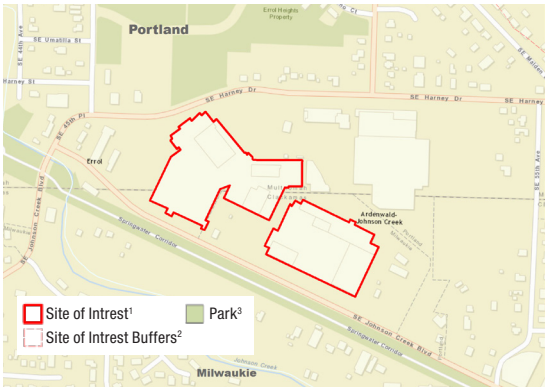
Precision Castparts Public Health Assessment

Summary Fact Sheet

The Oregon Health Authority (OHA) conducted a public health assessment (PHA) of the area around the Precision Castparts Corporation (PCC) campus in southeast Portland. The PHA responded to a neighborhood advocacy group's request to OHA to evaluate health risks for the area surrounding PCC. This is a summary of the PHA.



The PCC campus, in red outline, is located near neighborhoods, businesses, parks, Johnson Creek and a multi-purpose trail.

Background

- PCC is a large metal foundry operated in southeast Portland since 1957. PCC makes parts for various industries using nickel, titanium, aluminum and steel alloys at this location.
- From 2013 to 2015, the U.S. Forest Service (USFS) helped the Oregon Department of Environmental Quality (DEQ) locate possible sources of heavy metals air emissions in Portland. USFS collected moss samples from trees around the city. The moss showed elevated levels of heavy metals near PCC compared to other locations in Portland. These results raised concerns about potential human exposure. However, the levels of metals in moss didn't give information needed to determine health risks to people.
- In response, DEQ began air monitoring and collected soil from areas around PCC in 2016. DEQ and PCC collected data on contaminants in PCC storm water runoff and in surface water, sediment and crayfish in nearby Johnson Creek.
- In June 2016, South Portland Air Quality (SPAQ) asked OHA to conduct a PHA because of concerns about short-term and long-term health effects from PCC emissions to air, water and soil. In response, OHA's Environmental Health Assessment Program conducted a public health assessment with the input of an advisory committee made up of people living nearby.

The PCC PHA found

Measured concentrations of metals in air near PCC are **not likely to harm health.**

There is not enough known about past air emissions from PCC to calculate past health risks before 2016.

