

MINNESOTA

ENVIRONMENT



Minnesota Pollution Control Agency



Is there light at the end of the tunnel? As Minnesota's Superfund clean-up program turns 20 years old, the MPCA continues eliminating health and environmental risks posed by old industrial sites, such as Maxson Steel, above, in St. Paul. But the big, bad sites are almost done, foretelling the end of an era in state environmental history.

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Spring 2003

1

Superfund at 20:
The End
is in Sight

2

Federal
Superfund: The
Polluter Pays

6

State Superfund
Improves on
Federal Program

8

Closed Landfill
Program Arose
from Superfund
Controversy

11

Business, County
Partner on Metal
Recycling
Agreement

MINNESOTA

ENVIRONMENT

Information and solutions for improving
Minnesota's air, land and water

Volume 3, Number 2

*The mission of the Minnesota Pollution
Control Agency is to help Minnesotans
protect and improve the environment.*

Commissioner Sheryl Corrigan

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Commissioner's Message

Dear Environmental Partners,

Can government successfully bring major environmental programs to a conclusion? In this issue of "Minnesota Environment," we'll show how Minnesota's Superfund program is doing just that.

The goal of both the federal and state Superfund programs is to find, investigate and clean up sites where hazardous substances in soil, ground or surface water pose threats to public health or the environment. When the U.S. Congress enacted the federal Superfund law in 1980, the nation believed that there would be very few large-scale projects — Times Beach, Missouri; Love Canal, New York; and the Rocky Flats National Testing Ground in Colorado, for example — an estimated 500 such sites total.

Minnesota's Superfund program, established in 1983 to parallel and complement the federal program, shows how much everyone had to learn about hazardous waste sites. During that 20-year journey, everything was a moving target: cleanup standards, the ability of labs to detect pollutants, cleanup technologies and the science of ground water, among other things.

Minnesota learned fast. The state Superfund list has had 230 sites total (along with hundreds of sites where voluntary actions took place). Today, we have 92 sites, with the prospect of hitting a plateau of 25 sites as soon as 2006. Innovations arising



from Superfund allow for prompt voluntary investigations and cleanups, as well as proper care and maintenance of old municipal solid-waste landfills. The state Superfund program is in the second year of a five-year plan to transition to

maintenance level. It is an outstanding and hard-won achievement.

As this transition occurs, resources for the state Superfund program (and the federal dollars that the MPCA receives as well) will decrease. However, we will always need a Superfund. When environmental emergencies demand fast action, the Superfund gets us on the ground instantly. The MPCA and our partners in local government use approximately \$750,000 per year in Superfund dollars to respond to chemical leaks and spills, train derailments, tanker rollovers, fires and explosions.

The MPCA would like to recognize the state Superfund program's 20th anniversary — and the program veterans undaunted by decades of accumulated pollution. We have learned in the past 20 years of Superfund that preventing leaks, spills and releases of pollution is always faster, easier and cheaper than cleaning up after the fact. Our hope is that once we complete this job, we will never have to do it again.

Sincerely,

Sheryl Corrigan
Commissioner

Superfund at 20: The End is in Sight

Minnesota cleaned up the worst sites first, so what's next?



Before and after: In 1995, the Doc's Auto Salvage property was forfeited to Hennepin County. Through a unique joint-powers agreement, MPCA and Hennepin County removed (lower right) more than 6,000 tons of lead-contaminated soil. The property now houses a Metropolitan Council transit control center (upper left). Hennepin County Photo

Brazen flappers, celebrities and self-made millionaires personified America's jazzy "Roaring 20s." The bold, post-World-War-I era brought America mass-produced goods feeding a new, mass-consumption lifestyle, abundance and opulence for a society in search of the good life.

The second part of the Industrial Revolution fit the American entrepreneur like a tailor-made zoot suit. As newly automated factories sprang up across the country, fueled and

supplied by newly invented chemical compounds, workers' wages increased and inner-city dwellers found new life

The nation's natural environment became a convenient, albeit legal, dumping ground

and a lawn to mow in the suburbs. "The business of America is business" became the catch phrase of the day.

"Out of sight, out of mind" might have been a more accurate reflection of the times. The unintended byproducts of this revolution were casually spewing into the air, land and water. The nation's natural environment became a convenient, albeit legal, dumping ground for the hazardous chemicals that were part and parcel of our modernized manufacturing processes.

For 50 years, businesses grew. Money flowed. And so did the pollution. The Superfund program was born from this prosperity.

Catharine Rodda

THE VOICE OF EXPERIENCE



More than thirty years ago, I would see ducks fly into the Arrowhead Refining site across the street. People would tell me that they couldn't fly out, they would get stuck in the 'black lagoon.' My son would bring home pollywogs and talk about oil on the swamp water. I had a love for nature and knew that something was wrong.

So when I heard about the announcement from EPA and MPCA asking for information about areas in Minnesota that needed to be cleaned up, I contacted them to keep the Arrowhead Refining facility [in Hermantown near Duluth] on the top of the priority list. MPCA was our tool to work with. They had resources that local government and individual citizens lacked.

It was tough being heard sometimes and dealing with the various levels of politics was not easy, but it was the only way to bring change. Today, I see grass and trees growing at the site that weren't there before the cleanup.

— Catharine Rodda, citizen-activist
and retired social worker



Federal Superfund: The Polluter Pays

MPCA Staff Photo

As I.E. DuPont De Nemours promoted "better living through chemistry," scientists began to raise questions about the impact of human activities on the environment.

Television news brought environmental disasters (a 200,000-gallon crude oil spill off the California coast, Ohio's chemically contaminated Cuyahoga River catching fire) into people's living rooms. The collective experience did more than raise awareness about nature's vulnerability. It also motivated 20 million people to celebrate the first Earth Day in 1970 and the U.S. Congress to spend the next decade writing environmental protection laws. The Clean Water Act and Resource Conservation and Recover Act paved the way for the 1980 Comprehensive Environmental Response, Compensation and Liability Act, CERCLA (the federal Superfund law).

CERCLA consisted of both a law and a fund. The law required facility owners, operators and waste generators to

pay for investigation and cleanup of any "hazardous substance, pollutant or contaminant that poses a threat or potential threat to public health or the environment." The fund, immediately dubbed "Superfund," would be used when responsible parties could not or would not pay for cleanup or for environmental emergencies.

Instead of preventing pollution, Superfund cleaned up past pollution. CERCLA applied retroactive financial liability to what Congress assumed would be about 500 sites across the nation.

How wrong they were.

Once the Superfund law and ranking process were in place, the number of eligible sites skyrocketed.

"A 900-pound gorilla" of a law, Superfund spawned complementary legislation and programs (emergency planning, community right-to-know, oil pollution contingencies, environmental

Superfund Timeline

1980

Congress passes federal Superfund law (CERCLA) to clean up polluted sites/56 percent of children born from 1974-1978 in Love Canal, New York, had birth defects/24,000 drums of toxic chemicals burn for 10 hours in Elizabeth, New Jersey

1983

Minnesota establishes state Superfund law (MERLA) for state sites/infamous Kentucky "Valley of the Drums" added to federal list/EPA permanently relocates 2,000 people in Times Beach, Missouri

The Arrowhead Refining site in Hermantown advertised used-oil “recycling” — which turned out to be dumping contaminated oil in tanks, skimming off clean oil that rose to the top, and throwing the sludge into a cedar wetland behind the building. The sludge contained lead, cyanide, carcinogenic PAHs, PCBs and more. The site is now being considered for redevelopment after a cleanup estimated at \$30 million.

justice and Natural Resource Damage Assessment to name a few).

Superfund also stimulated the science of toxicology, innovative cleanup technology, legal accountability for wastes, risk assessment, community participation and enforcement efforts.

Long learning curve

But Superfund pioneers had a long learning curve. No one knew exactly how to deal with ground-water contamination stretching across two counties or soil contamination on one square mile of property. The size and scope of the sites, legal challenges to CERCLA, technical difficulties with cleaning up severely polluted sites, inability to detect some serious pollutants at very low levels, insecurity about how clean was clean enough, and a host of other problems dragged out many cleanups for years. But the federal program soldiered on and began achieving successes. Statistics

(from www.epa.gov/superfund/action/process/numbers.htm) tell the story:

- Total sites assessed by EPA, states and tribal partners: more than 44,000.
- Sites removed from the program and available for redevelopment: 33,000.
- Of the remaining active 11,000 sites, number with approved clean-up plans in place: 1,220 (as of August 2002).
- Number of sites with all clean-up construction completed: 823.
- Total responsible parties’ clean-up settlements: more than \$20 billion.
- Percentage of sites (since 1992) where responsible parties performed cleanups and no federal dollars were used: more than 70 percent.

