



Brownfields Success Story

Land Revitalization in the St. Louis River Corridor Duluth, Minnesota

Located on Lake Superior and the St. Louis River Estuary, Duluth has a rich waterfront history. Where the lake and river meet, 12,000 acres of freshwater estuary create unique biological productivity for fish, birds and other wildlife. This habitat is one of the largest of its kind in the world.

The St. Louis River Estuary also is a regional economic driver. Duluth was the fifth-largest seaport in the United States by the 1890s, largely due to grain and iron ore shipments. It was during this period of development that the physical form of the present waterfront began to take shape. Shallow-water swamps were transformed into solid land, with slips retained to serve as docks for industrial and commercial warehouses along the harbor.

After many decades of operation, the industrial use of Duluth's waterfront began to decline in the 1960s. The industrial use had, by then, dramatically affected the St. Louis River Estuary, with contaminated water and thousands of acres of wetlands filled, dredged and otherwise altered. Neighborhoods along the river had also been negatively impacted by the former land uses and loss of manufacturing jobs.

The Transformation

In 1989, the U.S. Environmental Protection Agency (EPA) designated the St. Louis River Estuary as one of the 43 Areas of Concern under the Great Lakes Water Quality Agreement, a nonregulatory agreement between the United States and Canada that requires both governments to reduce the discharge of conventional pollutants and help reverse the decline and deterioration of the Great Lakes ecosystem.

Since this designation, sites along the estuary have been remediated through citywide efforts to reduce pollution in the St. Louis River. The remediation requires working with a diverse coalition of stakeholders, communities and regulatory agencies.



Duluth has a rich waterfront history, with both impressive industrial relevance and a legacy of contamination.

EPA Grant Recipient:
City of Duluth, Minnesota

Grants:

- EPA Brownfields Assessment Grants
- Minnesota Department of Development and Economic Employment Contamination Cleanup Grants

Additional Funding Sources:

- Minnesota Pollution Control Agency Voluntary Investigation and Cleanup Program
- Private Development Funds



EPA Brownfields Grant funds are not used for redevelopment of sites assessed or cleaned up with Brownfields funds, and projections for future reuse and redevelopment of sites and anticipated benefits are subject to change based on local conditions.



The Pier B Resort is one of several former industrial sites recently redeveloped along the St. Louis River Corridor.

“**The city has done a good job at looking at all the properties needing attention and slowly building the development that the community needs.**”

*Rosita Clarke,
Brownfields project
manager, EPA*

Whether dormant properties along the waterfront could be converted into other uses remains a question. “In Duluth, there is the tension between wanting to honor our past and all that Duluth has contributed to the development of the region and country,” says Jenn Moses, senior planner with the City of Duluth, “while also considering the heavy work that comes with cleaning up these sites.”

“Also, it’s a question of our future,” she continues. “How do we transform these industrial sites into something that helps us look forward into the next 100 years?”

EPA has worked with state and local partners to develop the St. Louis River Corridor Strategic Action Framework, which helps direct funding priorities to the corridor in a way that improves water quality and supports the revitalization and economic development goals of corridor communities. The city’s areawide planning encompasses smart growth, green and sustainable infrastructure needs, and discussions with communities regarding environmental justice concerns.

Here, we feature two former industrial sites that have been redeveloped into active use with assistance from the EPA Brownfields Program: the Pier B Resort and the Clyde-Heritage Sports Complex.

“These are sites with a legacy of heavy industry and contamination,” says Adam Fulton, deputy director of planning and economic development for the City of Duluth. “Today, we can tell a story of recovery.”

Pier B Resort

Built on an industrial pier previously used as a cement storage, packaging and distribution facility, Pier B Resort is the largest private development on the waterfront since the 1960s. It’s located on a 7.4-acre site, half of which was a blighted parcel purchased by the Duluth Economic Development Authority (DEDA) in 1993 in an effort to aggregate a site large enough for a proposed project that ultimately stalled. The property remained vacant for decades.

