United States
Environmental Protection
Agency

Office of Public Affairs
Region 5
230 S. Dearborn Street
Chicago, Illinois 60604

Illinois, Indiana,
Michigan, Minnesota,
Ohio, Wisconsin

Proposed Plan for Remedial Action at the Moss-American Site Milwaukee, Wisconsin

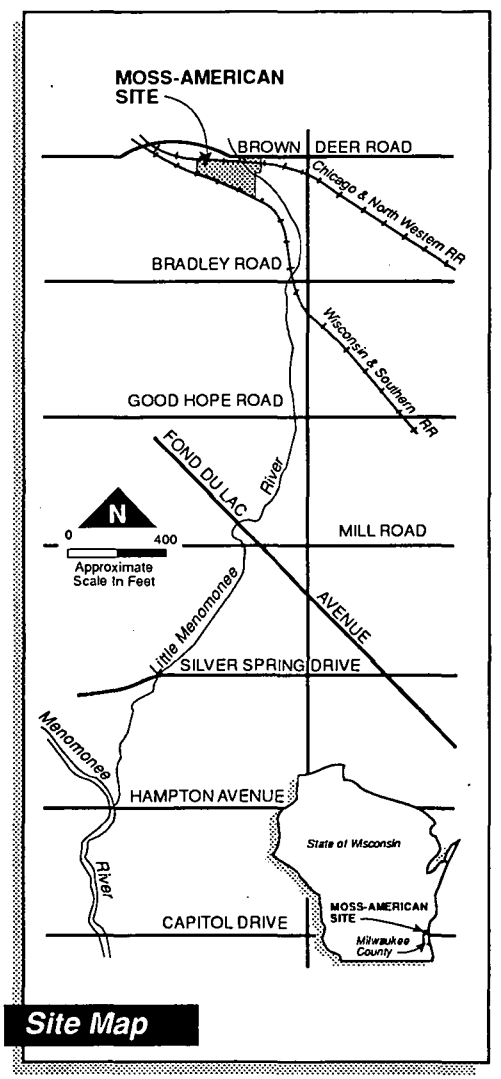
May 29, 1990

This Fact Sheet Will Tell You About

- Results of recent studies concerning contamination at the Moss-American site
- Alternative methods for protecting long-term public health and the environment
- The U.S. EPA's preferred alternative for site cleanup
- The next step in developing a comprehensive cleanup plan
- How you can learn more about the site and provide comments about the project

Introduction

The U.S. Environmental Protection Agency (EPA), in cooperation with the Wisconsin Department of Natural Resources (DNR), has completed a two-part study of contamination at the Moss-American site. The **Remedial Investigation (RI)** was conducted from November 1987 through the summer of 1988. The RI report was completed in January 1990, and the **Feasibility Study (FS)** report in May 1990. Those reports describe the nature and extent of site contamination and present alternative site cleanup methods. This fact sheet summarizes the results of those studies and identifies the U.S. EPA's preferred alternative for the site. Words in **boldfaced** print are defined in the glossary.



Site Map

Remedial Investigation (RI)

The RI identified the nature and extent of site contamination by collecting and analyzing soil, river **sediment**, surface water, and **ground-water** samples. Site geology and ground-water flow patterns were also examined. The final RI results and conclusions were announced to the public in a December 1989 fact sheet. The RI concluded that previous site activities have heavily contaminated soil and ground water at the site as well as sediment in the Little Menomonee River. The final RI report and fact sheet are available for review at the Mill Road Public Library. The key findings of the RI are listed below.

Soil Contamination

Numerous organic contaminants were detected throughout the on-site soil, the most prevalent being **polynuclear aromatic hydrocarbons (PAHs)** and **BTX compounds**, both of which are common components of **creosote**. The areas with elevated PAH levels appear to include the process area, a portion of the treated wood storage area, and the Northeast and Southeast Landfills (see contamination map). While soil contamination extends as deep as 20 feet below ground in some areas, most of the contaminants are found within 3 feet of the surface.

Ground-Water Contamination

A highly-contaminated ground-water **plume** that may be up to 400 feet wide extends from the processing area east to the river. The contamination extends to a maximum depth of 20 feet below ground. The lower extent of ground-water contamination is limited by a layer of dense silty clay. PAHs are the principal organic contaminants found in the ground water.

Site Background

Site Description

The 88-acre Moss-American site is located in northwestern Milwaukee at the southeast corner of the intersection of Brown Deer Road and Granville Road. The parcel is located between the Chicago & North Western and the Wisconsin and Southern Railroad lines. Sixty-five acres of the site are owned by Milwaukee County and held as undeveloped park land. The remaining 23 acres are owned by the Chicago & North Western Railroad and used as an automobile loading and storage area. The Little Menomonee River enters the site through the northern boundary and leaves through the eastern boundary. For the purposes of the RI/FS, the 5 miles of the river between Brown Deer Road and the confluence of the Menomonee River at Hampton Avenue are considered part of the site. The site is surrounded by a mix of urban and rural uses.

