



EPA Proposes Cleanup Plan For Quincy Smelter Erosion

Torch Lake/Quincy Smelter Superfund Site

Franklin Township, Michigan

December 2008

Share your opinions

EPA invites you to participate in the cleanup process at the Quincy Smelter by commenting on the proposed plan summarized in this fact sheet. Your input helps EPA determine the best course of action. Based on public comments, the Agency could modify the proposed plan or develop a new one. Opportunities to hear about the cleanup and make comments are:

Public Comment Period

Jan. 1 - Jan. 31, 2009 (midnight postmark)

Public Meeting

Thursday, Jan. 15, 2009, 7 – 9 p.m.
Lakeview Manor – Community Room
1401 W. Quincy St., Hancock

Comments can be submitted in a number of ways:

- Orally or in writing at the public meeting.
- Via the Internet at www.epa.gov/region5/publiccomment/.
- By mail to Patrick Hamblin at the address below, using the enclosed comment sheet.
- By fax to Patrick Hamblin at 312-886-4071, using the enclosed comment sheet.

Contact EPA

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EPA Community Involvement
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For technical questions:

Patrick Hamblin

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In order to eliminate continuous stamp sands erosion from the Quincy Smelter area into the Keweenaw Portage Canal, U.S. Environmental Protection Agency is proposing to cover the copper mining waste with soil and vegetation. The erosion area in question is outside the Quincy Smelter fence line and does not include two large copper slag piles. Officials want to preserve the slag piles as part of the proposed Quincy Smelter national historical area. The stamp sands, however, are leaking metal waste into the water and harming aquatic life in the canal and nearby Lake Superior.

The \$477,000 soil and vegetation cover proposed as the cleanup plan – if approved – will be part of an EPA document called a “record of decision amendment” or ROD amendment. The Quincy Smelter area is part of the wide-ranging Torch Lake Superfund site in Houghton County, Mich. RODs are part of the official Superfund process that EPA must follow when cleaning up hazardous waste sites.¹ This proposed ROD amendment adjusts the original 1992 cleanup plan for the shoreline stamp sands issue at Quincy Smelter. That plan dealt with stamp sands and tailings affecting Torch Lake, and a separate 1994 cleanup plan covered Torch Lake and underground water supplies (ground water) at the Superfund site.

Quincy Smelter work

Complex cleanup sites such as Torch Lake are divided into smaller, more manageable sections called “operable units” or OUs. The Quincy Smelter is officially part of OU3.

Read the box on the left to find out how you can participate in the Quincy Smelter stamp sands cleanup decision. A public comment period will run Jan. 1, 2009 – Jan. 31, 2009 (midnight postmark). A public meeting is scheduled for Jan. 15, 2009, where you can ask questions and make comments both orally and in writing.

EPA continues to work with Michigan Department of Environmental Quality, National Park Service and Franklin Township in discussing what should happen at the Quincy Smelter site. There is a strong local desire to rehabilitate and preserve the immediate area for a national park.

In 2004, EPA removed hazardous, chemical-containing drums, tanks, vats and small containers from the numerous buildings on the smelter site. In addition, friable asbestos-containing material was found in and around most buildings. Asbestos can cause cancer, and friable asbestos is the most dangerous kind because it easily reduces to fibers or fine particles that can become airborne and be inhaled by people. The Hancock-Ripley recreational trail was closed for safety reasons while asbestos found there was removed. Perimeter fences were installed to limit access to the smelter buildings for safety and health

¹Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA known as the Superfund law) requires publication of a notice and a proposed plan for changes to a site cleanup. The proposed plan must be made available to the public for comment. This fact sheet is a summary of more technical documents contained in the official record available for viewing at the Portage Lake District Library in Houghton.

