EPA Region 5 Records Ctr.

DECLARATION FOR THE RECORD OF DECISION 955575

SITE NAME AND LOCATION

Tomah Fairgrounds Landfill, Tomah, Monroe County, Wisconsin

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Tomah Fairgrounds Landfill (TFL) site in Tomah, Monroe County, Wisconsin, which was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and is consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to the extent practicable. This decision is based upon the contents of the Administrative Record for the site.

The State of Wisconsin has indicated a willingness to concur with this decision. A written confirmation is expected by September 30, 1996, and will be added to the administrative record upon receipt.

DESCRIPTION OF THE SELECTED REMEDY

United States Environmental Protection Agency (U.S. EPA) has found that "No Further Action" is appropriate due to properly implemented deed restrictions limiting land use and an agreement between the City of Tomah and the Wisconsin Department of Natural Resources (WDNR) implementing natural attenuation of ground water.

DECLARATION STATEMENT

U.S. EPA has found that no further remedial action is necessary at the TFL to ensure protection of human health and the environment. A brief description of the basis for this finding is set forth below.

U.S. EPA conducted a remedial investigation that identified contamination both in site soils and in ground water at the TFL. U.S. EPA then completed a risk assessment that evaluated the risks posed by these sources of contamination. Utilizing U.S. EPA's Office of Solid Waste and Emergency Response Directive No. 9355.7-04 entitled "Land Use in the CERCLA Remedy Selection Process," this assessment included a consideration of current and future land use, including limitations imposed by existing institutional controls. In addition, to further assess conditions at the site, data collected during the remedial investigation was compared to Ch. NR 140, Groundwater Standards, Wisconsin Administrative Code, and Ch. NR 720, Soil Standards, Wisconsin Administrative Code.

Based on the information collected to date on the site contamination, associated risks to human health and the environment, and consideration of state soil standards, U.S. EPA concluded that

remediation of soil is not warranted under the current or anticipated future land use. The City of Tomah has implemented proper deed restrictions limiting the land use at the TFL to recreational purposes. U.S. EPA believes that, given the degree of exposure associated with recreational use, contaminated soil poses no significant risk to human health or the environment. Therefore U.S. EPA is recommending that no further action be taken at this site for the landfill materials.

Based on the information collected to date on the site contamination, associated risks to human health and the environment, and consideration of state groundwater standards, U.S. EPA is recommending natural attenuation for the groundwater contamination identified at the TFL. This recommendation is based on: 1) the existing City ordinance preventing groundwater use within and around the TFL; and 2) the signing of an agreement between the City of Tomah and the WDNR requiring maintenance of this ordinance and the implementation of groundwater monitoring to evaluate natural attenuation. U.S. EPA concluded that as long as contaminated ground water remains untapped in the vicinity of the Fairgrounds and attenuates before it reaches an area where residents rely on private wells, groundwater contamination poses no significant risk to human health or the environment

Although this decision is for "No Further Action", EPA will conduct five-year reviews in accordance with CERCLA Section 121. The five-year reviews will be performed because hazardous substances will remain at the site, and because the existing institutional controls to prevent unacceptable exposures from these substances will remain over the long term.

U.S. EPA has determined that its response at this site is complete. Therefore, the site now qualifies for inclusion on the Construction Completion List.

9/26/96
DATE

Wm. E. Muno
William E. Muno
Superfund Division Director

U.S. EPA Superfund
Record of Decision

Tomah Fairgrounds Landfill Site

Tomah, Monroe County, Wisconsin
September, 1996

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Figure 2 Tomah Fairgrounds Landfill Site Base Map
With Phase II Groundwater Sampling Locations

Figure 3 Tomah Fairgrounds Landfill Site Base Map
With Phase I Groundwater Sampling Locations

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DECISION SUMMARY

I. Site Description

The Tomah Fairgrounds Landfill (TFL) is located in the southeastern portion of the City of Tomah, Monroe County, Wisconsin (Figure 1). The TFL property covers roughly 37.5 acres, with the landfill itself occupying about 15 acres within the boundaries of the Fairgrounds (Figure 2). The landfill area is a grass-covered, open field that is often used as a parking lot during Fairground events. The site is bordered on the north by Grassman Street and a residential area. Fair Street runs along the eastern border, angles across the southeast corner and borders the Fairgrounds along the south. Further east lies a commercial/industrial area. To the south and southwest are seven homes with private drinking water wells and open fields. To the west is an open field. Besides the seven homes to the south and southwest, the remaining residences around the Fairgrounds are supplied drinking water by the City of Tomah municipal service.

II. Site History and Enforcement Activities

The TFL was used and operated by the City of Tomah as a disposal site before the Tomah Municipal Sanitary Landfill was developed. Landfilling occurred at the site from 1955 until the site was closed in 1960. Upon its closure, waste disposal was transferred to the municipal sanitary landfill.

Waste disposal methods consisted of excavating 6 to 8 feet of soil, landfilling, placement of a cover consisting of previously excavated soils, and a final grading process. Some material disposed of in the landfill may have been burned before it was buried. No disposal records regarding the types (residential, commercial, or industrial) or quantities of material buried were maintained.

Representatives of the Wisconsin Department of Natural Resources (WDNR) and the U.S. EPA's Field Investigation Team (FIT) investigated the site in 1984 to gain information for a preliminary assessment. A site inspection report was prepared, and the site was scored using the Hazard Ranking System (HRS). The site was placed on the National Priorities List (NPL) on July 21, 1987. The possible effects of disposal directly into an aquifer and the potential for direct contact with hazardous substances because of erosion of the landfill cap were the concerns raised during the preliminary assessment.

In January, 1988, the Agency for Toxic Substances and Disease Registry (ATSDR) prepared a preliminary health assessment for the site. The assessment lists a number of potential exposure routes including ingestion and dermal contact with ground water, surface water, and soils and inhalation of contaminated dusts or volatile compounds. The assessment was completed before the collection of any samples at the site and thus recommended environmental characterization and sampling of the site to address the environmental and human health exposure pathways.