Operating History

The Moss-American site is the location of a former wood preserving facility that treated railroad ties with a creosote and fuel oil mixture. The site operated from 1921until 1976 when it was closed by Kerr-McGee, a former owner. During the period of operation, liquid wastes were discharged to settling ponds that, in turn, drained into the Little Menomonee River. Environmental problems observed at the site are related to the use and disposal of creosote.

Contamination at the site was first reported during the late 1960s. In 1973, the U.S. EPA financed the dredging of approximately 5,000 feet of the river from the site south to Bradley Road. The plant facilities were demolished in 1978, and some oil saturated soil was excavated and shipped to the Nuclear Engineering Landfill in Sheffield, Illinois.

Superfund activities were initiated in 1983 when the U.S. EPA placed the site on the National Priorities List. The RI began in late 1987 and was completed in January 1990. The FS was completed in May 1990.

Surface Water and Sediment Contamination in the Little Menomonee River

PAHs and other contaminants were not detected in surface water samples from the river, but elevated levels of PAHs were found in the sediment along the entire 5-mile reach of the river from the site to the confluence of the Menomonee River. The contaminants detected in the sediment are consistent with those found on site.

Risk Assessment

The U.S. EPA conducted a Public Health Evaluation and Environmental Risk Assessment using data from the RI to determine if on-site contamination could affect public health and the environment. The evaluation compared contaminant levels at the site with state and federal standards; considered the manner in which people and wildlife could be exposed to site-related contaminants; and determined whether the contaminants could pose a threat to public health and the environment.

The RI indicated that exposure to PAHs and BTX compounds could occur through direct contact, inhalation, or ingestion. The following are likely exposure scenarios:

Current and Future Human Exposures

- Site visitors, especially children, could come into direct contact with or inhale contaminated surface soil suspended in the air by vehicles such as dirt bikes.
- Recreational users of the river corridor, especially children, could come into direct contact with contaminated river sediment.
- People could ingest site-related contaminants by eating fish caught in the river.
- Workers or residents could be exposed to site-related contaminants through future commercial or residential development of the site.

Environmental Exposures

- Wildlife and aquatic plants could come into direct contact with or ingest contaminated soil and river sediment. Many types of wildlife use the river and river corridor as a source of food and water.

The risk assessment concluded that the primary population at risk of exposure to site-related contaminants are visitors to the site. This would most likely be children who live nearby and use the site for recreational purposes. If the site is further developed, construction workers, recreational users, or site residents may also be exposed through direct contact with subsurface soils. The risk assessment also concluded that, while immediate risks are low, repeated exposure to the site's contaminated soil and river sediment could result in as many as three additional cancer cases per 100 people.

Feasibility Study (FS)

Based on the results of the RI, the U.S. EPA conducted an FS to identify and evaluate remedial alternatives that would minimize or eliminate the health risks caused by site-related contaminants. The FS report was recently completed and is available for public review and comment. The criteria used to evaluate remedial alternatives are described in this fact sheet under "Evaluation Criteria."

Remedial Action Goals

Two sets of remedial action goals were developed for the site: a general goal that applies to all Superfund sites and site-specific goals for the contaminated soil, river sediment, and ground water. The general goal of a Superfund site cleanup is to select a remedy that protects human health and the environment over time and minimizes untreated wastes. The site-specific goals are:

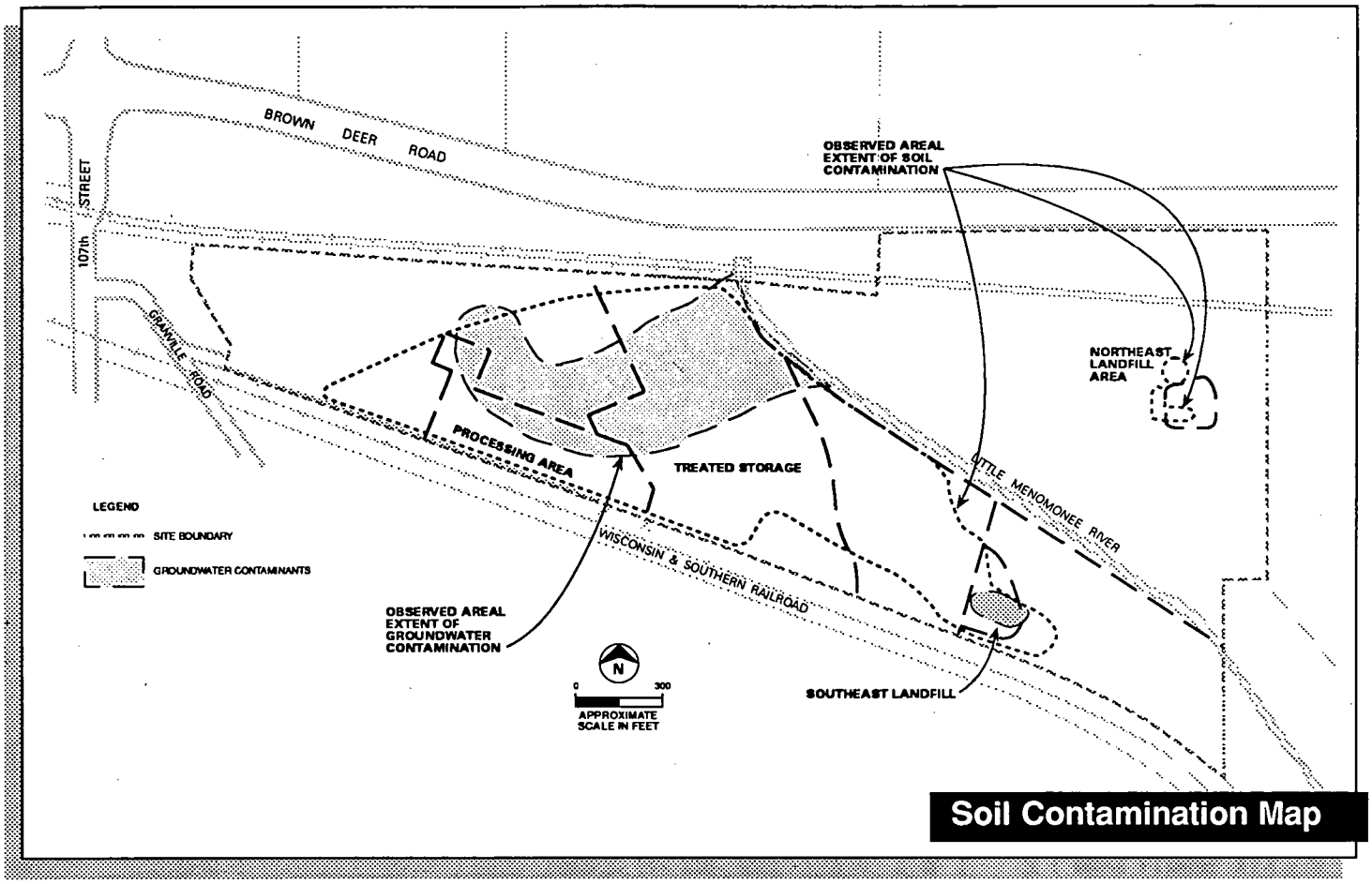
- Minimize both human exposure to soil contaminants and contaminant movement from the soil to ground water and the river
- Minimize human exposure to contaminated sediment
- Minimize contaminated sediment's downstream movement and its effect on aquatic life
- Prevent the release of ground-water contaminants to the river, and meet federal and state ground-water standards

Alternatives Development

The **National Oil and Hazardous Substances Contingency Plan (NCP)** requires that the range of alternatives considered in an FS include:

- No action (Alternative 1)
- An alternative that relies primarily on containment of wastes with little or no treatment (Alternative 2)
- Alternatives that use treatment as the primary means of reducing the toxicity, mobility, and volume of hazardous wastes (Alternatives 3A, 3B, 4, 5, and 6)

The FS cleanup alternatives meet these requirements and satisfy site-specific and general Superfund cleanup goals. Six remedial alternatives (Alternatives 2 to 6) and the no-action alternative were evaluated in detail. The remedial alternatives share several components in common:



Soil Contamination Map

- Contaminated soil from the **flood plain** would be removed and treated under Alternatives 3A through 6 and the treated material would be placed back on site and covered
- Alternatives 2 through 6 would place a vegetated 2-foot soil cover over the treated material and contaminated soil area
- Contaminated soil from the Northeast Landfill would be treated on site under Alternatives 3A through 6, and the treated residues disposed of in an on-site **Resource Conservation and Recovery Act (RCRA)** landfill
- Under Alternatives 2 through 5, ground water would be collected in trenches near the river and treated on site. The treated water would be discharged to the sanitary sewer if possible

Remedial Alternatives

Alternative 1: No Action

Under Alternative 1 no corrective action would be taken at the site and no restrictions would be placed on site use. It serves as a baseline for comparison against the other cleanup alternatives. The risks to human health and the environment posed by site-related contaminants would remain unchanged. Alternative 1 has no cost.

Alternative 2: Reroute river; cover contaminated sediment and soil; treat contaminated ground water; offsite treatment and disposal of Northeast Landfill soil

Under Alternative 2, a new river channel would be dug parallel to the existing river from the railroad tracks just south of Brown Deer Road to the confluence of the Menomonee River, a distance of about 5 miles. The existing river would be drained and filled with soil from the new excavation, covering the contaminated sediment in place. Contaminants in the old riverbed could move to the new riverbed, but the rate of movement is likely to occur slowly enough to ensure that human health and the environment would not be affected.

Contaminated soil on the site would be covered. Contaminated soil in the flood plain would be removed and placed on the main body of contaminated soil west of the river to reduce the area requiring the soil cover.