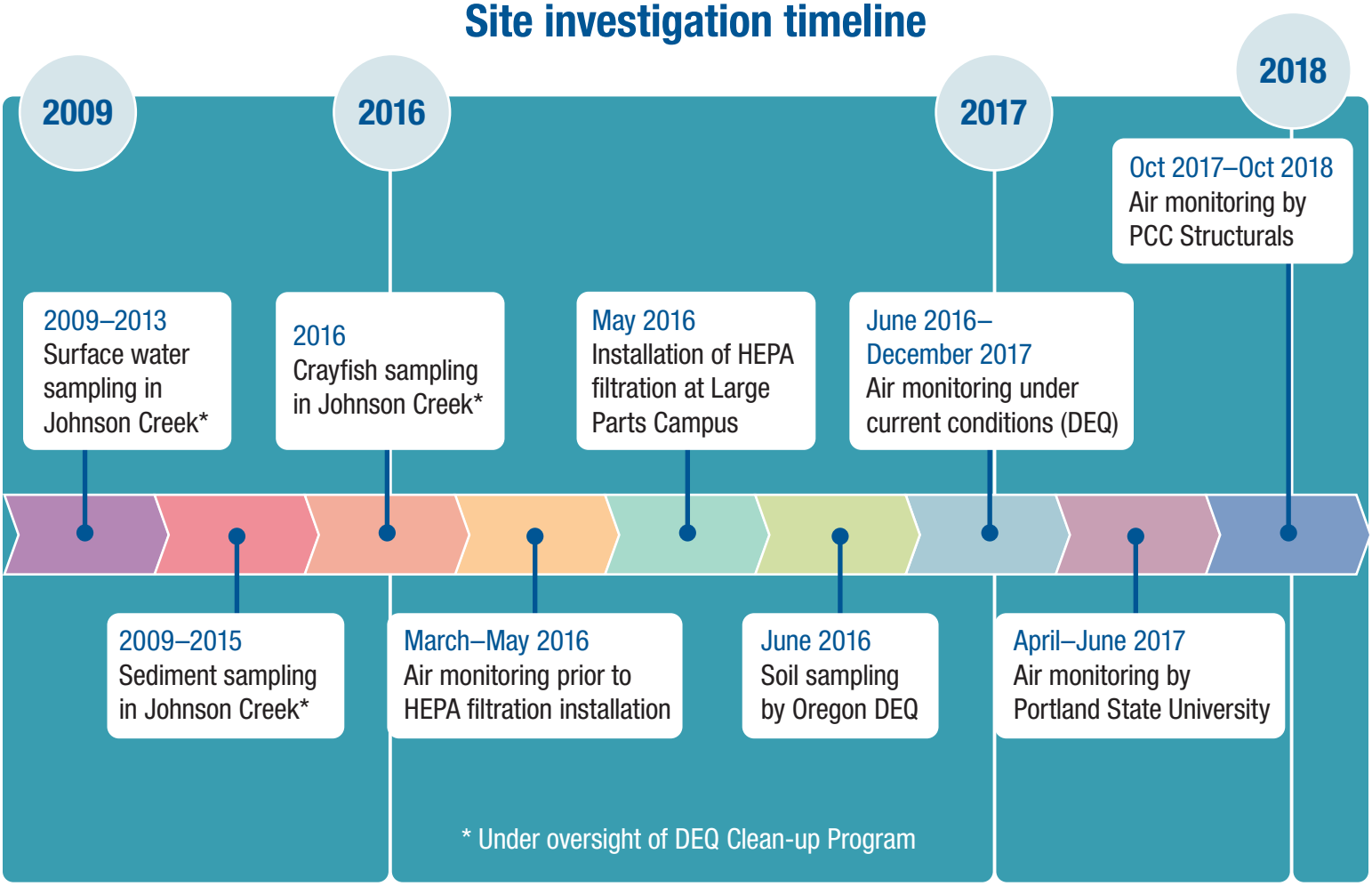
Measured concentrations of metals in soil from areas around the PCC facility **are not likely to harm health.**

Measured concentrations of chemicals in surface water of Johnson Creek near PCC are **not likely to harm health.**

Measured concentrations of chemicals in the sediment of Johnson Creek near PCC **are not likely to harm the health of people who occasionally encounter it.**

People may safely eat **up to five meals of crayfish per month** (40 ounces for adults) from Johnson Creek.

Site investigation timeline



OHA's public health approach

OHA evaluated air, soil, river sediment, surface water and crayfish data. OHA considered the following to find out if a health threat exists:

- The type of contaminant
- How exposure occurs (breathing in, eating or touching/skin contact)
- Length of time of a person's exposure
- The amount of contaminant present during a person's exposure
- Site conditions (how people use the site and where the contamination might be)

Contaminants of concern in this PHA include:

- Arsenic
- Cadmium
- Hexavalent chromium
- Nickel
- Polychlorinated biphenyls (PCBs)
- Polycyclic aromatic hydrocarbons (PAHs)

For more information on the potential health effects of each chemical, see Appendix F of the report.