In August, 1991, WDNR collected groundwater from three residential wells south of the Fairgrounds. The samples were analyzed for volatile organic compounds (VOCs). VOCs were

not detected in any of the residential well samples.

In February, 1992, U.S. EPA sampled ground water in three residential wells near the TFL to confirm WDNR's results. Analyses of the samples revealed no chemicals above state or federal standards.

In July, 1993, U.S. EPA, in cooperation with WDNR and the United States Geological Survey (USGS), conducted a Phase I remedial investigation (RI) at the TFL. The purpose of the Phase I RI was to collect groundwater and soil samples to characterize the nature and extent of contamination and associated exposure risks. This characterization would provide a basis for deciding whether further action was necessary at the site. Results of the Phase I RI indicated that additional groundwater and soil sampling was needed to adequately characterize the site.

Research to identify parties responsible for conditions at the TFL was completed in December, 1994. U.S. EPA named the City of Tomah as a potentially responsible party (PRP), based on the City's ownership and operation of the site. U.S. EPA sent a special notice letter to the City in January, 1995, requesting a "good faith" proposal to continue the Phase II remedial investigation/feasibility study (RI/FS). In February, 1995, the City declined the offer to perform the response action. U.S. EPA initiated a fund-lead Phase II RI/FS in March, 1995.

III. Highlights of Community Participation

In July, 1993, U.S. EPA hosted a "kick-off" public meeting at the Tomah City Hall Council Chambers . The purpose of the meeting was to inform local residents of the Superfund process and the work to be performed under the RI.

An information repository has been established at the Tomah Public Library, 716 Superior Avenue, Tomah, Wisconsin. U.S. EPA maintains a copy of the administrative record for the site in the information repository. The RI was released to the public in July, 1996. A Proposed Plan was made available on July 26, 1996. A public meeting was held on August 7, 1996, to discuss the RI and Proposed Plan. Advertisements were placed in local newspapers to announce the public meeting and comment period. A public comment period for the Proposed Plan was established from July 29, 1996, to August 29, 1996. The public generally supports the selected remedy. The responsiveness summary is contained in Appendix A.

The public participation requirements of CERCLA Sections 113 (k)(2)(B) (i-v) and 117 of CERCLA have been met in the remedy selection process. This decision document presents the selected remedy for the Tomah Fairgrounds Landfill Superfund site, chosen in accordance with CERCLA, as amended by SARA, and to the extent practicable, the NCP. The decision for this site is based on the Administrative Record.

IV. Scope and Role of Response Action

U.S. EPA has determined that "no further action" is necessary at the TFL. This decision is based on an analysis of site risks, described in detail below. The decision relies on legal assurances that contaminated land will not be used in a way that could pose significant risks, and that groundwater monitoring will continue until it is clear that groundwater contamination has attenuated. Because hazardous substances will remain at the site, U.S. EPA will conduct a five-year review in accordance with Section 121 of CERCLA to assess whether any other response is necessary.

V. Site Characteristics

The Phase I and II RI involved sampling and analysis of ground water, air, subsurface soil, and surface soil to determine site conditions. Groundwater samples were collected from residential and monitoring wells around the site. Subsurface and surface soils were collected from within the landfilled area to determine if contamination is present as well as outside the landfilled area to determine background conditions. A geophysical investigation consisting of a magnetic survey and an electromagnetic survey was conducted to determine the approximate boundaries of the landfilled area.

Based on the results of the RI, U.S. EPA examined the threats to human health and the environment through exposure by ingestion and/or direct contact with contaminants in ground water, and in subsurface and surface soils.

Site Conditions

Physical Features

1. Soils

Data from soil borings indicate that the Fairgrounds is underlain predominantly by tan, brown, and gray fine-grained soils. These deposits are alluvial and lacustrine in origin. Clayey sands, with the characteristics of wetland soils, were encountered in borings outside of the landfill area at depths of about 4 to 6 feet. These shallow clayey sand lenses may be associated with wetlands that are numerous in the area and occur near the site.

2. Hydrology

There are no surface water bodies onsite. The Fairgrounds is covered with buildings; paved and dirt roadways; and gravel, paved, and grass parking areas. The landfill is grass-covered and used as a parking lot for some Fairground events. Overland flow of water during storms occurs primarily in the paved and gravel parking areas. The area is drained by storm sewers within the

Fairgrounds boundaries and along roads outside the Fairgrounds fence line. In the vicinity of the landfill area, surface runoff follows the site topography and flows toward the north and west.

3. Hydrogeology

Ground water at the Fairgrounds was encountered between 1 to 9 feet below ground surface, depending on the topography. During July and September, 1995, ground water was determined to flow to the northwest toward Lake Tomah and its surrounding wetlands. Hydraulic conductivities were not measured as part of the RI. However, an average horizontal flow velocity of 28 ft/yr was calculated, based upon data collected from monitoring wells screened in similar materials at the Tomah Municipal Sanitary Landfill Superfund site, which is located on the northwest side of Tomah.

The main regional and local aquifer in the area are the sandstone formations of Late Cambrian age. The Cambrian sandstones also contain lenses of dolomite, siltstone, and shale. The aquifer varies in thickness from 50 to 2,500 feet across the region.

Virtually all drinking water within the Tomah city limits is provided by municipal services. There are five municipal wells sunk into the sandstone aquifer. Three of the wells are currently in use at depths ranging from 280 to 325 feet. Two wells are not currently used. All of the wells are within 1 to 3 miles of the site. Data collected as part of the RI indicate that the municipal wells are unaffected by contamination at the TFL.

4. Ecology

The Fairgrounds is characterized by buildings, barns, paved and dirt roads, mowed lawns, and two areas of mature trees. Wildlife habitat at the Fairgrounds is limited due to lack of vegetative cover.

