

EPA Proposes Cleanup Plan for Former Plainwell Paper Mill

Allied Paper/Portage Creek/Kalamazoo River Superfund Site
Plainwell, Michigan June 2015

You are invited

EPA invites you to discuss the proposed cleanup plan for the former Plainwell Paper Mill site.

EPA will hold a public meeting
Tuesday, June 16, at 6 p.m., at:

Plainwell Area Community Center
798 E. Bridge St.

EPA representatives will present details of the plan, and oral comments will be accepted and recorded by a court reporter.

Read the proposed plan

The detailed proposed plan is available for review in the information repositories and on the Web (*see box, Page 7*).

Public comment period

There are several ways to comment on the proposed plan from **June 8 through July 8:**

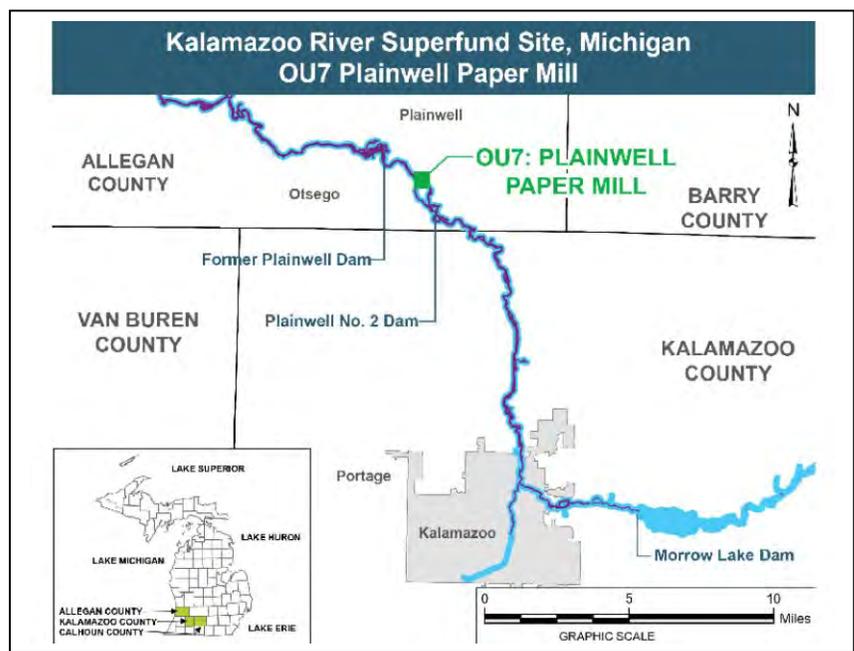
- Fill out and return the enclosed comment form, or submit it at the meeting.
- Give oral remarks, or submit written comments, at the public meeting.
- Send a fax to 989-401-5508.
- Use the public comment form link at www.epa.gov/Region5/cleanup/kalproject/ou7-pubcomment.html

The U.S. Environmental Protection Agency plans to clean up contaminated soil in an area called Plainwell Mill. The Plainwell Mill site is known as Operable Unit 7, or OU7, at the Allied Paper/Portage Creek/Kalamazoo River Superfund site. It contains areas with high levels of arsenic and other contaminants. EPA plans to remove the contaminated soil, replace it with clean soil and restore the ground.

Your comments are needed

EPA is accepting comments on the proposed cleanup plan from June 8 through July 8 (*see box, left*). This fact sheet provides background information, describes cleanup options and explains EPA's recommendations. You can find more details in a document called the *Allied Paper/Portage Creek/Kalamazoo River Superfund Site Proposed Plan for Operable Unit 7*, available at www.epa.gov/region5/cleanup/kalproject and at the local information repositories listed on Page 7. EPA wants your comments on the cleanup options and recommendation as well as this technical report.

EPA will review all comments before a final decision on a cleanup plan. EPA, in consultation with the Michigan Department of Environmental Quality, may select a different cleanup option based on public comments, so your opinion is important. EPA will respond to comments in a document called a "responsiveness summary." This will be part of the final cleanup plan, which is called the "record of decision."



¹Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA known as the Superfund law) requires public notice about this proposed cleanup plan through a meeting, comment period and newspaper announcement. This fact sheet summarizes information contained in the feasibility study and other documents that can be reviewed at the library repositories listed on Page 7 and EPA Region 5 offices in Chicago.