Community engagement

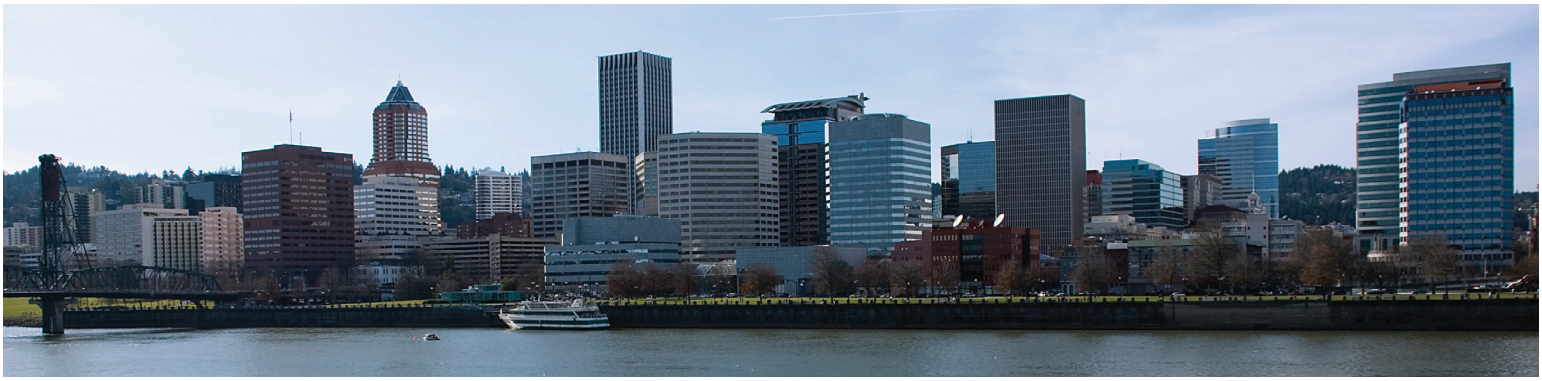
OHA held a series of meetings with a community advisory committee (CAC) made up of people who live, work, learn or play near PCC. These meetings' purpose was to:

- Receive input and feedback from local residents. This helped shape the assumptions used to calculate health risks in the PHA. The feedback ensured the community gave input to the assessment.
- Educate participants about the process of a PHA.
- Develop relationships with local residents to build trust between the community and the agency.
- Identify the most relevant way of communicating the PHA to the broader community, including an understanding of how OHA develops PHA conclusions and how communities can engage in the public comment period.
- Ensure the PHA highlights, incorporates and addresses community concerns.

EHAP also consulted with the CAC to hire a technical expert to help the community during the PHA's public comment period. The consultant reviewed the PHA with special attention to the CAC's questions and created a report addressing their concerns. CAC members used this report to inform their public comment on the PHA.

About public health assessments

- The OHA Public Health Division's Environmental Health Assessment Program completes public health assessments (PHA) under a federal grant from the U.S. Centers for Disease Control and Prevention.
- PHAs occur when community members or agencies contact EHAP with health concerns about chemicals in their environment.
- EHAP evaluates available environmental data to determine if chemicals in the environment are harmful to the health of a community. We collect community input and make recommendations for how to protect health based on this information.
- Uncertainties exist in any PHA. Scientists use assumptions, judgments and limited data. These relate to uncertainty in estimating risk. See the full report for a description of uncertainties and limitations.



Cleaner Air Oregon

The Oregon Health Authority began creating this public health assessment in March 2017. At that time, Oregon's industrial air emissions rules did not include a health-based risk assessment. In November 2018, Oregon adopted Cleaner Air Oregon (CAO), a set of rules that regulate toxic emissions based how they might affect the health of the community. CAO adds requirements to DEQ air quality permits that limit the levels of potentially harmful chemicals a facility puts into the air.

Community engagement is a priority for designing and carrying out CAO. DEQ will create a community engagement plan based on the unique needs of each community. The plan will include resources and opportunities to involve the community throughout the CAO risk assessment process.

Once facilities are "called in" to CAO, they must assess potential health risks from chemicals to people living, working or going to school nearby. Health risks include cancer and non-cancer health effects. PCC was "called in" to the program in the fall of 2019 and will conduct a health-based risk assessment with supervision from DEQ and OHA.

The CAO risk assessment process is similar to the process used in this PHA. However, the CAO assessment will:

- Include more chemicals, and
- Use air dispersion modeling to estimate concentrations of chemicals in locations where people could be breathing them.

The air monitoring data used in the PHA can be influenced by other nearby sources of the same chemicals, such as road traffic or other businesses. Conversely, CAO air concentration estimates can be linked directly to emissions from PCC.

Helpful resources

Read the full report:
www.healthoregon.org/ehap/

Access gardening resources:
www.healthoregon.org/gardening

Learn more about Cleaner Air Oregon:
www.cleanerair.oregon.gov

For more information about this Public Health Assessment, please contact EHAP by:

- Emailing ehap.info@dhsoha.state.or.us or
- Calling 1-877-290-6767.

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