Land surrounding the Fairgrounds includes wetlands, woodlands, grassy fields, and agricultural, residential, and commercial land.

WDNR's Bureau of Endangered Resources reports no known occurrences of threatened or endangered species, or natural areas in the vicinity of the site. The U.S. Fish and Wildlife Service does report that endangered and threatened species occur in Monroe County. However, the U.S. Fish and Wildlife Service believes that these species are not being adversely affected by conditions at the site.

5. Contamination

Phase I RI

In July, 1993, U.S. EPA, in cooperation with WDNR and the United States Geological Survey

(USGS), collected groundwater and subsurface soil samples and had them analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals as part of a Phase I RI. The Phase I groundwater sampling locations are shown on Figure 3. Sampling results indicated that contaminants within the landfill boundary are present in concentrations above state and/or federal standards. The primary contaminants of concern in ground water are lead and vinyl chloride, found primarily within the boundaries of the landfill. Three upgradient residential wells were also sampled for VOCs, SVOCs, and metals as part of the Phase I RI. The upgradient residential wells are not affected by the groundwater contamination from the site. The Phase I RI concluded that the presence of vinyl chloride and lead in the ground water at levels that exceed health standards along with the cumulative effect of the other chemicals, merited additional groundwater monitoring.

The evaluation of the nature and extent of contamination in the subsurface soils indicated that, although some contamination occurs at depth, the concentrations detected do not warrant further investigation. However, the Phase I RI concluded the surface soils needed to be characterized to evaluate risks associated with direct contact at the landfill area through unrestricted access and use as a parking lot for Fairground events.

Phase II RI

Field investigations for the Phase II RI included sampling of surface soils on and off the landfill and the installation of monitoring wells for sampling ground water. The location of the monitoring wells are shown on Figure 2. Groundwater flow is to the north-northwest, putting MW-2, MW-3, MW-4S, and MW-4D downgradient.

The results of the surface soil sampling indicated the presence of contaminants at levels exceeding background. In particular, a number of heavy metals including cadmium, chromium, lead, mercury, and selenium were detected in the surface soils. Only one surface soil sample exceeded the State soil standard for lead. All other concentrations were either at or below State soil standards.

Results of the groundwater analysis indicated the presence of vinyl chloride and cis-1,2-dichloroethene (cis-1,2-DCE) in a deep well located downgradient of the TFL, MW-4D on Figure 2. Vinyl chloride was detected at a concentration of 6 parts per billion (ppb). The cis-1,2-DCE was detected at a concentration of 2 ppb. A second round of samples was taken in the same well to confirm the presence of the vinyl chloride and cis-1,2-DCE. Concentrations detected in the second round were 9 ppb for vinyl chloride and 3 ppb for cis-1,2-DCE. The federal groundwater standards for vinyl chloride and cis-1,2-DCE are 2 ppb and 70 ppb, respectively. Volatile organic compounds (VOCs) were not detected in any other monitoring wells at the site, including a shallower well (MW-4S) located at the same location as the downgradient deep well. In addition, a number of metals were detected, including arsenic, barium, cadmium, chromium, lead, and mercury. Downgradient concentrations of these inorganic analytes are higher than upgradient concentrations. The downgradient concentrations

of barium, cadmium, and mercury are still below their respective federal groundwater standards and therefore were not considered significant. The remaining concentrations of arsenic, chromium, and lead did exceed their respective federal groundwater standards. However, observations during the groundwater sampling indicated that the water samples collected from the monitoring wells were turbid. Thus, samples were also analyzed for dissolved metals to determine if the high metals concentrations were on the suspended solid fraction rather than dissolved in the water. The analyses of the dissolved metals did not detect any arsenic, chromium, or lead in any of the filtered samples.

VI. Summary of Site Risks

U.S. EPA used the data collected during the RI to assess human health and ecological risks. This assessment compared contamination levels at the site with U.S. EPA standards. In addition, further assessment of conditions at the site compared contamination levels at the site with Ch. NR 140, Groundwater Standards, Wisconsin Administrative Code, and Ch. NR 720, Soil Standards, Wisconsin Administrative Code. The assessment considered ways in which people and wildlife could be exposed to site-related contaminants and whether such exposure could increase the incidence of cancer and noncarcinogenic (noncancer related) diseases above the levels that normally occur in the study area.

The screening assumed that people could be exposed to site-related contaminants by a number of different pathways (e.g., - ingestion, inhalation, dermal contact). Exposure to surface and subsurface soils, landfill gases, and ground water were evaluated under current and future land use conditions.

Current land use and reasonably anticipated future use of the land at NPL sites are important considerations in determining current risks, future potential risks, and the appropriate extent of remediation. (See "Land Use in the CERCLA Remedy Selection Process," OSWER Directive No. 9355.7-04, May 25, 1995). Land use assumptions affect the exposure pathways that are evaluated in the risk assessment. The results of the risk assessment aid in determining the degree of remediation necessary to ensure current and long-term protection at the site. The risk assessment considers present use of the site to determine current risks. It may restrict its analysis of future risks to the reasonably anticipated future land use.

In the case of the TFL risk assessment, U.S. EPA assumed that the future use of the site would be the same as the current use, i.e., recreational, and not residential in nature. EPA based that assumption on land use restrictions currently in effect, including deed restrictions and a city ordinance. (Copies of these restrictions are included in the Administrative Record). Consistent with a recreational use of the site, EPA focused on the risks to recreational users and utility workers. However, in addition, EPA went further than was strictly necessary by calculating some risks associated with residential land use, i.e., risks arising from regular use of ground water for drinking and bathing. Due to the institutional controls already in place, these activities are unlikely. EPA therefore considers the risks calculated for them as conservative estimates

associated with a potential, but unlikely use of the site, rather than as realistic estimates associated with the reasonably anticipated future use of the site. As such, they point to the importance of maintaining land use controls so that the risks associated with residential use never arise.