Where is the federal program headed? “There’s no light at the end of the national program’s tunnel,” says Gary Pulford, MPCA’s Superfund program manager. “There’s no money in the fund to clean up remaining or newly discovered federal sites.”

Since 1980, the national program’s only income was taxes on the chemical and oil industries; those taxes expired in 1995 and Congress is still debating the merits of renewing them. One sticking point is whether states should take an increased financial responsibility for cleaning up Superfund sites and relieve the federal government of this obligation. Unless and until that happens, national Superfund sites without viable responsible parties will be in limbo.

— Anne Perry Moore

Martin McCleery
**THE VOICE
OF EXPERIENCE**

When I came to work for the U.S. Army on the Twin Cities Army Ammunition Plant (TCAAP) Superfund site in Arden Hills, I thought it would be a challenge. At TCAAP Superfund worked, but I still think there has to be a better way. Superfund can be very complicated and the challenge is to stay on task and not lose site of the objective — getting the cleanup done.

Ground-water contamination at TCAAP was serious, but we tackled the issue and got things cleaned up in the ’90s. Today, the challenge is land use. The state wants the land-use decision made before it will remove sites from the Superfund list and consider them cleaned up. At TCAAP, a restoration advisory board made this easier by giving the community a voice. The board provided a cross-section of the community and served as sounding board for the U.S. Army. The good news is that this site is being put back to productive use.

— Martin McCleery, retired environmental project manager for the U.S. Army on left, joins MPCA Assistant Commissioner Gordie Wegwart in a ground-breaking ceremony.

Photo: U.S. Army



1986

Congress amends federal Superfund law to require emergency planning, community-right-to-know after 1984 chemical accident in Bhopal, India, kills 3,800/first federal site completed, removed from list

1988

The MPCA provides property transfer technical assistance, which becomes the Voluntary Investigation and Cleanup (VIC) program/state Superfund used for South Andover tire and drum fire

1992

Legislature passes the Land Recycling Act to promote voluntary cleanups/Superfund responds to fires at MacGillis and Gibbs in New Brighton and Madelia dump

Marcia Carlson
**THE VOICE
 OF EXPERIENCE**

Being a pioneer has its drawbacks. There's a complete absence of road maps or instruction manuals, much less cheering sections! Working as a community relations coordinator in the U.S. Environmental Protection Agency (EPA) was strictly invention as you go and lots of unknowns on the ground floor of the newly established federal Superfund program in 1980.

The initial list of prospective Superfund sites in EPA Region 5's six midwestern states (including Minnesota) numbered nearly 125. We lacked information about the sites and the "witches' brew" of toxics that lay buried within them. Among those questions for which we didn't have answers:

- What chemicals were at each site, in what quantity, where and how was the stuff moving underground?
- What were the health effects of the 65,000 industrial chemicals that had been used (some created) during the post-war decades?
- What technologies and facilities could we use to safely treat, store and dispose of the chemical waste?
- What kind of people did we need to successfully run the Superfund program and where were we going to get them?

We spent a lot of time in Superfund's early years in Ohio. I recall a meeting where we had 10 bureaucrats (from EPA, Ohio EPA and the local health authority) sitting in front of the room. After being asked questions for which not one of us had an answer, a frustrated citizen yelled, "I count 10 of you government people up there and none of you knows anything." That was a valuable lesson. From then on, we scattered the agency people in the audience, rather than have them assume the sitting-duck position up front.

M. Carlson Photo



Finding out that the sites were bad enough to involve a massive federal clean-up program, people reacted with fear and anger. I recall one site where citizens hung our project manager in effigy as a prelude to a public meeting. At another, a man picked up a chair and gestured as if to throw it. No "Minnesota nice" at those meetings.

It was not just the locals with whom we had to deal. At a site in Michigan, activists from the East Coast decided to fly into town and do a little organizing. So they camped out in locals' living rooms and managed to get the community into an uproar.

The property owner became agitated and chased an EPA contractor around a building with a drawn knife.

Site safety protocols developed through experience. The Chem-dyne site in Hamilton, Ohio, like many of the initial sites, required some early emergency removal work. A young reporter for the local paper

Been there, done that, sweltered through it: In the early days of Superfund, EPA required community relations staff such as Marcia Carlson to receive emergency response training in protective gear, even during hot summer weather.

went out to the accessible site and treated himself to a tour. Upon his return to the newspaper office, the soles of his shoes fell off due to the chemicals he had unknowingly tromped through.

I recall another instance where local and state officials given a tour around a muddy bermed lagoon were wearing no protective gear. I couldn't help but think about what havoc a stumble might wreak and the subsequent headlines ("Officials meet Superfund, up close and personal.") At another Ohio site, the property owner became agitated and chased an EPA contractor around a building with a drawn knife.

Working together though, a nation eventually educated itself about remediation and the potential effects of industrial chemicals on human health and the environment. Those living near a Superfund site quickly grasped the difference between parts per billion and parts per million. Information and helpful hints began to flow via the "coconut telegraph" among citizen groups organized around waste sites.

The Superfund process of involving communities in site remediation became the standard for citizen participation in government. I am proud to have played a role in building that process.

— Marcia Carlson

Marcia Carlson, managing editor for "Minnesota Environment," worked for the EPA from 1980 - 1983.

1993

State Superfund list has 210 sites/ MPCA oversees drinking water treatment in Rice, PCB-soil cleanup at U of M Rosemount, drum removal at Hwy. 96 Dump

1994

Legislature passes the Landfill Cleanup Act, allows removal of qualified landfills from Superfund/ arsenic program ends, having collected 15,000 lbs arsenic and 40,000 lbs arsenic bait

1995

EPA introduces brownfield action agenda and expands Superfund to cover terrorist acts/723 voluntary cleanup sites in VIC, drinking water emergency at former Finland Air Force Base, river protection system installed at Ashland Refinery

Superfund Basics

MPCA Staff Photos

What is a chemical 'release'?

A chemical release is a spill, leak or disposal practice that contaminates soil, ground or surface water, sediments or air. Ninety percent of all contaminated soil or ground-water releases are caused by the mishandling of hazardous substances and gravity. All Superfund sites have had one or more releases.

How are release sites identified?

The MPCA often hears about these sites from local residents, company employees, and even company managers who are required by the Superfund law to report where the company previously dumped hazardous materials. The Minnesota Department of Health also conducts ongoing drinking-water monitoring across the state; this work detects if and when foreign compounds appear. Other sites are discovered through inspections when properties are for sale, public safety responses to environmental accidents, and historical record searches.

Who decides if a site goes into Superfund?

When a site is suspicious, the MPCA searches historical records for the site's past owners, property uses, products and wastes produced, spills, accidents, explosions, fires, and known disposal activities. Additional inspections, as well as field and laboratory testing, determine whether a thorough investigation is needed. Staff then identify potentially responsible parties and give them an opportunity to undertake the cleanup. The MPCA then may propose a site for the state or federal Superfund list.

Is there any typical Superfund site?

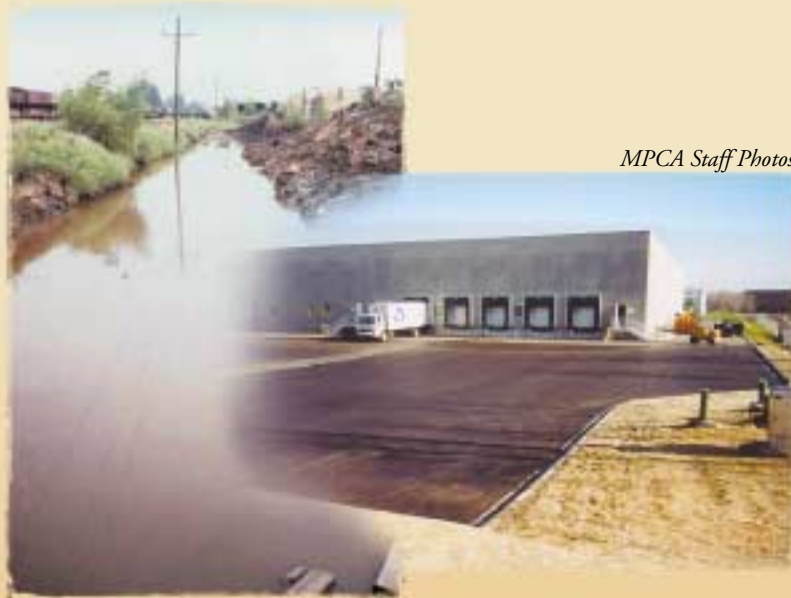
There is no typical Superfund site. Sites come in every size, shape, geography and land use. The majority of sites are old industrial facilities: manufacturers, military facilities, former old open dumps, former coal-gas plants and salvage yards, for example. Many are located in industrialized urban areas.