In 2005 and 2006, the city used \$31,600 in EPA Brownfields Assessment Grant funding to conduct Phase I and Phase II Environmental Site Assessments at the site. The existing property structures included four 100-foot-tall concrete silos, with an attached baghouse and rail unloading building; a detached cement bagging building; an administrative building; and a power building containing electrical transformers and oiled switches. Buried railroad tracks, aged asphalt surfacing and old foundations were also present. Contamination was mostly caused by historic fill material that had been used.

In 2005, the city entered into the Minnesota Pollution Control Agency (MPCA) Voluntary Investigation and Cleanup (VIC) Program, which provides guidance on and reviews site investigations and cleanup plans. Like with EPA Brownfields assessments, obtaining MPCA approval helps landowners, lenders and potential developers calculate the cost of cleanup measures needed to satisfy statutory requirements.

For more information:

Visit the EPA Brownfields website at www.epa.gov/brownfields
or contact Rosita Clarke at 312-886-7251 or Clarke.Rosita@epa.gov.



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“ There’s a historic preservation component to this story. We did our best to hold true to that.

”

*Jenn Moses,
senior planner with the
City of Duluth*

Adjacent to the DEDA property was the industrial LaFarge Cement facility, which had operated until 2009. Once the LaFarge site became available, a 13-member Pier B investor group approached DEDA with a bold redevelopment vision that included acquiring both the DEDA and LaFarge properties, the result of which became the Pier B Resort.

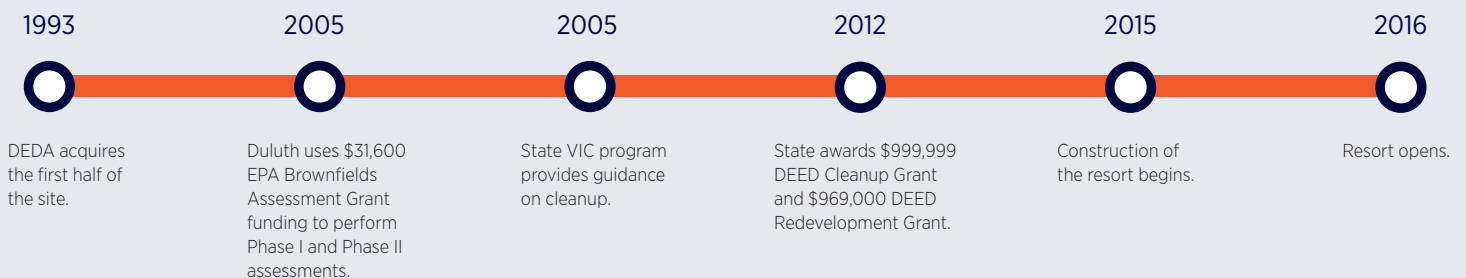
Construction first required demolition and hazardous materials removal. Four buildings were removed; buried demolition debris (some containing asbestos) was excavated; and old foundations, railroad lines and utilities were removed. During regrading work, concrete rubble was buried in the southwest portion of the property, and rubble that was not contaminated was crushed onsite and reused for soil stabilization beneath paved areas.

In 2012, the city received a \$999,999 Cleanup Grant and a \$969,000 Redevelopment Grant from the Minnesota Department of Employment and Economic Development (DEED). The grants helped fund the repair of the sea walls, which were originally constructed with wooden ribbing and had substantially deteriorated. The grants also helped fund the installation of new utility extensions and hauling of old foundations and soils off-site.

Today, only the four original cement silos, the foundation of the newer bagging building and one buried foundation at the inner end of the hotel building still remain on-site. The pier has been converted into a 140-room, 84,500-square-foot resort hotel, which opened in 2016 with a restaurant, indoor pool, conference rooms, and business and exercise facilities. Outdoor amenities include a transient boat docking area, boardwalks, patios with fire pits and a pedestrian bridge that connects Pier B to Bayfront Festival Park, across the water. In the end, remediation of the site cost approximately \$1.5 million, and redevelopment cost about \$32.8 million and created more than 86 full-time jobs.