Potential risks to public health for cancer are expressed numerically, i.e., $1x10^{-4}$ or $1x10^{-6}$. Carcinogenic risk expressed as $1x10^{-4}$ means that of 10,000 people exposed to contamination over a 70-year lifetime one individual could potentially develop cancer as a result of the exposure. A carcinogenic risk of $1x10^{-6}$ means that of 1,000,000 people exposed over a 70-year lifetime one individual could potentially develop cancer as a result of the exposure. U.S. EPA has established a carcinogenic risk range from $1x10^{-4}$ to $1x10^{-6}$ in an attempt to set standards for remediation and protectiveness. The measure of noncarcinogenic risk is termed a hazard index (HI) and is also expressed numerically. When the HI exceeds 1, there is a potential for adverse health effects.

In general, low levels of contamination have been observed in the surface and subsurface soil throughout the landfilled area and there do not appear to be any hot spots. Methane and organic vapors were not detected during the sampling of surface soil indicating that volatization of landfill gases to the atmosphere is limited under existing conditions. In addition, based on site specific conditions, including the size and depth of the landfill, the distance of the surrounding residential areas from the landfill, and current deed restrictions that eliminate possible exposures, U.S. EPA concluded that migration of subsurface landfill gas was not a significant or completed pathway of concern. The potential for release of contaminated dust to the atmosphere is limited based on the relatively heavy vegetative or gravel covers over most of the contaminated areas. Moreover, activities such as excavation or grading that might release contaminants to the air require WDNR approval under existing property restrictions.

Although downgradient concentrations of metals are up to an order of magnitude higher than upgradient metals concentrations, groundwater contamination appears limited . This has been confirmed from the results of the filtered, dissolved metals analyses which indicated no exceedances in the downgradient monitoring wells. The existence of low levels of vinyl chloride in the groundwater downgradient of the landfill was also confirmed, but is limited to one downgradient well. Discharge of contaminated groundwater to private wells is not considered a viable pathway. With the exception of three upgradient private wells that have not shown any impact, there is no known use of groundwater at the site or in the surrounding areas. In addition, the City of Tomah has filed a deed restriction and has implemented a zoning ordinance that prohibits permits for well operation on the Tomah Fairgrounds property and within a zone that extends 400 feet beyond the northern boundary of the Fairgrounds. Municipal water is being supplied to this area, eliminating the need to tap potentially contaminated ground water.

Currently, it is possible that attendees of public events and utility workers employed to maintain the Fairgrounds could be exposed to contaminants in the surface soil. Potential excess lifetime cancer risks due to surface soil exposure estimated for recreational adults were $3x10^{-9}$. Potential

excess lifetime cancer risks due to surface soil exposure for recreational children were $2x10^{-9}$. For an adult utility worker the cancer risks for exposure to surface soils were estimated at $1x10^{-7}$. All these estimates were below the federal risk standard of $1x10^{-6}$. Hazard indices calculated for surface soil exposures were .005 for the adult recreational user, .01 for the child recreational user, and .2 for the adult utility worker. All these values are below the federal standard of 1.0.

Subsurface soil exposure to those in attendance during events is unlikely; however, utility workers could be exposed if excavation activities within the landfill are necessary. The potential excess lifetime cancer risk due to subsurface soil exposures for utility workers was $7x10^{-6}$. This cancer estimate is within the acceptable federal risk range of $1x10^{-4}$ to $1x10^{-6}$. The hazard index calculated for subsurface soil exposure was .4 for the adult utility worker. This value is below the federal risk standard of 1.0.

Future contact with site surface and subsurface soil will be the same that exists under current land use conditions assuming the status of the TFL and all controls (institutional and zoning) remain intact. However, if controls are eliminated, it is possible that residential exposures to surface soil, subsurface soil, and groundwater could occur and potential risks to future residential users could exceed acceptable U.S. EPA risk standards. Based on a recent, binding agreement between WDNR and the City of Tomah that requires maintenance of deed restrictions, etc.,, U.S. EPA believes that any weakening of the existing institutional controls is unlikely.

An ecological risk assessment was conducted to estimate the risks to terrestrial organisms at the site and qualitative measure impacts on areas surrounding the TFL. Except for potential risks associated with the target receptor, the American robin, which were based on conservative assumptions, selected receptors were not considered at risk based on benchmark values in the literature. No adverse impact or actual damage associated with the TFL to the aquatic ecosystem, adjacent wetlands, and a nearby lake, was observed.

Based on the information collected to date on the site contamination and associated risks to human health and the environment, remediation of both soil and groundwater is not warranted under current land use. The City of Tomah has implemented institutional controls and deed restrictions to limit future land use to current land use conditions and restrict use of the ground water on the site and 400 feet north (downgradient) of the TFL. In addition, the City of Tomah and the WDNR reached an agreement in which the City will perform natural attenuation monitoring and will maintain permanent institutional controls and deed restrictions at the site. Under the agreement, groundwater standards set forth in Chapter NR 140, Groundwater Quality, Wisconsin Administrative Codes, need to be achieved within a reasonable timeframe. The WDNR has determined that ten years is a reasonable timeframe for trends to be established that show the natural reduction of the contaminants of concern in groundwater. If after ten years additional monitoring is necessary the timeframe can be extended. The agreement also includes provisions that will maintain institutional controls and deed restrictions at the TFL on a permanent basis. However, a future remedial action might be warranted if the Fairgrounds became residential, if private well use was allowed on or near the site, or if natural attenuation

has not effectively remediated groundwater.