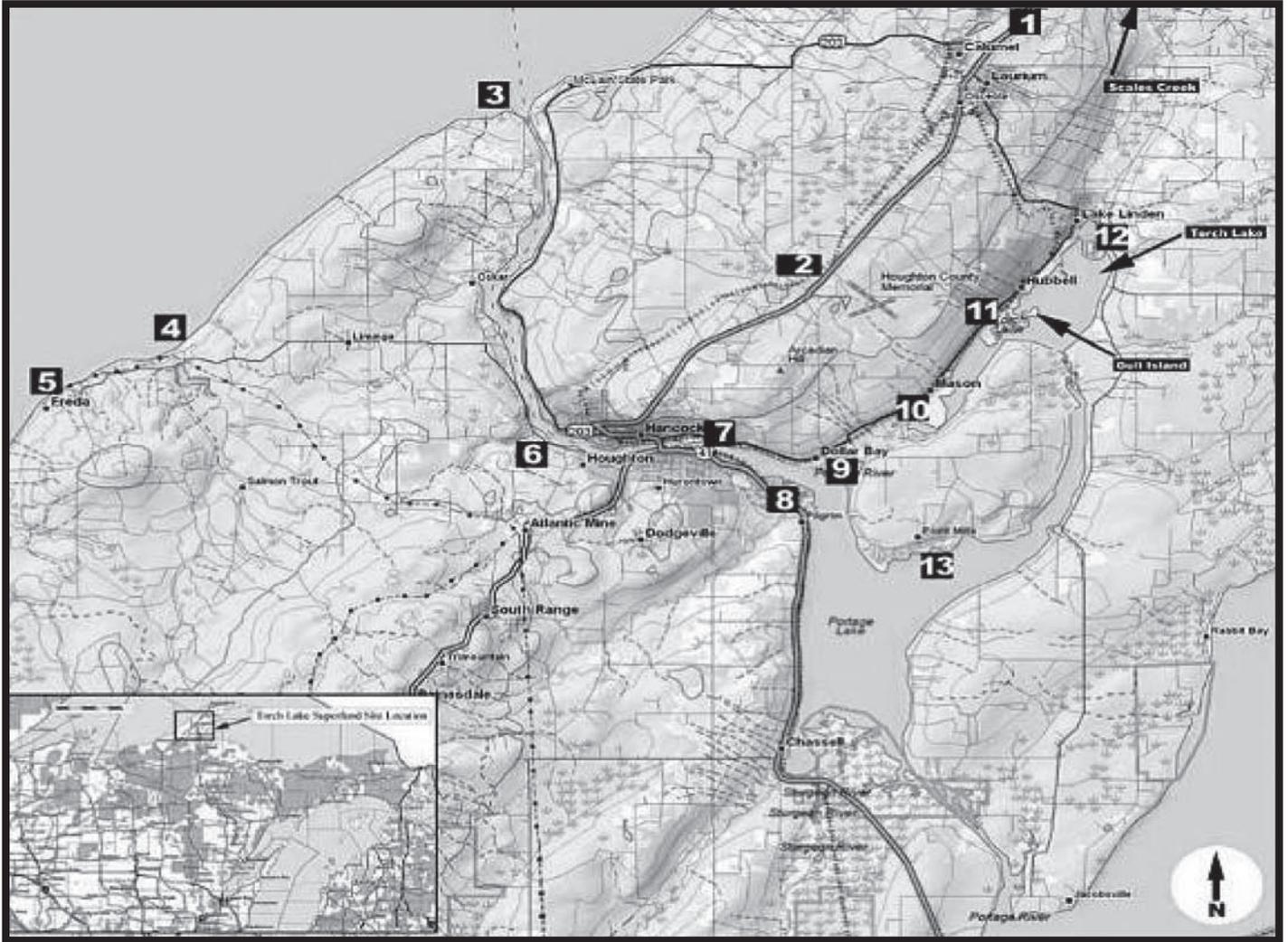


Figure 1 - Box 7 marks the location of the Quincy Smelter on Portage Canal in the wide-ranging Torch Lake site.

