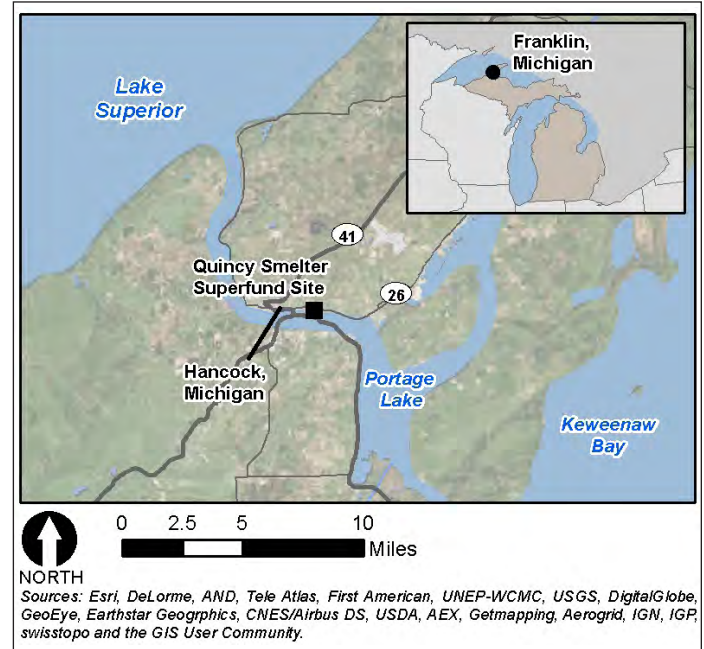


Introduction

Built in 1898, the Quincy Smelting Works is part of the Quincy Mining Company National Historic Landmark and the only copper smelter still standing in the Great Lakes region. Located in Franklin Township, Michigan, the smelter ceased production in the 1971. However, its historic buildings and structures remain intact, making it the best preserved copper smelter in the country. The smelter facilities are located along Portage Lake on the Keweenaw Peninsula. In 1992, Congress recognized the region's copper mining and production heritage, creating Keweenaw National Historical Park and including the smelter as part of it. Today, the National Park Service and the Keweenaw National Historical Park Advisory Commission manage and coordinate historic preservation and interpretative initiatives, contributing to a growing heritage tourism industry across the Keweenaw Peninsula.

Quincy Smelter was also part of the larger Torch Lake Superfund site. Since the late 1990s, EPA, the National Park Service, the Keweenaw National Historical Park Advisory Commission, Michigan Department of Environmental Quality (MDEQ), Franklin Township and local partners have worked in collaboration to address the site's environmental contamination while preserving the area's remarkable historical resources.

Efforts by EPA's Superfund Redevelopment Initiative and community leaders led to the creation of a shared vision and reuse plan for the site and spurred inter-agency collaboration resulting in its remediation. Following cleanup, federal, state and local partners identified an ownership transfer strategy, coordinated the Quincy Smelter site's deletion from the Superfund program's National Priorities List (NPL), and assisted with transfer of site ownership to the Advisory Commission. The Advisory Commission has since worked to further stabilize the site's historic structures and address additional environmental issues. It has also collaborated with local partners to provide tours of the site and prepare for the area's long-term management as a part



The site is located in the Upper Peninsula region of Michigan, between Lake Superior and the Keweenaw Bay. The town of Hancock is located west of the site.

of Keweenaw National Historic Park and as a gateway to Isle Royale National Park.

This case study explores the strategies and collaborative relationships that led to the successful cleanup and reuse of the Quincy Smelter site. The following pages trace the evolution of cleanup and reuse efforts, highlighting local planning efforts, coordination with regulatory agencies, and ongoing cleanup and reuse activities through 2016. The case study shares lessons learned that demonstrate how historic preservation, heritage tourism, and the protection of human health and environment can be accomplished together.



Quincy Smelter from Portage Lake (2016)

Site History, Contamination and Remediation

From 1898 to 1971, the Quincy Mining Company's smelter operations used heat and chemical processes to refine copper ore mined from the nearby Quincy Mine. The facility included reverberatory furnaces, a cupola furnace, machine and cooper shops, boiler houses, blacksmith shop and several additional support buildings. After EPA placed Quincy Smelter as an Area of Concern (AOC) within the Torch Lake Superfund site on the NPL in 1986, EPA issued a Record of Decision (ROD) determining that no further action was required at the time to address contamination at Quincy Smelter. In 2005, EPA installed storm culverts and shore stabilization materials. However, as part of the five-year review process in 2008, EPA found that the stamp sand tailings that the company had built the facility on had begun to erode into Portage Lake.

This stamp sand waste posed a threat to the environment and led EPA to conduct a comprehensive remedial investigation. EPA formally updated the site's remedy with a ROD Amendment in 2009. Cleanup actions started in 2009 and finished in September 2011.

Cleanup included:

- A soil cover over exposed tailings and cover seeding with native plants.
- Enhanced stormwater management and site drainage infrastructure.
- Fencing to temporarily restrict site access until the site is ready for reuse.
- Erosion controls along the Portage Lake shoreline.
- Institutional controls in the form of restrictive covenants to limit residential use, and to protect and maintain the cover.
- Long-term operation and maintenance activities to ensure the remedy's protectiveness.