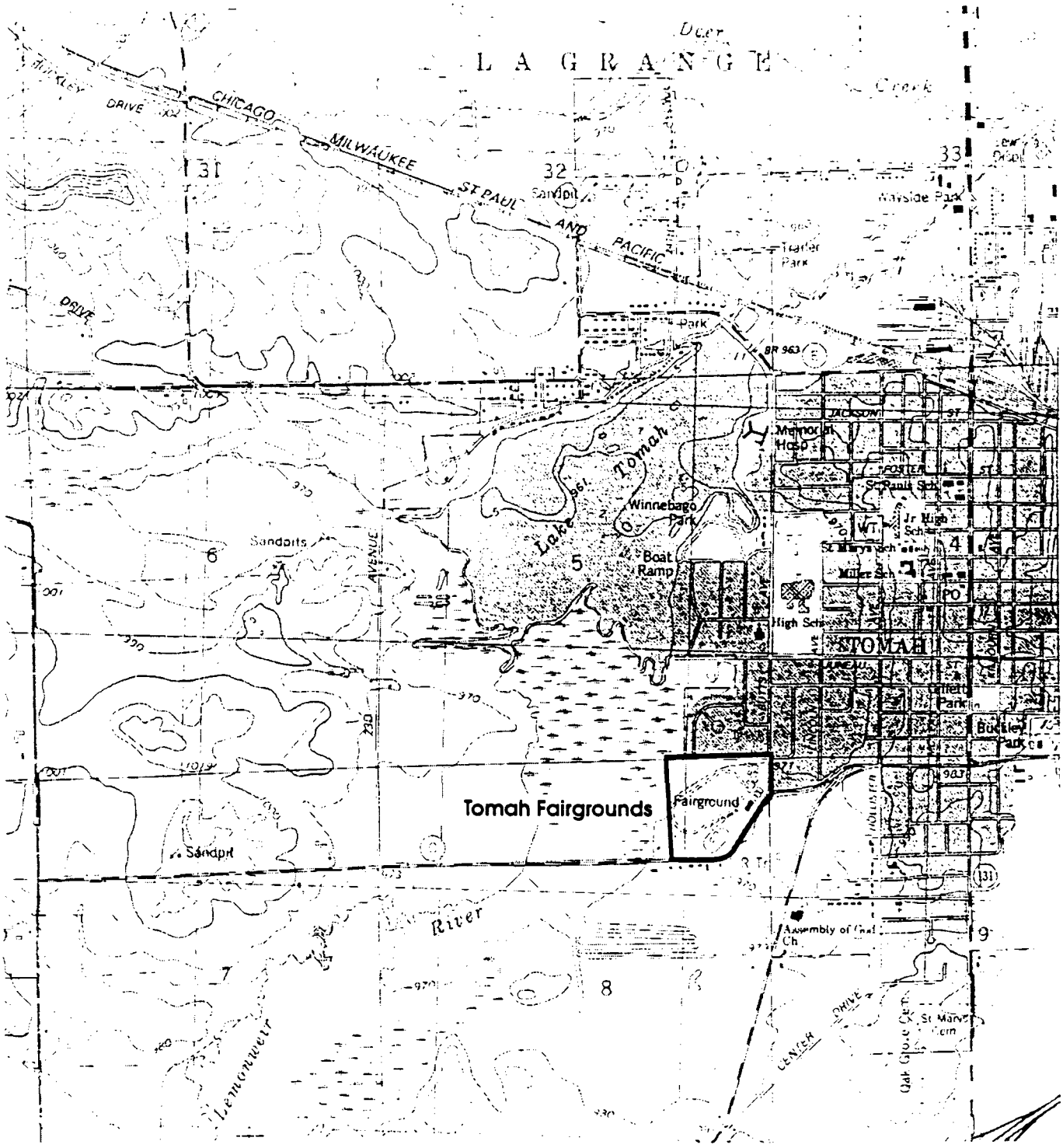
VII. Explanation of Significant Changes

There are no significant changes from the recommended alternative described in the proposed plan.

VIII. State Concurrence

The State of Wisconsin has indicated a willingness to concur with this decision. A written confirmation is expected by September 30, 1996 and will be added to the administrative record upon receipt.

FIGURES



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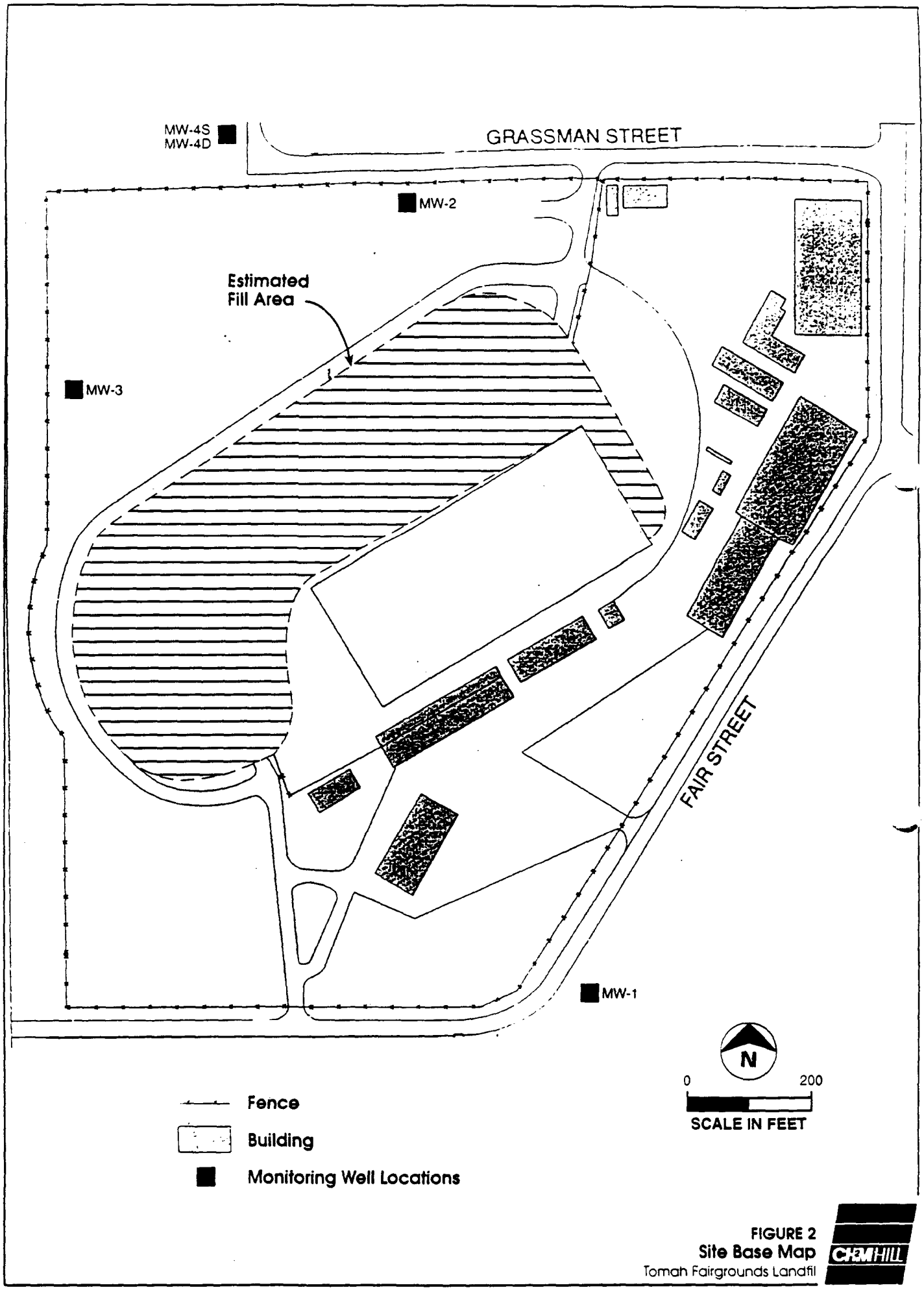
SCALE IN FEET

