



# *FREQUENTLY ASKED QUESTIONS*

## Hazardous Air Pollutants Study

### **WHAT ARE HAZARDOUS AIR POLLUTANTS?**

Hazardous air pollutants (HAPs) are air pollutants identified by the Environmental Protection Agency (EPA) as being associated with adverse health effects. They come from a wide variety of industrial, residential, and mobile sources.

### **WHY DID DEQ CONDUCT A HAPS STUDY?**

The Department of Environmental Quality's Air Quality Division (DAQ) has conducted air toxics monitoring as a part of the National Air Toxics Trends Stations (NATTS) program since 2002. In 2013, DAQ analyzed the HAPs data collected between 2003 and 2012 at the Bountiful monitoring site. Based on this analysis, air scientists determined there was a need to gather more data on the composition, trends, and distribution of HAPs along the Wasatch Front.

Legislative funding in 2014 gave DAQ the opportunity to conduct a year-long study which included more frequent sampling at the Bountiful monitoring site and established two temporary sites in West Valley City and Lindon to collect more data. After these data were collected, DAQ scientists:

- Analyzed the findings.
- Identified an upward trend in a few compounds.
- Prepared a comprehensive report that they vetted thoroughly for accuracy prior to its release.

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### **WHAT DID THE STUDY SHOW?**

- The Bountiful monitor showed periodic increases in concentrations of formaldehyde and methylene chloride.
- The West Valley City monitor showed a slightly elevated concentration of lead, as compared to the Lindon and Bountiful monitors—of geographical interest due to past smelting and mining activity in the area, but not showing a health impact (per DAQ’s toxicologist).

### **CAN YOU TELL ME MORE ABOUT THESE HAZARDOUS AIR POLLUTANTS?**

- *Formaldehyde* is a chemical that is used in the manufacture of resins for particleboard, and is also a byproduct of combustion. Formaldehyde is also formed in the atmosphere from precursor pollutants. Many chemical compounds breakdown and become formaldehyde before they dissipate in our atmosphere. It is possible that the formaldehyde was emitted as a more complex compound, and that during breakdown, has become formaldehyde. Levels are continually monitored by Utah DAQ.
- *Methylene Chloride* is a compound not formed in the environment naturally. It is released by a number of industrial and residential sources. The most common would be as a solvent used in paint-stripping, or as a cleaning agent in electronics production. It also has uses as a propellant for aerosols, polyurethane foams, and paints. Levels are continually monitored by Utah DAQ.
- *Lead* is commonly emitted during mining operations and smelting activities. Levels are continually monitored by Utah DAQ.

### **DO WE KNOW THE SOURCES OF THESE POLLUTANTS?**

The sources are unknown at this time. This is why further study is needed. Once sources are found, they will be subject to effective controls as dictated by law.

### **HOW HARMFUL ARE THESE HAZARDOUS AIR POLLUTANTS AT THE LEVELS REPORTED IN STUDY?**

The impacts from exposure vary from person to person, but generally speaking, residential exposure to the combined HAPs in Utah’s urban air is the equivalent of smoking one cigarette every 46 years. Indoor formaldehyde levels from household products, upholstery, and particle board, for example, actually pose a greater short-term health risk than the formaldehyde levels measured in the outside air.

Our toxicologists have put the short-term exposure risks far below the acute exposure line—the point at which a person would be immediately affected—by a factor of 10 (Formaldehyde) and 100 times (Methylene Chloride), even for the highest peaks in the study. DEQ is working quickly to identify the sources of these hazardous pollutants. Once the agency identifies these sources, it will implement effective controls to lower exposures even further.

### **DO I NEED TO BE WORRIED ABOUT HOW THESE HAZARDOUS AIR POLLUTANTS ARE AFFECTING MY HEALTH OR THE HEALTH OF MY FAMILY?**

Poor air quality is always a concern as it relates to an individual’s health. However, based on what we know about these particular pollutants and the levels at which they’ve been observed in the study areas, we believe it is unlikely anyone would experience any symptoms or lasting harm to their health.

### ***WHY DOESN'T DEQ KNOW MORE ABOUT THE SOURCES OF THESE POLLUTANTS?***

The data collected so far doesn't point conclusively to a specific source or sources. DEQ scientists have joined with other scientists and state agencies to determine the causes and/or sources of elevated HAPs levels in the Bountiful area.

### ***WHAT IS BEING DONE?***

- We have developed a Scope of Work that outlines next steps in the study process. It has been submitted with an application to the EPA for a grant, which will allow follow-up studies. Funding is anticipated to be in place in time to add additional monitors in Bountiful beginning this winter.
- We intend to conduct intensive, two-week monitoring in winter 2016 and summer 2017 to help us pinpoint the source(s) or factors leading to elevated levels found in the area.
- An investigation by Davis County Health officials is under way.
- As sources are identified, they will be subject to effective controls as dictated by law.
- As we learn more, we will continue to communicate to the public through media releases, our website and social media channels.