How does the MPCA make clean-up decisions?

MPCA staff bases clean-up decisions on the type of pollutant (some are more harmful than others), level, risk to people or the environment and the site's existing or planned use. For example, if the contaminated land will be used for manufacturing or industrial activities, the clean-up levels would need to meet industrial standards. If it will be developed as residential property, then more stringent clean-up standards would apply.

Who pays for investigation and cleanup?

People think government spends its money to clean up Superfund sites. But in reality, responsible parties fund cleanup at



Before and after: Contamination at the former MacGillis and Gibbs wood-treating facility (above left) in New Brighton made it an early candidate for Superfund. The EPA installed a system to prevent movement of contaminated ground water, melted and recovered thicker chemical wastes and removed tainted soil. The redeveloped property is now home to a janitorial supply company (above right).

most sites. The law says 'If you made the mess that threatened human health and the environment, clean it up or the state or federal government will and send you the bill.'

Why do cleanups take so long and cost so much?

Sites cannot be created over 100 years and be cleaned up in two. EPA cleanups average 11 years; in Minnesota, it's four to five years.

Wastes dumped or buried long ago require time- and cost-intensive investigation. Drilling wells, sampling contaminated ground water, implementing protective remedies (sometimes including long-term monitoring) are expensive — on average one to 10 million dollars per site. Minnesota's cost and time averages are well below national averages. Superfund sites' responsible parties know it makes more economic sense to cooperate than fight.

— Anne Perry Moore

1998

MPCA working on major initiative to locate future hazardous waste sites/major federal sites in maintenance mode or final cleanup stages/EPA completes 5,000th emergency removal in St. Louis, Missouri.

1999

MPCA completes baseline assessment of 2,200 old dumps/cleanup begins at Pig's Eye Dump in St. Paul, the state's largest dump site/VIC program has 200 new sites per year

2003

Twenty-year anniversary of the state Superfund/federal fund used to clean up anthrax sites, prepare for chemical and biological cleanups/MPCA proposes maintenance mode for state program by 2006

State Superfund Program Does CERCLA One Better

The MPCA is working on a Consent Order with 24 responsible parties for cleanup of the Warden Oil site in north Minneapolis, shown below.

Launched three years after the federal program began, Minnesota became the nation's second state to write its own Superfund law — the Minnesota Environmental Response and Liability Act (MERLA).

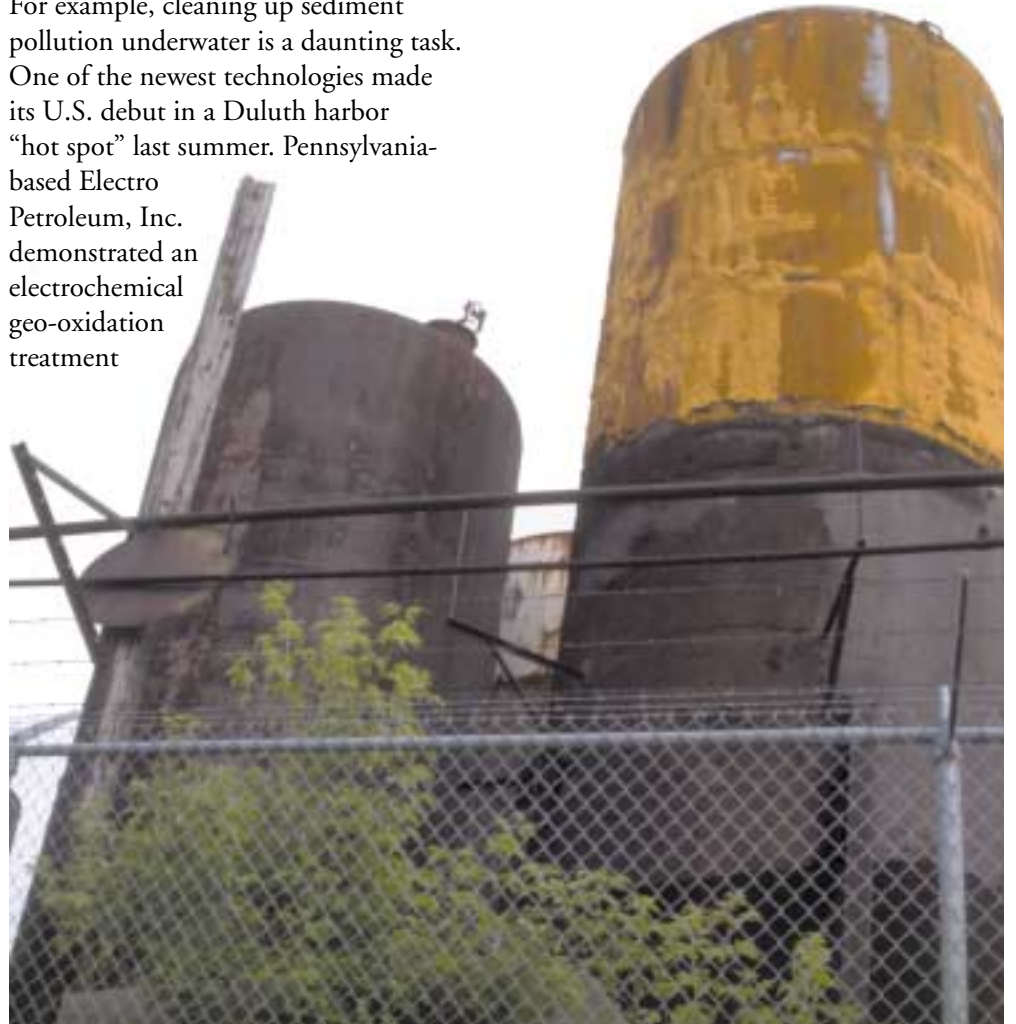
“Our state legislature handled the contaminated site problem in typical Minnesota fashion,” says Superfund program manager Gary Pulford. “It saw a need, quickly established legal liability standards, and provided sufficient money.” Pulford knows Superfund inside out; EPA tapped him early to help design programs. He also fought for local control of Superfund. “Initially, EPA saw Superfund as a federal, not state-run, program,” he explains. “Once EPA realized we could draw on each other’s experiences, states got the ability to manage sites under local Superfund laws.”

“Minnesota’s Superfund program has been a national leader in addressing the worst hazardous waste sites identified on EPA’s Superfund list,” says William Muno, EPA Region 5 Superfund division director. Here’s a short course in how and why Minnesota’s Superfund program has worked so well.

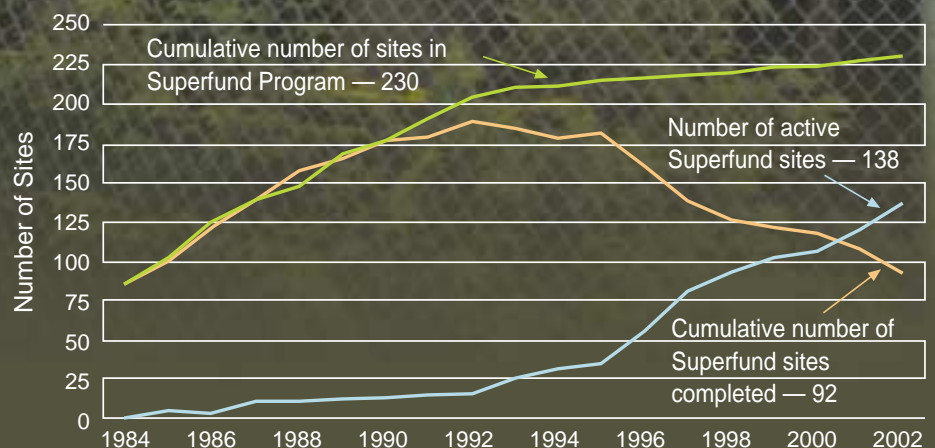
Better science and innovative technologies

“The Superfund program itself pushed better monitoring and measuring technology,” Pulford says. As a result, scientists more accurately measure contaminants in the air, land and water (we now describe pollutant levels in parts per trillion) and incorporate innovative clean-up options unavailable even a few years ago.

