

# Barge Canal solution: Fill it

## Cost put at one-tenth original figure

By Nancy Bazilchuk  
Free Press Staff Writer

Vermont's first Superfund hazardous waste site, tangled in red tape for more than 10 years, will finally be sealed off from Lake Champlain under a \$4.46 million plan chosen Monday.

The plan for Burlington's Pine Street Barge Canal Superfund site is not a cleanup; no waste will be removed. Instead, a foot-thick underwater layer of sand will be laid over the most contaminated parts of the canal, and an above-ground foot-thick sand layer will be laid over two smaller areas near the canal.

The proposal should keep contaminants out of nearby Lake Champlain and allow fish, insects and other creatures to move back to the 125-year-old canal.

It leaves open the possibility that less contaminated parts of the site might be developed. That includes eventual construction of the Southern Connector, a road designed more than two decades ago to speed traffic into downtown Burlington from the south.

The decision reached Monday by the Pine Street Barge Canal Coordinating Council is a drastically scaled-down plan compared to a proposal made by the U.S. Environmental Protection Agency in November 1992. At that time, the EPA said it would lean up the site with a \$50 million, 25-foot high landfill the size of University Mall, built on the shore of Lake Champlain.

The Barge Canal was contaminated by wastes from a plant that inverted coal into gas for heating and lighting between 1908 and 1966. Coal-tar wastes containing cancer-causing substances

## Solving the Pine Street Barge Canal Superfund question

The total cost of preventing pollution from the contaminated Barge Canal will be \$2.1 million, with another \$2.3 million required over several decades to monitor the site to make sure contaminants stay in place.

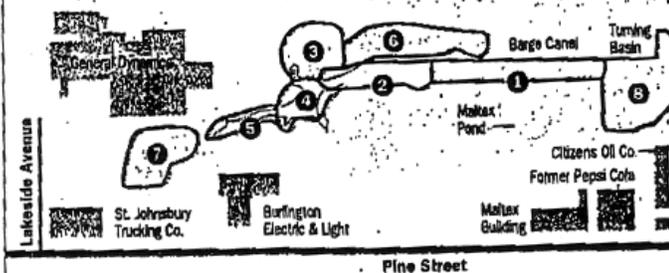
■ **Areas 1, 2 and 8:** These areas are underwater and would be covered with a sand and silt layer, or cap, designed to be a foot thick. Because the sand and silt will settle over time, the initial thickness of the cap will need to be 2.5 to 3 feet thick.

■ **Areas 3 and 7:** These upland and wetland areas also will be covered with a sand layer, but because they are not underwater the initial layer of sand will have to be only 1.5 feet thick. Wetlands will be reconstructed on the site over the cap.

■ **Areas 4, 5 and 6:** These areas would be protected with deeds and government restrictions limiting water and land uses in the defined area.



RAJ CHAWLA, Free Press



ABOVE: A cyclist rides across the Burlington bike path bridge over the outlet of the Pine Street Barge Canal. The polluted canal will be sealed off from Lake Champlain under a \$4.46 million plan endorsed Monday.

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were dumped or spilled in the wetlands and the canal behind the plant. The EPA estimates that more than 600,000 cubic yards of soil is contaminated by the wastes; that's enough to fill a football field more than 100 feet

deep.

Public outrage over the plan caused the EPA to withdraw its proposal in May 1993, in part because the \$5 million of studies that preceded the cleanup plan never clearly established whether

the plan would protect the lake.

In response to citizen frustration over the botched studies and cleanup delay, EPA Administra-

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## VERMONT

# CANAL: Superfund site to be filled, possibly developed

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for Carol Browner established the coordinating council, a first-in-the-nation effort to allow the community, regulators and liable businesses to develop a plan to stop pollution from leaving the waste site.

Since September 1993, the coordinating council has been meeting at least once a month, first to come up with studies to plug the

holes left by EPA's earlier studies. Once those studies were completed, the group spent time evaluating the actual risks posed by the site. The group concluded that the site poses minimal risk to humans, but that contaminated sediments in the canal were polluted enough to merit action.

