



# Frequently Asked Questions About J.H. Baxter & Co. in Eugene

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## Background

The Oregon Department of Environmental Quality, U.S. Environmental Protection Agency, Lane Regional Air Protection Agency and Oregon Health Authority are working together to protect public health and the environment surrounding J.H. Baxter & Co., a former wood treatment facility in west Eugene.

The 31-acre site, south of Roosevelt Boulevard, had been an active wood treatment facility since the early 1940s. Baxter stopped treating wood on Jan. 31, 2022, but a small crew has been working to make sure water systems remain operational and in compliance with environmental regulation. The facility had preserved wood to make products, such as utility poles and railroad ties.

DEQ is overseeing a cleanup of soil contaminated by dioxins from Baxter that has extended into the residential neighborhood to the north. DEQ also regulates the facility through hazardous waste and wastewater rules. EPA is leading the investigation and cleanup of the facility itself.

DEQ and Baxter entered into a settlement agreement on July 14, 2022, over a penalty for multiple hazardous waste and water quality violations. Baxter dropped its appeal of DEQ's enforcement action, so the civil penalty and order became final. In the agreement, DEQ is requiring the company to pay \$305,440.

LRAPA regulates Baxter through Oregon's Air Containment Discharge Permit, or ACDP, program and has called the facility into Cleaner Air Oregon, a program that assesses the potential health risk of air emissions.

Baxter remains in the Cleaner Air Oregon program despite the facility halting wood treatment.

OHA provides expert advice to DEQ and LRAPA about the potential human health effects of soil and air contamination. In early 2023, OHA will publish a health report on soil contamination in west Eugene.

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## General questions

### How extensive is the contamination?

DEQ's area of investigation includes properties **east of La Casa Street, west of Anton Court, south of Elmira Road and north of Roosevelt Boulevard**. DEQ does not expect dioxin soil contamination from Baxter to extend to properties outside this area. Initial soil sampling results for eight properties north of Baxter indicate that dioxin contamination is highest – to levels that warrant cleanup – in residential yards nearest the facility. The sampling results to date indicate that seven residential yards need cleanup as soon as possible and there are others that may need cleanup eventually.

DEQ is overseeing more soil sampling that will determine whether cleanup will be needed at adjacent properties, located farther from Baxter. Initial soil sampling of residential properties is consistent with a predominant wind pattern analyses conducted by LRAPA for the area around Baxter.

### How did the dioxins get into the soil?

DEQ believes that air emissions from Baxter caused the contamination. We don't know exactly where in the wood treatment process the contamination was formed. Baxter's use of pentachlorophenol, or penta, in their wood treatment process may have contributed. Penta is known to contain dioxins as impurities in the treatment solution. Dioxins are also formed from combustion processes such as burning fuels like wood, oil, or outdoor burning so there may be other contributing sources.

DEQ did not discover the contamination earlier because historic sampling in the neighborhood was not comprehensive and the lack of samples was identified as a data gap during the development of the cleanup Record of Decision, or ROD, in 2019. The Record of Decision is a plan for cleanup at the facility.

### Why are dioxins a concern?

Dioxins are a class of toxic chemicals produced by industrial and natural sources. Depending on the level of exposure, dioxins can increase the risk of cancer and the risk of other health effects.

### How is EPA involved?

EPA is tackling its cleanup involvement with a three-pronged approach.

One of those approaches is helping DEQ with additional yard sampling. In March 2023, EPA collected samples from 28 additional yards in the area to determine how far the contamination from the facility is found and whether more yards need to be cleaned up.

EPA is taking on the cleanup of the Baxter property itself. In doing so, it has to determine things like what the facility itself looks like, how much hazardous product is on site, what risks its contents pose and how those can be removed and disposed of safely. The agency is in the beginning stages of cleanup, so it is still early to tell how long the process will take.