“There’s a historic preservation component to this story,” says Moses. “Yes, the sea walls were deteriorating, and we needed to address that. But the solution was not to fill in the slip. The slips, the sea walls, and the silos—these are all parts of our history in Duluth. We did our best to hold true to that.”

Pier B Resort Redevelopment Timeline



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The recently redeveloped Clyde Iron Works site is now home to the Duluth Heritage Sports Center and other facilities benefitting the community.

“Redevelopment of the old Clyde Iron Works site has been exciting and has helped reconnect the neighborhood.”

Adam Fulton, deputy director of planning and economic development for the City of Duluth

Clyde-Heritage Sports Complex

Clyde Iron Works was one of many heavy industrial fabricators in Duluth at the turn of the 20th century. The site included a former rail yard, foundry and sandblasting facility, as well as a heavy machining, metal salvage and metal fabrication facility, about a half-mile from the waterfront. At the time, Clyde Iron Works built some of the largest cranes in the world and was instrumental in completing monumental projects such as the Panama Canal, Empire State Building and Golden Gate Bridge.

In 1986, the Duluth operation closed and moved to St. Paul. Over time, many of the buildings on the site deteriorated and were in poor condition, leaving a brownfield blight for the lower-income community who lived nearby. Environmental issues included elevated metals, polyaromatic hydrocarbon concentrations and petroleum contamination.

Fulton describes what was a long, complicated process to prepare the site for redevelopment: “There were multiple phases of site evaluation there,” he says. “It was all about figuring out how to reuse the site. Where do we need to remove soils? Which buildings are we going to try to save?”

When a fire destroyed a hockey rink in another part of Duluth, city officials and local organizations looked for a site to rebuild it. The Iron Works site was large enough.

“Through public and private partnerships,” Fulton says, “including support from federal New Market Tax Credits, the Duluth Area Hockey Association, the Boys & Girls Club of Duluth, private developers and the Duluth Children’s Museum, we were able to come up with enough support and tenants for this site that would allow other private financing to come in and help make the redevelopment possible.”

In 2002 and 2005, EPA awarded \$71,000 in Brownfields Assessment Grants to aid with evaluation work at the site. In 2003, a private developer purchased the site. Between 2006 and 2009, the state awarded approximately \$1.7 million in DEED Cleanup Grants and \$1.8 million in DEED Redevelopment Grants. In 2007, the site was also entered into the state VIC program.

Redevelopment of the site occurred in three phases. The first included major infrastructure updates and renovations to one of the machine shops in the Heritage Hall, the Duluth Heritage Sports Center’s central operations building. It also hosted facilities for the Boys & Girls Club. The second phase included the construction of the Heritage Sports Center’s two ice rinks, attached to Heritage Hall, as well as other multisport facilities and a private sports training facility. The third phase included development of the Clyde Iron Works Restaurant & Bar and event venue, which opened in 2010. In 2019, developers renovated the Malting Building, also on the property, and opened it as an additional event venue. In the end, cleanup of the site cost approximately \$1.4 million, and redevelopment cost about \$12.2 million and created 40 jobs.

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Clyde-Heritage Sports Complex Redevelopment Timeline

2002–2005



EPA awards \$71,000 in Brownfields Assessment Grants to aid with evaluation work at the site.

2003



Private developer purchases the site.

2006–2009



State awards \$1.7 million in DEED Cleanup Grants and \$1.8 million in DEED Redevelopment Grants.

2007



City conducts a Phase II assessment of the site.

2007



State VIC program provides guidance on cleanup.

2008



Duluth Heritage Sports Center opens.

2010



Clyde Iron Works Restaurant & Bar opens.

2019



The former Malting Building opens as an additional event venue.

“Clyde is possibly the most interesting of all these sites, because it was so complicated,” Fulton says. “It’s seen so much success, and it’s so exciting to see where it’s at today.”

Heidi Timm-Bijold, who was business resources manager for the City of Duluth during the Pier B and Clyde redevelopment projects, credits a number of factors to their success. “First, success was due to the vision and determination of the property owners. Second, it was due to the constellation of public and private partners that joined to see the projects through to completion. The winners? Clearly, our community and the region.”

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