



Proposed cleanup plan for Joslyn Site West Area

You are encouraged to review and comment on the proposed plan for environmental cleanup at the Joslyn Manufacturing & Supply Company Superfund Site.

The public comment period runs from **March 27, 2017 through May 5, 2017**. During this time, please email or send written comments to:

Andri.Dahlmeier@state.mn.us

Joslyn Site comments
Andri Dahlmeier, Project Manager
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155

Public Meeting

You are also encouraged to attend and comment in person at the public meeting on:

April 12, 2017

Open house begins at 5:30 p.m.
Presentation begins at 7:00 p.m.

**Hennepin County Library
Brookdale Room ABC
6125 Shingle Creek Parkway
Brooklyn Center, MN 55430**

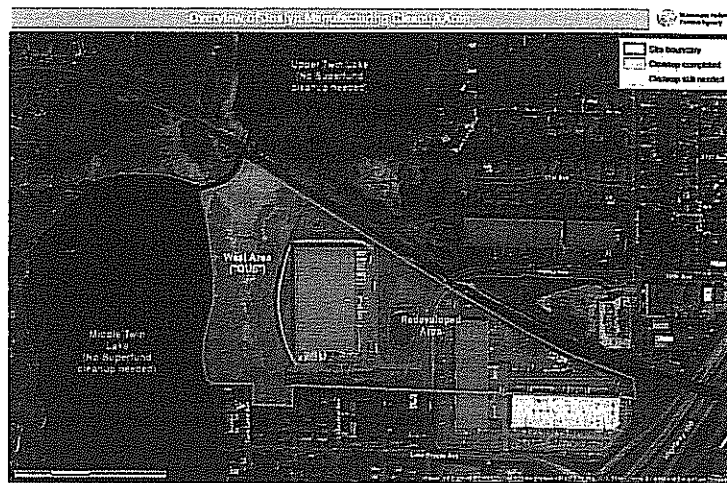
For more information please contact
Andri Dahlmeier at 651-757-2718
Email: Andri.Dahlmeier@state.mn.us

The Minnesota Pollution Control Agency (MPCA) is proposing a cleanup plan for soil contamination in the West Area at the Joslyn Manufacturing & Supply Company Superfund Site (the Site).

More information is available on the project webpage:
<https://www.pca.state.mn.us/waste/brooklyn-center-joslyn-superfund-site>

Where is the Site?

The Superfund Site is located in Brooklyn Center, northwest of the intersection of Azelia Avenue North and Lakebreeze Avenue North. Most of the Site has already been cleaned up, but the last area that still needs cleanup work is the western portion of the Site next to Middle Twin Lake, known as the West Area or Operable Unit 5 (OU5).



Why is the Site contaminated?

From the 1920s until 1980, a succession of companies treated wood poles and railroad ties on the property. This resulted in contamination of soil and groundwater from wood-treating chemicals.

What are the contaminants?

The contamination included pentachlorophenol (PCP) and polynuclear aromatic hydrocarbons (PAHs). It was later discovered that portions of the Site were contaminated by polychlorinated dibenzo-p-dioxins and furans (dioxins), which are impurities of the wood preservative PCP. The Minnesota Department of Health (MDH) conducted a Public Health Assessment on the Site in 2002 and concluded that dioxins are the main contaminant of concern.

What health risks are possible with these contaminants?

According to the U.S. Environmental Protection Agency (EPA), dioxins can cause cancer, reproductive and developmental problems, and damage to the immune system. They can also interfere with hormones.

Dioxins are found nearly everywhere in the environment. Most people are exposed to dioxins from food. MDH concluded that additional exposure to dioxins through contaminated soil and sediments in the West Area may have occurred in the past, but most exposures were probably very low and adverse health effects unlikely. However, exposure to dioxins should be minimized as much as possible.

What work has already been done?