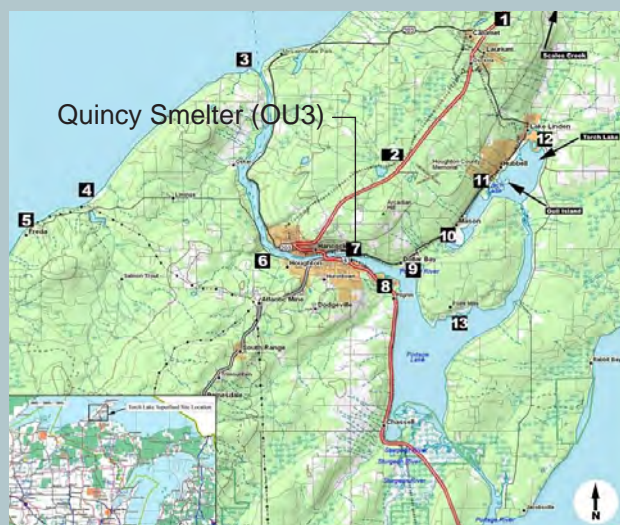
Prior to the ROD amendment, EPA conducted regular removal assessments, where EPA found asbestos in site structures, which led to an asbestos removal in 2008. The site's cleanup also required shoreline stabilization efforts along Portage Lake to protect the stamp sands and vegetative cover from further erosion. Congress appropriated funds for shoreline stabilization, which created a stable shoreline and potential for re-activating a docking facility at the site.

Throughout these activities, EPA and MDEQ staff members met regularly with community stakeholders to share information and updates and to incorporate a vision and future land use plan into the Superfund process. The selected remedy enabled the property to be reused for recreation and historic preservation uses, which EPA identified as the site's reasonably anticipated future land uses. With the site's long-term remedy in place, EPA took Quincy Smelter off the NPL in 2013.

Site Highlight: Torch Lake Superfund Site

The 2,700-acre Torch Lake Superfund site is located on Michigan's Keweenaw Peninsula. The site includes lakes, ponds, waterways and tailing piles. From the 1890s until 1971, copper mining activities included the deposition of mine wastes into the surrounding surface water and soil, resulting in groundwater, surface water and soil contamination.

Copper mining and processing activities in the area from the 1890s until 1971 produced mill tailings that contaminated the lake sediments and shoreline. About 200 million tons of copper mill stamp sands were dumped into Torch Lake itself, filling about 20 percent of the lake's volume.



Timeline of Events

<i>Date</i>	Action
<i>1898-1971</i>	Quincy Smelting Works in active operation
<i>1984</i>	EPA starts investigations for the Torch Lake site
<i>June 1986</i>	EPA places the Torch Lake site on the NPL; Quincy Smelter is part of the site
<i>1992</i>	Congress establishes Keweenaw National Historical Park
<i>September 1992</i>	EPA issues Torch Lake Operable Unit 3 ROD, which includes Quincy Smelter
<i>2005</i>	EPA completes time-critical action for the installation of storm culverts and shoreline/bank stabilization
<i>March 2008</i>	EPA's five-year review identifies erosion of stamp sands into Portage Lake
<i>May 2008 2008</i>	First phase of reuse planning process underway
<i>2008</i>	EPA completes time-critical action to complete an asbestos abatement for Quincy Smelter buildings and deteriorated smokestack removed
<i>November 2008</i>	EPA releases reuse assessment for Quincy Smelter
<i>December 2008</i>	Second phase of reuse planning process starts
<i>2009</i>	EPA completes remedial action to cover and stabilize stamp sand tailings
<i>July 2009</i>	Reuse planning community open house and charrette takes place
<i>July 2009</i>	EPA updates site remedy, issues ROD Amendment
<i>January 2010</i>	EPA releases reuse framework for Quincy Smelter
<i>2011</i>	Quincy Smelter Steering Committee completes redevelopment proposal, building on earlier reuse planning efforts
<i>September 2011</i>	Remedial action for Quincy Smelter AOC finishes
<i>October 2011</i>	EPA releases reuse concept plan for Quincy Smelter
<i>July 2013</i>	EPA issues "reasonable steps" letter to Keweenaw National Historical Park Advisory Commission
<i>October 2013</i>	EPA takes Quincy Smelter site off the NPL
<i>November 2013</i>	NPL deletion ceremony takes place at the site
<i>August 2014</i>	Keweenaw National Historical Park Advisory Commission acquires smelter site property, conducts additional cleanup, and EPA conducts emergency response to remove mercury contamination
<i>2017+</i>	Ongoing activities include planned ownership transfer to the National Park Service and additional facility improvements for historical park interpretation

1986 - 2006

Identifying Challenges, Pursuing a Unique Opportunity

Keweenaw National Historical Park was established in 1992 to preserve and interpret the region's copper industry. Congress recognized the former Quincy Smelter complex, a national historic landmark, as a key component of the story of copper mining on Michigan's Keweenaw Peninsula.

“Research has shown that this facility is the only early 20th-century copper smelter left in the United States, and perhaps the only one in the world,” said Scott See, the Advisory Commission's Executive Director. “Many other copper smelters have been wiped from the face of the earth or taken on other uses. Quincy Smelter is a unique facility that showcases the final stage of the copper production process.”

Establishing a national park on the Keweenaw Peninsula presented several challenges. Unlike many national parks, the Keweenaw Peninsula is a “lived-in community” that includes neighborhoods and businesses as well as former mining and industrial areas. In addition, the area's extensive copper mining and smelting facilities posed potential contamination and liability issues.

To oversee operations and coordinate with local historic preservation organizations for the newly created park, Congress established a federal entity called the Keweenaw National Historical Park Advisory Commission. Because of the park's “lived-in” status, addressing the complex patchwork of uses and community participation were a priority from the beginning. The Quincy and Calumet areas were established as units of the national historic park to facilitate park development and programming. The Quincy Unit included the former Quincy Mining Company mining and smelting facilities. The Advisory Commission recognized that the smelter's well-



preserved structures and scenic location on Portage Lake presented a unique opportunity to create a destination location and a regional amenity for area residents and visitors.