The third part of its approach is determining what happened around the facility. EPA will look at how the facility has impacted other aspects of the environment, like nearby soils, groundwater, and any nearby bodies of water.

### I think I still smell Baxter, what should I do?

The most common odor detected from Baxter's emissions is a mothball smell from naphthalene in the creosote used by the facility. Since Baxter halted wood treatment operations in late January 2022, odors from the facility are not anticipated to be experienced by residents.

If you detect an unpleasant odor, please file an air quality complaint with LRAPA. It is possible another source aside from Baxter is responsible. Filing an air quality complaint is the best way to alert LRAPA to the presence of an odor. This will begin an investigation to determine if Baxter or another source is the cause. You can file an air quality complaint by visiting [lrapa.org](http://lrapa.org) and clicking the “File a complaint” button, or by calling 541-726-1930. To be updated on the results of the investigation initiated by your complaint, please check the “Please contact me regarding this complaint” box on the online complaint form or indicate a desire for updates in your voicemail.

## Is Baxter closed?

Baxter is no longer treating wood or using creosote or other preservatives. The only equipment onsite that still operates is a boiler that provides steam to the facilities evaporator. This evaporator is used to dry rainwater that falls into containment areas on site. The evaporator does produce smells, but they are only detectable when within a few feet of the evaporator.

If you do smell an odor you believe to be coming from Baxter, please notify LRAPA so the Agency can check on activities onsite. You can file an air quality complaint by visiting [lrapa.org](http://lrapa.org) and clicking the “File a complaint” button, or by calling 541-726-1930. To be updated on the results of the investigation initiated by your complaint, please check the “Please contact me regarding this complaint” box on the online complaint form or indicate a desire for updates in your voicemail.

## How can LRAPA regulate Baxter more when it comes to air emissions?

Baxter submitted a timely renewal application for a Simple ACDP, and since the facility is no longer treating wood, the application only included the evaporator and natural gas-fired boiler units. With the removal of the wood treating activities, Baxter’s Simple ACDP will allow for fewer activities than the old permit. For example, they can’t use chemicals to treat wood or dry lumber under the new Simple ACDP. The new permit will only allow Baxter to use the evaporator and boiler. This change also removes an air permitting benefit the facility has held because it was operating prior to 1978 when tighter air regulations were passed.

Baxter remains an existing source that has been called into a program named Cleaner Air Oregon that assures businesses air emission are at or below certain health-based risk levels. LRAPA will conduct an agency-initiated assessment of potential health risks from the boiler and evaporator and include permit conditions, if necessary, to assure they are not above certain health risk levels.

It is important to issue Baxter this Simple ACDP because the evaporator must continue operating to treat and process rainwater which falls into containment areas, especially during the winter and spring when it rains more.

Learn more about Baxter’s progress through Cleaner Air Oregon by visiting [LRAPA’s facility specific web page](#).

## How are the regulatory agencies listening to residents?

Community members concerned about the health and environmental impacts of Baxter have been reaching out to DEQ, LRAPA and OHA. In response, the agencies, along with the City of Eugene, have worked to improve communication among them and with the community. A third-party facilitator has been coordinating this collaborative effort since December 2020, which includes regular meetings with a core team of community members. The agencies have held two public informational meetings, and more are planned.

[Read the summaries of these meetings on DEQ’s J.H. Baxter web page.](#)



Scan this QR Code to visit LRAPA's Cleaner Air Oregon Webpage on J.H. Baxter.



Scan this QR Code to visit DEQ's website on J.H. Baxter.

## **I want to talk to someone at DEQ, LRAPA or OHA, who should I call?**

The community contacts are DEQ's Susan Turnblom, 541-687-7464, [susan.turnblom@deq.oregon.gov](mailto:susan.turnblom@deq.oregon.gov); LRAPA's Travis Knudsen, 541-736-1056 ext. 217, [travis@lrapa.org](mailto:travis@lrapa.org); and OHA's Todd Hudson, 971-599- 0372 or OHA's Environmental Health Assessment Program at [ehap.info@dhsoha.state.or.us](mailto:ehap.info@dhsoha.state.or.us).