The Site was listed on the Federal Superfund list and on the State Superfund list in 1984. Cleanup work began in 1988. Contaminated soils were dug up and either hauled to a landfill for disposal, or treated on the property to reduce the level of contamination, then consolidated and covered with a clean soil layer. Groundwater wells were installed and are pumped to recover and contain hazardous chemicals that had dissolved into the groundwater. Near the center of the property a small pool of the wood-treating chemicals was discovered underground. In 1996 a groundwater recovery well system began removing this liquid. The recovered waste is disposed of at a hazardous waste incineration facility.

The cleanup efforts were effective at reducing the level and area of contamination, making it possible for the eastern portion of the property to be redeveloped.

How has the cleanup work facilitated redevelopment?

The cleanup work that was done made it possible for the property to be redeveloped. In 1999 Joslyn sold the property to a developer. The developer then purchased adjacent land and did more cleanup of the soil on the Site. The cleanup and the addition of the adjacent land allowed for the construction of three new buildings. The developer worked closely with the MPCA during the redevelopment process to make sure the remaining contamination was properly addressed. The redevelopment plan included placing contaminated soil under building foundations, berms and a hill on the Site. Clean soil covers the areas not covered by building and parking lots. The redevelopment effort was successful and is a model for brownfield redevelopment today.

Is the lake contaminated?

Middle Twin Lake was investigated to see if contamination on the property had impacted the lake. Low levels of PAHs and dioxins were found in fish tissue, surface water, and lake sediments. There are no restrictions to recreational use at Middle Twin Lake.

Can I eat fish from the lake?

Yes, but like all lakes in Minnesota, MDH recommends following fish consumption guidelines that are currently in place. The guidelines for Twin Lake are for mercury, a contaminant commonly found in Minnesota and across the United States, and for perfluorooctane sulfonate (PFOS). Both of these contaminants are unrelated to the Site. The fish consumption guidelines for Twin Lake contain information on the species and amount of fish that is safe to consume due to these contaminants measured in fish, and can be found online at <http://www.dnr.state.mn.us/lakefind/fca/report.html?downum=27004200>.

Why is more cleanup work still needed?

Since the time of the initial testing and cleanup work in the 1980's and 1990's, testing technology has improved. New information led to the discovery of additional contamination in the West Area. This area likely became contaminated as water from the eastern portion of the Site flowed over the ground surface and soaked into the soils in the West Area. The cleanup proposed here will address the contaminated soils in the West Area. This will be the final step in the environmental cleanup of the Site.

What is the proposed plan for cleaning up the Site?

The MPCA is proposing a cleanup plan for the West Area that includes excavating the contaminated soil. Some of this contaminated soil would be consolidated, placed within the West Area, and "capped" with at least two feet of clean soil. In other areas, the contaminated soil would be moved off the Site and trucked to a landfill. In order to do this work, trees throughout much of the West Area will have to be removed.

Once this work is complete, excavated areas would be backfilled with clean soil to the original grade. Wetland areas would be restored, and vegetation and trees would be planted. There would be no loss of flood plain as part of this plan. Two figures that follow help illustrate how the contaminated soil will be cleaned up and what the Site might look like after cleanup.

To ensure that the Site is used appropriately into the future, land use restrictions would be placed on the property deed, and long-term maintenance would be conducted after the cleanup is complete.

What other cleanup plans were considered?

MPCA considered eight options for cleaning up the West Area. These options are summarized in Table 1 below. Additional information on these options is available on the project webpage: <https://www.pca.state.mn.us/waste/brooklyn-center-joslyn-superfund-site>.

How is the cleanup plan selected?

The federal Environmental Protection Agency's Superfund program establishes criteria for evaluating different cleanup options and selecting the best one. The criteria is shown in Table 1.