For example, cleaning up sediment pollution underwater is a daunting task. One of the newest technologies made its U.S. debut in a Duluth harbor “hot spot” last summer. Pennsylvania-based Electro Petroleum, Inc. demonstrated an electrochemical geo-oxidation treatment



**Superfund Sites in Minnesota
1984 - 2002**



process that breaks down contaminant molecules with electrical charges. The current travels inside metal pipes submerged in tainted sediment; pollutants bind to the pipes or are isolated for later recovery. Successful European applications led to EPA and U.S. Army Corps of Engineers' financial support for demonstration projects in Duluth and Washington state.

Voluntary cleanups

Now known as the Voluntary Investigation and Cleanup Program, Minnesota created this national model in 1988. Offering an alternative to enforcement-only cleanup scenarios, it provides Superfund-level environmental protection plus liability assurances to voluntary parties. Streamlined cleanups of 200-plus contaminated industrial sites ("brownfields") validate this program's success and potential. The voluntary approach has triggered major redevelopment efforts throughout the state, making formerly untouchable sites desirable and bringing new businesses, jobs, taxes and usable greenspace into communities.

Taking landfills out of Superfund

Mixed-municipal solid-waste landfills receive household garbage and business waste, which can pollute nearby air, land and water. When every municipality and small business in a community contributes to the problem, who is the polluter? Minnesota changed all of that when it established the Closed Landfill Program and removed landfill sites from the Superfund process altogether in 1994. Minnesota is the first state in the nation to remove landfills from the Superfund process.

Cradle-to-grave liability for hazardous substances

Facilities using, storing or disposing of hazardous wastes now confront "cradle-to-grave" liability. The EPA, MPCA and counties educate and license generators, transporters and disposal

Dee Long
**THE VOICE
OF EXPERIENCE**



Dee Long was chief author in the Minnesota House of Representatives of the state Superfund legislation. Can you identify the other dignitaries in this 1983 bill-signing photo? (See online issue at www.pca.state.mn.us for the answer!)

Following the passage of the Federal Superfund Act, we [the Minnesota Legislature] recognized the need to provide funding for the state's 10 percent match for federal dollars. We also needed to include provisions in state law that would provide maximum incentives for responsible parties to clean up their sites at their own expense. The state funding allowed for early eligibility for EPA funding and the strong liability standards gave substantial impetus to those responsible for the contaminated sites to pay for the cleanup.

In the early years following passage of the Minnesota law the availability of matching funds and the liability provisions enabled

Minnesota to leverage many more dollars, and much more cleanup, than was accomplished by the federal law. Current challenges to Minnesota's Superfund involve paying for the cleanup of "orphan sites" — those without viable responsible parties. But, overall, the act has had a significant positive effect on Minnesota's environment. I consider my involvement as chief House author of the bill to be one of the highlights of my legislative service.

— Dee Long, Director, Environmental Tax and Incentives Program, *Minnesotans for an Energy-Efficient Economy*



facility managers to make sure hazardous wastes don't end up polluting land and water resources. The government also tracks hazardous waste from generation to disposal. The potential for facilities creating new Superfund sites has declined substantially.

Within four years, Pulford says that risks will be reduced at nearly all of Minnesota's remaining Superfund sites — successfully ending a 20-year effort. Pulford predicts that the program

will achieve a "maintenance and monitoring" status, with an average of about 25 Superfund sites as new sites may be discovered.

"We've caught up with our past problems, these insults to the environment," Pulford says. "It's taken 20 years to clean up the messes of the previous 100. There is a light at the end of Minnesota's Superfund tunnel."

— Anne Perry Moore



The Closed Landfill Program's primary accomplishments:

- Binding agreements for 108 qualifying landfills;
- Landfill owners/operators reimbursed an estimated \$36 million;
- EPA reimbursed for its costs \$4 million;
- Construction completed for 54 projects;
- 70 percent reduction in controllable leachate;
- 52 percent reduction of landfill gas; and
- \$45 million in settlements from insurance recovery.

MPCA Staff Photo

Closed Landfill Program

Minnesota finds a better fix for old landfills

On June 15, 1993, hundreds of small businesses in the Twin Cities' northwest suburbs faced this unhappy choice:

- Write checks ranging from \$4,000 to \$200,000 by close of business that day; or
- Face being dragged into a complex legal battle likely to go on for years, involving hundreds of highly paid lawyers.

By the end of the day, some business owners paid, some negotiated and some refused to participate.

The group making the demand was the Oak Grove Trust, businesses and agencies named as Superfund "potentially responsible parties" that had disposed of waste at the Oak Grove Landfill in Anoka County. The Trust, which included many blue-chip corporations headquartered in Minnesota, was under EPA orders to investigate and clean up the landfill. At the time, the state's Superfund list held 61 other sanitary landfills and many of these sites would soon face the same litigation.

When the EPA or MPCA issues a Superfund clean-up request to responsible parties, they

have the right to sue other potentially responsible parties to spread out the costs among more polluters. These additional responsible parties can then sue more people,

Instead of letting this scene play out across Minnesota, the state tried an alternative.

ensnaring hundreds of businesses and local governments in protracted disputes over who should pay, how much, and for what clean-up work. When this strategy was used at large public landfills, it spawned legal and administrative overhead that consumed half the money that would otherwise have been available for cleanup.

Instead of letting this scene play out across Minnesota, the state tried an alternative. The Legislature established the Closed Landfill Program in 1994, and it completely replaced the Superfund approach at eligible state-permitted, closed sanitary landfills. The new

law authorized the MPCA to negotiate agreements with landfill owners and responsible parties who, upon completion of specific tasks, transferred cleanup and long-term care to the state. Further, the program authorized the state to reimburse responsible parties' clean-up costs.

Today the program is nine years old and taking care of 108 landfills covering more than 2,300 acres. The state's use of centralized contracting and regional contractors, economies of scale and presumptive remedies costs less than work completed by responsible parties.

Closed Landfill Program funding comes from a tax on solid-waste disposal, as well as state bonding money, but the state has succeeded in gathering \$45 million in settlements with insurance companies that otherwise would have been obligated to pay for landfill clean-up costs. (See the MPCA Web site for more information about the insurance recovery efforts at www.pca.state.mn.us/cleanup/landfill-closed.html.)

—James Chiles

VIC Program

Voluntary approach puts 11,000 acres back to productive use

The state and federal Superfund programs have been both good news and bad for developers. The good news: Superfund offered a method to get questionable or polluted property cleaned up. The bad news: Superfund was notoriously slow and litigious, and liability issues clouded any purchase or development plans.



On a Superfund and VIC site tour in August 2002, participants viewed Huntgregory development plans for St. Anthony East Bank Village condominiums and row houses in northeast Minneapolis. MPCA Staff Photo

As a result, most organizations with expansion or development plans would not touch a potentially polluted property with a ten-foot Geoprobe™. The thought of being held liable for clean-up costs sent developers scurrying to the outskirts of town for parcels of untouched land (some of which also turned out to have problems). Abandoned properties — a.k.a. brownfields — began to dot the landscape in communities across Minnesota amid fears of real or perceived environmental contamination.

A partnership including the MPCA, Minnesota Attorney General's Office, business community, local governments and the Minnesota Legislature quickly searched for a fix to the brownfield problem. The solution took form in the Land Recycling Act of 1992 and the Voluntary Investigation and Cleanup (VIC) Program. Through the VIC Program, persons who are not responsible for a contamination problem can receive liability protection when they voluntarily investigate and, if necessary, clean up a property with MPCA oversight. This allows property transactions to move

forward quickly, bringing new development and jobs to old industrial zones. And any cleanup mitigates health or environmental risks posed by on-site wastes — a winning situation on all fronts.

