Superfund Fact Sheet

Ripon FF/NN Landfill
Ripon, Wisconsin

May 1994

Investigation Continues at Ripon FF/NN Landfill

This fact sheet includes:

- *an update on activities at the Ripon FF/NN Landfill site;*
- *details on what sampling results have shown at the site;*
- *a summary of upcoming actions at the site; and*
- *information on how to learn more about the site.*

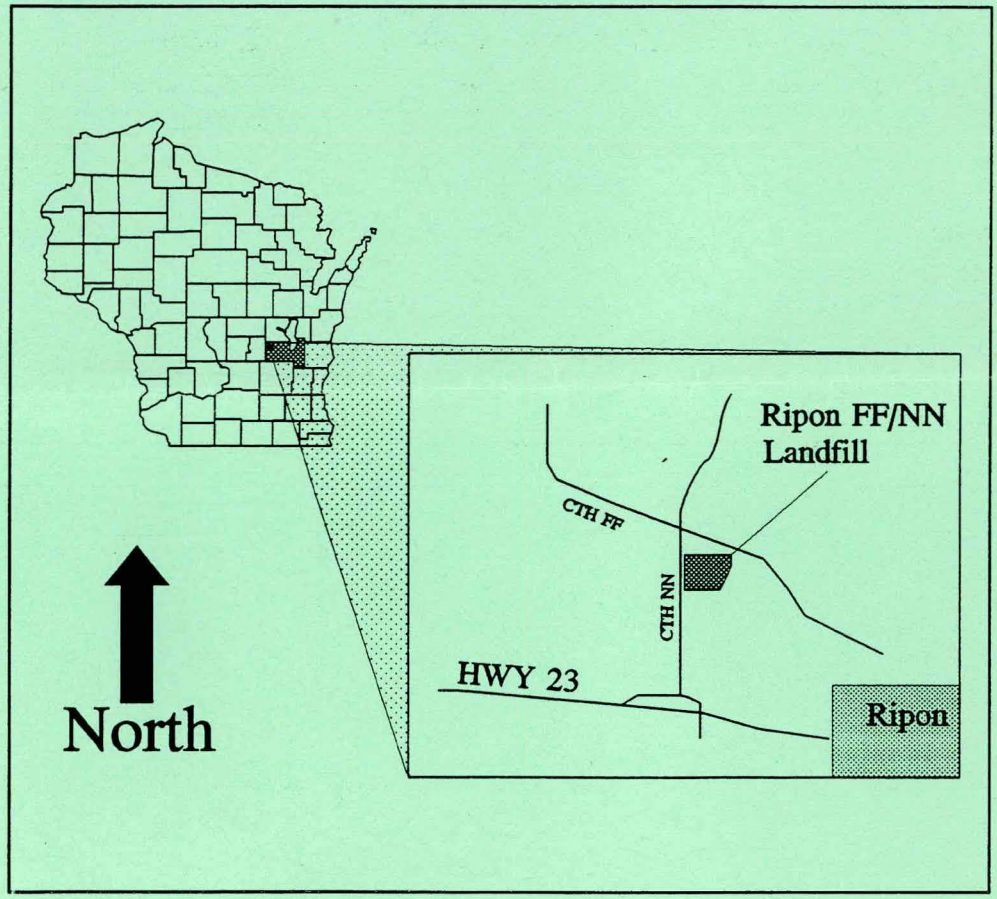

figure 1

The Ripon FF/NN Landfill is located just northwest of the City of Ripon near the intersection of county roads FF and NN (South Koro Road). The site operated between 1967 and 1983, accepting municipal and industrial wastes, as well as wastewater treatment plant sludge. Since closure, the site has been used as a hay field. Groundwater near the landfill is contaminated with solvents, called volatile organic compounds (VOCs).

For more detailed information about the investigation at the landfill, visit the Ripon Public Library (address and hours on page 4.)

RIPON FF/NN LANDFILL INVESTIGATION

Early in the site investigation, the companies and municipalities that contributed to the landfill were identified. They are called Potentially Responsible Parties (PRPs). In August 1992, a group of PRPs agreed to investigate the degree and extent of soil and groundwater contamination near the landfill. When the study, called a remedial investigation (RI) is completed, the PRPs will complete a feasibility study (FS) which will, based on the RI, identify the best ways to clean up the contamination.

Since 1992, the PRPs have been working to investigate contamination from the Ripon FF/NN Landfill. The main part of the investigation involves testing soil and installing and sampling groundwater monitoring wells. Monitoring wells are not designed to provide water like wells for private homes.

No one is currently being exposed to site contamination.