Background

The 35-acre Plainwell Mill site is at 200 Allegan St., and is part of the Allied Paper/Portage Creek/Kalamazoo River Superfund Site. It consists of the former Plainwell Inc. mill property and buildings. It is bordered on the north by the Kalamazoo River, on the east by a small diversion channel of the Kalamazoo River known as Mill Race, on the south by Allegan Street/M-89 and beyond by residential and commercial properties, and on the west by residential properties and the City of Plainwell Water Renewal Plant (*see map, below*).

Paper products were made at the Plainwell Mill. Additional operations included deinking and recycling of paper materials, paper sludge dewatering, wastewater treatment, waste and raw materials storage, and coal and fuel storage.

The western portion along the riverbank was the site of wastewater settling lagoons. The southwestern portion of the site is now a vacant wooded lot. Other areas have some vegetation, but most of the site is covered with buildings, concrete slabs or asphalt pavement.

Current conditions

The Plainwell Mill site has undergone many changes with previous cleanups and several ongoing redevelopment projects. In 2009, Weyerhaeuser Co., one

of the parties potentially responsible for the contamination, completed an emergency cleanup along the southern bank of the Kalamazoo River near the property. Workers removed paper residuals and cleaned up areas of PCB contamination in soil and river sediment.

Several former mill buildings were torn down in 2012 and 2013. The city renovated Building 19 to be used for City Hall operations, the former sludge dewatering building was renovated for use by the city's Public Safety Department, and Conestoga-Rovers and Associates moved its Kalamazoo office staff into Building 17. The city is using parts of the property for fire hose testing, ambulance driver testing and storage of various seasonal decorative supplies.

Why is cleanup needed?

In 2013, Weyerhaeuser Co. investigated the site and took soil samples. The investigation revealed several contaminants at the Plainwell Mill site, including PCBs, volatile organic compounds, semi-volatile organic compounds and metals, including arsenic, which is the site's main contaminant.

EPA has studied the findings and determined arsenic and other contaminants may pose an unacceptable risk and hazard to human health and the environment. Based on



these studies, EPA experts believe the proposed cleanup plan is necessary.

Cleanup alternatives

EPA considered nine options for cleaning up the Plainwell Mill site. They are summarized below and in a table on Page 4. EPA developed these alternatives using combinations of different technologies, and evaluated each option in detail against criteria established by federal law (*see box, right*).

The last two criteria, state and community acceptance, will not be evaluated until after the comment period and public meeting.

Option 1 – No Action. EPA always includes a “no action” alternative as a basis for comparison with other cleanup options. With no action, the contaminated soil would remain in place

The Option 2 series is a group of alternatives with similar cleanup methods. They differ in the level of cleanup each alternative affords. In general, this series involves digging up contaminated soil, hauling some of it away and leaving some on the site covered by a layer of gravel. Some contaminated soil beneath concrete slabs would be left in place (except for Option 2A). The Option 2 series includes four sub-options: 2A, 2B, 2C and 2D.

The Option 3 series is another group of alternatives with similar cleanup methods. Again, they differ in the level of cleanup each alternative affords. The options involve digging up and removing all the contaminated soil, leaving none in place, except for under existing concrete slabs (Options 3B, 3C, and 3D) as in the Option 2 series. The Option 3 series includes four sub-options: 3A, 3B, 3C and 3D.

All options listed in the Page 4 table, except Option 1 – no action – and Options 2A and 2D, are proven and effective alternatives for contaminated soil site. They all protect human health and the environment, and meet the EPA’s cleanup goals for contaminated soil.

EPA’s recommended alternative

For cleanup of the Plainwell Mill site, the Agency proposes Option 3B. Option 3B includes digging up and removing contaminated soil, site-use restrictions and engineering controls, backfilling with clean fill, and restoration.

Option 3B best meets the evaluation criteria and protects human health and the environment. This alternative also meets federal and state requirements and will be effective in the long term.

Full details about the proposed plan and the other alternatives are in the information repositories (*see Page 7*) or online at: www.epa.gov/region5/cleanup/kalproject/index.htm.

Explanation of evaluation criteria

- 1. Overall protection of human health and the environment.** Examines whether an option protects both human health and the environment. This standard can be met by reducing or removing pollution or by reducing exposure to it.
- 2. Compliance with applicable or relevant and appropriate requirements.** Ensures options comply with federal and state laws.
- 3. Long-term effectiveness and permanence.** Evaluates how well an option will work over the long term, including how safely remaining contamination can be managed.
- 4. Reduction of toxicity, mobility or volume through treatment.** Determines how well the option reduces the toxicity, movement and amount of pollution.
- 5. Short-term effectiveness.** Compares how quickly an option can help the situation and how much risk exists while the option is under construction.
- 6. Implementability.** Evaluates how feasible the option is and whether materials and services are available in the area.
- 7. Cost.** Includes not only buildings, equipment, materials and labor but also the cost of maintaining the option for the life of the cleanup.
- 8. State acceptance.** Determines whether the state environmental agency – in this case, the MDEQ – accepts the option. The EPA evaluates this criterion after receiving public comments.
- 9. Community acceptance.** Considers the opinions of the public about the proposed cleanup plan. The EPA evaluates this criterion after a public hearing and comment period.