Superfund Area Number	Area Name	Superfund Area Number	Area Name
1	Calumet Lake	8	Isle Royale Sands
2	Boston Pond	9	Dollar Bay
3	North Entry	10	Mason Sands
4	Redridge	11	Hubbell/Tamarack City
5	Freda	12	Lake Linden Sands
6	Michigan Smelter	13	Point Mills
7	Quincy Smelter		

reasons, and the trail reopened following completion of the cleanup work.

Cleanup at the Quincy Smelter site last spring and summer focused on more work removing bulk friable asbestos within the buildings.

With the proposed ROD amendment, EPA wants to stabilize 8 acres of shoreline next to the smelter. Franklin Township and National Park Service have agreed the stamp sands surrounding the smelter are vulnerable to erosion and should be covered with vegetation as was done to other stamp sands in the area. EPA and the U.S. Department of Agriculture's Natural Resources Conservation Service amended an interagency agreement so the stamp sands work can be performed.

Site history

Copper was mined, milled and smelted in the Torch Lake area for more than 100 years. Milling wastes, mill tailings (stamp sands) and other mining debris were deposited into Torch Lake, which also served as the transportation waterway. It is estimated about 200 million tons of tailings were dumped into Torch Lake between 1868 and 1968, filling at least 20 percent of the lake's original volume. The stamp sands deposited in the lake and on the shoreline were dredged up during the early 1900s and were reprocessed with flotation chemicals to reclaim copper. The stamp sands and much of the flotation chemicals were then returned to the lake and along the shoreline. Other wastes were deposited in and along the Torch Lake shoreline including mine pumping, leaching chemicals, explosive residues and byproducts.

The U.S.-Canada International Joint Commission Water Quality Board designated Torch Lake as a Great Lakes "Area of Concern" in 1983. An AOC is a severely degraded geographic area within the Great Lakes Basin. The site was placed on the National Priorities List in June 1986. The NPL is a roster of the nation's most hazardous waste sites eligible for cleanup under EPA's Superfund program.

Since 1988 EPA and MDEQ have covered and planted vegetation on more than 800 acres of copper stamp sands tailings in and around the Torch Lake area. OU1 includes stamp sands and slag piles at Lake Linden, Hubbell/Tamarack City and Mason Sands on the western shore of Torch Lake. OU3 includes stamp sands and slag piles at Calumet Lake, North Entry, Dollar Bay, Boston Pond, Michigan Smelter, Isle Royale Sands, and Point Mills. Quincy Smelter, while technically part of OU3, was not included in the cleanup work done at the other portions of the site.

In 2007 an emergency or "time critical" removal took place at the Lake Linden Beach to clean up high levels of lead found in the sediment exposed during the summer's

low water levels. Time critical projects are done when an immediate and substantial threat to human health and the environment is found.

Several of the cleanup areas were restored enough that EPA "delisted" or removed them from the Superfund National Priorities List. Reviews are done every five years at the various locations to determine whether the cleanup work continues to protect human health and the environment. The most recent of these reviews indicates that while the environmental work performed on the areas is controlling erosion of the stamp sands, additional monitoring must be done to determine if more cleanup is needed.

Cleanup alternatives

Inspection activities since 2006 have shown a continuing erosion problem at Quincy Smelter, where the shoreline stamp sands are seeping into the Portage Canal. The area in question covers about 8 acres and lies outside a recently erected fence that marks the boundary of the Quincy Smelter historical area. The five-year review completed this March found the stamp sands erosion at the smelter potentially affects surface water near Torch Lake.

The 1992 cleanup plan envisioned future development at Quincy Smelter would eliminate environmental concerns at the site, but the planned development has yet to take place. Since Quincy Smelter is a historical landmark, any development, restoration, or environmental cleanup efforts need to follow the National Historic Restoration Act.

Since 2007 EPA, MDEQ, Sen. Carl Levin's office, National Park Service, Franklin Township as well as other entities, have discussed ways of addressing the environmental and physical concerns at Quincy Smelter. After many discussions and evaluating all site history and activities, EPA determined the soil and vegetation cleanup proposal is the best solution for the erosion issues. The proposal protects human health and the environment and also considers the long-term stewardship concerns. The slag piles within the Quincy Smelter boundary will not be covered as part of this cleanup plan because they are considered historical features.