Groundwater monitoring wells provide primarily two kinds of data, groundwater depth and groundwater quality. By measuring the depth of water in a monitoring well the direction groundwater is moving can be determined. By knowing which direction groundwater flows, we can determine where contaminants from the landfill are likely to move.

Groundwater monitoring wells are also used to sample the groundwater, and test the sample to determine if the water is contaminated. Groundwater samples can be tested for many contaminants. At the Ripon FF/NN Landfill, the primary contaminants are VOCs and metals. These compounds have been detected in groundwater beneath and southwest of the site.

INVESTIGATION RESULTS

Nineteen groundwater monitoring wells have been installed around the landfill. They were installed during the summer and fall of 1993. Information from these wells indicate that groundwater is flowing toward the southwest across the landfill.

All of the wells have been sampled at least once. The results of the tests show that VOCs are travelling in the groundwater and entering the wetland southwest of the landfill. Based on this information, it appears that groundwater contamination is present between the landfill and the wetland. Wells located south and west of the landfill have VOC contamination; wells located north or east of the landfill are not contaminated.

Eight VOCs were detected in the groundwater monitoring wells. Of the eight, two chemicals, vinyl chloride and cis-1,2-dichloroethene are at levels that are not considered safe for drinking by Wisconsin standards.

In addition to sampling groundwater monitoring wells, 23 private wells near the landfill were sampled for contamination. None of the homes had contamination in their water related to the landfill. One home had a detection of VOCs below drinking water standards, however the follow up sample failed to detect any. The concentration detected in the well during the first sampling event was safe for

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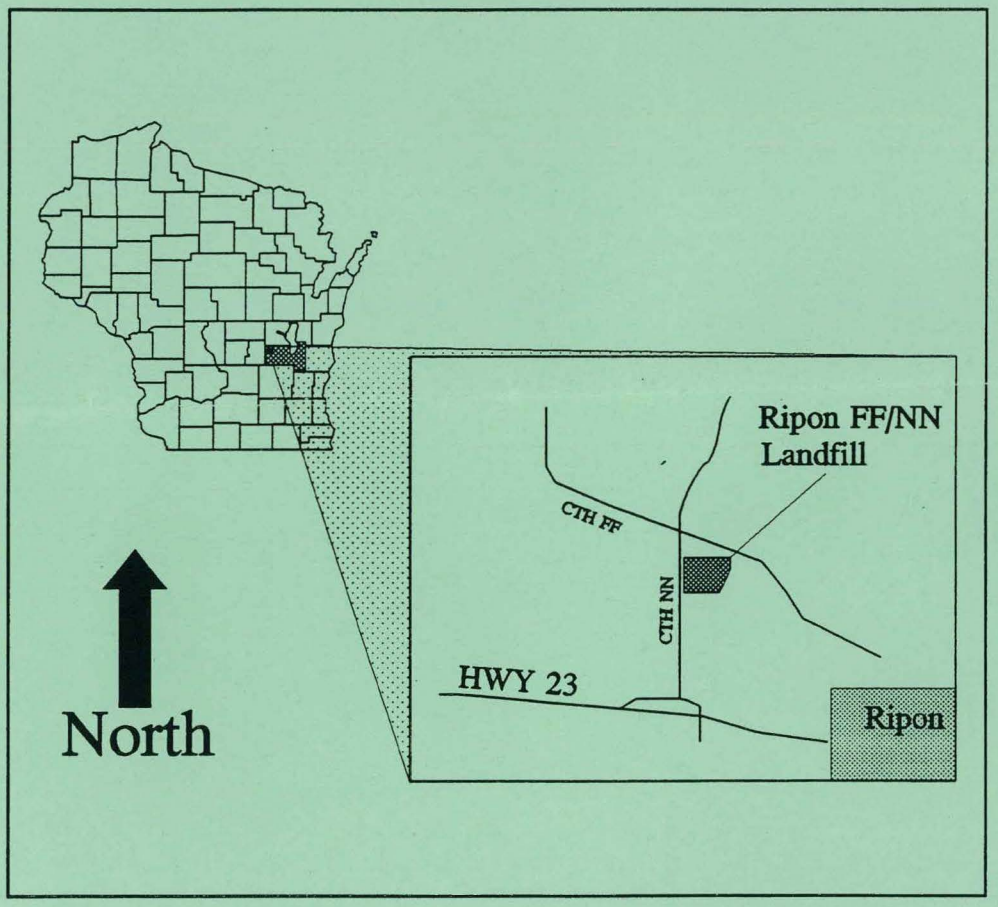

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drinking based on Wisconsin standards. Therefore, the water in the well is considered safe for all uses.