At the time, EPA had listed Quincy Smelter on the NPL as part of the larger Torch Lake Superfund site and conducted initial investigations. As planning efforts for the park continued, the Advisory Commission and National Park Service recognized that addressing the area's historic copper mining and smelting resources would also require extensive coordination with EPA and MDEQ to address site-related contamination and liability concerns.

Initial coordination efforts with EPA and MDEQ identified additional challenges. While EPA had initially determined that no remedial action was needed for the Quincy Smelter site, eroding stamp sand piles – a smelting byproduct and one



The buildings showcase a layout and combination of building materials and character unique to the early 20th century industrial landscape.

of the site's historic features – now needed to be addressed. According to EPA project manager Rosita Clarke, who worked on the Quincy Smelter site from 2007 to 2009, “Addressing the eroding stamp sands was a key environmental protection priority, but we knew that this waste byproduct was also a historic resource that helped tell the story of the historic smelter operations.”

With cleanup timeframes uncertain and EPA seeking responsible parties to help pay for the cleanup across the Torch Lake Superfund site, conflicts arose among project partner missions. The National Park Service was evaluating the Quincy Smelter as a historical park destination. At the same time, EPA was working to identify parties who were potentially responsible for the site's contamination. As part of EPA's search, the Agency issued notices to many property owners, including the National Park Service, indicating that they could be liable for cleanup costs as an owner/operator of a Superfund site. As a result, collaboration ceased for several years. As the Advisory Commission's Scott See noted, “The historic resources in the park are industrial in nature, and the National Park Service was averse to taking on industrial property and incurring potential liability under Superfund.”

In addition, the current site owner, Franklin Township, lacked funding and technical resources to maintain the smelter's historic facilities. Local governments began to question the project's viability and suggested demolishing the aging smelter structures and moving forward with alternative development plans for the area.

At this critical stage, U.S. Senator Carl Levin, a long-time supporter of Keweenaw Peninsula preservation efforts, urged project partners – federal agencies and local governments alike – to come together and find a way forward. Amy Berglund, Senator Levin's former staff liaison to the Upper Peninsula noted that “Quincy Smelter is one of the most visible and identifiable sites for the Keweenaw National Historical Park and a critical piece of the Copper Country story. The remaining buildings are a testament to a hard working way of life for industry workers, the wealth that mining companies extracted from the area, and a rural community's contributions to the building of a nation.” Two local governments, the cities of Houghton and Hancock and Franklin Township, approached EPA and the National Park Service, urging the agencies to work with area communities and recommitting to the restoration and preservation of the Quincy Smelter site as a historical park and community resource.

EPA later retracted its notice letter to the National Park Service. In response, the Advisory Commission stepped in to resume planning for historic preservation at the Quincy Smelter as an intermediary between Franklin Township, EPA and the National Park Service.

With both local and national support, EPA and the National Park Service began working together to move environmental

protection and historic preservation objectives forward.

2007 - 2013

Developing a Vision for the Future, Coordinating Remedy and Reuse

Building on renewed community interest, project partners recognized the need for more detailed reuse planning as well as coordination of cleanup and reuse planning efforts.

Getting Started

To help spur reuse planning and ensure that reuse considerations could inform the development of the site's updated remedy, EPA Region 5 and EPA's Superfund Redevelopment Initiative (SRI) sponsored a multi-year reuse planning process.

The Superfund Redevelopment Initiative, or SRI, works with communities and other partners in considering future use opportunities and integrating appropriate reuse options into the cleanup process.

During the first phase of reuse planning in 2008, the SRI team focused on bringing together the state and federal agencies involved, including EPA, MDEQ, the National Park Service, the Advisory Commission and the Natural Resource Conservation Service. Early misunderstandings had broken down communication between key agencies. Bringing the agency representatives together around the same table enabled the group to develop a shared understanding of the remedial and reuse options.

Community stakeholders worked with site agencies and the

The Bigger Picture: EPA and Reuse

Efforts to address future land use considerations at the Quincy Smelter site fit in well with emerging nationwide interest in the revitalization of contaminated areas, including Superfund sites. With the creation of EPA's Superfund Redevelopment Initiative in 1999 and its Land Revitalization Agenda in 2003, EPA's Office of Solid Waste and Emergency Response launched a new EPA initiative focusing on promoting land reuse and revitalization at contaminated sites.



SRI team to evaluate existing conditions, potential remedial constraints and surrounding land use considerations. The reuse assessment focused on the eastern part of the site and documented access points, natural features, historic buildings, slag piles and rail trestles. The information guided the development of reuse goals for the project and resulted in a preliminary plan that could inform EPA's ongoing cleanup planning. As Scott See recalled, "early on, we realized that we had a large, complicated site. SRI's support really helped to break the site and overall process down into manageable areas and phases."

In turn, these reuse considerations informed the site's remedial design plans for addressing the eroding stamp sands. EPA placed a vegetated cap over the stamp sands. The cap enabled the historic resources to be preserved in place while protecting public health and the environment. "Before the remedial action, some areas were black slag moonscapes," noted EPA Region 5 Reuse Coordinator Thomas Bloom. "Now they are covered and vegetated, they have effectively preserved the area's history and enhance the natural environment as well."

EPA was able to incorporate reuse considerations in other ways as well. "Throughout our work, we kept in mind the importance that the community and the National Park Service placed on preserving the historical value of the site," noted EPA project manager Rosita Clarke. "Part of that meant putting up temporary fencing around the historic buildings to make sure they weren't disturbed."

Recognizing Cleanup Priorities

EPA site investigations also identified an additional cleanup priority – asbestos contamination, which sampling identified in site buildings and one of the smelter's smokestacks. This finding prompted local concerns about the viability of preserving and reusing the historic structures.

EPA swiftly addressed this new discovery as part of a short-term cleanup, called a removal action. The Agency removed all asbestos from affected site buildings and the reverberatory furnace smokestack. Looking forward, this meant that restoration, preservation and reuse of these structures could now proceed.