from Tomah Quadrangle 7.5' series
(topographic) 1983

FIGURE 1
Site Location Map
Tomah Fairgrounds Landfill

CH2MHILL

E116671 RI R3 Site Location 9-19-96ill/mms



E116671.RI.R3 Site Base Map 9-19-96 lll/ms

FIGURE 2
Site Base Map
Tomah Fairgrounds Landfil

CH2MHILL

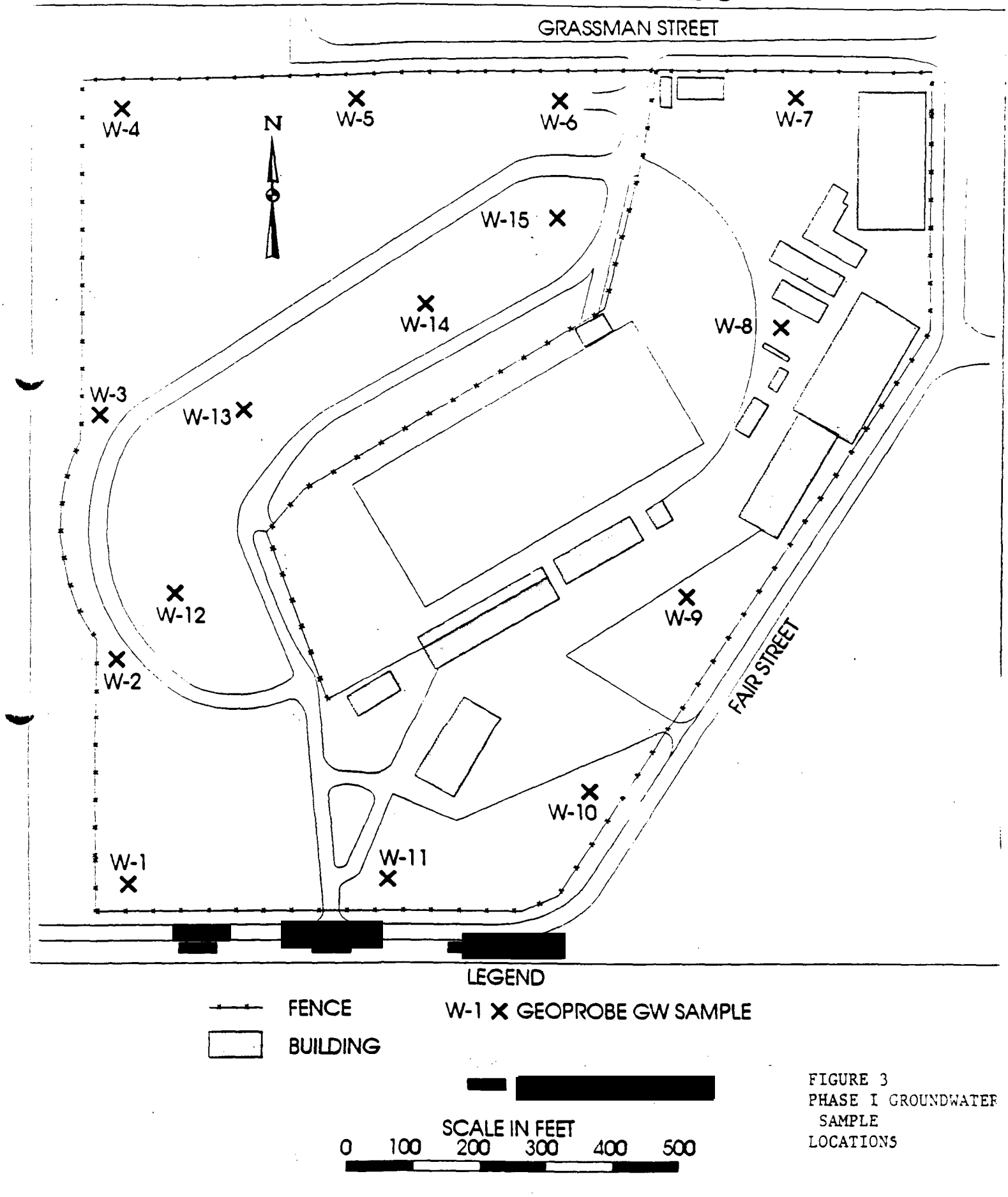


FIGURE 3
PHASE I GROUNDWATER
SAMPLE
LOCATIONS

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY
TOMAH FAIRGROUNDS LANDFILL
TOMAH, MONROE COUNTY, WISCONSIN

PURPOSE

This responsiveness summary has been prepared to meet the requirements of Sections 113(k)(2)(B)(iv) and 117(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1986 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), which requires the United States Environmental Protection Agency (U.S. EPA) to respond to each of the significant comments, criticisms, and new data submitted in written and oral presentations on a proposed plan for remedial action. The responsiveness summary provides a summary of citizen's comments and concerns identified and received during the public comment period, and U.S. EPA's responses to those comments and concerns. All comments received by U.S. EPA during the public comment period were considered in the selection of the remedial alternative for the TFL. The responsiveness summary serves two purposes: it summarizes community preferences and concerns regarding the remedial alternatives, and it shows members of the community how their comments were incorporated into the decision-making process.

This document summarizes written and oral comments received during the public comment period of July 29, 1996 to August 28, 1996. The comments have been paraphrased to efficiently summarize them in this document. The public meeting was held at 7:00 p.m. on August 7, 1996 at the Tomah City Hall Council Chambers, Tomah, Wisconsin. A full transcript of the public meeting, as well as all site related documents, are available for review at the Information Repository, located at the Tomah Public Library, 716 Superior Avenue, Tomah, Wisconsin. Comments and questions were received during the public meeting from several residents and/or city officials. No comments were mailed to U.S. EPA.

OVERVIEW

The proposed remedial alternative for the Tomah Fairgrounds Landfill was announced to the public just prior to the beginning of the public comment period. U.S. EPA proposed no further action.

Community Comments

1. Comment: What determines the length of time for groundwater monitoring?

   Response: The timeframe for monitoring of ground water is dependent on the effects of natural attenuation in reducing levels of contamination currently present in ground water. WDNR and U.S. EPA have established five year reviews that allow an opportunity to review groundwater monitoring data collected over subsequent five years to determine if natural attenuation is resulting in reduction of contaminants in the ground water. However, if after five years the effects of natural attenuation are not discernible, the

timeframe for monitoring may need to be extended to allow more time for contamination to diminish.

2. Comment: What is the frequency of the groundwater monitoring, i.e. annually, semiannually, etc...?

   Response: Semiannually (twice a year) for wells downgradient of the TFL, and once a year for the upgradient well. In addition, private drinking water wells will be sampled every five years, as part of the mandatory five-year review, to ensure that they are not impacted and the decision remains protective..

3. Comment: Is it reasonable to assume, based upon the U.S. EPA recommended alternative, that there was not a great deal of contamination at the TFL?