Three monitoring wells were drilled into landfill wastes to determine the thickness of the waste, the depth to the landfill bottom, and whether the waste was saturated with water.

Water that has seeped through landfill waste and picked up contaminants from the waste is called leachate. Leachate can move through the landfill and contaminate groundwater. Leachate found throughout the landfill contained high concentrations of VOCs and metals. Leachate tests also determine if other contaminants could be a concern in the groundwater.

Besides sampling groundwater, soil samples from the landfill cover and surrounding area were collected and tested for metals. No elevated concentrations of metals were detected.

FUTURE WORK AT THE SITE

The field work completed last year helped define the extent of groundwater contamination. However, a couple of groundwater monitoring wells are needed to provide a complete picture of the contamination. These wells were recently installed.

All of the wells were sampled in April. The results should be available by early June. This information should complete the picture of the groundwater contamination coming from the landfill.

Using the information from the RI, the PRP group will analyze different ways to clean up the contamination. The summary of these alternatives will be presented to the DNR in mid to late summer.

The DNR will recommend a cleanup action and distribute a Proposed Plan to people on the mailing list. Everyone will be asked to comment on all of the possible cleanup alternatives for the Ripon FF/NN Landfill site. Public input on the cleanup alternatives and the information that supports them is an important contribution to the cleanup selection process. Based on public comments or new information, DNR can modify the recommended cleanup alternative or select another alternative.

Mailing List Additions

If you did not receive this fact sheet in the mail, you are not on the Ripon FF/NN Landfill mailing list. If you would like to be placed on the mailing list, please fill out, detach, and mail this form to:

Cara Norland - ERR/3
Wisconsin DNR
P. O. Box 7921
Madison, WI 53707

Name:_____

Address:_____

_____

_____

_____

Information Available

Anyone interested in receiving more information about the Ripon FF/NN Landfill is encouraged to review the various documents that have been prepared for the site. Copies of all information used to make decisions about the cleanup of Ripon FF/NN Landfill are available for review at:

Ripon Public Library
120 Jefferson Street
Ripon, Wisconsin

Hours: Monday - Friday - 10 a.m. to 8 p.m.
Saturday - 10 a.m. to 4 p.m.
Sunday - noon to 4 p.m.
Summer hours: Monday/Wednesday/Friday - 10 a.m. to 8 p.m.
Tuesday/Thursday - 10 a.m. to 6 p.m.
Saturday - 10 a.m. to 1 p.m.

For more information on the Ripon FF/NN Landfill site, contact the following individuals:

Steve Ales
Project Manager
Wisconsin DNR
Southern District
3911 Fish Hatchery Rd.
Fitchburg, WI 53711
(608) 275-3310

Chuck Warzecha
Hydrogeologist
Division of Health
1414 E. Washington Ave
Madison, WI 53707
(608) 267-3732

Cara Norland
Community Relations
Wisconsin DNR
P. O. Box 7921
Madison, WI 53707
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Mary Young
Health Educator
Division of Health
1414 E. Washington Ave
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Superfund Fact Sheet

Ripon FF/NN Landfill
Ripon, Wisconsin

April 1993

Superfund Study to Begin at Ripon FF/NN Landfill

This fact sheet includes:

- *background information on the Ripon FF/NN Landfill site;*
- *details on what is known about the hazardous substances found at the site; and*
- *a summary of the more in-depth study of the contamination.*

Public Meeting Set

The Department of Natural Resources (DNR) will hold a public meeting to outline the scope of the field investigations from 7-9 p.m. on Tuesday, April 20. The meeting will be held at the Ripon City Hall Council Chambers, 100 Jackson Street, Ripon, Wisconsin.

NOTE: Words and phrases in **bold** are defined in the glossary on the insert page.