Evaluating Scenarios and Building a Unified Coalition for Implementation

As EPA completed the asbestos removal, the SRI team moved into a second phase of the reuse planning process. With the goal of building on the reuse assessment findings and initial project goals, the second phase focused on determining future use priorities, reuse concepts and an action plan.

With a solid foundation of local and federal support, the SRI team engaged the broader community in a reuse planning charrette in July 2009. To support charrette discussions, the

The 2009 Community Planning Charrette

EPA Region 5, the Advisory Commission, the National Park Service, MDEQ, Franklin Township, Michigan Technological University and Senator Levin's office collaborated to host the two-day event in July 2009. Activities included site tours, a community open house and a charrette working session regarding the future use of the Quincy Smelter site. The workshop included nearly 100 participants who came to learn and share their thoughts on the site's history, current status and potential future use.

Community reuse goals identified during the event included:

- Stabilize and secure historic structures.
- Retain the historic integrity of the site.
- Return the site to productive use.
- Ensure safe public recreational access.
- Foster local economic development.

Future use priorities identified by the community included:

- Core interpretive area
- Visitor center
- Compatible commercial uses
- Public recreation space
- Educational facilities



Community stakeholders identifying goals and priorities during the charrette.

project's consultant team developed a reuse zones map. It divided the site into six areas based on remedy constraints, access, historic features, infill development potential and waterfront access. The team also provided a preliminary assessment of the adaptive reuse potential of the smelter's historic buildings.

The charrette engaged Franklin Township, the cities of Houghton and Hancock and Houghton County, along with local organizations and institutions such as Copper Country Preservation, the Quincy Mine Association, Western Upper Peninsula Planning and Development, and the Michigan Association of Counties. This broad cross-section of local expertise came together around a shared vision for the future and agreed to launch a steering committee to guide implementation.

The July 2009 workshop resulted in a detailed concept plan that explored historic preservation opportunities for the former smelter, including its slag piles and stamp sand deposits, rail trestles, pilings and buildings.

“When mining companies were in operation, there were immense deposits of mine tailings, stamp sands and slag on the landscape. This smelter, in particular, was a gritty industrial site,” noted Scott See. “To tell the story of smelter operations and worker conditions, it is important for visitors to be able to see at least some portion of those waste materials.” The Advisory Commission played a key role throughout the planning process, providing local knowledge and acting as a liaison between the community and the National Park Service.

The reuse planning process for Quincy Smelter played an important role in bringing together key agency representatives and community members. The process resulted in a set of goals, potential future uses and a reuse framework for evaluating future use scenarios. Initially, local stakeholders had identified parking and fishing access as the most viable uses for the historic waterfront property. By enlisting the expertise and insights of adjacent jurisdictions such as the City of Houghton and the City of Hancock, as well as the Quincy Mine Hoist Association and Michigan Technological University, the community was able to develop a broader and more detailed vision for the future.

In addition, the process generated significant momentum for coordinating near-term actions, including the Superfund cleanup, building stabilization and feasibility studies as well as longer-term priorities, including fundraising, partnership development, and finalizing future use and stewardship plans for the site. To ensure the implementation of these plans and to keep the project momentum moving, participants recommended the formation of a steering committee. As Scott See noted, “Once we had a vision and partners at the table, we still needed to determine who would take the lead on different aspects of the implementation.”

The Quincy Smelter Steering Committee – a coalition of local, state and federal partners – formed in 2009 and was tasked with identifying a clear path forward for reuse at the site. The Steering Committee worked to refine and finalize a detailed plan and develop a feasibility study and value analysis for a visitor center proposal. The Steering Committee also helped to select the Advisory Commission as the lead entity coordinating implementation activities. Activities ranged from property acquisition to addressing environmental issues not under the purview of EPA’s Superfund program.

EPA’s Tom Bloom recalled how the reuse planning process began to yield significant results during this time. “When we first started meeting together, it seemed like we had very different goals for the site,” he said. “Through the series of meetings to develop design considerations and the concept



The July 2009 charrette included a series of small group discussions that helped participants develop and refine reuse priorities.

plan, we all came together around turning Quincy Smelter into a historic park that preserved as many smelter features as possible.” Over time, the sustained reuse planning process built broad stakeholder and interagency momentum for Quincy Smelter’s restoration as a cultural heritage destination and a potential gateway to Isle Royale National Park’s administrative and docking facilities.

“Years of meetings and negotiations have served to forge a strong working relationship between the National Park Service and EPA, and this relationship has worked to benefit the greater community surrounding this nationally significant site.”

