



# Former Tronox/Kerr-McGee Wood Treatment Facility Madison, Illinois

## Facility Overview and Update on Investigations

The Multistate Environmental Response Trust (Multistate Trust) is working to investigate and address contamination at and around the former Tronox/Kerr-McGee Wood Treatment Facility (Facility) in Madison, Illinois, under the oversight of the Illinois Environmental Protection Agency (Illinois EPA).

### Background

The ±82-acre Facility is located at 2 Washington Avenue in Madison. For almost a century starting in 1909, Kerr-McGee and its predecessors pressure-treated railroad ties and utility poles using creosote and pentachlorophenol (PCP), which are wood preservatives. Chemicals from treated wood seeped into soil and groundwater, and creosote-contaminated process wastewater was discharged into an unlined surface impoundment at the Facility.

Wood treatment operations shut down in 2003. A groundwater remediation system (GRS) remains in use on the property. The Facility is bounded to the north by industrial property, to the east and south by residential neighborhoods, and to the west by a rail yard.

### Contaminants and Regulation

The primary contaminants of concern (COCs) at the Facility are creosote-related chemicals and PCP. Creosote is a dense nonaqueous phase liquid (DNAPL), meaning it does not dissolve in water, and contains chemicals (such as benzene and naphthalene) that can be cancer-causing. Based on data collected, there is no current risk of unacceptable resident exposure to COCs at concentrations above levels protective of human health.

The Facility is regulated under a Resource Conservation and Recovery Act (RCRA) Post-Closure Permit (Log No. B-150R) and an Industrial Wastewater Discharge Permit. The Multistate Trust performs post-closure care (PCC) and maintenance of the closed hazardous waste management unit (originally an unlined surface impoundment) and conducts corrective action as required under the Facility's RCRA Permit. The RCRA permit is currently being renewed. Under the wastewater permit, the Multistate Trust discharges treated groundwater to the City of Granite City sanitary sewer.



Facility location map

### About the Multistate Trust

The Multistate Trust is a private, independent trust created as part of the Tronox bankruptcy settlement in 2011 to own and manage the Facility and hundreds of other sites around the country and facilitate their safe, beneficial reuse. The Multistate Trust is working with Illinois EPA to investigate and evaluate contamination at and around the Facility and to determine how remedial measures can best be implemented with limited funds.

*The Illinois EPA Bureau of Land Site Identification No. for the Facility is 1190650001.*

### Groundwater Treatment

The groundwater remediation system (GRS), which recovers creosote in groundwater, remains in use. The Multistate Trust operates and maintains the GRS in compliance with all permits. Since 2011, the Multistate Trust has recovered more than 2,000 gallons of creosote and treated millions of gallons of groundwater.

The GRS uses wells to pump groundwater and remove creosote so that the contaminated groundwater is contained and does not spread. Treated water is discharged to the local sanitary sewer.

### Groundwater Sampling

Since 2011, the Multistate Trust has regularly sampled groundwater and measured water levels on-site and in the Hill Street residential area to better understand the contaminant plume. In 2023, the Multistate Trust increased groundwater sampling to four times yearly and groundwater level measurements to weekly in the Hill Street residential area.

Due to the GRS's old age and significant weather-related damages, its capacity was reduced from 18 recovery wells to 6, focusing on the residential areas immediately adjacent to the Facility. Sampling and measurements have been increased to make sure the contaminated groundwater plume is not moving further into residential areas and to confirm that the GRS is continuing to protect residents.

### Drinking Water

Because tap drinking water is supplied by Illinois American Water, Facility-related contamination does not threaten residential drinking water. See the Granite City 2022 Annual Water Quality Report at <https://www.amwater.com/ccr/granite.pdf>.

### Tronox Tort Claims Trust

As a result of the Tronox bankruptcy proceedings, a separate Trust – the Tronox Tort Claims Trust – was established to pay personal injury claims (medical or health) and property damage claims associated with Kerr-McGee's prior operations. The Multistate Trust cannot pay personal injury or property damage claims. The Multistate Trust and Illinois EPA have no involvement in the Tronox Tort Claims Trust. Visit [www.tronoxtrust.com](http://www.tronoxtrust.com) or contact the Tronox Tort Claims Trust by email at [tronoxtrust@epiglobal.com](mailto:tronoxtrust@epiglobal.com) or phone at (800) 753-2480.

### Contact Us for More Information

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The Trustee of the Multistate Trust is Greenfield Environmental Multistate Trust LLC. Visit [multistatetrust.org](http://multistatetrust.org).



