EPA Region 5 Records Ctr.
290828

# SECOND FIVE-YEAR REVIEW REPORT

## MADISON METROPOLITAN SEWAGE DISTRICT LAGOON SITE

## TOWN OF BLOOMINGTON, DANE COUNTY
## WISCONSIN

**March 2008**

**Prepared by:**
**United States Environmental Protection Agency**
**Region 5**
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3-24-08
Date

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## List of Acronyms

| | |
|---|---|
| AOC | Administrative Order on Consent (Consent Decree) |
| ARAR | Applicable or Relevant and Appropriate Requirement |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| EPA | United States Environmental Protection Agency |
| CFR | Code of Federal Regulations |
| MCL | Maximum Contaminant Level |
| MCLG | Maximum Contaminant Level Goal |
| NCP | National Contingency Plan |
| NPL | National Priorities List |
| O&M | Operation and Maintenance |
| PCB | Polychlorinated Biphenyl |
| PPB | Parts per Billion |
| PRP | Potentially Responsible Party |
| RA | Remedial Action |
| RD | Remedial Design |
| RI/FS | Remedial Investigation/Feasibility Study |
| ROD | Record of Decision |
| VOC | Volatile Organic Compound |
| WDNR | Wisconsin Department Natural Resources |

SECOND FIVE-YEAR REVIEW REPORT
EXECUTIVE SUMMARY
March 2008

MADISON METROPOLITAN SEWAGE DISTRICT LAGOON SITE

Dane County
Wisconsin

The assessment of this second five-year review found that the remedy was implemented in accordance with the requirements of the Record of Decision (ROD). The United States Environmental Protection Agency (U.S. EPA) selected the remedy in the 1997 ROD. The ROD took into consideration the fact that the Madison Metropolitan Sewage District (MMSD) had entered into an Administrative Order on Consent with the United States Environmental Protection Agency under which MMSD agreed to isolate, contain, cover, and monitor waste and maintain institutional controls as long as waste remains in place. It also took into consideration the fact that institutional controls limiting use of the property were already in existence. The trigger action for this second five-year review was the last five-year review completed on March 25, 2003.

The completion of the current five-year review confirms that the Madison Metropolitan Sewage District Lagoon Site remains protective of human health and the environment. The remedy selected in the 1997 Madison Metropolitan Lagoon (the Site) Record of Decision (ROD) has been implemented under the 1992 Administrative Order on Consent entered with the Madison Metropolitan Sewage District and the U.S. EPA for the Site.

The remedy for the Madison Metropolitan Sewage District Lagoon site in Madison, Dane County, Wisconsin included isolation and containment followed by soil/establishing vegetative cover, monitoring and maintaining institutional controls. The site achieved construction completion with the signing of the Preliminary Close-Out Report in September 2001. Landfill waste remains in place; hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure. Therefore U.S. EPA is required to conduct a third Five-Year Review in another five years, March 2013.

The remedy selected in the 1997 ROD continues to be protective of human health and the environment in the short term. The existing Site use is consistent with the objectives set forth in the ROD and the implemented remedial actions at the MMSD Site are functioning as intended. Long term protectiveness requires maintenance of the cover and compliance with land use restrictions that prohibit interference with the cap and restricts the Site to limited commercial/industrial uses and limits the groundwater use to ensure that the remedy continues to function as intended. Compliance with Institutional Controls (ICs) will be accomplished by planning for long-term stewardship which includes maintaining and monitoring effective ICs.

# Second Five-Year Review Summary Form

| SITE IDENTIFICATION | | |
|---|---|---|
| **Site name *(from WasteLAN)*:** Madison Metropolitan Sewage District Lagoon | | |
| **EPA ID *(from WasteLAN)*:** WID078934403 | | |
| **Region:** 5 | **State:** WI | **City/County:** Madison / Dane County |
| **SITE STATUS** | | |
| **NPL status:** ☒ Final ☐ Deleted ☐ Other (specify) | | |
| **Remediation status** (choose all that apply): ☐ Under Construction ☒ Operating ☐ Complete | | |
| **Multiple Ous?*** ☐ YES ☒ NO | **Construction completion date:** 9 / 15 / 2001 | |
| **Has site been put into reuse?** ☐ YES ☒ NO | | |
| **REVIEW STATUS** | | |
| **Lead agency:** ☒ EPA ☐ State ☐ Tribe ☐ Other Federal Agency | | |
| **Author name:** David Linnear | | |
| **Author title:** Remedial Project Manager | **Author affiliation:** U.S. EPA, Region 5 | |
| **Review period:**** 1 / 1 / 2003 to 1 /31 / 2008 | | |
| **Date(s) of site inspection:** 11/ 15 / 2007 | | |
| **Type of review:** ☒ Post-SARA ☐ Pre-SARA ☐ NPL-Removal only<br>☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead ☐ Regional Discretion) | | |
| **Review number:** ☐1 (first) ☒ 2 (second) ☐ 3 (third) ☐ Other (specify) | | |
| **Triggering action:**<br>☐Actual RA On-site Construction at OU # 1 ☐ Actual RA Start at OU# NA<br>☐ Construction Completion ☒ Previous Five-Year Review Report<br>☐ Other (specify) | | |
| **Triggering action date *(from WasteLAN)*:** 3 / 25 / 2003 | | |
| **Due date *(five years after triggering action date)*:** 3 / 25 / 2008 | | |