The plan selected Monday involves pumping a foot-thick sand and clay cap over sediments in

the canal itself. A foot-thick sand cap would be placed over a contaminated wooded wetland area to the west of the Barge Canal proper. The \$4.46 million price tag includes monitoring the site for several decades to make sure that all the scientific studies are right and that contaminants do not pollute Lake Champlain.

The coordinating council's decision came one day short of the

group's fourth anniversary, the agreement prompted spontaneous applause.

"We have a lot of hope for this process. We think we can do some good at the site," said Lori Fisher, executive director of the Lake Champlain Committee, a watchdog environmental group that has been represented on the coordinating council.

Susan Compton, a lawyer representing the city of Burlington

on the council, said the action plan makes it possible the Southern Connector might someday be built through the Barge Canal.

Early plans for the connector called for building the road right down the middle of the contaminated area. For the short term, however, the city will continue with its plan to route the road along Pine Street.

The earliest the sand cap could be installed would be sometime

next year, before then the EPA must complete a document called a Record of Decision, which describes the rationale for the selection.

After this document is filed and approved by the federal government, additional engineering studies must be conducted to determine the exact details of the construction. If all goes well, workers could begin laying the cap of sand next summer.

**ENVIRONMENT**

# Cleanup backed by EPA

## Plan addresses Barge Canal site

By Nancy Bazilchuk  
*Free Press Staff Writer*

EPA chief Carol Browner praised newly released plans for Vermont's first Superfund hazardous waste site Tuesday at a national conference of state environmental officials in Burlington.

"With the community's involvement, we rethought our approach to the cleanup" for the Pine Street Barge Canal, Browner told the gathering at the Radisson Hotel Burlington. "The community came to the table and came up with an idea that was cheaper and had widespread support."

The Environmental Council of the States, a national, non-partisan coalition of environmental officials from 48 states and territories, will conclude its fourth annual meeting in Burlington today. The group's agenda has included discussion of everything from global climate change to air pollution regulation.

Browner's remarks came a day after the Burlington planning group she created four years ago agreed on a proposal to control wastes at the 70-acre Superfund site.

The \$4.46 million proposal calls for sealing pollutants underground by spreading a layer of sand and silt over polluted sediments in the waters of the canal. Two nearby upland sites would be topped with a protective coating of sand.

Browner authorized the Pine Street Barge Canal Coordinating Committee, a group

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### Council

- **WHAT:** The EPA established the nation's first coordinating council in Vermont.
- **WHEN:** In 1993.
- **WHO:** The council includes residents, liable businesses and regulators.
- **WHY:** In response to the frustration of Vermonters over delays and botched studies in the clean up of the Pine Street Barge Canal site.

VERMONT

# CLEANUP: Chief praises plan

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of business leaders, government officials, environmental groups and interested citizens, after the U.S. Environmental Protection Agency's own plan to build a \$50 million, 13-acre landfill on the site was overwhelmingly rejected by Vermonters in November 1992.

The Barge Canal is one demonstration of how cooperation can work, even with thorny issues such as hazardous waste sites, she said. State officials need to find ways to expand this approach to regulating pollution, she said.

"We need to focus on how to find cost-effective solutions, and how to provide more flexibility to those in the business community who may want to go further than the minimum standards require," she said.

New ways of tracking how much pollution is emitted by businesses, and how many permits have been issued by each of the states, will help state officials assess the effectiveness of environmental protection programs, she said.

"We are now able to look at

not just the number of effluent permits issued, but how contaminated the water is and how much pollution is going into the water," she said.

# Barge Canal cleanup totals \$30 million

## Plan bundles other projects

By Nancy Bazilchuk  
Free Press Staff Writer

Cleaning up Burlington's polluted Pine Street Barge Canal Superfund site likely will total \$30 million — half the original estimate.

And in an unusual and innovative approach, the federal Environmental Protection Agency is backing a community group's plan to include other Burlington pollution sources as part of the package.

The plan calls for leaving contaminants in the Barge Canal, instead of an expensive removal, so the group decided to attack other pollution in Burlington to make up for decades of lake pollution from the canal wastes. The approach has been endorsed by EPA New England Regional Director John DeVillars.