The cleanup plan for the fenced area within Quincy Smelter that contains historical buildings will not be modified in this latest proposal. The original cleanup plan for Quincy Smelter called for no major cleanup work while placing restrictions on residential building and use. Those restrictions will also be included in the amended remedy because the area may be developed as part of the Keweenaw Historic Park.

Normally during the deliberations for Superfund site cleanups EPA considers several options. In the case of the Quincy Smelter stamp sands issue, vegetation and soil covers have proven effective on the other copper wastes, so only one alternative is being proposed in this

ROD amendment. The proposed amendment also includes grading work, restrictive covenants that will protect the stamp sands cover from being disturbed and new markers notifying site visitors about restrictions inside the fenced area. This single proposed cleanup option still must be evaluated against the nine cleanup criteria set by federal law (see list of criteria below).

The public comment period and public hearing also give people the chance to propose a better or more effective cleanup technique.

Evaluating the cleanup proposal

As mentioned previously, EPA must evaluate proposed cleanup options against the nine criteria set by the Superfund law. The cleanup plan contained in the proposed ROD amendment offers more environmental protection to the Portage Canal than the original 1992 plan because it will reduce erosion and airborne dust from stamp sands in the smelter area. While the vegetation cover does not reduce the hazard of the copper wastes

underneath, it will significantly reduce the likelihood of exposure to chemicals in the stamp sands from direct contact or inhalation. Studies show health risks from the Quincy Smelter slag piles and the stamp sands are low as long as exposure is limited. Covering the stamp sands and restricting human access to the slag piles inside the fenced area should greatly reduce health risks to people from the chemical waste and also help aquatic life in the Portage Canal.

The latest cleanup proposal is also easily implemented because materials and equipment are readily available locally. The evaluation notes the \$477,000 cost to EPA to perform the cleanup work and maintain the cover is all extra because the original 1992 plan contained no provision for the shoreline stamp sands. But EPA believes stopping the environmental threat to the Portage Canal and Lake Superior is worth the cost. MDEQ agrees with the proposed cover plan. Community acceptance of the plan will be judged after the comment period and public meeting.

Explanation of evaluation criteria

- 1. Overall protection of human health and the environment** addresses 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 (ARARs)** ensures that options comply with federal, state and local 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** addresses 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 will be present 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 MDEQ) accepts the option. MDEQ has already approved the proposed cleanup plan.
- 9. Community acceptance** judges how well do nearby residents accept the option? EPA evaluates this standard after a public hearing and comment period.

Next steps

Before it makes a final decision on controlling the Quincy Smelter stamp sands erosion, EPA will review statements received during the comment period and at the public meeting. Based on new information presented in the comments, EPA could modify its proposed plan or develop a different one. The Agency encourages you to review and comment on the cleanup proposal. More details are available in the official documents on file at the information repository in the Portage Lake District Library in Houghton or EPA's Web site.

EPA will respond to comments in a document called a "responsiveness summary" attached to the record of decision amendment. The ROD amendment will describe the final cleanup plan selected by the Agency. It will be announced in a local newspaper advertisement and a copy placed in the document repository and posted on the Web.

For more information

You can read more about the Torch Lake Superfund site and the Quincy Smelter online at: epa.gov/region5/sites/torchlake and www.epaos.org/quincy_smelter

Official site documents and a more detailed proposed plan are available for review in the site administrative record at the Portage Lake District Library, 58 Huron St., Houghton, Mich.

