

# Frequently asked questions

## Allied Paper Landfill, Operable Unit 1 of the Kalamazoo River Superfund Project

### **Summary of community questions**

The Allied Paper Landfill is part of the Allied Paper/Portage Creek/Kalamazoo River Superfund site. The U.S. Environmental Protection Agency has held meetings recently to discuss possible cleanup options. Here are some of the questions – and the answers – asked at those meetings. This FAQ will be updated as needed.

### **Does the contamination at Allied Landfill affect Kalamazoo drinking water wells?**

No. EPA studied the groundwater and the flow patterns and found that the groundwater is not flowing toward the city well fields. Also, we have not detected PCBs in the groundwater at levels that pose a risk to human health.

### **How has EPA cleaned up places similar to Allied Landfill?**

We have used consolidation, capping and monitoring as a cleanup method at King Highway Landfill, 12th Street Landfill and the Willow Boulevard/A-Site Landfill. Each of these sites are PCB-contaminated paper-waste landfills that are part of the larger Kalamazoo River site. Since cleanup was done at King Highway Landfill, groundwater monitoring has found PCBs 34 times in 595 samples since January 2003. At 12th Street Landfill, groundwater monitoring has found PCBs 13 times in 224 samples since October 2011. In all these instances, the PCBs detected were at low levels that do not pose a risk to people. We expect Willow Boulevard/A-Site Landfill to have similar results once monitoring is complete. We have used the consolidation, capping and monitoring cleanup method at dozens of landfills in the Midwest.

### **The consolidation and capping alternatives in the Allied Landfill Feasibility Study do not include a bottom liner. Is it legal for a Toxic Substances Control Act landfill to not have a bottom liner? Is a landfill without a bottom liner safe?**

Neither TSCA – the federal law that regulates PCBs and other toxic substances – nor its implementing regulations require landfills to have a bottom liner. The purpose of a bottom liner is to prevent waste from leaching into and contaminating the groundwater beneath a landfill. PCBs bond tightly to landfill materials and groundwater does not easily flow through, so it is unlikely the waste will contaminate the groundwater. The consolidation, capping and monitoring cleanup method calls for a multi-layer engineered cap over the waste to prevent rain water from flowing through. As a result, a bottom liner is not necessary.

### **What are PCBs? •••**

Polychlorinated biphenyls, or PCBs, belong to a broad family of man-made organic chemicals known as chlorinated hydrocarbons. PCBs were domestically manufactured from 1929 until their manufacture was banned in 1979. Although no longer commercially produced in the United States, PCBs may be present in products and materials produced before the 1979 PCB ban. Once in the environment, PCBs do not readily break down and may remain for long periods of time in air, water and soil.

PCBs have been demonstrated to cause cancer, as well as other adverse health effects on the immune system, reproductive system, nervous system, and endocrine system.

### ***Will groundwater be prevented from contacting the bottom of the landfill so there will be no treatment costs?***

We don't expect groundwater treatment will be needed because of the paper waste that makes up most of what's in the landfill. That material is roughly as porous as clay, so the groundwater doesn't flow through it easily. In addition, PCBs tend to bond with organic material, like the paper waste in the landfill, so they don't readily dissolve in water. We rarely find PCBs in groundwater at Allied Landfill. When we do, they are at low levels that do not pose a risk to people. Therefore, it is not necessary to prevent contact between the bottom of the landfill and the groundwater.

### ***Could the cost of a remedy at Allied Landfill affect available funds for the river?***

If the landfill cleanup costs more than the amount set aside for it in the trust, EPA might draw on site-wide funds that would otherwise be used to clean up the Kalamazoo River.

### ***Who will make sure that the landfill cleanup protects us long-term?***

It is EPA's responsibility to make sure the cleanup protects people and the environment. If the cleanup includes waste managed on-site, there would be regular monitoring of the landfill cap and groundwater. If there is a site-wide redevelopment, we will take steps to ensure that the cleanup stays effective in perpetuity.

### ***Are there any alternative technologies that could be used?***

We looked closely at a number of alternative technologies and concluded that none are viable options at Allied Landfill. To learn more, see Section 3 of the Allied Landfill Feasibility Study and a supplemental memorandum, both of which are at [www.epa.gov/region5/cleanup/alliedpaper/index.html](http://www.epa.gov/region5/cleanup/alliedpaper/index.html).

### ***Would the new redevelopment alternative protect people and the environment?***

Yes. EPA can only select from among cleanup alternatives that are protective.

### ***What will be the cleanup standards?***

EPA develops cleanup standards based on how the site may be used after cleanup and how people and animals might be exposed to remaining contamination. We will finalize the cleanup standards after we select a final cleanup plan. To learn more, see a discussion of potential cleanup standards in the Allied Landfill Feasibility Study at [www.epa.gov/region5/cleanup/alliedpaper/index.html](http://www.epa.gov/region5/cleanup/alliedpaper/index.html)

### ***Would the addition of a new redevelopment alternative mean that the total removal alternative would be taken out of the Feasibility Study?***

No. We will keep the total removal alternative in the Feasibility Study, as well as the other options, and consider each before choosing a cleanup option.

### ***What are the costs associated with a remedy that keeps the waste in place?***

Leaving waste in place requires long-term maintenance to ensure the cleanup continues to protect people and the environment over time. For Allied Landfill, EPA estimates ongoing maintenance of consolidation, capping and long-term monitoring would be \$5 million.

### ***Would stacking the waste higher cause contaminated water to be squeezed out, sending contamination into the groundwater?***

Piling excavated material onto existing material would compress the underlying materials. During the design phase, we would take samples to determine if we need to add stabilization measures. We would also monitor the groundwater to see if we need to treat the groundwater. In the long term, compression of the materials could make them less porous.

### ***For more information regarding the Allied Paper Landfill, contact the following:***

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