## **Frequently asked questions from residents within DEQ's area of investigation**

### **What is the latest on the soil sampling and cleanup?**

DEQ continues to collect soil samples from properties near Baxter and will share more results this spring from further sampling in the neighborhood. DEQ expects to begin some individual property cleanups this summer.

### **I live in the area of investigation by Baxter or near Trainsong Park, will DEQ come and sample my soil?**

The soil sampling investigation is underway. If DEQ identifies more properties that need sampling, then the department will connect with individual property owners and residents.

DEQ's area of investigation near Baxter includes properties **east of La Casa Street, west of Anton Court, south of Elmira Road and north of Roosevelt Boulevard**. DEQ currently does not expect

dioxin soil contamination from Baxter to extend to properties outside this area. Property owners outside this area may pay for their own soil sampling, but sampling for dioxins can be costly.

The dioxins investigation at Trainsong Park first focused on the park itself, with DEQ sampling soil to better understand the level and extent within the park, and expanded to nearby properties.

### **When will DEQ clean up the contaminated properties?**

DEQ is working on a cleanup plan. Seven of the properties need cleanup as soon as possible, which is expected to occur this summer or fall, and several the properties will eventually need cleanup to prevent long-term health risks.

### **What can people living on those properties do in the meantime?**

The main way people are exposed to dioxins is by swallowing soil. Children under 6 years old would be at greatest risk because they swallow more soil per body weight than older children and adults. OHA has provided the following guidance to people living on the contaminated properties to limit exposure:

- Remove shoes and wipe feet before entering the house to avoid tracking in dust from outside.
- Wipe visible dirt off your pets before letting them into your home.
- Wash hands with soap and water right after doing landscaping or gardening, even if you use gloves.
- Use indoor cleaning methods that avoid putting dust in the air. For example, damp-mopping floors instead of sweeping stops dust from being kicked up and use vacuum cleaners with high efficiency particulate air, or HEPA, filters which efficiently capture dust.
- Use landscape covering above the soil in your yard (for example, areas covered with landscape fabric, sandboxes, wood chips, lawn or gravel). Avoid using or playing in areas with bare soil.
- Avoid activities that disturb large amounts of soil, such as digging holes or leaving piles of exposed soil.

## What will the cleanup of the properties involve?

The cleanup plan will detail the specifics, but cleanup will likely involve the removal of contaminated soil and replacement with clean soil. Landscaping may or may not be removed as part of the plan.

## How much will cleanup cost property owners?

Cleanup will be free for the owners of the contaminated properties. DEQ's cleanup plan will include how the cleanup will be funded. DEQ is holding Baxter accountable for cleanup costs and is investigating the financial resources of the company.

## I live within the area of investigation and garden. What should I do?

DEQ and OHA recommend that anyone living on property where cleanup is needed follow the recommendations above.

Eating food grown in a garden is safe after washing away all soil before eating or cooking. Dioxins are not easily absorbed into the roots of plants. Many things we do to increase garden productivity also reduce exposure to dioxin – this includes things like adding compost and store-purchased topsoil.

[Visit OHA's Healthy Gardening website](#) with basic advice for growing food in areas where there may be concerns about environmental contamination.



Scan this QR Code to visit  
OHA's Health Gardening  
website.

## I live within the area of investigation and raise chickens. What should I do?

We recommended not to eat eggs from the chickens in impacted properties until cleanup is complete. Unlike garden plants, chickens do accumulate dioxins in their bodies, which they pass on through their eggs.

## What about the health of my pets that access the yard?

Cancer-related health risks due to long-term exposure to low levels of toxins are less for pets because their lives are naturally shorter than humans. Part of what makes humans more susceptible to cancer risk from environmental exposures is that we live a relatively long time. That means that any DNA damage in our cells has a long time to progress to cancer. In humans, cancers related to dioxin don't typically develop until decades after the exposure.