One thousand cubic yards (60 to 70 dump trucks) of contaminated soil in the Northeast Landfill would be removed and incinerated offsite at a licensed hazardous waste facility. If an offsite facility is not available, the waste will be capped in place.

Alternative 2 would cost $15 million to construct and $130,000 a year to operate and maintain. It would take 1 to 2 years to complete cleanup activities, but ground-water collection and treatment is expected to last for an indefinite period.

Alternative 3A: Reroute river; treat highly-contaminated sediment and soil in a slurry bioreactor; cover contaminated sediment and soil; treat contaminated ground water

Under Alternative 3A the river would be rerouted as in Alternative 2. Highly-contaminated river sediment would be removed and treated on site using a slurry bioreactor. The remaining contaminated sediment would be covered with soil excavated from the new channel. This alternative would also treat highly-contaminated on-site soil in a slurry bioreactor. Treated material from the slurry bioreactor would be placed on the contaminated soil area and covered.

The technology used in Alternative 3A is a two-part treatment process involving soil washing and slurry bioreactors. Soil washing removes contaminants from coarse-grained soil in a scrubber. Soil would be washed until it meets cleanup levels established by the Treatability Variance and placed back on site. Fine-

grained soil and sediment would be mixed with water, and the resulting slurry would be pumped to the bioreactor for treatment. When the treated material met cleanup levels, it would be dewatered and placed back on site.

The slurry bioreactor is a large tank of water containing bacteria that feed on the PAHs and other organic contaminants attached to the sediment. Oxygen and nutrients such as nitrogen and phosphorus are added to the tank to enhance the bacteria's ability to breakdown the PAHs. The time required to reduce the contaminants to below cleanup levels would be determined by a pilot study conducted on site during the design phase of the remedy.

Alternative 3A will treat 86,500 cubic yards (5,800 dump trucks) of contaminated material. This alternative would cost $26 million to construct and $130,000 a year to operate and maintain. It would take 3 to 4 years to complete cleanup activities.

Alternative 3B: Reroute river; treat highly-contaminated sediment and soil in land treatment beds; cover contaminated soil and sediment; treat contaminated ground water

Alternative 3B is the same as Alternative 3A except that it uses a land treatment system rather than slurry bioreactors to treat contaminated soil and sediment. Treatment beds would be located in a 10-acre area west of the river. Under the land treatment system, highly-contaminated soil and sediment would be placed in lined beds with a leachate collection system. Nutrients such as manure would be tilled in periodically to increase the bacterial population and maintain sufficient oxygen in the soil. The soil and sediment would be treated until they met cleanup levels and then be placed in a lined storage bed in the treatment area and covered with soil. The time required to reduce soil and sediment contaminants to below cleanup levels would be determined by an on-site pilot study conducted during the design phase of the remedy.

Alternative 3B would cost $23 million to construct and $500,000 a year to operate and maintain. It would take 8 to 15 years to complete cleanup activities.

Alternative 4: Maintain existing river alignment; treat contaminated sediment with slurry bioreactors; cover contaminated soil and treated sediment; treat contaminated ground water

Under Alternative 4, river sediments with PAH levels exceeding background ("background" is the level of PAH contamination found in sediment north of the site) would be removed and treated in a slurry bioreactor. Treated material from the slurry bioreactor would be placed on the contaminated soil area west of the river and covered.

Alternative 4 would not reroute the river, and the only soil it would treat would be from the Northeast Landfill. It would treat 33,000 cubic yards (2,200 dump trucks) of contaminated material.

Alternative 4 would cost $18 million to implement and $130,000 a year to operate and maintain. It would take 1 to 2 years to complete cleanup activities. But ground-water collection and treatment would last indefinitely.

Alternative 5: Maintain existing river alignment; treat contaminated sediment and soil using slurry bioreactors; cover remaining contaminated soil and treated material; treat contaminated ground water

Alternative 5 is the same as Alternative 4 except that it also removes and treats highly-contaminated soil. It would treat 113,000 cubic yards (7,500 dump trucks) of contaminated material. Alternative 5 would cost $24 million to construct and $130,000 a year to operate and maintain. It would take 4 to 6 years to complete cleanup activities.

Alternative 6: Maintain existing river alignment; remove and treat all contaminated soil and sediment; cover treated materials on site with soil

Under Alternative 6, all contaminated sediment and soil, including that in the Northeast Landfill, would be treated on site in a mobile incinerator. Ash from the treated material would be placed back on site and covered. Ground-water treatment would not be required because the soil (the source of contamination) would be completely removed.

Alternative 6 would treat 163,000 cubic yards (11,000 dump trucks) of contaminated material. This alternative would cost $89 million to construct and $18,000 a year to operate and maintain. It would take 4 to 5 years to incinerate the contaminated material assuming two on-site incinerators were used.

