Hare Field, next to playing fields and a track, surrounded by a residential neighborhood, close to busy roadways, less than one mile from the airport and within a half mile of four schools.



*Hillsboro, Hare Field air toxic monitoring site*



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DEQ decided on this location because its low level of ventilation makes higher air toxics concentrations likely and it is a typical local residential area that will provide representative data on air toxics levels experienced by Hillsboro residents. This is the same location as DEQ's current fine particulate monitor. It is a secure site with a shelter, power and other equipment that supports the monitoring instruments.



*Existing Hare Field particulate monitoring site.*

### **What will air toxics monitoring in Hillsboro tell us?**

DEQ will place the air toxics monitor in Hillsboro for one year and take samples every sixth day for toxic particulates, volatile organic compounds and metals. By comparing monitored air toxics concentrations to ambient benchmark concentrations, or clean air goals, DEQ will be able to gauge air toxics problems in the area. DEQ will also compare monitored air toxics levels to modeled or estimated levels to evaluate the accuracy of the model. Hillsboro monitoring information will support ongoing efforts to reduce air toxics in the Portland area as part of the Portland Air Toxics Solutions Project. <http://www.deq.state.or.us/aq/toxics/pats.htm>

### **Will the monitor measure lead from aircraft using the Hillsboro airport?**

Aircraft traveling in and out of the Hillsboro Airport use general aviation fuel containing lead. The Environmental Protection Agency is currently monitoring for lead from general aviation fuel at 15 small airports nationally to understand how to accurately monitor for this type of lead and determine the health risk of these emissions. While EPA is not currently monitoring for lead at Hillsboro Airport, DEQ expects that the results for similar airports, due this year will indicate whether DEQ should also monitor for lead at the Hillsboro airport.

In addition to sampling for a wide range of other air toxics, the new DEQ air toxics monitor will also sample for lead. Because the monitor will be less than a mile away from the Hillsboro airport, the monitor may show some lead associated with aviation fuel. However DEQ is not siting the monitor specifically to sample lead and the sampling methodology will use instruments that capture fine particles that are 10 microns or

smaller, rather than the large particle methodology EPA is using to analyze lead near airport runways.

### **When will the data be available to the public?**

To develop a realistic understanding of community air toxics concentrations, DEQ monitors for a full year. DEQ compares the year-long monitoring results to DEQ's air toxics clean air goals, or benchmarks. Benchmarks are annual concentrations people could breathe for a lifetime and experience very low or negligible health risk. After DEQ collects monitoring data, the DEQ laboratory must analyze and check for completeness and accuracy. Hillsboro air toxics data collected during 2013 through 2014 will be summarized in spring 2014 and be available in the Annual Air Quality Report on DEQ's website at <http://www.deq.state.or.us/aq/forms/annrpt.htm>.



*High School Cross Country meet at Hare Field*

### **For more information please contact:**

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### **Alternative Formats**

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