– Mike Pflaum,

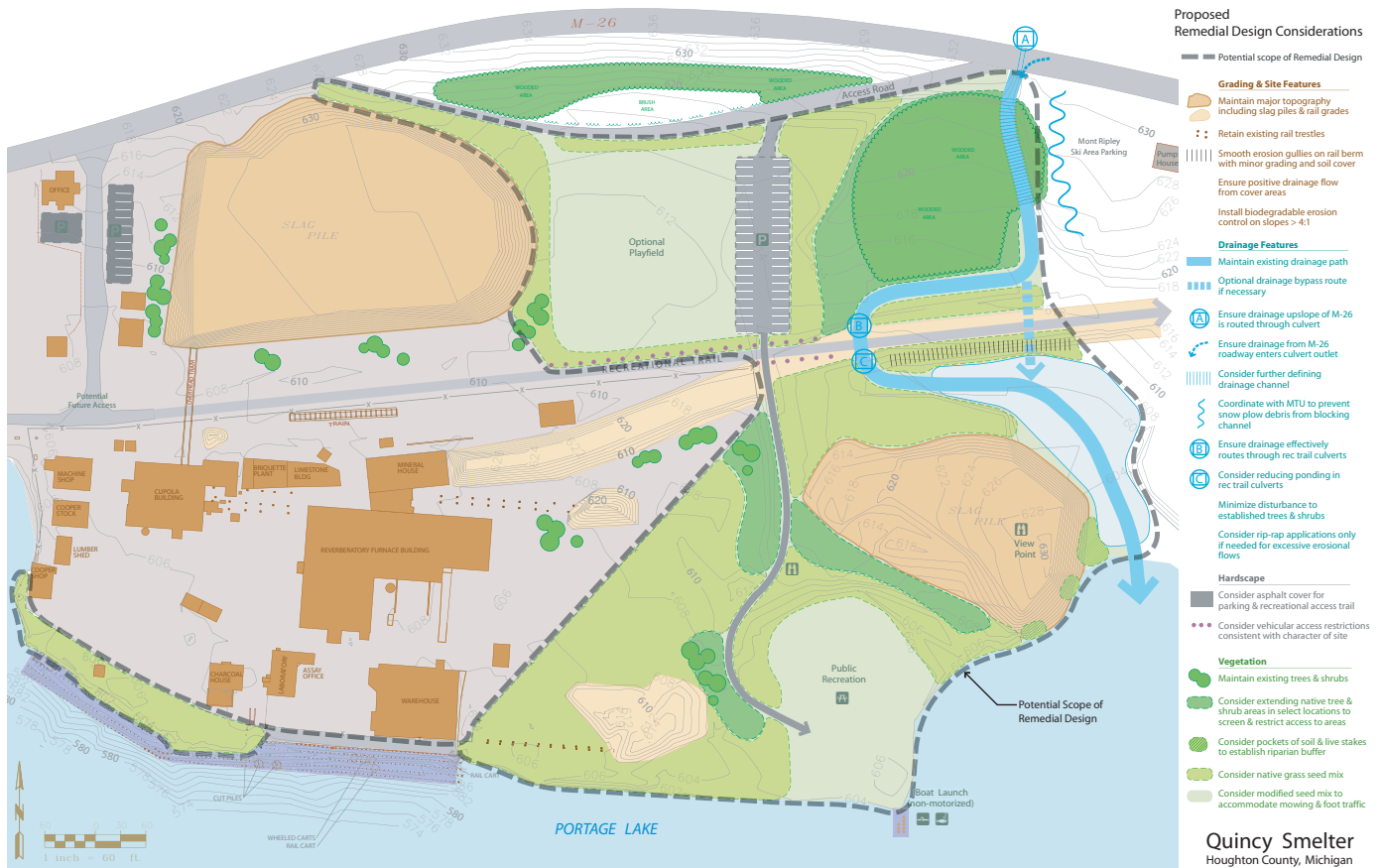
Former Superintendent, Keweenaw National Historical Park, National Park Service

Finishing Cleanup , Looking Forward

EPA’s cleanup efforts – the site drainage enhancements, slag pile and stamp sands stabilization, asbestos removal action, and shoreline stabilization – took place at the same time as the reuse planning process. With major cleanup components remaining, EPA identified a set of activities to complete the Superfund program’s efforts at the site. EPA’s Rosita Clarke noted that “the final steps after a cleanup include making sure institutional controls to restrict future uses and protect the site remedy are in place, and conducting site inspections every five years to make sure the cleanup remains protective over time.”

In 2011 and 2012, EPA finalized these closure activities and worked with MDEQ to prepare the site for partial deletion from the Superfund program’s National Priorities List.

