

**FOCUS RADIOACTIVE WASTE**Expanded coverage in the *Chicago Tribune* Chicagoland report

# A radioactive legacy lingers

Cleanup nears finish line, but some federal funds in doubt

**BY ERIN MEYER**  
Tribune reporter

Lurking beneath the surface of the West Branch of the DuPage River are the remnants of radioactive contamination left behind by a factory that was shuttered almost four decades ago.

The Rare Earths Facility in West Chicago not only was a major employer in its heyday, but also became the site of a large mound of discarded radioactive waste that locals called Mount Thorium.

The notorious impact the radiation from the factory had on the area eventually led to lengthy cleanups that have cost hundreds of millions of dollars.

The final phases of efforts to remediate the waste from Rare Earths are in sight, but officials say funding sources they have relied on in the past have dried up or are becoming increasingly uncertain due to changing priorities and congressional squabbling.

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Waterfowl gather in Naperville, downstream from the former Rare Earths Facility, a West Chicago factory that produced radioactive thorium before closing in the 1970s. Decades later, the cleanup of contamination on parts of Kress Creek and the West Page River is winding down.

Cleanup areas

DETAIL AREA

run through McDowell Grove.

The Rare Earths Facility



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About \$21 million is needed for work scheduled this year on the West Branch of the DuPage River and an adjacent creek, officials say. But more than a third of that is still up in the air.

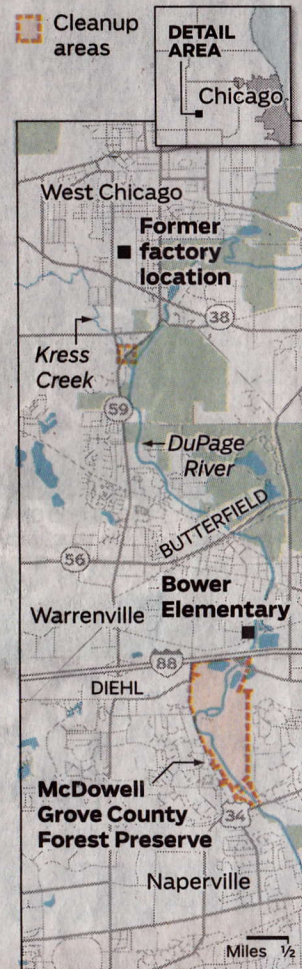
"We are so close to being at the finish line," said John "Ole" Oldenburg, director of natural resources for the DuPage County Forest Preserve District, who has been working with Naperville, Warrenville and other local municipalities along with the U.S. Environmental Protection Agency on the cleanup since it began in 2005.

The waste was created from the 1930s to the 1970s by Rare Earths, which produced the radioactive element thorium for use in making lantern mantles as well as in developing the atomic bomb. Almost 40 years and hundreds of millions of dollars later, work is still needed to clean up the radioactive pollution Rare Earths left behind.

Thorium has been linked to cancer, especially if it is inhaled. But because the contamination in the river involves only trace amounts, the thorium does not pose an immediate public health risk, said Tim Fisher, project manager with the U.S. EPA. But officials believe it is important that the cleanup be completed.

Cleanup has occurred along 7 of the 8 river miles where thorium was identified, including Kress Creek and the West Branch of the DuPage River from the West Chicago Regional Wastewater Treatment Plant to the northern end of McDowell Grove County Forest Preserve in Naperville.

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of the Rare Earths Facility. Work at two of the sites has been completed, and remediation efforts continue at the site of the factory.

### Few regulations

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run through McDowell Grove.

The Rare Earths Facility did not become the subject of much scrutiny until 1976, when an unnamed tipster alerted the local newspaper to radioactive contamination in a nearby park.

The revelation spurred an investigation by the U.S. Nuclear Regulatory Commission, which initially discovered 81 hot spots. Scientists at Argonne National Laboratory in Lemont tested workers and West Chicago residents for radiation levels. They did find elevated levels, but there never was conclusive evidence to link the facility to health problems.

Still, with U.S. EPA oversight, Kerr-McGee undertook a major remediation project to remove the contaminants. But the company was also trying to win approval from the federal government to leave the towering pile of thorium-laced mill tailings encased within a multistory clay tomb near the center of the city. Scientists say the thorium particles would have continued to release radiation for millions of years.

"It was going to be a nuclear dump. You knew that was going to be the death of your town," said Richard Kassanits, 58, who helped organize opponents of Kerr-McGee's plan. "People came out big time."

Kassanits had just moved to West Chicago in 1988 when he learned that federal officials were seriously considering a proposal from Kerr-McGee that it be allowed to maintain a permanent disposal site at the Rare Earths Facility. He and a handful of outraged



TRIBUNE PHOTO

Demonstrators gather in 1990 at Reed-Keppler Park in West Chicago to call for the removal of low-level radioactive waste buried near the park.

## How thorium got to West Chicago

From the 1930s to 1973, the Rare Earths Facility in West Chicago produced thorium, a radioactive material that has been linked to cancer.

### 1932

Lindsay Light and Chemical moves to a 43-acre site in West Chicago.

### 1958

American Potash and Chemical buys the facility.

### 1967

Kerr-McGee Corp., an Oklahoma-based oil and gas drilling company, and American Potash merge, giving Kerr-McGee ownership of the Rare Earths Facility. At its height, the company employed 250.