Land Disposal Restrictions

Onsite contaminants are considered hazardous waste under RCRA and are subject to land disposal restrictions (LDRs). The objective of the LDRs is to reduce the toxicity and/or mobility of hazardous waste using the best demonstrated available cleanup technology prior to its land disposal. If a proposed cleanup method does not achieve the best demonstrated cleanup technology levels, a Treatability Variance, which sets alternative cleanup levels, should be sought.

Alternatives 3A, 4, and 5 would comply with LDRs through a Treatability Variance under 40 CFR 268.44. This variance would result in the use of a slurry bioreactor to attain the U.S. EPA's interim "treatment levels/ranges" for the contaminated soil and sediment at the site. See Chapter 4 of the FS report, "Detailed Analysis of Alternatives," for specific treatment levels for each contaminant.

U.S. EPA'S Proposed Plan

Based on the FS, the U.S. EPA and Wisconsin DNR have identified Alternative 3A as the preferred alternative for addressing the contamination problems at the Moss-American site. The U.S. EPA and DNR may modify the preferred alternative or select another based on information obtained during the public meeting and public comment period.

The preferred alternative would:

- Reroute the Little Menomonee River
- Remove and biologically treat highly-contaminated soil and river sediment using an on-site slurry bioreactor
- Cover the remaining sediments in the old riverbed with soil excavated from the new channel
- Cover the untreated soil and the treated material from the slurry bioreactor on site under a soil cover
- Collect and treat contaminated ground water and discharge it to the sanitary sewer
- Treat the Northeast Landfill soil on site and dispose of it on site in a RCRA-compliant landfill (see Preferred Alternative map)

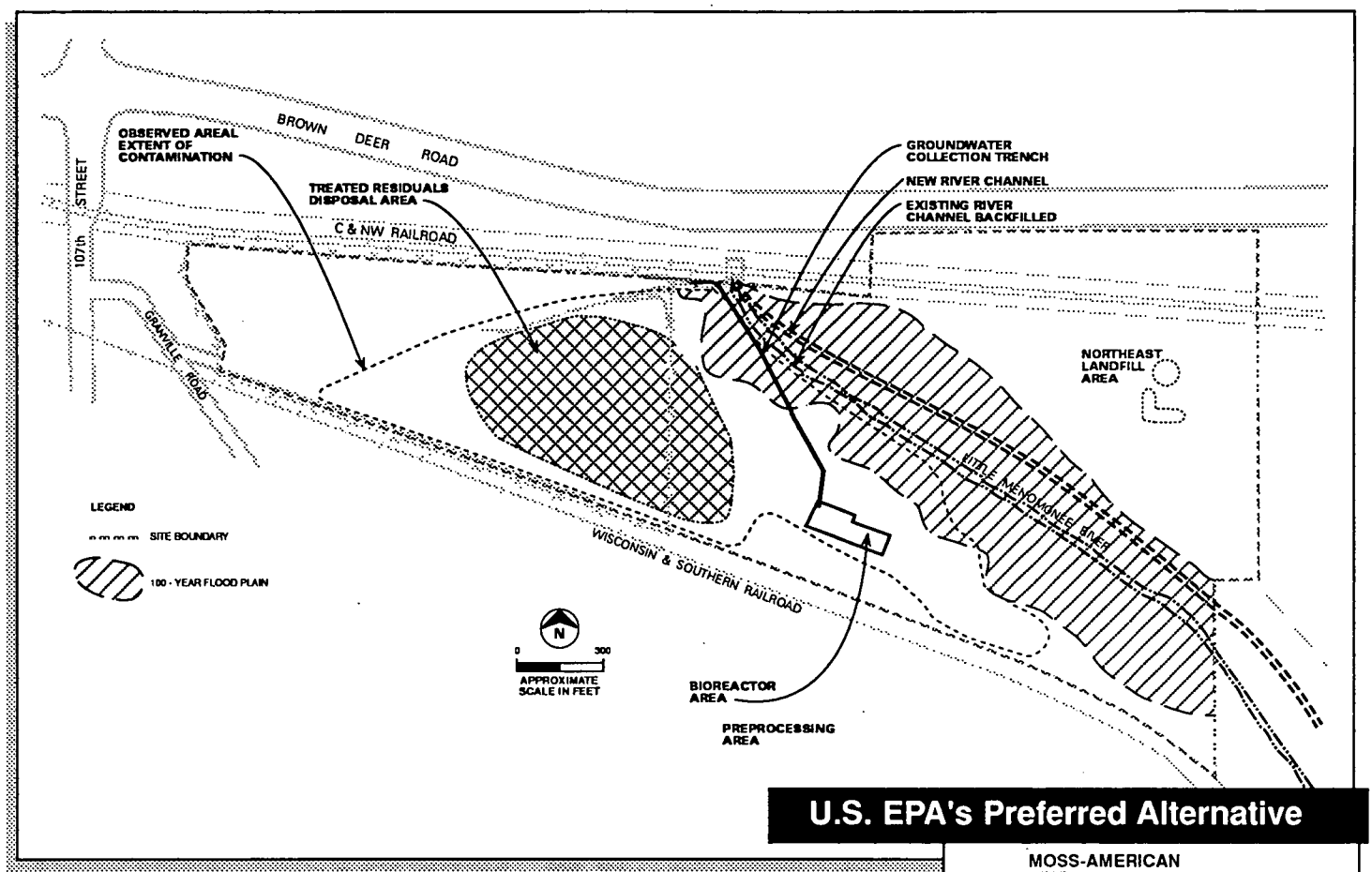
Additional soil, ground-water, and sediment sampling would be required during the predesign phase to further define the areas of contamination, particularly along the banks of the river.