"In return for a more affordable cleanup we should explore other environmental benefits as part of this settlement," DeVillars said.

The EPA has spent 15 years and more than \$5 million studying ways to clean up the canal, which was polluted by coal tar in the early 20th century.

The community group, the Pine Street Barge Canal Coordinating Council, wants to clean polluted Englesby Ravine in Burlington's South End. It is blamed for the permanent closure of Blanchard Beach. Also being considered is a technical assistance program for small Burlington-area businesses to reduce their use of toxics that would otherwise drain into the lake.

Since 1993, when outraged

■ **WHERE:** An 80-acre site on Pine Street in Burlington between the Maltex Building and the Burlington Electric Department offices.

■ **WHAT:** Beginning in 1908, the area was the site of a coal-gasification plant, which turned coal into gas for heating and lighting. The plant operated until 1966. Wastes, chiefly coal tar, were spilled or dumped in the wetlands and canal behind the plant, contaminating about 600,000 cubic yards of soil.

■ **WHAT'S NEXT:** A group of citizens and businesses charged by the federal Environmental Protection Agency to come up with a cleanup plan has proposed to isolate the most toxic contaminants in the canal with a sand and silt cap. Because the pollutants will be left in place, the group also wants to tackle other area cleanup projects to improve Lake Champlain's water quality.

■ **COSTS:** For the underwater cap and associated monitoring, \$6 million to \$10 million; total costs, including scientific studies and EPA's legal expenses could top \$30 million.

Vermonters rejected the EPA's \$61 million Barge Canal project, the EPA has been using the site to test ways of involving the community in Superfund hazardous waste site cleanups.

If the Barge Canal experiment succeeds, it will be one of the first cleanups of its kind in the 10-year history of the federal Superfund program. The law doesn't require polluters to pay for additional cleanup projects as long as the project will be done.

# BARGE: Cleanup to cost \$30 million

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The Barge Canal Coordinating Council includes businesses that will pay for the project as well as Burlington residents and representatives of the Lake Champlain Committee, a watchdog group.

The EPA created the council in 1993 after Vermont officials condemned the federal agency's \$50 million plan to clean up the canal. The proposal was to pile contaminated sediments and soil in a 25-foot high, 13-acre landfill on top of the most polluted part of the site. Another \$11 million was spent for studies, bringing the total to \$61 million.

For four years the council has been working on a solution for the Barge Canal, where more than 600,000 cubic yards of contaminated soil and sediment pollute an 80-acre site less than 100 yards from Lake Champlain.

In September, the council agreed the best solution was to leave contamination in place and cover the most polluted sediments on the canal bottom with a cap of sand and silt. That will allow mussels, clams, worms and other bottom dwellers to recolonize the canal.

That actual cleanup will cost

\$6 million to \$10 million, the EPA says. The businesses responsible for the cleanup, chiefly Green Mountain Power Corp., have paid more than \$5 million for studies and scientific consultants to develop the current proposal. They also will have to pay the \$11 million for past studies.

Although no Superfund site is typical, EPA officials say the average total price of a Superfund cleanup is about \$21 million.

Margery Adams, an EPA lawyer on the council, said when proposed by the Lake Champlain Committee, the cost of additional projects was about \$9 million initially. That will be added to the \$21 million to \$26 million costs of the actual cleanup and studies.

"That is clearly subject to negotiation," Adams said. "The group has put a lot of effort into finding a solution that would accomplish those goals but wouldn't break the bank."

For several tense months, the council wrangled with finding a way to pay for the additional programs. Green Mountain Power Corp. settled the last of its insurance lawsuits in November for an undisclosed amount. The company already has \$10.5 million

for the Barge Canal cleanup that it received from previous insurance settlements and other payments, court records show.

This month, in a meeting that lasted from 3 p.m. until after midnight, the group agreed at least in concept to additional projects for the plan. Members did not want to discuss the funding details until they were final.

"We've made a preliminary verbal agreement," said Marty Feldman, owner of Lightworks and a representative of the Pine Street Arts and Business Association on the council. "We have to finalize it, but we've done the hard work."