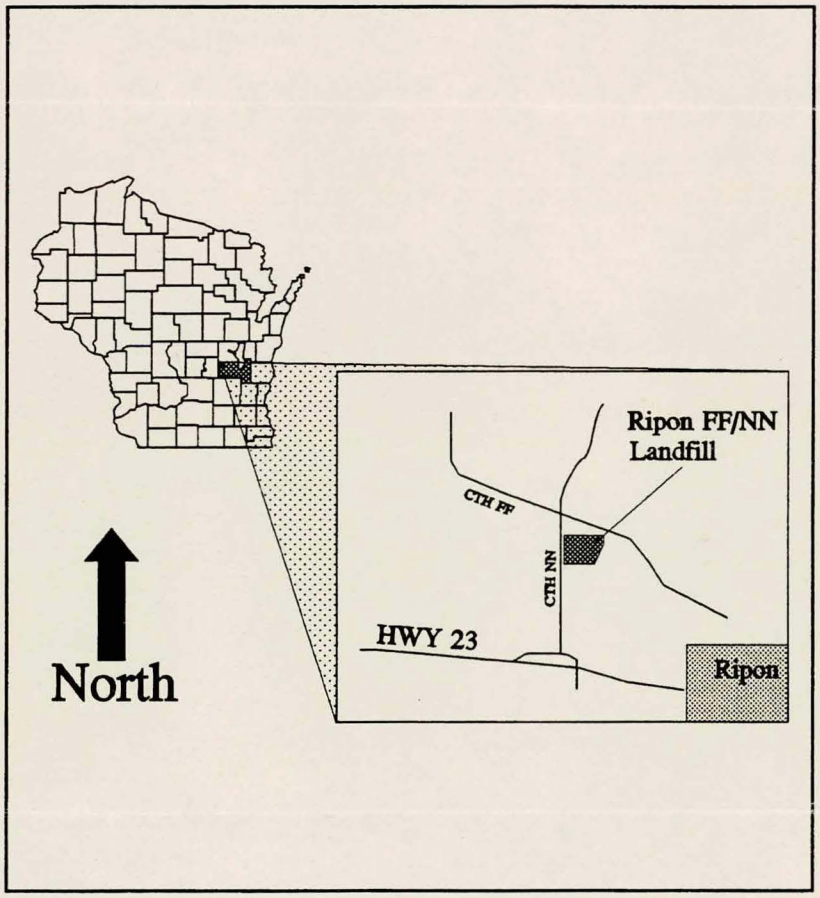

figure 1

INTRODUCTION

The Ripon FF/NN landfill is located just northwest of the City of Ripon near the intersection of county roads FF and NN. The site, open between 1967 and 1983, accepted municipal and industrial wastes and wastewater treatment plant sludge. Groundwater **monitoring wells** located near the landfill indicate that the **groundwater** has become contaminated with solvents, also known as **volatile organic compounds (VOCs)**. Concentrations of specific VOCs have exceeded state groundwater quality standards.

(Continued next page)

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In 1983, the Department of Natural Resources (DNR) began evaluating waste disposal sites for potential inclusion on the federal **National Priorities List (NPL)**. The DNR has recommended to U. S. Environmental Protection Agency (U.S. EPA) that the Ripon FF/NN landfill be listed on the NPL as a **Superfund** site. Superfund was created by the **Comprehensive Environmental Response, Compensation and Liability Act**. At this time, the U. S. EPA has not listed the site on the NPL. The DNR expects the site to be listed in the near future.

SITE BACKGROUND

The Speed Queen Company originally leased the property and opened the site for waste disposal in 1967. In 1968, the City of Ripon leased the property and then in 1978, the City and Town of Ripon leased the site for waste disposal. The City and Town operated the landfill until it closed in 1983. A clay soil **cap** and **gas venting pipes** were installed at the site in 1985. Since that time, the site has been used for farming.

Prior to landfilling, the site was used for gravel. No liner was laid down at the bottom of the gravel pit before wastes were deposited. This means that there is no barrier to prevent movement of contamination down into the groundwater. Rain water, and other forms of precipitation, collects contaminants as it passes through landfill waste.

There are five monitoring wells around the site. The water levels in these wells indicate that the waste is very close to groundwater. Groundwater samples collected from these wells indicate the presence of solvents (VOCs) such as **benzene**, **tetrachloroethylene**, **trichloroethylene**, **1,2 dichloroethylene** and **vinyl chloride**.

The five wells are located very near the landfill. DNR does not yet know how far the contamination goes. However, a private well located about 500 feet south of the landfill contained high levels of vinyl chloride. The well at this house has been abandoned to prevent further use of this water supply.

CURRENT STATUS

On August 14, 1992 a group of **potentially responsible parties (PRPs)** entered into a contract with the DNR in which the PRPs will complete an in-depth study of the soil and groundwater contamination near the landfill. This study, called a **Remedial Investigation (RI)**, will define the extent of groundwater contamination, soils contamination, and will tell whether **methane** gas is being produced within the landfill.

Under an agreement with U.S. EPA, the DNR will be the lead agency for the Ripon FF/NN landfill. This means that the

Mailing List

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Cara Norland-Shultz - SW/3
Community Relations Coordinator
Wisconsin Department of Natural Resources
P. O. Box 7921
Madison, WI 53707

*Name:*_____

*Address:*_____

_____

*Phone:*_____

GLOSSARY

Benzene: Colorless to light yellow liquid with an aromatic odor, used in the manufacture of detergents, nylon and styrene.