The preferred alternative is estimated to cost $26 million. Its annual operation and maintenance cost is $130,000, and it is expected to take 3 to 4 years to complete cleanup activities.

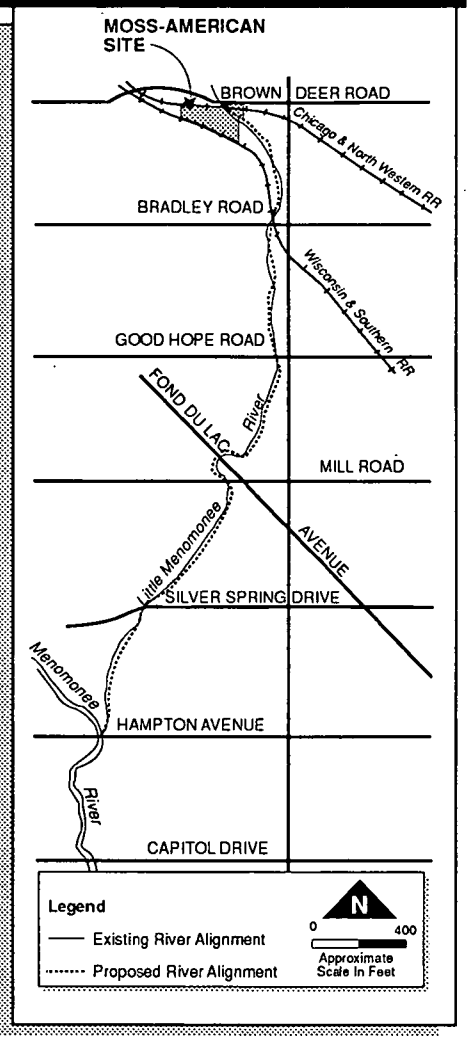
Evaluation of Remedial Alternatives

1. Overall Protection of Human Health and the Environment

All alternatives except Alternative 1 would minimize the risks posed by di-



U.S. EPA's Preferred Alternative



Who Pays for the Cleanup?

If the Potentially Responsible Parties (PRPs) agree to pay for the cleanup, they will decide each PRP's share of the total cleanup cost. If the PRPs do not agree to pay for the cleanup, the U.S. EPA may use the courts to order them to clean the site or the U.S. EPA and the State may share the cleanup cost.

rect contact, inhalation, or ingestion of site-related contaminants by treatment and/or containment. All remedial technologies are considered reliable and would be pilot- or field-tested to demonstrate their effectiveness.

Alternative 2 is considered the least reliable because all contaminants are left in place. It is possible, however, that soil and sediment contaminants would remain contained until they break down because much of the site is Milwaukee County parkland and deed restrictions would help prevent development.

2. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

All alternatives except Alternative 1 are expected to meet state and federal ARARs. The waste at the site is a RCRA hazardous waste. The LDRs are ARARs for three of the six remedial alternatives. Alternatives 3A, 4, and 5 would comply with the LDRs through a Treatability Variance under 40 CFR 268.44. This variance will result in the use of a slurry bioreactor or land treatment technology to attain the U.S. EPA's interim "treatment levels/ranges" for contaminated soil and sediment; see Chapter 4 of the FS report, "Detailed Analysis of Alternatives," for the specific treatment levels for each contaminant.

Alternative 1 would not achieve state ground-water standards and may not achieve state surface water standards. Under Alternative 6, treated soil and sediment could be placed back on site and achieve ARARs without constructing a RCRA landfill.

3. Short-term Effectiveness

Alternatives 3A through 6 would excavate and transport contaminated sediment and soil. They could pose a temporary health risk to the community because of the potential for inhaling windblown soil or direct contact with the transported contaminated material. Alternative 2 would pose less of a temporary health risk because it would

Evaluation Criteria

The U.S. EPA considers the following nine criteria when it evaluates cleanup alternatives like those developed in the FS. The first seven have been used to evaluate the seven cleanup alternatives for the site. The final two—state and community acceptance—will be evaluated after the public comment period.

1. Overall protection of public health and the environment determines whether an alternative eliminates, reduces, or controls threats to public health and the environment.

2. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs) addresses whether an alternative meets federal and state environmental laws pertaining to the site.

3. Short-term effectiveness considers the length of time needed to implement an alternative and the risks it poses for workers, residents, and the environment during implementation.