Phase 1: 2008 Remedial Design Considerations



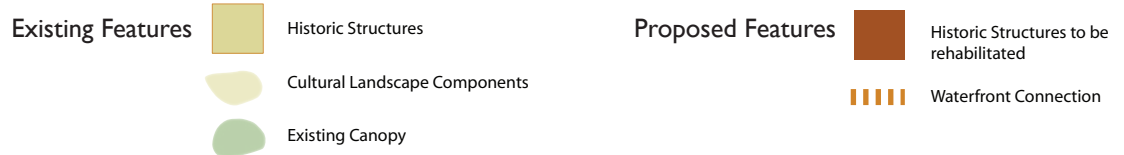
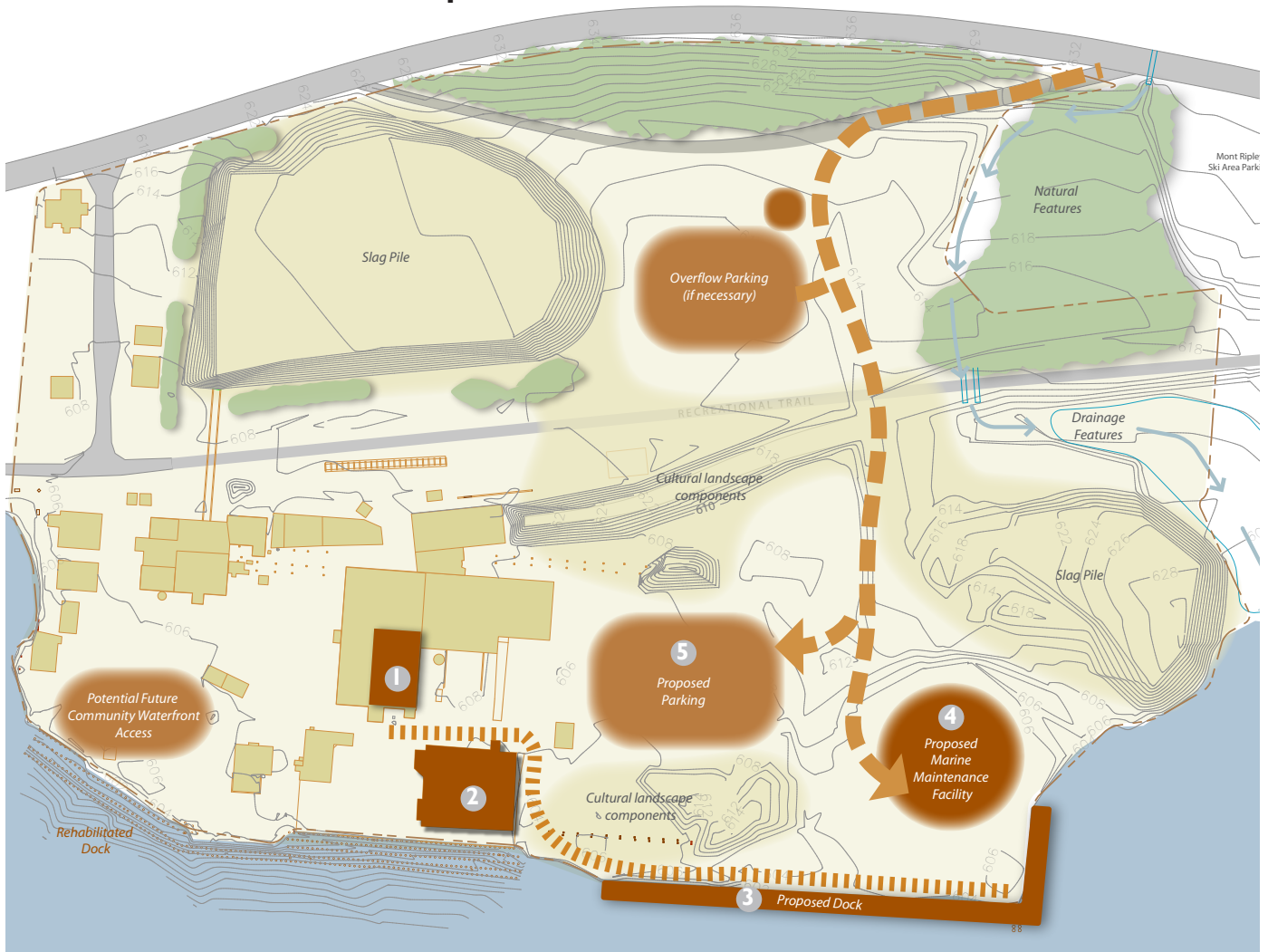
Initial reuse planning recommendations focused on the eastern and waterfront portions of the site and helped to inform EPA's slag and stamp sands stabilization cleanup plans.

Phase 2: 2009 Reuse Scenarios



Potential reuse scenarios evaluated during the second phase of reuse planning helped to prioritize future uses and across the site.

Phase 3: 2011 Final Concept Plan



Quincy/Isle Royale Proposal

- Rehabilitating the historic reverberatory furnace building for reuse by Isle Royale National Park.
- Rehabilitating the historic dockside warehouse as a visitor welcome center and passenger waiting area.
- Building a dock and waterfront connection to the welcome center.
- Building a marine maintenance facility.
- Adding access and parking facilities.



Reverberatory furnace building (a) and dockside warehouse (b) slated for rehabilitation and reuse.

2011 - 2017

Putting the Final Pieces In Place

As EPA completed cleanup activities in 2011, the Keweenaw National Historical Park Advisory Commission started work on implementing the project's final reuse plan. Working as an intermediary between the community and the National Park Service, the Advisory Commission reached agreement with Franklin Township to purchase the property. The agreement gave the Advisory Commission an option to purchase the property within a three-year window – from September 2012 to September 2015. This window provided the Commission with the timing needed to raise funds and to complete environmental due diligence before acquiring the site property.

With all cleanup goals met, the Advisory Commission also wanted to ensure that all administrative and regulatory issues were addressed efficiently. From February 2013 to November 2014, EPA and the Advisory Commission met every six weeks to discuss implementation of the site's institutional controls, which would prevent residential uses and prohibit digging into the soil cover placed on the stamp sands. They also discussed the deletion of the Quincy Smelter from the NPL, and the issuance of a "reasonable steps" letter by EPA.

Removing the Quincy Smelter portion of the Torch Lake Superfund site from the NPL was a key part of these efforts. As EPA's Tom Bloom explained, "partial deletion, or removing, parts of sites once they are cleaned up is an effective way to return underutilized and vacant lands to communities, and to encourage reuse." Deletion was also essential for the National Park Service; the National Park Service generally avoids the acquisition of contaminated properties.

With concurrence from MDEQ, EPA, deleted the Quincy Smelter Area of Concern from the NPL in September 2013. The Advisory Commission convened a deletion ceremony on November 6, 2013.

"The removal of the Quincy Smelter from Superfund's National Priorities List is indeed, a cause for celebration. The many hours, weeks, months and years of effort on the part of numerous partners has culminated in the ability to move forward with the future of this site."

– Mike Pflaum, Keweenaw National Historical Park

The Quincy Smelter partial deletion now serves as the model for removing other parts of the Torch Lake Superfund site from the NPL as cleanup goals are met. As an additional step to clarify stewardship responsibilities for future owners, EPA issued a reasonable steps letter in 2014 to the Advisory Commission. The letter explained how the Advisory Commission could purchase the Quincy Smelter property and qualify for liability protections. The letter included the following steps: 1) purchasing the property outright as a bona fide prospective purchaser (BFPP); and 2) maintaining covers and fencing and following permitting guidelines for installing docks or marine infrastructure.