While normal activities for most dogs are unlikely to lead to significant long-term exposure risks, particularly risky behaviors such as biting or consuming soil, or digging extensively, should be avoided when possible. Cats are generally unlikely to engage in behaviors that would increase their risk of exposure to dioxins.

## What should I do if I am concerned about dioxins inside my home?

Dioxins are attached to soil, so cleaning methods which effectively removes dirt and dust from a home will adequately remove dioxins. We recommend using wet cleaning methods, such as wet mopping or dusting with a damp rag to prevent stirring dust up into the air. Shampooing carpets or having them professionally cleaned periodically is a good way to clean carpets. When vacuuming carpets, a vacuum with high efficiency particulate air (HEPA) filter is ideal. Regular vacuums reduce overall dust levels too if they have a properly fitted bag.

## What did we learn from OHA's health consultation draft report released in March 2023?

The report concluded that:

- Soil with dioxin concentrations over 40 parts per trillion (ppt) could harm the health of children younger than 6 who come in contact with bare soil regularly for one year or longer.

- If backyard chickens live in residential yards where the soil has dioxin levels above 4.7 ppt, it could be harmful to eat eggs laid by those chickens. This health risk is for people of all ages and backgrounds.
- There is no health risk from exposures shorter than one year.
- The increased cancer risk from long-term or chronic exposures to dioxins from Baxter is low.

## **Will I get cancer later from this exposure?**

It is not possible to tell whether dioxins in soil around Baxter were the cause of any individual person's cancer diagnosis. The risk of cancer due to dioxins from the Baxter facility is low when compared to cancer due to all other causes in the United States. There are no cancer types where a doctor would know that dioxin is the cause by examining the cancer itself. The types of cancer caused by dioxins all have multiple other causes besides dioxin as well. This is in contrast with mesothelioma, which is a specific type of lung cancer that a person can only get if they are exposed to asbestos or asbestos-like fiber. Unlike asbestos, there are no cancer types that are uniquely caused by dioxin.

Unfortunately, cancer is a very common group of diseases throughout the world and in the United States. In the United States it is estimated that 1 in 3 people (1 in 3 women and 1 in 2 men) will be diagnosed with some form of cancer in their lifetime. Cancer could be caused by many factors from family history and genetics, to lifestyle factors, to common environmental causes. The maximum increased cancer risk based on the maximum measured soil dioxin concentration (in one yard) near Baxter is 28 out of one million. That assumes a person is exposed to bare or loose contaminated soil every day for 26 years. OHA considers 28 in a million to be a low risk compared to the 1 in 3 (or 400,000 in a million) background risk that all people face. This small increase would be too small a change to measure in an actual population, since many fewer than 1 million people live in the area affected by Baxter.

## **Are there any special medical precautions I should take if my soil dioxin levels are above**

### **4.7 or 40 parts per trillion?**

No special medical precautions are recommended. OHA recommends standard preventative medical screenings on the schedule recommended by your healthcare provider. There are laboratory tests which can indicate whether you have been exposed to dioxins, but these are costly, take weeks to perform and they cannot be used to predict whether you will develop harmful health effects. Since dioxin is found in many places in the environment, all people have some levels of dioxins in their body fat and blood.

## **My yard has been sampled and my result is over 40 parts per trillion. What is my health risk, and what should I do?**

If you've had children under 6 living there who played in the yard daily for a year or longer, they may have an increased risk of reproductive effects, such as reduced sperm count, in adulthood. None of the levels measured so far are high enough to pose any other health risks besides a slight increase in cancer risk (more details about cancer below) to any other type of person.

DEQ plans to clean up these yards by summer or fall 2023. In the meantime, it would be best to follow the recommendations for good gardening hygiene listed above.