4. Long-term effectiveness considers the ability of an alternative to protect public health and the environment over time.

5. Cost compares the benefits of an alternative against the costs to design, construct and operate, and maintain it.

6. Reduction of contaminant toxicity, mobility, and volume evaluates an alternative's use of treatment to reduce the harmful nature of contaminants, their ability to move in the environment, and the amount of contamination present.

7. Implementability considers the technical and administrative feasibility of implementing an alternative.

8. State Acceptance considers whether the state agrees with the U.S. EPA's analyses and recommendations as presented in the RI/FS and the Proposed Plan.

9. Community Acceptance is addressed in the Record of Decision (ROD). The ROD includes a Responsiveness Summary that presents public comments and the U.S. EPA's response to them.

handle less contaminated material. Alternative 2 would also have the least effect on local traffic because sediment would not be transported from the river to the site. Alternatives 4 through 6 would result in about the same amount of truck traffic on local roads. Alternatives 3B and 6 are expected to affect adjacent areas because land treatment (Alternative 3B) could result in odors downwind of the site, and the incinerator (Alternative 6) could cause a steam cloud and odors. However, incinerator emissions would comply with U.S. EPA and DNR standards.

The potential for worker exposure to contaminated material during excavation exists for all alternatives except Alternative 1. The potential for exposure increases as the amount of excavated contaminated material increases. Alternative 3B may have the greatest potential for worker exposure because workers would till contaminated soil periodically for several years. However, the difference between alternatives could be insignificant with proper health and safety precautions.

Short-term environmental impacts would be significant under Alternatives 2 through 6 because they destroy existing aquatic habitat.

Alternatives 2 and 4 would require the least amount of time to achieve remedial action goals for soil and sediment (1 to 2 years), but they would require the greatest amount of time to achieve remedial action goals for ground water, in excess of 200 years. Alternatives 3A, 5, and 6 would take about the same time to achieve remedial action goals—approximately 4 years. Alternative 3B would take the longest time to achieve remedial action goals, 8 to 15 years. Considering the time to design and construct the cleanup methods, the time period to achieve the remedial action goals are not significantly different except for Alternative 3B. Protection of the river from contaminated ground water could be achieved in the first several years of the construction period for all alternatives except Alternative 1.

4. Long-term Effectiveness

Alternatives 2 through 6 would effectively protect human health and the environment over the long term by treating or containing the contaminants. However, greater degrees of reliability are offered by the more treatment-intensive alternatives because they are less reliant on institutional controls such as deed restrictions.

The residual risk from Alternatives 2, 3A, and 3B is greater than the other alternatives because they do not remove all contaminated sediment, and contaminated ground water could move from the contaminated sediment to the new river. It is anticipated, however, that contaminant movement from buried sediment would be negligible after the highly-contaminated sediment is removed. Long-term residual risk is greatest for Alternative 2 because soil and sediment contaminants would not be removed. Alternatives 3A through 5 are similar in terms of reliability and effectiveness. Alternative 6 would be the most reliable over the long term because it would treat the greatest amount of contaminated material.

5. Cost

Alternative 1 has no cost but would not protect human health and the environment. Alternatives 2 and 4 have the lowest construction cost but the highest overall operation and maintenance cost because of the long-term management of ground water. Alternatives 3A and 3B are slightly more expensive than Alternatives 2 and 4, but they are significantly more protective of human health and the environment. Alternative 4 would cost nearly as much as Alternatives 3A and 3B, but it would not be as protective of public health and the environment. Alternative 5 would cost as much as Alternatives 3A and 3B but is much more difficult to implement. Alternative 6 is the most expensive remedy and is slightly more protective of public health and the environment than Alternatives 3A and 3B.

6. Reduction of Toxicity, Mobility, and Volume

All alternatives except Alternative 1 would reduce the toxicity of on-site contaminants. Alternative 2 would reduce the toxicity of a small volume of soil from the Northeast Landfill through offsite incineration. Alternatives 3A through 5 would significantly reduce the toxicity of contaminants by excavating, treating, and covering contaminated sediment and soil. Alternative 6 would achieve the greatest level of contaminant reduction, destroying 99.99 percent of the contaminants it treats. Alternatives 2 through 5 would remove and treat most contaminants in the ground water.

7. Implementability

Implementation of any alternative will be difficult. The most difficult aspect relates to work on the river, which is

included in all alternatives. Work in the river area would require careful design and planning, and coordination with numerous agencies, including Milwaukee County, the Milwaukee Metropolitan Sewerage District, the City of Milwaukee, and the Wisconsin DNR. Alternative 2 would probably be the easiest to implement because its construction would be straightfoward. The other alternatives would be equally difficult to implement. All alternatives use demonstrated technologies that are available.

8. State Acceptance

The State of Wisconsin concurs with the preferred remedy for the purposes of the Proposed Plan.

9. Community Acceptance

Community acceptance will be assessed following the public comment period.