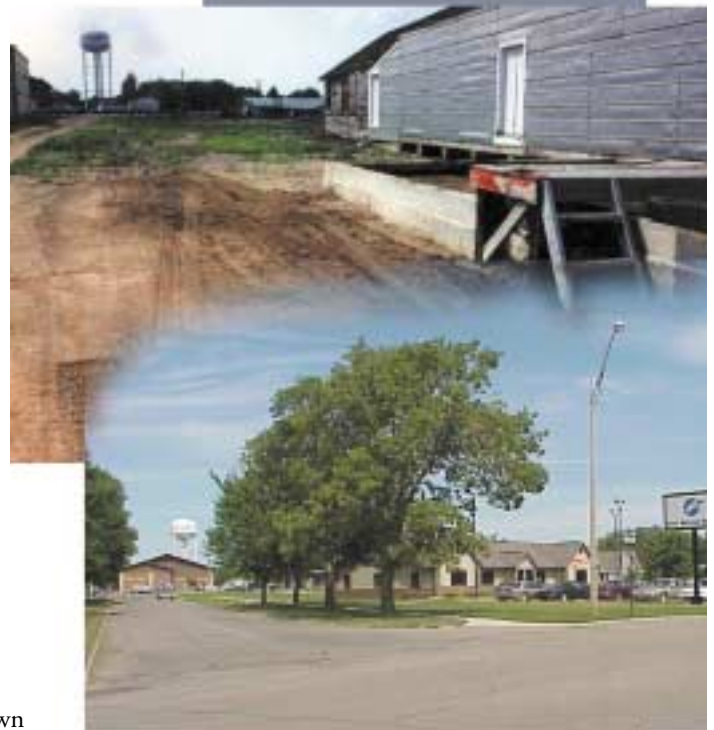
Since 1988, the Property Transfer Assistance Program and, later, the VIC Program have helped put more than 11,000 acres back to productive use. VIC has received several national awards for its innovative approach. Subsequently, many states — and the EPA — have used similar approaches to create their own voluntary clean-up programs.

— A. Walker Smith

Agricultural Chemicals and Superfund — the MDA Program

The Minnesota Department of Agriculture oversees pesticide cleanups using the state Superfund program and the Agricultural Chemical Response and Reimbursement Account (ACRRA).

Before and after: In the City of Slayton in Southwestern Minnesota, agricultural chemical retailers left behind polluted property right near City Hall. The City purchased the property after the property owners cleaned up the site with \$150,000 from ACRRA and redeveloped. The local bank now resides on a much-improved property.



MDA Staff Photos

Finishing Superfund:

What's next and what's needed?

With three-and-one-half years left in a five-year plan to bring the state Superfund to maintenance level, completing work on the 92 sites remaining on the state Superfund list is the program's top priority.

The MPCA intends to reduce that number to 25 by 2006 and hopes to complete all the state's remaining 24 federal Superfund sites. The MPCA, EPA and responsible parties have reduced risks at the 138 sites taken off the state Superfund list since the program's creation in 1983.

The MPCA estimates that \$7.5 million in the 2004-2005 biennium will finish work at these remaining sites. After that, the Superfund program will need only maintenance funding for:

- Emergency response capabilities for incidents posing immediate risk to the public or environment;
- A VIC Program that facilitates voluntary cleanup and redevelopment of sites (approximately 200 sites are evaluated through the VIC Program, annually);
- Assessment of any newly discovered sites;



MPCA Staff Photo

The Chemart site in north Minneapolis may be contributing to pollution in Bassett Creek.

- Maintenance and monitoring of sites to ensure the continued effectiveness of clean-up actions and operation of existing systems (barrier wells protecting a municipal water supply, for example).

The MPCA estimates that the state Superfund list will contain a rolling average of 25 sites for the foreseeable future — two sites added and two sites delisted each year.

— *Michael Rafferty*

A Few Remaining Hurdles

We've come a long way, but there are still some pressing items of business on the Superfund agenda:

Sediment cleanups: The thorniest technological problem facing Superfund is how to clean up contaminated underwater sediments without stirring up toxins that can damage natural resources. Clean-up decisions at two long-standing Duluth Superfund sites, the St. Louis River/Interlake Iron/Duluth Tar and USX sites (both located on the St. Louis River in the harbor) will set the stage for future sediment cleanups.

Ghosts from Superfund past: Federal site cleanups are reviewed every five years, and reviews at sites such as the St. Regis site near Bemidji and the Joslyn site in Brooklyn Center have detected contaminants that couldn't be measured during Superfund's early years. A handful of these sites will be revisited to clean up what couldn't be known or seen in the early 1980s.

A new breed of emergencies: Oil spills and chemical releases have given way to environmental emergencies such as methamphetamine lab explosions, anthrax-contaminated sites, outbreaks of foot and mouth or chronic wasting disease and other new types of emergencies.

Institutional controls: Lest we forget, the way that risk has been reduced at many sites is to cover or encapsulate the toxins or make part of a site off-limits to digging or development. It will be important in the future to make certain that local and state officials keep track of sites with such "institutional controls" to prevent a post-Superfund generation from opening up risks long put to rest.

What if... Without Superfund, Minnesota might be in a scary state.

- Drinking water supplies in the cities of New Brighton, Long Prairie, St. Anthony, St. Louis Park, Winona, Lakeland, Waite Park, LeHillier, Perham and Rice would still be contaminated or a huge local financial responsibility.
- Landmarks such as The Milwaukee Depot, Riverplace, and the Great River Road in Minneapolis; the former Hwy. 280 corridor, Energy Park and William's Hill in St. Paul's Phalen Corridor would still be polluted lands.

Scrapping Outdated Relationships

Alliance Steel Service partners with Hennepin County, MPCA on voluntary compliance agreement

While neighborhood and workplace recycling programs have a distinctly modern feel, metal recycling is several centuries old. Geoffrey Chaucer, Captain Kidd, Paul Revere and many other not-so-famous folks bought and sold scrap metal. The scrap business has grown in size and sophistication from the days of horse-drawn peddlers and World War II scrap drives. Today the industry recycles more than 50 million tons of metal annually and plays a vital role in the recycling loop.

You'd think that recyclers and environmental regulators would be allies. Unfortunately, "junk yard dogs at each other's throats" better describes the relationship. Outdoor scrap facilities can contribute to environmental problems, particularly through polluted storm water runoff. Metal recyclers often see regulators as 'gotcha' bureaucrats issuing penalties and requiring expensive upgrades that could put companies out of business. MPCA

technical assistance to metal recyclers, including a salvage yard best environmental practices manual, statewide training sessions and other outreach efforts over the years have improved the situation, but regulators and metal recyclers still view one another with suspicion. (Find the manual and other resources at www.pca.state.mn.us/waste/salvageyards.html.)

MPCA, Hennepin County and the Alliance Steel Service Company of Minneapolis decided enough was enough. For more than two years, they worked cooperatively to develop a win-win agreement. "The voluntary nature of this agreement put a different spotlight on the company. Instead of the critical spotlight of an enforcement action, we worked together to bring them into compliance," says Ken Moon, MPCA compliance coordinator. As part of the agreement Alliance, with assistance from environmental consultants Wenck Associates, has developed and is

implementing a pollution prevention

plan and improving the facility's environmental management system.

Hennepin County supervising environmentalist Mike Risse indicated that one of the biggest challenges in working with companies is "... making them understand that environmental cleanup and pollution prevention can be done without bankrupting them." The agreement includes no financial penalties, as long as Alliance meets its end of the agreement. Alliance also is allowed to spread out the cost of modifying the facility over time.

Chris Stropes, Environmental and Safety manager for Alliance Steel, says, "I'm proud of what we are doing," and indicates that one side benefit of the process is "... we've also become more efficient internally."

All three parties hope this agreement can serve as a model for Minnesota and the rest of the nation and are confident that these types of agreements can benefit the scrap industry, communities and the environment. Risse says, "We now have a road map that we can take to other scrap yards." Hennepin County and the MPCA are actively working with two other companies to develop similar agreements and expect more to follow.

For more information about this innovative approach, contact Mike Risse (Hennepin County) at (612) 348-5790 or Kris Hulsebus (MPCA Majors and Remediation Division) at (651) 297-7571.

— Barbara Skoglund



While Alliance Steel does not salvage auto parts, many salvage operations that could benefit from the voluntary compliance agreement approach do.

MPCA staff photo

- Small caches of arsenic-laced bait would be buried at hundreds of locations in Minnesota farmland, and major spills of agricultural chemicals would threaten water resources.
- Fast action on environmental emergencies such as fires, explosions, oil spills, toxic air releases would be impossible because money would not be available to hire contractors and respond to threats immediately.
- Parties responsible for polluting in the past would not be held accountable, even for releases that cause financial hardship for neighbors, communities, property purchasers or natural resources.