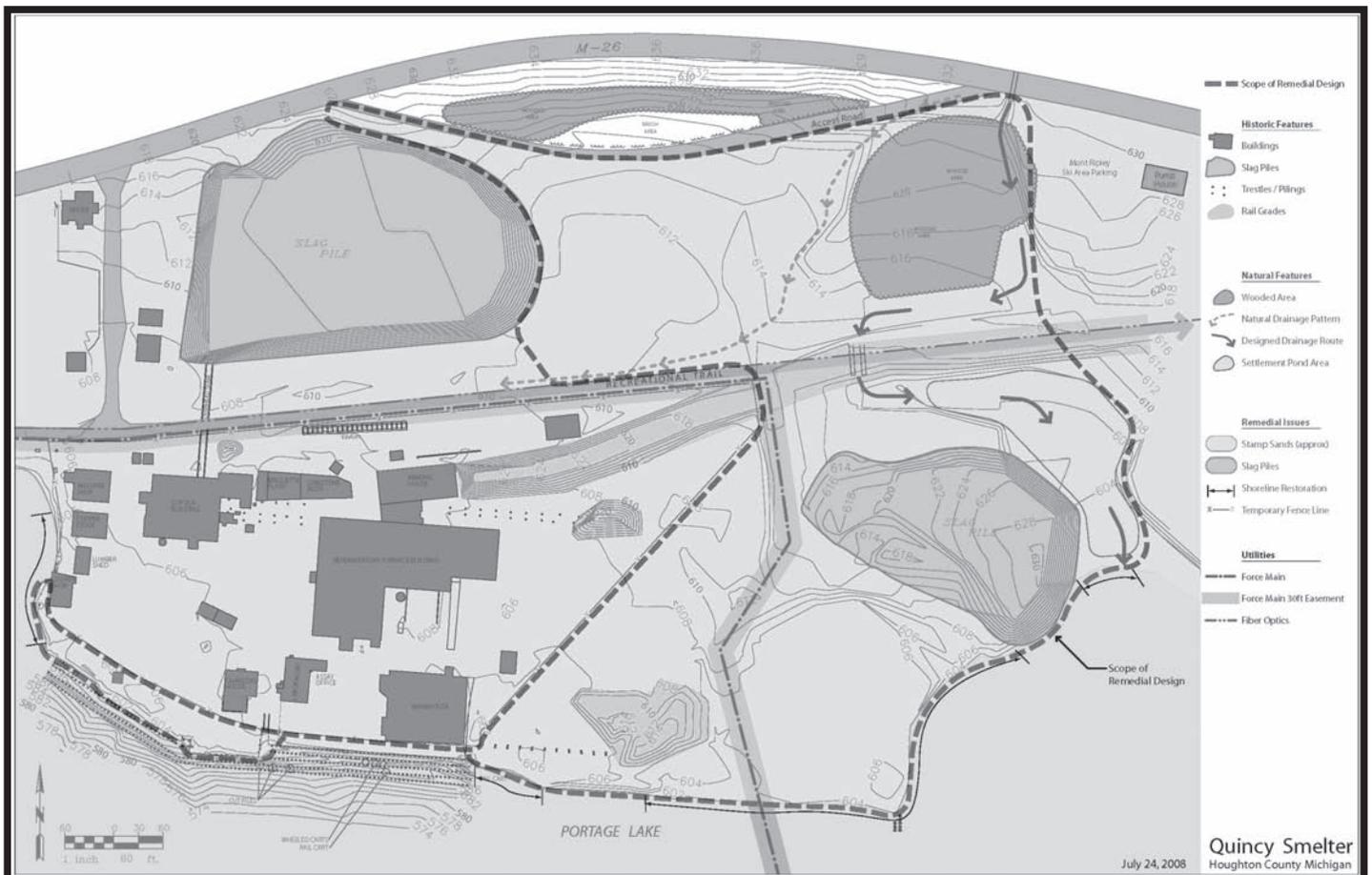


Figure 2 - Quincy Smelter Base Map. Figure shows proposed area for implementation of erosion control measures.

QUINCY SMELTER: EPA Proposes Stamp Sands Cover

FIRST CLASS

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EPA Proposes Amended Cleanup Plan for Quincy Smelter Stamp Sands Erosion

Public Hearing: Jan. 15

Comment Period: Jan. 1 - Jan. 31, 2009