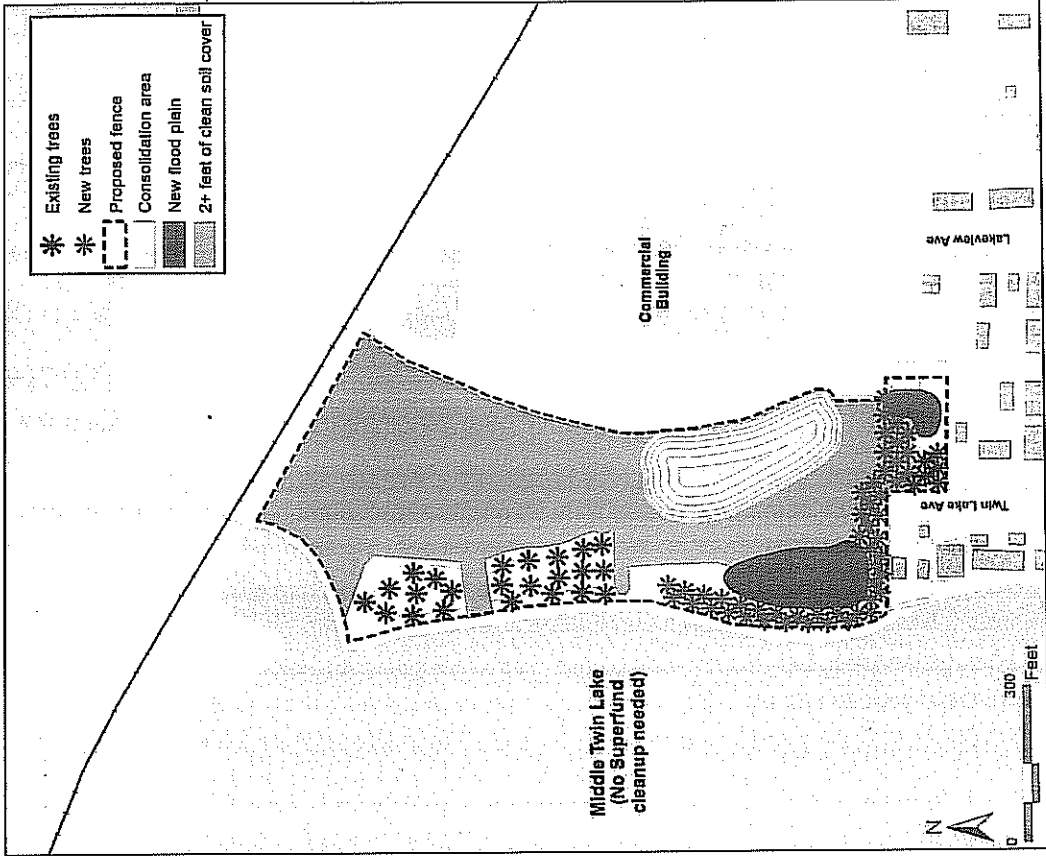
- Options 1 and 2 must be eliminated because they do not protect human health and the environment, which is a minimum standard.
- Options 3 through 7 are minimally acceptable because they are protective of human health and the environment. However, each falls short in at least one other criterion.
- Options 8A and 8B both meet all criteria. Because option 8B accomplishes this at a lower cost, MPCA is recommending this cleanup plan.

What is the role of community feedback in deciding on a final cleanup plan?

MPCA's analysis has resulted in recommending option 8B as the best plan that also meets all relevant criteria. However, community input is also an important part of the decision-making process. Feedback from the community could lead MPCA to select a different alternative, or modify the proposed alternative. It is important to provide comments in writing if you wish them to be part of the project's formal record. MPCA will respond to all written comments in writing, and these responses will be available online.

MPCA will also share written comments with Joslyn Manufacturing & Supply Company. Joslyn is not legally required to adhere to requests beyond the scope of the cleanup. However, the company is receptive to community feedback on the appearance of the finished project.

How will the property look after cleanup?