To complete its environmental due diligence, the Advisory Commission conducted a series of environmental site assessments to identify any environmental issues not addressed by EPA's Superfund program. The Phase 1, 2 and 3 site assessments identified a identified several remaining environmental issues, including hazardous materials -- oil cadmium, arsenic and asbestos -- regulated under the Resource Conservation and Recovery Act (RCRA). With a plan in place to address the remaining issues, the Advisory Commission determined that acquisition of the property could proceed. With EPA's reasonable steps letter in hand and supplemental site investigations completed, the Advisory Commission acquired the Quincy Smelter property from Franklin Township in August 2014 for \$335,000. Funds for the property acquisition came from local groups, state appropriations and private donations raised from 2012 to 2013.

Since acquiring the property, the Advisory Commission has made vital investments to stabilize historic structures and address residual contamination. Funded by the National Park Service and Congressional appropriations in 2014, the Advisory Commission replaced and restored roofing on the smelter's reverberatory furnace and several other large buildings. With historic structures stabilized, the Advisory Commission then collaborated with EPA, NPS and the U.S. Army Corps of Engineers to address the remaining contamination. In 2014, the Advisory Commission removed hazardous materials and EPA addressed mercury contamination in buildings. In 2016, the U.S. Army Corps of Engineers cleaned up residual



The Advisory Commission continues to maintain the site and plan for restoration of historic structures like the Cupola Building throughout the Quincy Smelting Works.

polychlorinated biphenyls, mercury, abandoned containers and materials piles. The Great Lakes Restoration Initiative funded the Corps' work. These final supplemental cleanup actions have created a site that is ready for reuse.

The Advisory Commission's Scott See credits the successful interagency collaboration at Quincy Smelter for transforming a liability into a site that is ready for reuse.

"Today, thanks to the Franklin Township, the EPA, National Park Service, Senator Levin, MDEQ and a broad range of local community partners, we have a remediated, stabilized and partially delisted site that is ready to be returned to beneficial use for local residents and visitors to the Keweenaw."

*– Scott See, Executive Director
Advisory Commission*

Conclusions

Building on the Past, Looking to the Future

Today, the Advisory Commission and the National Park Service are working on site transfer preparations, with a focus on park programming and operations. EPA Region 5 and MDEQ will continue to monitor the site's remedy to ensure its long-term protectiveness.

The plan is for the National Park Service to manage Quincy Smelter, recognized as one of America's cultural and historical treasures, and for the area to potentially serve as a gateway to Isle Royale National Park. In the meantime, the Advisory Commission has partnered with the local Quincy Smelter Association to offer public tours of the smelter facility. Public tours are offered once a month in the summer, providing 60 to 90 visitors with the chance to tour the best preserved copper smelter in the world.

These remarkable outcomes illustrate how community leadership, interagency partnerships, and sustained stakeholder engagement can enable historic preservation, heritage tourism, and the protection of human health and environment at formerly contaminated lands such as Superfund sites.

A combination of significant factors has contributed to the project's successful outcomes.

- The site's industrial legacy and historic park designation meant that cleanup and reuse were high priorities.

- The combination of pressure from nearby communities and Senator Levin brought EPA and the National Park Service together after a rocky start.
- EPA convened several stages of reuse planning that brought together local, state and national stakeholders to create a unified vision for the site. Since reuse planning was underway, the ROD Amendment aligned with reuse goals.
- After EPA's work led to the identification of additional site contamination, the Agency worked with site stakeholders to integrate updated cleanup and reuse considerations.
- Reuse planning stakeholders created the Quincy Smelter Steering Committee to ensure that the momentum created through the reuse planning process carried forward.
- The Keweenaw National Historic Park Advisory Committee took on ownership of Quincy Smelter, has maintained communication with EPA and the National Park Service and has successfully taken steps to prepare the site for ownership transfer.
- All parties involved were patient and flexible, recognizing that cleanup and reuse are complex processes reliant on available resources, multiple parties, site contamination and other factors.

Lessons Learned

While these site-specific conditions created an ideal climate for successful reuse outcomes, a range of broader lessons learned can also help guide similar projects at contaminated lands across the country.

EPA works closely with communities, site owners and other stakeholders to support reuse outcomes that are compatible with site cleanups.

The Agency places a high priority on supporting the return of contaminated sites to productive and beneficial uses. At the Quincy Smelter site, the community was able to work with EPA, MDEQ, the National Park Service and the Keweenaw National Historical Advisory Commission to develop reuse plans that reflected site conditions, cleanup considerations and community priorities.

While EPA provides tools and resources to support Superfund reuse, communities and public- and private-sector organizations make it happen.

EPA's mission is to protect human health and the environment. EPA relies on engaged community stakeholders to bring their future land use goals and priorities to the table so that this information can be incorporated into the remedial process, linking cleanup and redevelopment. At the Quincy Smelter site, local voices brought attention to the smelter's historical value and importance, and provided important concerns, ideas and considerations throughout the reuse planning process.

The Quincy Smelter Site: The Story in Pictures

Pre-Cleanup



View of the main smelter facility prior to cleanup.



Abandoned materials, vacant buildings and infrastructure remnants.

During Cleanup



Above: ATV vehicles collecting samples during site investigations.

Right: Views of the Quincy Smelter, pre-cleanup in 2007 (top) and post-cleanup in 2016 (bottom).



The Quincy Smelter National Historical Landmark



Top: The Cupola Building and historic trestle structures provide unique interpretive opportunities for visitors.

Middle: As a cultural heritage destination, the former smelter complements regional tourism venues such as nearby ski area Mount Ripley.

Bottom: In the future, the former smelter facility could serve as the Isle Royale National Park headquarters and host a facility for research vessels.

Recognize the leadership role of local governments.