Compliance Matters

Searching for a faster, cheaper or better way to achieve environmental compliance? A quick scan of "Compliance Matters" provides resources that make the difference!

Air Quality

Hazardous air pollutant standards for taconite industry, nine others proposed ...

In November 2002, the U.S. Environmental Protection Agency (EPA) proposed the last Maximum Achievable Control Technology (MACT) rules required to be proposed under Section 112(d) of the Clean Air Act. The proposed rules include one for the taconite iron ore processing industry, as well as auto and light-duty truck surface coating; combustion turbines; industrial, commercial and institutional boilers and process heaters; iron and steel foundries; lime manufacturing; metal can surface coating; plywood and composite wood products manufacturing; primary magnesium refining; and reciprocating internal combustion engines. To find out more about the proposed rules, visit the EPA Web site at frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2002_register&docid=fr22no02-70.pdf.

Traffic congestion costs estimated at \$67.5 billion

"The 2002 Urban Mobility Study," released in June by the Texas Transportation Institute, determined that the costs associated with traffic congestion — lost work time, wasted fuel, air pollution, greenhouse gas emissions, noise pollution and vehicle infrastructure — is \$67.5 billion. The study, found at mobility.tamu.edu/ums/, discusses how the consumer's costs to drive are externalized, giving consumers no incentive to conserve. Solutions suggested include congestion pricing for using roads and bridges, pay-as-you-drive auto insurance, and higher gas taxes.

... while EPA administrator signs 13 final rules to reduce air toxics

EPA Administrator Christie Todd Whitman signed air toxics rules that, when implemented, will reduce annual emissions by 37,000 tons per year. The rules apply to asphalt processing and roofing materials manufacture, brick and structural clay products, coke oven batteries, engine test cells/stands, fabric and other textile coating, printing and dyeing, flexible foam fabrication, hydrochloric acid production, integrated iron and steel manufacturing, surface coating of metal furniture, reinforced plastics manufacture, refractories manufacture, semiconductor production and surface coating of wood building products. Read more about it at www.epa.gov/airlinks/airlinks3.html.

Enjoy the fire, not the smoke, says Environment Canada in new campaign

Our neighbors over the border have developed a new education tool to urge those that heat their homes with wood to reduce pollutants from burning. The "Burn it Smart" brochure provides basic tips for preventing a toasty sojourn in the front of the fireplace from the particulates, carbon monoxide and hydrocarbons that can come from wood-burning. Get your copy online at www.burnitsmart.org.

EPA clarifies scope of monitoring required under Title V

The EPA published an interim final rule to clarify air-monitoring requirements under Title V of the Clean Air Act. All Title V air-quality permits must contain monitoring sufficient to assure compliance in cases where periodic monitoring rules apply

to the terms of the permit. For more information, see EPA's Web site at www.epa.gov/ttn/oarpg/t5/fr_notices/opp_rcssm_ifr.pdf.

Hazardous and Solid Waste

DOT rule on moving hazardous materials coming down the road

If your business ships or carries certain highly hazardous materials, the U.S. Department of Transportation wants you to establish security plans and employee training to prevent security risks. A final rule will be issued by the end of 2003. It will affect approximately 44,000 shippers and carriers. Check out the proposed final rule at hazmat.dot.gov/rules/67fr-62681.htm.

Transporting hazardous substances with a lever lock lid? Here's the scoop from MnDOT

One of our colleagues in Washington County was asked if a lever lock lid, which uses a lever instead of a nut and bolt to open and close a drum, was appropriate for storage of hazardous waste. We received this response from Michael Ritchie at the Minnesota Department of Transportation (MnDOT): DOT transport requirements (including temporary storage incident to transport) state that closure devices for removable head drums must be designed and applied so they will remain secure and drums will be leakproof under normal transport conditions. Gaskets or other sealing elements must be used with all removable heads, as specified in 49 CFR 178.504(a) (6) for steel drums and similar sections in 49 CFR Part 178 for plastic or other metals.

Feedback LOOP

Readers talk back to “Minnesota Environment”

We expected lots of interesting feedback on the MPCA's recent issue of "Minnesota Environment" on global climate change, and boy, howdy did we get it. Here are a few highlights:

Haven't you people heard that there is a state budget crunch on? This magazine is a waste of taxpayer money, another example of government largess. Remove me from the mailing list.
— *Voice mail message*

Editor's Note: Yes, we do know there is a budget crunch. What readers may not know is that "Minnesota Environment" replaces 14 other newsletters that the agency used to publish — at a much higher total cost. We also will cut our printing budget by half in FY04-05. And we're trying to encourage people to read the online version so we can expand readership while reducing printing costs.

I just received your latest newsletter (news magazine?). Nice work! I also enjoy reading it, and this one looks like a contender for “best issue of the year.”
— *E-mail from communication professional*

I was reading your Winter 2003 issue of “Minnesota Environment” and came across a graph on page three. I teach students how

to graph and emphasize the need for labels. Your graph is missing the labels on the x and y axis. It's not clear if it's temperature or what. If it is temperature, is it Celsius or Fahrenheit? We expect standards in education, but don't follow through with the practice in the real world.
— *E-mail from teacher*

Editor's Note: Ouch. Guilty as charged. Science writers and editors need to be specific and accurate, and the page three graph (developed from an accurate original) just didn't cut it. Thanks for teaching high standards and we'll do better next time. For the original graph, see our Web site special features.

I just returned from the MPCA conference in St. Paul where I was fortunate to discover your periodical “Minnesota Environment.” One of my responsibilities is maintaining knowledge with Minnesota environmental rules, etc. How do I get added to your list?
— *E-mail from environmental consultant*

Because it was upside down in my in-box, the first thing I noticed was the tree article on the back cover. My first thought was why not save some trees by offering

to deliver this publication electronically?
— *E-mail from other state agency*

Editor's Note: We're working on it!

I just received my first copy of “Minnesota Environment,” and I have to say this is one of the most attractive publications I've seen in a long time. Great use of color, great layouts, great information. It was a visual treat, as well as informative.
— *E-mail from environmental consultant*

The last issue (Winter 2003) was of particular interest to me, as the Earth science teachers at my school have worked on developing an entire unit on global warming. We would like to incorporate some of the articles (from the “Minnesota Environment”) into our curriculum.
— *E-mail from science teacher*

Editor's Note: We welcome reprinting of articles. Just give us a call.

I brought my copy of the magazine to church and it generated a lot of discussion. Some people thought it was too expensive-looking and others thought it was a lot of information they'd seen before. People weighed in pro and con. It sure made the coffee hour interesting!
— *Comment from interested citizen*

Risks of flame-retardant, other chemicals to children studied by EPA, chemical manufacturers

The EPA established the Voluntary Children's Chemical Evaluation Program (VCCEP) in 2000 to work with chemical manufacturers to determine the potential health risks associated with chemicals to which children are commonly exposed. Thirty-five companies and 10 manufacturer

consortiums responded to VCCEP's initial invitation and pilot reviews are underway for 23 chemicals. These include flame-retardant chemicals, components of gasoline, acetone and more. The pilot project will sample blood, breast milk, exhaled breath, as well as monitoring data on indoor air and drinking water. For more information, see EPA's VCCEP Web page at www.epa.gov/chemrtk/vccep/index.htm.

What's the score on SCORE?

OEA's report on 2001 SCORE Programs is now available at www.moea.state.mn.us/lc/score01.cfm for your reading pleasure. In addition to annual summaries on waste generation, disposal, reduction and recycling trends, there are discussions on the economy and its impact on recycling as well as national comparisons of Minnesota and other states.

Compliance Matters

Water Quality

EPA helps cities, counties with wastewater CD

Septic systems serve approximately 25 percent of U.S. households, and city or county officials struggling with the impacts of failing or improperly managed septic systems have a tough job. The EPA is offering a Wastewater Month Web site and CD to approximately 4,000 city and county health officials to assist them with the important task of educating the public about proper septic system management. For more information, see the Web site at www.epa.gov/npdes/wastewatermonth.