Map of OUV's Soil Excavation Areas

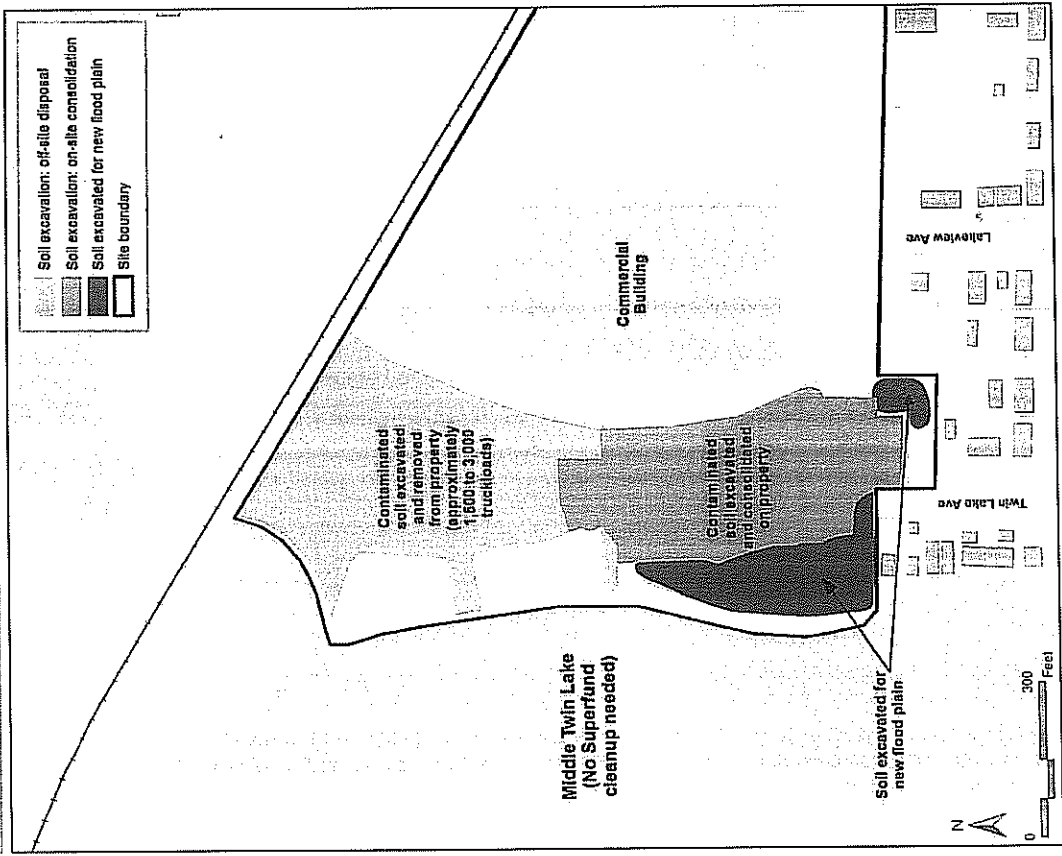


Table 1. Summary of cleanup options

Option	Description of cleanup activity	Protects human health and the environment	Complies with federal, state, and local law	Long-term effectiveness and permanence	Reduces toxicity, mobility, or volume of contaminants	Short-term effectiveness (can be implemented promptly)	Feasibility	Cost
1	Take no action, monitor the Site	X	N/A	X	X	X	X ^{4a}	\$0.5M
2	Modify stormwater path	X	✓	X	X	✓	✓	\$2.3M
3	Excavate, incinerate, and dispose of contaminated soils; modify stormwater path	✓	✓	✓	✓	X	X	\$68M
4	Cover area with clean soil	✓	✓	✓	✓	✓	X	\$15M
5	Consolidate & dispose excavated soils; mitigate flood plain	✓	✓	✓	✓	✓	X	\$5M
6	Move contaminated soils to existing pond; cap with clean soil; construct new stormwater pond	✓	✓	✓	✓	✓	X	\$5.9M
7	Consolidate & dispose excavated soils; implement extensive stormwater management changes	✓	✓	✓	✓	✓	X	\$5.4M
8A	Consolidate & dispose excavated soils; create flood plain <u>off</u> property	✓	✓	✓	✓	✓	✓	\$5.4M
8B	Consolidate & dispose excavated soils; create flood plain <u>on</u> property	✓	✓	✓	✓	✓	✓	\$4.8M