Summary

The U.S. EPA has determined that Alternative 3A would provide the best balance of tradeoffs with respect to its nine evaluation criteria. Based on the information available at this time, the U.S. EPA and the State of Wisconsin believe the preferred alternative would reduce the risks to human health and the environment by treating and containing on-site contaminants. It would also be cost-effective, attain ARARs, and use permanent solutions and alternative treatment technologies to the maximum extent practical.

The Next Step

Following the public comment period, the U.S. EPA will sign a **Record of Decision (ROD)** for the site. The ROD will describe the **remedial action** chosen for the site and include the U.S. EPA's responses to comments received during the public comment period. After the ROD is signed, a design plan for implementing the remedial action will be prepared. Once the design is complete, construction of the remedial action can begin.

Opportunities for Public Involvement

Public Meeting

Area residents and other interested individuals are encouraged to attend a public meeting to learn more about recent site investigations and the preferred alternative. The public is invited to provide oral comments on the FS and the Proposed Plan to representatives from the U.S. EPA and DNR. A court reporter will be present to document oral comments. Written comments will also be accepted at the meeting. **The meeting will be held on Thursday, June 21, at 7:30 p.m. at the Vincent High School Cafeteria, 7501 N. Granville Road, Milwaukee.**

Public Comment Period

The public comment period for the Moss-American project extends from June 4 to July 5. The comment period allows the public to express their views on the RI and FS reports, the preferred alternative and other remedial alternatives, and the administrative record. Based on public comments or new information, the U.S. EPA may modify its preferred alternative or choose another alternative evaluated during the FS. Written comments should be addressed to Susan Pastor, U.S. EPA Community Relations Coordinator, at the address listed below. Written comments must be postmarked no later than July 5, 1990. All comments will be part of the public record in a document called a Responsiveness Summary.

For More Information

Anyone desiring additional information may consult various U.S. EPA documents pertaining to the site. Copies of the applicable laws, the RI and FS reports, and other site-related documents are available for review at:

The Mill Road Library
6431 North 76th Street
Milwaukee, Wisconsin
414-278-3088

An administrative record containing additional site documentation is also available at the Mill Road Library.

If you have any questions, you may direct them to the following personnel:

Betty Lavis
U.S. EPA Remedial Project Manager
312-886-4784

Susan Pastor
U.S. EPA Community Relations Coordinator
312-353-1325

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Susan Pastor
U.S. EPA Region 5
Office of Public Affairs (5PA-14)
230 South Dearborn Street
Chicago, Illinois 60604

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_____

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Glossary

BTX Compounds-A group of organic compounds that includes benzene, ethylbenzene, toluene, and xylenes. These colorless, highly flammable compounds are used as solvents and are components of gasoline and creosote. Short-term exposure to them can cause irritation of the eyes, respiratory tract, and skin.

Creosote-A heavy oily liquid used chiefly as a wood preservative. It is also used as a roofing pitch and fuel oil additive. Creosote and its vapors are strong irritants. Acute short-term exposure to high concentrations of creosote can cause burning, itching, eye injuries, or skin inflammation and discoloration. Suspected carcinogenic (cancer-causing) compounds such as PAHs are often present in creosote.

Feasibility Study-See "Remedial Investigation/Feasibility Study."

Flood Plain-The part of a valley floor that is subject to overbank floods.

Ground Water-Water found beneath the earth's surface that fills pores between soil, sand, and gravel particles to the point of saturation. When it occurs in a sufficient quantity, ground water can be used as a drinking water supply.

National Oil and Hazardous Substances Contingency Plan (NCP)-The federal regulation that guides the Superfund Program.

Plume-An area of an aquifer that contains levels of organic or inorganic contaminants that exceed naturally occurring concentrations.

Polynuclear Aromatic Hydrocarbons (PAHs)-A group of organic compounds related by their basic chemical structure. These compounds are normally associated with petroleum products such as creosote, and some are suspected to cause cancer.

Remedial Action-Under Superfund, an action is considered a remedial action when it involves direct actions (or remedies) to address site contamination and protect the public from exposure. An interim remedial action is a remedial action that is not considered final but is consistent with a final remedy.

Record of Decision (ROD)-A public document prepared by the U.S. EPA that outlines the cleanup method that will be used at a Superfund site. It includes the EPA's responses to public comments on the Feasibility Study and the Proposed Plan.

Remedial Investigation/Feasibility Study (RI/FS)-A two-part study that is completed before any remedial cleanup can begin. The first part is the Remedial Investigation (RI), which studies the nature and extent of the problem. The second part is the Feasibility Study (FS), which evaluates different methods of dealing with the problem and selects a method that will effectively protect public health and the environment.

Resource Conservation and Recovery Act (RCRA)-A federal law that established a regulatory system to track hazardous substances from the time of generation to disposal. The law requires safe and secure procedures to be used in treating, transporting, storing, and disposing of hazardous substances.

Sediment-A mineral or organic substance deposited by air, water, or ice.

EPA

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