

Fact Sheet Update – March 2023

Methane Biogas Investigation at the Millpond Crossing Residential Development (Former Philomath Mill)

This fact sheet updates The Oregon Department of Environmental Quality's August 2021 fact sheet regarding the environmental investigation at Millpond Crossing, a residential subdivision at the former Philomath Mill cleanup site in Philomath. DEQ has been working with MPC Builders LLC – the developer of Millpond Crossing – to investigate biogases (methane, hydrogen sulfide, etc.) found in soil at the development. Specifically, this updated fact sheet serves to update the precautions that were presented in DEQ's August 2021 Fact Sheet.

Background

The former Philomath Mill site operated under various names between 1955 and 1998 and had two large log ponds. The ponds were eventually backfilled with wood waste and soil during the 1980s.

MPC Builders is building homes on the former Philomath Mill site. The subdivision is on the northeast corner of S. 15th St. and Chapel Drive. The developer has built about 60 homes so far and has plans for 212 in total. The existing homes have been equipped with mitigation features, such as vents and fans, to help prevent accumulation of biogases, and methane alarms to alert residents if methane accumulates under homes. In July 2021, MPC Builders signed an agreement with DEQ that requires MPC to complete a thorough and timely investigation to determine what measures, if any, may be needed to address biogases in soil at the development.



Aerial view of Philomath Mill in 1978.



Aerial view of Philomath Mill in 2022.

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Current Status

In June 2022, MPC Builders submitted a preliminary methane remedial investigation report to DEQ. The report summarizes the environmental investigations on the property since June 2020. In addition, MPC Builders has submitted work plans for DEQ approval including, a plan for screening and monitoring existing homes, a methane mitigation plan for new home development, plans for utility retrofitting and methane mitigation, a targeted soil gas investigation for two areas with elevated methane, a work plan for a source removal, and a contractor's health and safety plan.

MPC Builders has conducted monitoring events beginning in April 2021 to check for methane and other biogases beneath the existing homes. For methane the explosive range in a confined space is 5 to 15% by volume in air. To date, sustained levels of methane or other biogases of concern have not been detected beneath homes. The monitoring events will continue until at least the fall of 2023.

Although no biogases of concern have been found beneath homes, MPC Builders has worked with DEQ to identify specific mitigation measures that will be implemented in case methane or other biogases are found under (or inside) homes above action levels that DEQ established for the project. MPC Builders has also conducted several rounds of inspections of fans and other mitigation measures installed in the existing homes.

In March 2022, MPC Builders began the application process with Business Oregon for a Brownfields loan to help pay for environmental work. The loan was funded in December 2022, and with those funds, MPC Builders began a targeted investigation of two areas near existing homes with elevated biogas readings in soil. In May 2023, MPC Builders will implement a pilot study to assess the effectiveness of additional remedial measures that may be needed to reduce risk to the existing homes from methane and other biogases in soil.

MPC Builders also started construction on the previously undeveloped portion of the property on the east side of S. 16th St. Source removal plans and home mitigation designs were approved by DEQ. This work has proven successful in removing buried organic source material. It is anticipated that removal of this material will reduce biogas generation. MPC has planned additional biogas source material removal in 2023, as development activities progress.

Updated Precautions

In our August 2021 Fact Sheet, DEQ in consultation with Oregon Health Authority (OHA) and the Philomath Fire Department, advised residents to take certain precautions related to activities in and around their homes. At that time little was known about the methane issue at Millpond and from an abundance of caution, DEQ advised homeowners to avoid outdoor flames, use of power tools, smoking, and powered lawnmowers in their yards. However, based on additional methane monitoring data, DEQ, OHA and Philomath Fire have reassessed the potential risk from these outdoor activities and are no longer advising homeowners to avoid them. The safety precautions may be updated again as site investigations and gas monitoring continue.

As such, DEQ recommends the following:

- Please do not alter or modify the existing garage or crawlspace fans, alarms, vents, or crawl space sampling ports (Polyvinylchloride [PVC] conduit) in homes.
- Immediately contact MPC Builders if you see any problems with fans, vents or alarms.
- Keep unblocked and uncovered all crawl space vents around the perimeter of home foundations.
- If you or any contractors plan to go into crawl spaces, contact MPC Builders prior to entry to ensure the existing mitigation and safety protections are operational and effective.

Upcoming Work

In 2023 MPC Builders is working with DEQ to conduct more testing in yards of existing homes to better understand the nature and extent of biogases at Millpond Crossing. Methane and other biogas concentrations vary considerably in the soils containing wood waste, but the risk of fire or explosion is minimal because oxygen is absent or very low in this underground environment. The main risk is that methane and/or hydrogen sulfide may potentially migrate through the subsurface and enter confined spaces, such as outbuildings, crawl spaces or buried utilities. Results from the planned investigations will lead to a better understanding of potential risks to residents and assist MPC Builders and DEQ in developing effective remediation plans to reduce risks from soil gas migration. In summary, the upcoming work will help determine if risks are present, give MPC Builders the opportunity to assess the feasibility of mitigation techniques, and provide a roadmap for any additional mitigation measures in homes. MPC Builders will provide homeowners in and around these areas with updates and information related to the planned investigations, including what to expect and what additional precautions to follow.

For more information

For more information about the ongoing investigation at Millpond Crossing, visit the Philomath Mill webpage in DEQ's [Environmental Cleanup Site Information Database](#) (Site ID 6296) or contact DEQ Project Manager Anthony Chavez at 541-687-7348 or anthony.chavez@deq.oregon.gov.

MPC Builders can be reached 541-609-9513 or methaneinfo@millpondcrossing.net.

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