Alternatives	Description	Time to implement cleanup	Cost
Option 1	No Action. Contaminated soil would remain in place. This is included as a baseline to compare with other alternatives.	NA	\$0
Option 2A	Excavation of all soils with contamination levels above criteria for residential use and capping on-site. No place on site to cap the soils, so this alternative was dropped from consideration.	NA	NC
Option 2B	Excavation of soils based on land use and capping on-site. Existing concrete slabs would stay in place with engineering controls to make sure contaminated soil stays covered by slabs. Cleanup of PCBs will be based on a risk-based cleanup criteria.	4 months	\$4.46 million
Option 2C	Same as 2B, and would also clean up arsenic based on a risk-based cleanup criteria.	5 months	\$5.00 million
Option 2D	Same as 2C, except the cleanup criteria for PCBs would be lower for both residential and non-residential areas. Arsenic cleanup would be the state default background level requiring cleanup to below residential criteria. No place on site to cap the soils, so this alternative was dropped from consideration.	NA	NC
Option 3A	Excavate and off-site disposal of all soils with contamination levels above criteria for residential use, including soil under existing concrete slabs	11 months	\$9.42 million
Option 3B (EPA's preferred alternative)	Excavate and off-site disposal of soil based on land use of each redevelopment area. Existing concrete slabs would stay in place with engineering controls to make sure contaminated soil stays under the slabs. Cleanup of PCBs will be based on a risk-based cleanup criteria.	4 months	\$4.36 million
Option 3C	Same as 3B, and would also clean up arsenic based on a risk-based cleanup criteria.	5 months	\$4.87 million
Option 3D	Same as 3C, except the cleanup criteria for PCBs would be lower for both residential and non-residential areas. Also arsenic cleanup criteria would be the state default background level which would require cleanup to below residential criteria.	8 months	\$7.47 million

NA = not applicable

NC = not calculated

Former Plainwell Paper Mill Site

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Evaluation Criteria	1	2A	2B	2C	2D	3A	3B*	3C	3D
Overall Protectiveness of Human Health and the Environment	○	●	●	●	●	●	●	●	●
Compliance with Potential ARARs	○	○	●	●	○	●	●	●	●
Long-Term Effectiveness and Permanence	○	●	●	●	●	●	●	●	●
Reduction of Toxicity, Mobility, and Volume Through Treatment**	○	○	○	○	○	○	○	○	○
Short-Term Effectiveness	NA	●	●	●	●	●	●	●	●
Implementability	NA	●	●	●	●	●	●	●	●
Costs	\$0	NC	\$4.46 million	\$5.00 million	NC	\$9.42 million	\$4.36 million	\$4.87 million	\$7.47 million
State Acceptance							✓		

* EPA's preferred alternative

**Alternatives do not result in a reduction of toxicity, mobility, or volume through treatment because it's impractical to treat large volumes of soil having low contamination levels.

NA = not applicable, since no remedy is being implemented in the No-Action Alternative

NC = not calculated since alternative did not meet ARARs

For more information

You can read documents related to the Former Plainwell Paper Mill site at www.epa.gov/region5/cleanup/kalproject or at these information repositories:

U.S. EPA Record Center
77 W. Jackson Blvd., 7th Floor
Chicago

Allegan Public Library
331 Hubbard St.

Charles Ransom Library
180 S. Sherwood
Plainwell

Otsego District Library
219 S. Farmer St.

Saugatuck-Douglas Library
10 Mixer St.
Douglas

Kalamazoo Public Library
315 S. Rose

Waldo Library
Western Michigan University
1903 W. Michigan Ave.
Kalamazoo

Contact Information:

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EPA Proposes Cleanup Plan, Seeks Public Comments

**Public Meeting
Tuesday, June 16
6 p.m.**

**Plainwell Area Community Center
798 E. Bridge St.
Plainwell**

Public Comment Period June 8 through July 8

If you will need special accommodations at the meeting, contact:
Diane Russell, Community Involvement Coordinator, 989-401-5507, russell.diane@epa.gov

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