* ["OU" refers to operable unit.]
** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

## Second Five-Year Review Summary Form, cont'd.

### Issue:

A review of the ICs is needed to assure that the remedy continues to function as intended with regard to the ICs and to ensure effective procedures are in place for long term stewardship at the Site.

Long term stewardship must be assured which includes maintaining and monitoring effective ICs.

### Recommendations and Follow-up Actions:

IC evaluations are underway and will be undertaken.

Based upon the IC evaluation activities, an IC plan will be prepared for required follow-up actions to assure that the remedy remains protective including planning for long term stewardship.

### Protectiveness Statement(s):

The remedy selected in the 1997 ROD continues to be protective of human health and the environment in the short term. The existing Site use is consistent with the objectives set forth in the ROD and the implemented remedial actions at the MMSD Site are functioning as intended. Long term protectiveness requires maintenance of the cover and compliance with land use restrictions that prohibit interference with the cap and restrict the Site to limited commercial/industrial uses and limit the groundwater use to ensure that the remedy continues to function as intended. Compliance with Institutional Controls (ICs) will be accomplished by planning for long-term stewardship which includes maintaining and monitoring effective ICs.

U. S. Environmental Protection Agency
Region 5
Second Five Year Review
Madison Metropolitan Sewage District Lagoon Site
Madison, Dane County, Wisconsin
January 2008

## I. Introduction

The purpose of a five-year review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and identify recommendations to address them.

The Agency is preparing this Five-Year Review report pursuant to CERCLA §121 and the National Contingency Plan (NCP). CERCLA §121 states:

*If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

> The Agency interpreted this requirement further in the NCP; 40 CFR 300.430(f) (4) (ii) states:
>
> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

The United States Environmental Protection Agency (U.S. EPA) conducted the second five-year review of the remedy implemented at the Madison Metropolitan Sewage District (MMSD) Site in Madison, Wisconsin. This review was conducted by the Remedial Project Manager (RPM) for the Site from June 2007 through January 2008. This report documents the results of the review.

This is the second five-year review for the Site. The triggering action for this statutory review is the date of the first five-year review for the site in March 2003. The five-year review is required because hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure. This review will be placed in the Site files and local repository for the MMSD Superfund Site (the "Site") in Madison, Wisconsin.

## II. Site Chronology

Table 1 lists a chronology of events for the MMSD Lagoon Site.

| Event | Date |
|---|---|
| Initial discovery of Problem | October 1982 |
| Listed on National Priorities List | February 1990 |
| Remedial Investigation/Feasibility Study | September 1996 |
| ROD Signature | March 1997 |
| Site Visit / Inspection | August 2001 |
| Close Out Report | September 2001 |
| Site Visit / Inspection | February 2003 |
| First Five-Year Review | March 2003 |
| Site Visit / Inspection | November 2007 |

## III. Background

### Physical Characteristics

The MMSD Lagoon site consist of two sludge lagoons, totaling approximately 140 acres that are located adjacent to the municipal wastewater treatment plant facilities, south of the city of Madison in Dane County, Wisconsin. Nine Springs Creek has water that flows along the south and east site borders. Several drainage ditches run along other site borders and empty into the creek.

### Land & Resource Use

Land use to the northwest of the sludge lagoons is both commercial and industrial while to the west and southwest, land use is primarily residential. MMSD has operated the Nine Springs Wastewater Treatment Plant use since 1933. A Facilities Plan, prepared during the mid-1970s, recommended reuse of the lagoon sludge by beneficially recycling the material to agricultural land.