   Response: While there is certainly less contamination at TFL than at many municipal landfills, there is enough limited contamination present in ground water and soils to raise levels above federal and state standards. EPA's determination that no further action is necessary is not based on a single factor such as the amount of contamination, but on a variety of factors. These include the presence of institutional controls to preclude residential land use and a binding agreement requiring groundwater monitoring. EPA believes that, given the current land use controls, contamination does not pose a significant risk onsite, and that ground water contamination will attenuate before it can pose any significant risk offsite. EPA will review regular groundwater monitoring results to confirm this.

4. Comment: How far north of the Fairgrounds was ground water sampled?

   Response: A monitoring well nest, containing a deep water well (approximately 25 feet deep), and a shallow well (approximately 12 feet deep or at the water table), was installed in a vacant lot approximately 50 to 75 feet north of the Fairgrounds boundary. The deep water well showed limited contamination. Regional groundwater flow is to the north-northwest. An area of 400 feet from the northern boundary of the Fairgrounds was established to help define an area covered by the city ordinance which restricts installation of drinking water wells and also provides a buffer zone for the natural attenuation of the groundwater.

5. Comment: One commenter wanted clarification on the negotiation process for the long-term groundwater monitoring. The same commenter wondered what would happen if the city did not sign a consent order to perform the long-term groundwater monitoring? Another commenter asked if the City of Tomah could contract to do the long-term groundwater monitoring more cheaply than allowing the Agencies to conduct the sampling and analysis.

Response: EPA's determination that no further action is warranted assumes that a long-term groundwater monitoring program will take place, pursuant to a binding agreement between the City of Tomah and WDNR. To monitor the effects of natural attenuation of the ground water, monitoring wells on and around the Fairgrounds property will be sampled and analyzed. In many cases, U.S. EPA or WDNR would perform the sampling and analysis. However, because the Agencies and the City of Tomah believe that it may be more cost effective for the city to contract the long-term monitoring itself, WDNR developed a consent agreement which specifies long-term groundwater monitoring requirements the City must meet. The City of Tomah signed the agreement on September 17 , 1996. U.S. EPA and WDNR will track the monitoring results as they come in and will conduct a formal review at five-year intervals to determine the efficacy of natural attenuation. If the Agencies agree that natural attenuation has reduced the levels of contamination in groundwater to a point where the monitoring is no longer needed, the City of Tomah may petition WDNR to terminate the monitoring requirements. Because the guaranteed monitoring is one of the bases for the overall remedial decision at the site, reaching a decision on the long-term groundwater monitoring was essential to avoid significant delays in the remedial-decision making process.

6. Comment: What will happen to the monitoring wells after the long-term monitoring is completed? If they are removed, who pays to close them?

Response: The monitoring wells would need to be properly abandoned at the City of Tomah's expense.

