

Hillsboro Ambient Air Monitoring Project: Frequently Asked Questions

What is Ambient Air Monitoring?

Ambient air monitoring is the systematic, long-term assessment of pollutant levels by measuring the quantity and types of certain pollutants in the surrounding, outdoor air.

Why did the Air Quality Advisory Committee conduct Ambient Air Monitoring?

Per the Good Neighbor Agreement that Intel has with Neighbors for Clean Air and the Northwest Environmental Defense Center, Intel agreed to provide up to \$150,000.00 to a qualified third party to perform ambient air monitoring in the community. The \$150,000 figure was proposed by Neighbors for Clean Air and the Northwest Environmental Defense Center based on the anticipated cost of performing an ambient air monitoring study.

What is the Good Neighbor Agreement?

Intel has a Good Neighbor Agreement with Neighbors for Clean Air and the Northwest Environmental Defense Center. The goals of the Good Neighbor Agreement are to:

- Provide the public with accurate information about emissions, impacts, and reductions;
- Reduce emissions from the facility;
- Ensure the air quality permits issued to Intel are consistent with and include elements of the Good Neighbor Agreement; and
- Encourage open communications and understanding between Intel and its neighbors in Washington County.

The Air Quality Advisory Committee was formed to oversee the implementation of the Good Neighbor Agreement. This committee's purpose is to promote continuous improvement in neighborhood safety and livability in Washington County as impacted by Intel's operations, and facilitate communication between Intel and its neighbors. The AQAC meets quarterly, and has a webpage managed by Intel: oraqac.com

What is the Hillsboro Ambient Air Monitoring Project?

As part of the Good Neighbor Agreement between Intel, Neighbors for Clean Air and the Northwest Environmental Defense Center, Intel agreed to provide up to \$150,000.00 to a qualified third party to perform ambient air monitoring in the community. The purpose of the monitoring was to validate the results of the Air Quality Advisory Committee's Health Risk Assessment, a modeled evaluation of the potential health impacts of Intel's air emissions based on California's AB 2588 Air Toxics "Hot Spots" Program.

Air Sciences Inc., a Portland Oregon firm, was contracted to conduct the air quality monitoring at selected sites near Intel. Air Sciences used the Health Risk Assessment data to identify the locations within the community where the monitoring was conducted as well as the pollutants that were monitored.

Details on the Hillsboro Ambient Air Monitoring Project, including monitoring locations, data collection, metrological input, testing equipment, data collection thresholds (as defined by California's AB 2588 Program) and limitations, sampling methods, chain of custody, and quality control processes are located in the Quality Assurance Project Plan located at oraqac.com.

What were the goals of the Hillsboro Ambient Air Monitoring Program?

As part of the Good Neighbor Agreement, Intel provided information about future potential emissions from the Ronler Acres and Aloha campuses. The inventory was used to assess potential health impacts of these emissions through an Air Quality Health Risk Assessment.

The Air Quality Health Risk Assessment was a third-party consultant's assessment of Intel's air emissions. The goal of the Health Risk Assessment was to evaluate the potential health impacts of Intel's future potential air emissions and made this information available to the public. The results show that Intel's aggregate present and projected future emissions are below the risk threshold levels. The summary and full report are available at oraqac.com.

Ambient Air Quality Monitoring was conducted by a third party with direction from the Air Quality Advisory Committee. The monitoring focused on ambient air quality in relation to the impact of Intel's emissions to local ambient air quality. **What is the Quality Assurance Project Plan (QAPP)?**

A Quality Assurance Project Plan, or QAPP, is a written document outlining the procedures a monitoring project will use to ensure the data it collects and analyzes meets project requirements. The QAPP for the ambient air monitoring project can be found at oraqac.com.

The Ambient Air Monitoring Program has concluded. What were the results?

To provide independent, third party analysis, Neighbors for Clean Air hired technical expert Dr. Ron Sahu, who was involved in the entire process. A Technical Executive Summary on the analysis of the results can be found [here](#). Below is a brief summary of Dr. Sahu's conclusions.

The results of the ambient monitoring program indicate that results were at acceptable levels for pollutants such as fine particulate matter (PM2.5), ammonia, and hydrogen fluoride. For all other compounds monitored, where robust comparison standards are not available – such as for isopropyl alcohol, a common solvent, used extensively at Intel; or metals that are contained as part of the dust or fine particulate matter – the results were generally low and in many instances below detection limits.

The results of the Hillsboro Ambient Air Monitoring Program should provide reassurance to Intel's neighbors that the overall impact of Intel's air emissions on the surrounding area is minor.

How did the AQAC account for Intel's emissions in the future?

While the Ambient Air Monitoring program measured ambient concentrations of pollutants that were identified by the Neighbor Groups at a set point in time, the Health Risk Assessment (HRA) accounted for the emissions from anticipated future operations at Intel Ronler Acres and Aloha Campuses and was designed to look at additional cancer, acute, and chronic risks, above background risks. The ambient air monitoring program was a measurement of current ambient air concentrations in the surrounding area, not a predictive study of Intel's projected future emissions.

Did the Ambient Air Monitoring Program prove what the AQAC predicted in the Health Risk Assessment (HRA)?

The Health Risk Assessment (HRA) and Ambient Air Monitoring are conducted to create a fuller picture regarding air quality – one method does not prove or disprove another. The HRA predicts the impacts of pollutants coming from Intel, while Ambient Air Monitoring measures everything in the local air, and is not limited to contributions from Intel alone.

How did the monitoring account for wind direction and the dispersion of pollutants throughout the air?

In order to associate the likelihood of Intel's emissions contributing to the measured ambient air concentrations, the Ambient Air Monitoring took into consideration wind directions. Background monitors were also placed in locations where Intel's emissions are not expected to be present due to typical wind conditions in order to evaluate emissions already occurring in the area. The study was conducted over a 6 month period to capture emissions during a wide range of conditions including wind directions associated with seasonal weather patterns.

How were the pollutants the AQAC monitored for selected?

When the AQAC evaluated which pollutants to measure, Dr. Sahu looked at what is typically emitted during semiconductor manufacturing as well as Intel's emission inventory. Based on this information, the AQAC developed the list of pollutants to monitor.

Are there plans for additional monitoring to be conducted by the AQAC?

Currently, there are no plans for additional monitoring through the AQAC but it should be noted that the HRA was forward looking for the anticipated build out of the Ronler Acres site. Intel also conducts stack testing regularly to monitor emissions.