## **My yard has been sampled and my result is between 4.7 and 40 parts per trillion. What is my health risk, and what should I do?**

If you've lived there for 26 years or more, you could have a slightly increased chance of getting cancer beyond the normal background risk of cancer. This is in addition to the 400,000 cancers per one million people who get cancer from other causes. The probability ranges from 1 in one million to 28 in one million, based on the range of dioxin levels measured so far. OHA considers this a low cancer risk.

## **My yard has been sampled and my result is less than 4.7 parts per trillion. What is my health risk, and what should I do?**

This level of dioxin is similar to typical urban background levels. There are no particular health risks to anyone in your household, and no special precautions are necessary. You would likely find similar levels of dioxins in soils across Eugene.

## **My yard is within the area of investigation but has not been sampled yet. What is my health risk and what should I do?**

Air dispersion models indicate that your house may be in the area where dioxins could have been historically deposited. It is safest to assume that your levels could be above 4.7 or even 40 parts per trillion. While waiting for results, it would be best to follow the recommendations for people with dioxin levels over 40 parts per trillion.

## **How might contamination impact my property value?**

Oregon statutes (ORS § 105.464 – 105.490) require the seller in most residential property sales to complete the Seller's Real Property Disclosure Statement. The property disclosure statement requires answers to specific questions regarding the condition of a property. The seller must disclose to the buyer any material defects known to the seller that affects the value or desirability of the property and are not readily apparent to a buyer.

DEQ, LRAPA and OHA, do not have the market expertise or background to determine how dioxin contamination from Baxter will impact the value or desirability of a residential property requiring cleanup. It is recommended prospective sellers consult an Oregon licensed real estate agent on disclosure requirements.

## **Frequently asked questions from residents outside DEQ's area of investigation**

### **The nearest school to Baxter is Fairfield Elementary School, what do we know about the soil there?**

The initial soil sampling did not include Fairfield Elementary as a sampling location, but samples were taken from Petersen Park. The park is about the same distance from Baxter as the school. Results for sampling at Petersen Park indicated that the park did not need cleanup.

### **What about Trainsong Park in west Eugene, why is the park partially closed?**

The City of Eugene temporarily closed Trainsong Park on Jan. 13, 2022, after the unexpected finding of elevated levels of dioxins in the park. The soil sampling for the Baxter cleanup included the park as a background sampling location and it is unknown what caused the elevated levels of dioxins at Trainsong. In an effort separate from the Baxter cleanup, DEQ is working with the City of Eugene to further sample the park. The city reopened portions of the park – Trainsong Skatepark, the basketball court and other paved areas, as well as the playground – on Feb. 4, 2022, after DEQ announced its sampling plans. The reopened portions of the park have paved surfaces or are covered with several inches of bark or sand, and are areas where people using the park are very unlikely to contact the soil.

Further sampling include residential properties near the park along with the sections of the park.

### **My yard is outside the area of investigation. Should I be worried about contamination in my yard?**

It is unlikely that emissions from Baxter affected areas outside of the residential areas that have been and



will be sampled. Oregon DEQ and LRAPA did investigations of Baxter's emissions using air dispersion modeling and local weather data and considered how far dioxin-containing particles could have traveled. This was confirmed by sampling at places like Lark Park and Petersen Barn Community Center, which showed much lower levels of dioxin than in the area of investigation.

## **My house is outside the area of investigation and my nearest background sample location is Trainsong Park?**

DEQ has already collected additional samples from Trainsong Park to determine if the area of contamination there is within the park or could extend beyond it. DEQ expects the results from those collected samples to be available soon. While waiting for the results, residents who are concerned can follow the same recommendations as for people with soil concentrations over 40 parts per trillion in their yard.

## **Online resources**

DEQ's [J.H. Baxter web page](#)

EPA's [J.H. Baxter web page](#)

LRAPA's [J.H. Baxter web page](#)

OHA's [J.H. Baxter web page](#)