APPENDIX B

Administrative Record

AR

U.S. EPA ADMINISTRATIVE RECORD
REMEDIAL ACTION
TOMAH FAIRGROUNDS SITE
TOMAH, WISCONSIN
UPDATE #2
09/26/96

DOC#	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	05/20/96	Kuhlmann, W., Boardman, Suhr, Curry & Field	Meyer, L., WDNR	Letter Forwarding Attached (1) Certified Change to the Ordinance on Well Abandonment and (2) Duly Filed Deed Restriction re: the Tomah Fairgrounds NPL Site	7
2	07/00/96	U.S. EPA	Public	Fact Sheet: Proposed Plan for the Tomah Fairgrounds Site and Announcement of August 7, 1996 Public Meeting and July 29 - August 28, 1996 Public Comment Period	5
3	08/07/96	Southwest Reporters, Inc.	U.S. EPA	Transcript of August 7, 1996 Public Meeting re: the Proposed Plan	29
4	00/00/99	Meyer, G., WDNR	Muno, W., U.S. EPA	Letter re: WDNR's Concurrence with the Selected Remedy for the Tomah Fairgrounds Superfund Site	2
5	00/01/99	WDNR	Respondents	Consent Order Between WDNR and the City of Tomah (PENDING)	0
6	00/02/99	U.S. EPA		Record of Decision for the Tomah Fairgrounds Site (PENDING)	0

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U.S. EPA ADMINISTRATIVE RECORD
REMEDIAL ACTION
TOMAH FAIRGROUNDS SITE
TOMAH, WISCONSIN
UPDATE #2
09/18/96

DOC#	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	05/20/96	Kuhlmann, W., Boardman, Suhr, Curry & Field	Meyer, L., WDNR	Letter Forwarding Attached (1) Certified Change to the Ordinance on Well Abandonment and (2) Duly Filed Deed Restriction re: the Tomah Fairgrounds NPL Site	7
2	07/00/96	U.S. EPA	Public	Fact Sheet: Proposed Plan for the Tomah Fairgrounds Site and Announcement of August 7, 1996 Public Meeting and July 29 - August 28, 1996 Public Comment Period	5
3	08/07/96	Southwest Reporters, Inc.	U.S. EPA	Transcript of August 7, 1996 Public Meeting re: the Proposed Plan	29
4	00/00/00	WDNR	U.S. EPA	Letter re: WDNR's Concurrence with the Record of Decision for the Tomah Fairgrounds Site (PENDING)	0
5	00/00/00	U.S. EPA		Record of Decision for the Tomah Fairgrounds Site (PENDING)	0

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U.S. EPA ADMINISTRATIVE RECORD
REMEDIAL ACTION
TOMAH FAIRGROUNDS SITE
TOMAH, WISCONSIN
UPDATE #1
07/23/96

DOC#	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	01/10/95	U.S. EPA	Respondents	Administrative Order on Consent re: Remedial Investigation/Feasibility Study for the Tomah Fairgrounds Landfill Site (UNSIGNED) w/Attached Statement of Work	69
2	01/19/95	Mayka, J., U.S. EPA	City of Tomah	Letter re: Notification of Potential Liability	4
3	02/21/95	Pollard, F., City of Tomah	Mayka, J., U.S. EPA	Letter re: City of Tomah's Response to U.S. EPA's Letter of January 19, 1995 Concerning Notification of Potential Liability	4
4	03/07/95	Feingold, R., U.S. Senate	Collum, T., U.S. EPA	Letter re: Status of City of Tomah's Superfund Sites	1
5	03/22/95	Adamkus, V., U.S. EPA	Feingold, R., U.S. Senate	Letter re: U.S. EPA's Response to Senator Feingold's March 7, 1995 Letter Concerning the Status of the Tomah Superfund Sites	3
6	04/13/95	Feingold, R., U.S. Senate	Collum, T., U.S. EPA	Letter re: City of Tomah Superfund Sites (ATTACHMENT CONSISTS OF ATTORNEY/CLIENT PRIVILEGED INFORMATION AND HAS NOT BEEN COPIED FOR PHYSICAL INCLUSION INTO THE AR)	23
7	04/28/95	Adamkus, V., U.S. EPA	Feingold, R., U.S. Senate	Letter re: EPA's Evaluation of City of Tomah's Report Concerning the Hazard Ranking System Site Score and Placement of the Tomah Armory and Fairgrounds Sites on the National Priorities List	3
8	04/28/95	Petri, T., U.S. Congress	Adamkus, V., U.S. EPA	Letter re: Status of Two Landfills in the City of Tomah Considered Superfund Sites (ATTACHMENT CONSISTS OF ATTORNEY/CLIENT PRIVILEGED INFORMATION AND HAS NOT BEEN COPIED FOR PHYSICAL INCLUSION INTO THE AR)	8
9	05/25/95	Adamkus, V., U.S. EPA	Petri, T., U.S. Congress	Letter re: U.S. EPA's Response to Congressman Petri's April 28, 1995 Letter Concerning Superfund Sites in Tomah	3
10	05/25/95	U.S. EPA/OSWER	U.S. EPA	Memorandum re: Land Use in the CERCLA Remedy Selection Process (OSWER Directive 9355.7-04)	11
11	07/00/96	CH2M Hill	U.S. EPA	Final Remedial Investigation Report for the Tomah Fairgrounds Landfill Site	301

U.S. EPA ADMINISTRATIVE RECORD
REMEDIAL ACTION
TOMAH FAIRGROUNDS
TOMAH, WISCONSIN
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08/30/95

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DOC#	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	03/01/84	Eigenbrodt, V., WDNR	U.S. EPA	Preliminary Assessment	5
2	09/10/84	Sause, A., Ecology and Environment, Inc.	File	August 28, 1984 Site Inspection Report w/Attached Cover Memorandum	16
3	06/00/93	Evans, L., U.S. EPA		Health and Safety Plan for the Tomah Fairgrounds Site	80
4	06/00/93	U.S. EPA		Quality Assurance Project Plan for the Tomah Armory and Tomah Fairgrounds Superfund Sites	71
5	06/00/93	U.S. EPA		Work Plan for the Tomah Armory and Tomah Fairgrounds Superfund Sites	203
6	12/00/94	U.S. EPA		Phase I Remedial Investigation Report for the Tomah Armory and Tomah Fairgrounds Landfills (Revision 2)	181