As the organizations responsible for their communities' general welfare, local governments are particularly well positioned to host redevelopment projects, bring together diverse stakeholders to discuss site reuse opportunities, and use planning tools and incentives to foster positive site outcomes. At the Quincy Smelter site, redevelopment challenges included limited resources, a need for significant infrastructure repairs and structure demolition on site, and uncertain future ownership. Franklin Township enlisted the expertise and insights of nearby localities such as City of Houghton and the City of Hancock as part of the reuse planning process, building broad community support for a revitalization project with region-wide benefits. In turn, the localities were able to raise the project's visibility, which led to congressional funding for infrastructure repairs, while EPA's cleanup efforts took care of the site's exposed stamp sands.

Effective reuse planning projects are inclusive, information-based and focused on targeted outcomes.

The project's multi-phase reuse planning effort enabled site stakeholders to develop progressively more detailed plans for the future use of the Quincy Smelter site over time. Community engagement was a central component of reuse planning efforts for the Quincy Smelter site. Additionally, because of the discovery of eroding stamp sands and the need to amend the ROD, community engagement was able to inform how the remedial action was conducted to preserve the history of the site so that visitors can better understand how Quincy Smelter operated.

Be persistent and determined over the long term to get to the finish line.

It can take many years to remediate contamination that has accumulated over decades of site activities. However, this lengthy process also provides a time window for stakeholders to build partnerships and identify resources, coordinate with EPA and state agencies, and develop a strategy for returning a site to use while protecting future users. The Keweenaw National Historical Park Advisory Commission and the Quincy Smelter Steering Committee worked with site agencies, local governments and community organizations to put in place the pieces needed to make the Quincy Smelter site into a national historical resource and regional park amenity. "Everyone that I interacted with at EPA has been great to work with," said Scott See, recalling the collaboration between the Advisory Committee and EPA. "I would not hesitate to work with EPA again."

Collaborate to strengthen community connections and expertise.

Community-based reuse planning processes can be most effective when they engage diverse stakeholders, are based on detailed site and community information, and lead to implementation strategies and next steps. The Quincy Smelter Steering Committee was established to coordinate the efforts of people, organizations and agencies working in support of smelter revitalization efforts. Over time, the Steering Committee has played a vital role in coordinating community engagement with site agencies, participated in a value analysis of the site's visitor center proposal, developed a detailed site reuse plan, and completed a feasibility study assessing the plan's financial implications. Looking forward, members of Committee will continue to guide the process forward, ensuring that ownership is ultimately passed on to the National Park Service and that long-term stewardship and preservation are in place.

Build regional and national partnerships to leverage resources and increase project visibility.

Agencies and elected officials have supported Quincy Smelter since its designation as a national historical landmark in 1989. Support included funding, technical assistance and regional and national exposure to advance the revitalization of this significant historic resource.

Access site-related information and recognize opportunities provided by the Superfund program.

Superfund sites are among the most comprehensively documented and evaluated areas of land in the United States. At most sites, a completed remedial investigation/feasibility study, draft proposed plan, or Ready for Reuse (RfR) Determination will provide prospective purchasers with extensive site information.

Build on past experience.

Today, thanks to the bona fide prospective purchaser provisions of the 2001 Brownfields Revitalization Act, environmental insurance and EPA tools like RfR Determinations, established resources are available to support revitalization projects at formerly contaminated lands. Prospective purchasers can contact EPA site teams to learn more, or see the Resources section on page 15 for additional information.

Quincy Smelter: From Stamp Sands to National Historic Park

THE QUINCY SMELTER SUPERFUND SITE IN HOUGHTON COUNTY, MICHIGAN

EPA and Reuse: Lessons Learned

Since the inception of the Superfund program, EPA has been building on its expertise in conducting site characterization and remediation to ensure that contamination is not a barrier to the reuse of property. Today, consideration of future use is an integral part of the EPA's cleanup programs from initial site investigations and remedy selection through to the design, implementation, and operation and maintenance of a site's remedy.

"For more than two decades, EPA has worked with diverse stakeholders to make sure reuse considerations are taken into account during the cleanup process," reflected Melissa Friedland, EPA's Superfund program manager for redevelopment. "Superfund cleanups can be creative and flexible in allowing for future site uses, but that information needs to be plugged in early to be as effective as possible."

EPA also works with site stakeholders to consider how future land use considerations can inform the implementation and long-term stewardship of site remedies as well as cleanup planning. At some sites, for example, reuse considerations can inform the future location of ground water monitoring wells and other operation and maintenance equipment that might inadvertently hinder redevelopment efforts. At other sites, detailed site reuse plans have provided additional benefits that save time and reduce redevelopment costs.

Sources and Resources

Sources

Images and maps in this case study are from EPA Region 5, MDEQ, the Keweenaw National Historical Park Advisory Commission, the National Park Service, Scott See of the Keweenaw National Historic Park Advisory Commission and site visits.

Map Sources

Maps for this case study were created with data from Esri, DeLorme, AND, Tele Atlas, First American, UNEP-WCMC and USGS.

Resources

EPA CERCLIS site profile, including site decision documents:
cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0404172

EPA Superfund Redevelopment Initiative:
www.epa.gov/superfund-redevelopment-initiative

MDEQ:
www.michigan.gov/deq

Keweenaw National Historic Park:
www.nps.gov/kewe/index.htm

Franklin Township, Michigan:
www.franklintownship.net

City of Hancock, Michigan:
www.cityofhancock.com

Houghton County, Michigan:
www.houghtoncounty.net

Quincy Smelter Association:
quincysmelterassociation.blogspot.com

CERCLA liability and local government acquisitions:
www2.epa.gov/enforcement/state-and-local-government-activities-and-liability-protections

2002 Brownfields Revitalization Act and BFPP information:
www.epa.gov/enforcement/brownfields-and-land-revitalization-cleanup-enforcement

Environmental insurance information:
www2.epa.gov/brownfields/brownfields-environmental-insurance-helps-ensure-redevelopment



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