Above.  
GRS building



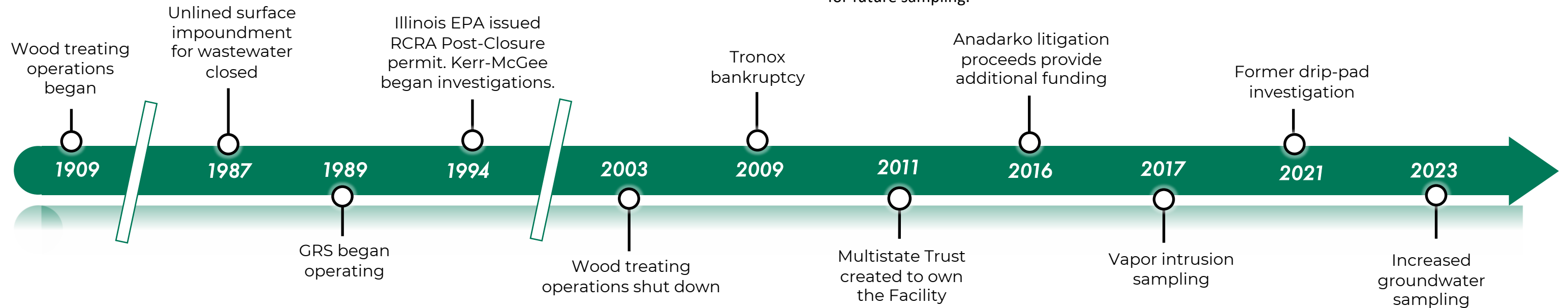
Right.  
Oil Water Separator



# Investigations and Progress

## Vapor Intrusion Investigation

Vapor intrusion (VI) can sometimes occur when chemicals in soil and groundwater emit vapors that are able to move indoors into homes and buildings through foundation cracks, pipes, or drainage systems. From 2017 to 2020, the Multistate Trust performed air and groundwater sampling to determine whether there was a VI risk for the residential area immediately east and south of the Facility. In 2020, results showed that COC concentrations were below Illinois EPA conservative screening levels and VI was not currently occurring. The Multistate Trust continues to assess VI risk, and there may be a need for future sampling.



## Drip Pad (SWMU-5) Investigation

The Facility's former drip pad, where wood was allowed to drip-dry after being treated with creosote, is a Solid Waste Management Unit (SWMU) known as SWMU-5. In 2021 and 2022, the Multistate Trust investigated the former drip pad to determine the extent of contamination in surrounding soils. The investigation found ±14,500 cubic yards of soils saturated with creosote, which is a source of ongoing contamination to the groundwater. The investigation also found that the former drip pad was much larger than previously understood. Currently, the cost to clean up these soils exceeds available funds.

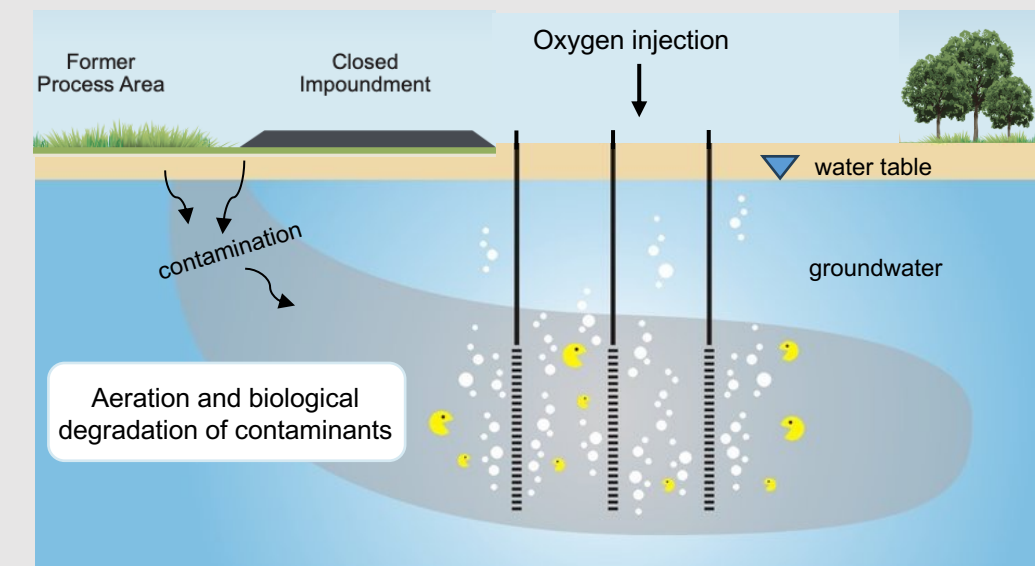


Drilling and installing monitoring wells at the Facility

## Next Steps

The Multistate Trust is currently pilot testing **biosparging** as a **groundwater remediation option** for subsurface contamination. Biosparging involves injecting air through a series of wells into the ground. This helps aerate the soil and stimulate microorganisms that can break down contaminants in the soil and groundwater. If the pilot test is successful, the Multistate Trust will explore options for installing a row of biosparge wells to form a "curtain" between the railroad tracks and the Hill Street residential area.

**Limited funding** is a major challenge at the Facility. The Multistate Trust is working with its beneficiaries—the United States and the State of Illinois—to identify other sources of funding to continue environmental investigations and cleanup.



Wells inject oxygen into the ground to stimulate microorganisms that can digest and break down contamination. Diagram was modified from Bioclear Earth.