Green Mountain Power spokeswoman Dorothy Schnure said they are committed to the additional projects even though they are not required by law.

"We believe it is in the public interest" to do the projects, she said. Whether Green Mountain's costs will be passed on to ratepayers or stockholders is yet to be determined, she said. Passing costs on to ratepayers might prove problematic, because the utility is under scrutiny for a 16.7 percent rate increase to cover the costs of Hydro-Quebec power.

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## Pact reached for Barge Canal cleanup

By DAVID GRAM  
The Associated Press  
BURLINGTON, Vt. —

Five years after public outcry killed a plan to bury the Barge Canal hazardous waste site under a landfill, officials have announced agreement on what they said was a better plan for less than one-fifth the cost.

Ten years from now, the 70-acre tract on Lake Champlain just south of downtown Burlington is envisioned to have new development and open spaces, complete with trails and signs depicting the area's history.

Federal, state and local officials gathered near the Barge Canal yesterday to announce they had reached agreement on a plan to clean up the first site in Vermont designated under the federal Superfund law.

John DeVillars, administrator of the Environmental Protection Agency's regional office in Boston, called the agreement the first of its kind in the country, in that it resulted from broad-based community participation, rather than being imposed by the EPA.

"The council's groundbreaking work will serve as a blueprint for other communities (that) are struggling with Superfund cleanup decisions," DeVillars said.

The Barge Canal became polluted when a plant that extracted gas for lighting and cooking from coal dumped its residues in the canal and the wetlands surrounding it.

Under the Superfund law, efforts are made to find the companies and individuals responsible for polluting a site and have them chip in to play for cleaning it up.

DeVillars and other officials estimated Barge

Canal cleanup — consisting mainly of covering the most hazardous spots with sand and-or silt — would cost \$4.3 million under the new plan. About \$11 million has been spent so far, much of it on legal fees and engineering studies.

In addition, potentially responsible parties, including General Dynamics, which owns some of the land, and Green Mountain Power Corp., which owned part of the land when coal tar was deposited there, have agreed to chip in voluntary contributions totaling \$3 million.

The money will be used to restore the polluted Englesby Brook, which is

near the Barge Canal, create walking paths with signs in the Barge Canal site itself and to study water quality in Lake Champlain near the site. The brook cleanup should allow reopening of a nearby swimming beach, officials said.

The Barge Canal's status as a hazardous waste site had been seen as a key stumbling block in the way of building the long-sought Southern Connector, a highway linking downtown Burlington with its suburbs to the south.

But political support for a major highway into the city has waned in recent years, and Mayor Peter Clavelle said he doubted it would be

built unless it were modified. "I would be surprised if it were built in its original (proposed) corridor," he said, noting that much of the corridor lies in wetlands.

The plan announced Wednesday was the result of a five-year process that began when state and local officials and Burlington residents rose up in opposition to an earlier plan hatched by the EPA to put a 25-foot, 13-acre landfill over the hazardous waste site.

"I learned a new word," said Clavelle, recalling the debate. "Sarcophagus. A tomb. They wanted to bury the whole thing in a tomb."

Clavelle, Sen. Patrick Leahy, D-Vt., and a host of others blasted the \$50 million plan as too expensive, likely to release coal tar gasses and create a bigger environmental problem than already existed.

Leahy said the Vermonters' message to the EPA was: "Be realistic. We Vermonters are by our very nature environmentalists. We're not trying to do something where we're trying to cheat the environment. But let's be reasonable."

A committee called the Pine Street Barge Canal Coordinating Council was formed, with representatives from the EPA, the state, the city, businesses likely to have to pay for cleanup, an environmental group and others.

The group met 100 times during the following five years. "I'd be overstating it if I said every one of those meetings was pleasant," said Norm Terrari, GMP's retired chief operating officer.

The cleanup plan now will go through a round of public comment before it is finalized in July.



Phil Harter, mediator for the Pine Street Barge Canal Coordinating Council, talks yesterday about five years work on a cleanup plan for the Superfund site on Pine Street in Burlington. (AP photo)