Cap: Capping is used to reduce the potential for human exposure to contaminants and prevent rain water from becoming contaminated as it seeps through contaminated soil or landfill wastes and enters the ground water. Caps are made of multiple layers of materials including soil, clay, and synthetic water-tight liners.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): Also known as Superfund. This act was passed in 1980 and set up the procedures for identifying, scoring and cleaning sites that pose serious human health and environmental risk.

Cleanup: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health and/or the environment. The term "cleanup" is often used broadly to describe various response actions or phases of remedial responses such as the remedial investigation/feasibility study.

1,2 Dichloroethylene: Colorless liquid with a chloroform-like odor used as a general solvent, and for dye extraction, perfumes and lacquers.

Gas Venting System: A process used to remove chemical by-products from the ground. For example, certain chemical contaminants, like VOCS, are unstable and readily go into gaseous forms. By setting up a series of interconnected pipes located in contaminated soil, one can actually extract contaminants found in the soil by pumping air in the soil. Contaminants are then treated or vented depending on their concentration.

Groundwater: Groundwater is water that fills the spaces between the soil, rock and gravel particles beneath the earth's surface. Rain that does not immediately flow into streams and rivers slowly penetrates through the soil to the point of saturation to form ground water reservoirs or aquifers which can be used for drinking water. Ground water flows at a very slow rate, often leading to streams, ponds, rivers or lakes.

Methane: A colorless, nonpoisonous, flammable gas created by decomposition of organic compounds in the absence of air.

Monitoring Wells: Special wells drilled at specific locations on or off a hazardous waste site where ground water can be sampled at selected depths and studied to determine such things as the direction in which ground water flows and the types and amounts of contaminants present.

National Priorities List (NPL): U. S. EPA's list of top priority hazardous waste sites that are eligible for the Superfund program. EPA is required to update the NPL at least once a year.

Potentially Responsible Parties (PRPs): Those identified by the U.S. EPA or DNR as potentially liable under the Superfund law for cleanup costs. PRPs may include generators or owners of a facility where hazardous waste has been stored, treated, used, manufactured or disposed of, as well as those who accepted hazardous waste for transport.

Remedial Investigation (RI): The RI includes the collection and evaluation of data to define site conditions, including the extent of releases from the site and the nature of source materials. Data on releases are evaluated to assess the potential effects of the releases on public health and the environment.

Superfund: The common name used for the Comprehensive Environmental Response, Compensation, and Liability Act, also referred to as the Trust Fund.

Tetrachloroethylene (PCE): PCE is a nonflammable, liquid solvent widely used in dry cleaning, wood processing, manufacture of fabrics and metal degreasing.

Trichloroethylene (TCE): TCE is a man-made, clear to pale blue, nonflammable liquid with an ether-like smell that evaporates quickly. This chemical is used primarily as a solvent to remove grease from metal parts.

Vinyl Chloride: An organic compound used in the production of plastics. Vinyl chloride is formed by the decomposition of other organic compounds.

Volatile Organic Compound (VOC): Organic, carbon-containing compounds which readily vaporize at normal temperatures. Some VOCs present a human health risk due to potential cancer-causing or other health effects.

DNR will coordinate and manage the investigation and **cleanup** of the site.

The investigation will follow procedures outlined by the federal Superfund law. U.S. EPA will be given an opportunity to review the final cleanup plan.

Under terms of the contract with the DNR, the PRP group has also agreed to control or stop the movement of additional contaminants from the landfill to the groundwater.

ASPECTS OF THE INVESTIGATION

In order to define the extent of groundwater contamination, the PRP group will complete the following tasks:

1. Install additional monitoring wells to define the extent of groundwater contamination;
2. Place three wells through the waste to determine if the base of the site is in contact with groundwater;
3. Bore into the landfill cap to determine the condition of the present landfill cover;
4. Place gauges in nearby wetlands to see how groundwater and surface water in the wetlands are connected, and;
5. Investigate whether there may be other sources of contamination on the landfill property.

Once these tasks and others are completed, the results will be summarized in the RI Report. The DNR will then use the new data to make a decision about the best remedy for this situation.

Information Available

For more information on the Sauk County Landfill Superfund Site, contact the following individuals:

Steve Ales
Project Manager
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3911 Fish Hatchery Rd.
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(608) 275-3310

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Ripon FF/NN Landfill Site Public Information Meeting Set for April 20

See front page for details.

Superfund Program Unit
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