New tool for wastewater treatment operators helps in developing phosphorus management plans

The MPCA and Minnesota Technical Assistance Program (MnTAP) just introduced a new compliance and assistance tool, "Phosphorus Management Plan (PMP) Development Resources," to help wastewater treatment plant operators without clear guidance on how to develop PMPs. It will also focus on potential phosphorus reduction and cost savings. A template in the resource tool can be used to prepare a PMP for the MPCA, if a facility's NPDES permit requires one. MnTAP's Web site hosts the tool at www.mntap.umn.edu/POTW/phosphorus.htm.

Dairy farmers introduce voluntary Environmental Quality Assurance program

The Minnesota Milk Producers Association is launching a new program to help dairy farmers protect the environment. The Environmental Quality Assurance (EQA) program consists of more than 100 best management practices for protecting water quality, air quality, soil and natural habitat. Participating dairies receive a ranking for each practice. After completing any necessary changes or improvements, producers become eligible for EQA

Free flowering trees could make this Arbor Day a blooming occasion



The National Arbor Day Foundation wants you to plant trees this spring — for energy conservation, clean air, wildlife habitat, water quality and natural beauty. So the foundation is offering 10 free flowering trees to anyone sending a \$10 or more membership contribution. Included in the membership: tree planting and care information and a colorful magazine about the value of trees. For more information, go online at www.arborday.org.

certification. Locally based EQA technicians, as part of the Minnesota Dairy Initiative, are pilot-testing the EQA program on 100 dairy farms around the state through June. Matching funds up to \$5,000 are available for the improvements. For more information, see the Minnesota Milk Producers Web site at www.mnmilk.org/.

U of M Extension Service provides quick guide to small community wastewater systems

Nobody explains wastewater treatment better than University of Minnesota Extension Service educator Ken Olson, and he provides a primer for communities facing decisions about treatment options. "A Quick Guide to Small Community Wastewater Treatment Decisions" is on the Web site at www.extension.umn.edu/distribution/naturalresources/DD7735.html.

MDA offers Web-based tool to help farmers with feedlot regulations

The Minnesota Department of Agriculture introduced a new Web-based tool to help farmers determine which feedlot regulations apply to their farms and future developments. It is constructed to allow farmers to locate information specific to their operations and find out what regulations apply to them. Later this year, the MDA will provide a printed version, "The Minnesota Livestock Producer's Feedlot Planning and Operations Manual." Find out more at MDA's Web site at www.mda.state.mn.us/feedlots/dmt.

Sustainable Energy, Transportation and Development

Windsource allows Xcel customers to buy green power

Want more renewable energy sources? You'll be able to put your money to work buying green power beginning this spring, as Xcel Energy launches Windsource. The program "will give our customers the option to designate that a portion of their electric usage be generated by Minnesota-based wind power," according to Andy Sulkko of Xcel. For more information, see Xcel's Web site at www.xcelenergy.com/XLWEB/CDA/0,2795,1-1-1_537_2620_733-434-0_0_0-1,00.html.

hOurcar wants to jump-start car sharing in the Twin Cities

Volunteers enthused about the possibilities of car-sharing have developed a Web site, survey and plan to promote hOurcar and have car-sharing beginning in spring 2004. Check on their progress and the cost and environmental benefits of car sharing at www.hOurcar.org.



Cost of gasoline got you down? Fill up with E85 for 30 cents less per gallon!

If your vehicle can use E85, a combo of 85 percent ethanol and 15 percent gasoline that produces fewer air emissions, you are in luck. More than 70 gas stations across Minnesota sell E85 for approximately 30 cents less per gallon than gasoline. To find out if you can drive on E85, check out the American Lung Association of Minnesota Web site at www.cleanairchoice.org/outdoor/e85.asp.

Xcel, State Energy Office want to highlight solar energy rebate program

The Minnesota Department of Commerce State Energy Office wants to let sun seekers get in on rebates for installing solar energy technologies, funded by Xcel Energy's Renewable Development Fund. If you are installing a grid-connected solar electric system, you might save as much as \$2,000 to \$8,000. A sales tax exemption on the solar panels provides an additional five-percent reduction, and businesses are eligible for a 10-percent federal tax credit and depreciation. If you want to explore this new way to light up your life, see the State Energy Office Web site at www.commerce.state.mn.us.

Environmental Education

Develop temperature profiles in lakes and ponds with inventor's \$20 gizmo

You don't need high-tech devices to monitor lake temperature, according to Rick Wilkey, a Massachusetts volunteer lake monitor. Wilkey has created a monitor from an inexpensive indoor-outdoor digital thermometer. It involves 20-gauge lamp cord and the plastic tube of a pen, among other complex features. If you'd like detailed instructions on making the Wilkey monitor, send a business-size stamped self-addressed envelope to Rick Wilkey, 64 Eagleville Road, Orange, MA 01364.

Take Back Your Time Day advocates a less hurried and consuming viewpoint

The Simplicity Forum, a group promoting sustainability, has proposed a new and interesting way to learn about the impacts of too much work on health, communities and the environment. Take Back Your Time Day, October 24, 2003, is a nationwide initiative to "challenge the epidemic of overwork, overscheduling and time fatigue that now threatens our health, our families, our communities and our environment." Take time out to read more about how America's fast-paced lifestyles compare to those of European nations at www.timeday.org/.

Publications and Web Resources

Look for these new technical assistance and education resources:

- Environmental risks are difficult to explain, but the Harvard Center for Risk Analysis has produced a new book that might help. "Risk: A Practical Guide for Deciding What's Really Safe and What's Really Dangerous in the World Around You," by David Ropeik and George Gray, is an interesting read.
- The Minnesota Department of Health has a new air quality Web page, which will explain the Health Risk Values for different emissions along with other helpful risk assessment information. Log on at www.health.state.mn.us/divs/eh/air/index.htm.
- Would a pay-as-you-drive insurance policy save money and the environment by minimizing unnecessary driving? The Environmental Defense Fund thinks it will. Find out more at www.environmentaldefense.org.
- The Office of Environmental Assistance, MPCA and the Minnesota Department of Commerce recently published a one-page educational piece on global climate change. Download it from the OEA Web site at www.moea.state.mn.us/.
- The EPA has just released a long-awaited study, "America's Children and the Environment," on children's health. The good news: elevated blood lead levels are down, as is children's exposure to secondhand smoke. The troubling news: eight percent of women of childbearing age in the U.S. have mercury in their bodies at levels of potential concern during pregnancy and nine percent of all children have asthma. For all of the news, see the report at yosemite.epa.gov/ochp/ochpweb.nsf/content/publications.htm.

Want the newest versions of the following updated MPCA fact sheets? Go on the Web site for:

- VSQG Collection Program Requirements for Generators and List of Licensed Programs at www.pca.state.mn.us/publications/w-hw2-51.pdf.
- The Manifest Tip Sheet at www.pca.state.mn.us/publications/w-hw5-10.pdf.
- The Transportation Guidelines for VSQG Collection Programs booklet can be found at www.pca.state.mn.us/waste/pubs/business.html#hazardous as #2.54b (page-by-page) and 2.54p (printable document).
- Application to Get a Site-Specific ID Number and/or to Use a VSQG Consolidation Site at www.pca.state.mn.us/publications/w-hw7-15.pdf.

Home **TRUTHS**

Small things we can do at home, work, school or in the garden that have big environmental impacts

Location, location, location. Yes, we genuinely wish for the best investment when purchasing property for residential or commercial use. However, finding that perfect location may not help you, if you discover (and have to pay to fix) pollution problems. So buyer, beware. How do you know whether the property you want to buy is a pollution problem? Here are a few tips on how to avoid an expensive mistake.

Home inspectors search for clues

By contracting a licensed home inspector, both the seller and buyer receive protection. Obtain this service by asking your real estate agent for a recommendation or looking in your local yellow pages. A home inspection costs between \$150 and \$300. A home inspector can help identify the property's previous use, as well as assess current conditions of both buildings and property. Inspections can:

- Determine whether wells and individual sewage treatment systems are working, and how recently they were installed.
- Check if private wells are cased and grouted to provide a barrier to surface water runoff pollution.
- Test the drinking water at a state-certified laboratory for fecal bacteria and nitrate-nitrogen, two common water pollutants. This is especially important for families who have young children and pregnant women.
- Identify possible lead paint or asbestos problems.

Seek full disclosure

Although some counties in Minnesota require disclosure of such items prior to sale, not all follow the same ordinance. Inquire with county officials or a real estate agent to learn what the local disclosure requirements are in your area.