### 1972

Passage of the Federal Clean Water Act tightens industry regulations.

### 1973

After roughly 40 years in operation, the Rare Earths Facility is closed.





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Three sites remain: an area near Bower Elementary School in Warrenville, part of Kress Creek that runs under the Illinois Highway 59 bridge and a part of the forest preserve.

"This is a big mound of radioactive muck," said Jesse DeMartini, forest preserve ecologist, motioning to what was under a slow-moving expanse of the West Branch in Naperville.

What should be a gurgling, free-flowing waterway looks more like a small lake in McDowell Grove, where thorium pulled downstream by the current accumulated to taint the riverbed.

In a final phase of the Kress Creek/West Branch DuPage River Superfund cleanup, officials expect to close McDowell Grove in April. The plan is to dig a trench through the parking lot and temporarily redirect the river so workers can excavate a great mass of radioactive sediment.

The river and creek constitute one of four sites in DuPage County designated by the federal government as Superfund sites, all of which were left in the wake

of the Rare Earths Facility. Work at two of the sites has been completed, and remediation efforts continue at the site of the factory.

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The story started in the 1930s, when the former Lindsay Light and Chemical Co. moved from downtown Chicago 30 miles west and built a 43-acre complex in West Chicago.

For about 40 years, until 1973 when the Rare Earths Facility closed, workers at the plant extracted the radioactive materials thorium, radium and uranium to be used in producing lantern mantles and developing the atomic bomb during the Manhattan Project in World War II.

The factory, which changed hands several times, was acquired in 1967 by Oklahoma-based Kerr-McGee Corp., an offshore drilling firm that now operates under the auspices of Anadarko Petroleum Corp.

At a time when environmental regulations on industry were few, operators at the Rare Earths Facility created an on-site pile of radioactive refuse and by-products of the thorium-extraction process called mill tailings.

For years, the mill tailings with trace amounts of radiation were offered for free as landfill to anyone willing to haul the material away.

Radioactive particles drifted with the wind, and contaminated soil washed into nearby Kress Creek when it rained. From there, the thorium traveled downstream into the West Branch of the DuPage River and collected beneath the slow-moving waters that

Miles 1/2

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Kassanits had just moved to West Chicago in 1988 when he learned that federal officials were seriously considering a proposal from Kerr-McGee that it be allowed to maintain a permanent disposal site at the Rare Earths Facility. He and a handful of outraged neighbors called a meeting and formed the Thorium Action Group.

In 1991, after a long legal battle and years of political wrangling, Kerr-McGee agreed to remove the radioactive mound of thorium.

Three years later, the remaining contamination qualified for funding through a U.S. Energy Department program created to help pay for the cleanup of sites that produced thorium for the federal government. The department has since provided \$340 million in reimbursement grants for the projects.

But Kurt Stimpson, who manages a trust that serves as fiduciary on the DuPage River cleanup, said the Energy Department has failed to reimburse \$5 million in cleanup expenses from 2010. Advocates are hopeful that more than \$8 million in federal funding will be provided by the department this year. A representative said the Energy Department expects to announce grant awards in February.

"The money is critical," Stimpson said. "Everybody is counting on it."

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1973

After roughly 40 years in operation, the Rare Earths Facility is closed.

1976

A U.S. EPA investigation identifies 81 spots in West Chicago with higher-than-normal levels of radiation.

1988

West Chicagoans who would later take the name Thorium Action Group organize to oppose a proposal by Kerr-McGee to leave more than 500 tons of thorium-laced material near the middle of town.

1990

U.S. officials grant Kerr-McGee permission to turn the site into permanent storage for radioactive waste.

1991

Kerr-McGee agrees to remove the radioactive mound of thorium.

1992

The U.S. Senate approves an energy bill that includes \$40 million for cleanup efforts at the closed Kerr-McGee facility.

■ Illinois Gov. Jim Edgar signs legislation to impose a \$26 million annual storage fee on Kerr-McGee if it refuses to clean up contaminants.

1993

The U.S. EPA investigates to determine the extent of contamination in Kress Creek and the West Branch of the DuPage River and to explore remediation options.

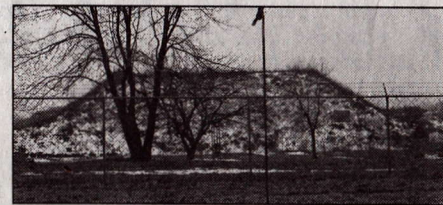
1994

The first load of thorium contaminated mill tailings left the factory for a permanent storage site in Utah.



TRIBUNE PHOTO

Illinois investigators check for possible radiation at Reed-Keppler Park in 1976.



TRIBUNE PHOTO

The radioactive mound left by West Chicago's Rare Earths Facility, seen in 1990.

2005

After years of negotiation, the federal government, local activists and Kerr-McGee finalize an agreement requiring the company to remove radioactive thorium from Kress Creek and the DuPage River, and the cleanup begins.

2006

A Kerr-McGee spinoff, Tronox, inherits liabilities, including responsibility for radioactive contamination in DuPage County.

2009

Tronox files for Chapter 11 bankruptcy protection.

2010

As part of the bankruptcy settlement, the West Chicago Environmental Response Trust is created with funding from Tronox. It is responsible for ongoing cleanup efforts.