Get Gopher One State on the line

Perhaps future plans may involve construction on the existing property. Natural gas and fiber-optic lines may torpedo

development plans. Identify any existing utility easements at least 48 hours prior to any digging or construction by calling Gopher One State at (800) 252-1166. Identifying existing easements helps to prevent emergency situations such as a punctured natural-gas line, a potentially dangerous and costly mistake.

Storage tanks above and below ground

Any property where the storage, disposal or use of petroleum or its byproducts has been an issue may have buried contamination or storage tanks. This problem may also affect adjoining properties through the movement of contaminated ground water. Warning signs include pipes sticking up out of the ground, stained soil or stressed vegetation.

Call the experts — environmental consultants

The best way to determine whether a property has any history of past chemical use is to hire a qualified environmental consultant to conduct an Environmental Site Assessment (ESA). Find these professionals under 'environment' or 'engineer' in your yellow pages. A thorough ESA determines if soil or ground water is contaminated or if storage tanks remain underground.

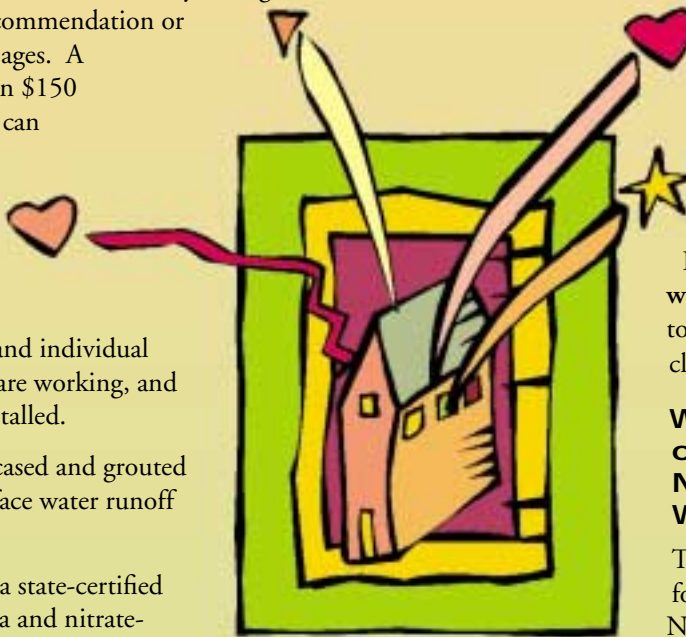
Link to the MPCA Web site at www.pca.state.mn.us/cleanup/index.html to find information pertaining to site cleanup.

Watch for spring debut of 'What's in My Neighborhood?' Web resource

The MPCA is designing a new resource for people asking "What's in My Neighborhood?" as far as known or potential sources of soil and ground-water contamination. Users of this new Web page will

be able to view or obtain a list of sites in a given county or zip code area, for example. It would allow users to obtain a printed report or a GIS-based search option that will map sites in the area that they select. Looking for a specific site? The application allows users to conduct searches by site name, city, zip code, county or even street address. Check periodically at www.pca.state.mn.us/backyard/neighborhood.html to find out when the Web service is ready to roll. Questions? Feel free to contact Linda Moon at (651) 297-2731 or by e-mail at linda.moon@pca.state.mn.us.

— *Melanie Miland*





Chaska school wins Green City Award in Future City Competition

The Chaska Middle School West team called it Endless, a scaled model city using innovative approaches to preserving natural areas and land-use mixes that challenge current approaches to land zoning.

The MPCA and Office of Environmental Assistance called it the winner of the Green City Award, a special recognition in Minnesota's regional Future City Competition, held in January. The team from Chaska includes (in photo, left to right) students Bridget Babcock, Alicia Hall and Jessica Kruger, teacher Lucy LeMay and mentors Derek Schmidt and Parsons Brinkerhoff (not shown).

Cook County Middle School in Grand Marais won first place in the regional competition, representing Minnesota in the National Engineers Week competition in Washington, D.C. in February.

Living Green Expo Nominated for Environmental Initiative Award

Reserve your space for the 2003 Environmental Initiative Awards, scheduled for Wednesday, May 7, 6:30 p.m. at the McNamara Alumni Center at the University of Minnesota. This year, find out about the many impressive projects nominated for honors in environmental education, energy efficiency and renewable energy, environmental management in the public and private sectors and land use – including the Living Green Expo, sponsored by the MPCA and OEA in 2002 and 2003. For more information about the award ceremony, call Minnesota Environmental Initiative's Megan Dobratz at (612) 334-3388, extension 104.

Nelson French THE VOICE OF EXPERIENCE

Why did you get involved with the state Superfund law?

I was at the time Executive Director of Project Environment, the lobbying arm of the Sierra Club in Minnesota. In 1981 the Sierra Club, North Star Chapter, identified enactment of a state Superfund law as a priority to protect Minnesotans and their environment from the health and pollution risks associated with hazardous waste sites in Minnesota.

What were the key factors involved in getting this law passed?

In my view, three key factors in passage of the law were:

- Extremely knowledgeable and well-respected legislative authors (Senator Gene Merriam and Representative Dee Long);
- Compelling scientific information and documentation of need from the MPCA and others regarding the nature and magnitude of the problem and the importance of ensuring problem sites would be cleaned up with, to the extent possible, responsible parties covering the costs; and
- Successful development of a strategic coalition of advocates, including citizens affected by specific problematic sites and the environmental, labor, trial lawyer and religious communities.

Has state Superfund been a success?

In my view this program has been an amazing success – one of the stellar successes of the MPCA. In 20 years the MPCA, responsible parties and others have made significant investments in correcting problems from the past and shifted forever how we as a society look at responsibility for the waste we produce.

What is the future of Superfund?

Superfund will continue to be an important land program in Minnesota as new Superfund sites will be discovered from time to time. Presumably, the resources required for the program will diminish over time, as MPCA activities move from remediation to long-term maintenance of sites and response to problems that may arise at managed sites. There will never again be the large number of sites needing attention that existed in the early 1980s.

Working together with individuals who care about Minnesota's air, land and water resources to push for a program that produces stellar results for Minnesota is well worth it.

-- Nelson French, MPCA Legislative Affairs Director

Keep an Eagle Eye out for Waste Pesticides

Voluntary MDA program collects tons of hazardous chemicals

Not too long ago, the American bald eagle was an endangered species, decimated by pesticides such as DDT. Most people saw eagles only in zoos, pictures or perhaps tattoos.

But in recent years, bald eagles are on the rise again, soaring majestically along Minnesota's ridges or lakes. After the U.S. banned use of DDT in 1972, the eagle population began to recover.

The threat from old pesticides such as DDT hasn't disappeared completely. These chemicals still can be found in rusting containers in shops, garages and barns. But the Minnesota Department of Agriculture (MDA) has had its eye on the problem.

This past summer, the MDA Waste Pesticide Collection recovered nearly 55,000 pounds of chemicals at 15 collection sites in the northern half of Minnesota. Created in 1990, the Waste

Pesticide Collection Program has collected and properly disposed of hundreds of tons of banned, unwanted or unusable pesticides. In addition to DDT, the banned pesticides include arsenic, toxaphene and 2,4,5-T (a component of Agent Orange, the defoliant used during the Vietnam War). The MDA also picks up currently used chemicals such as 2,4-D, atrazine, malathion and rootworm insecticides.

The collection program peaked at 298,800 pounds in 1998. "We've recently seen a great decline in volume and that's good

— that's what we want to see," says Stan Kaminski, MDA agricultural chemical consultant, who runs the program.

A collection campaign is planned for summer 2003 in southern Minnesota. Kaminski works closely with county staff at a variety of collection sites: county hazardous waste facilities, farm cooperatives, recycling centers and highway garages.

Response to publicity brings in the waste material. It's cataloged and secured at the site, then hauled away and properly disposed of. Funding for the program comes from a fee paid by chemical manufacturers. Waste pesticides can be disposed of at no cost to most participants. "We've taken the burden of hazardous waste disposal off these generators," Kaminski says.

Education on appropriate choice and use of pesticides can prevent future forgotten pesticide stockpiles. "Buy what you need, use what you have," Kaminski says.

If you know of any waste pesticides, be sure to check out this program. For more information in the metro area call (651) 297-4870; in greater Minnesota call (800) 657-3986. On the Internet, visit www.mda.state.mn.us/appd/wastepest/.

— Forrest Peterson

U.S. Department of Fish and Wildlife photo



Minnesota Pollution Control Agency

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