## History of Contamination

In 1942, a 52 acre sludge lagoon was constructed by MMSD with dikes constructed of imported fill material. By the mid-1960s, as the lagoon (Lagoon 1) began approaching its sludge capacity, MMSD constructed a second 86 acre lagoon (Lagoon 2) to the east of Lagoon 1. In April 1970 a portion of the north dike of Lagoon 2 collapsed and approximately 85 million gallons of lagoon contents were released into the adjacent ditch. In November 1973, dike subsidence occurred along the south side of Lagoon 2. Following repair, MMSD curtailed active use of Lagoon 2. During development of the sludge recycling program in the mid-1970's, as part of a sludge monitoring sampling effort, PCBs were detected in the sludge lagoons. In 1982, analysis of a sludge sample from the lagoons first showed the presence of PCBs at a dry weight concentration exceeding 50 ppm.

Between 1983 and 1986, the U.S. EPA evaluated the lagoons for potential inclusion on the National Priorities List (NPL). The site was placed on the NPL in February 1990. MMSD performed a Remedial Investigation / Feasibility Study (RI/FS) in 1982. Based on information collected, associated risks to human health and the environment, and the consideration of state standards, U.S. EPA concluded that remediation was warranted under current or anticipated future land use.

From 1991 to 1993, cleanout/closure was conducted in Lagoon 1 to aid in the removal of sludge and peat. The sludge which had PCB concentrations less than 50 ppm was recycled in accordance with all applicable rules and regulations. In 1994 U.S. EPA halted land application of all sludge from the lagoon system. This was done until U.S. EPA had an opportunity to review available information to determine the consistency of land application relative to response actions taken under the Superfund Program. In 1995, U.S. EPA withdrew its restriction, allowing MMSD to remove and land apply sludge with PCB concentrations below 50 ppm, stating that this action would not be inconsistent with future response actions taken at the site. Cleanout closure for Lagoon 2 activities began in 1997. Closure of lagoons containing less than 50 ppm PCBs was completed in 2000.

## Initial Response

In 1982 U.S. EPA and MMSD collected sludge samples from the lagoons. Sampling showed that some areas of the lagoon contained sludge with polychlorinated biphenyl (PCBs) concentrations exceeding 50 ppm. Hazard assessments were conducted by U.S. EPA between 1983 and 1986 to determine whether the lagoons warranted listing on the NPL from the potential threat due to the sludge. The site was placed on the NPL in February 1990. MMSD completed a Remedial Investigation/Feasibility Study (RI/FS), a Baseline Risk Assessment (human health and ecological risk) and other associated studies in 1996.

## Basis for Taking Action

These studies were reviewed and approved by the U.S. EPA. Results from RI/FS showed that the sludge in the lagoons was contaminated with PCBs and was a potential health concern to people living near the site. People working in the cropland where sludge was applied were potentially exposed to PCBs. Surface water in the old effluent channel was tainted from the PCB contaminated sludge. Hunting was occurring in wetlands adjacent to the site. The lagoons were feeding areas for many species of waterfowl. Information contained in the Remedial Investigation/Feasibility Study and Baseline Risk Assessments was used as the basis for selecting a remedial alternative at the site, which was identified by U.S. EPA in the Record of Decision. The decision for "remedial action" is based on the analysis of site risks. The decision relies on legal assurances that contaminated land will not be used in a way that could pose significant risks, and that monitoring will continue indefinitely. Results from previous investigations, activities and sampling showed that the sludge contained elevated PCB concentrations that presented a potential risk to human health and the environment. The selected remedy for the site was designed to minimize potential exposure to lagoon sludge by human and ecological receptors.

# IV. Remedial Actions

## Remedial Selection

In November, 1996, U.S. EPA issued a proposed remediation plan for the site. The proposed plan met all of the formal selection criteria identified in U.S. EPA guidance and the National Contingency Plan (NCP). Selection of the proposed plan was based on a thorough review of the Administrative Record (AR). In March, 1997, U.S. EPA issued a Record of Decision (ROD) for the site. The ROD specified the following remedy:

1. Construction of intra-lagoonal dikes in order to segregate, isolate and consolidate sludge with PCB concentration at or above 50 mg/kg (dry weight) contained on site.

2. Covering certain lagoon areas with placement of geotextile layers and lightweight soil cover.

3. Seeding with appropriate vegetative growth, monitoring the integrity and maintaining the vegetative cover of all dikes. This soil/vegetative cover would be placed over those portions of the containment area that lacked an existing soil/vegetative cover.

4. Continuation of engineering controls, including supernatant control, periodic dike monitoring and routine dike maintenance. Maintenance of physical barriers to limit access was specified. Institutional Controls (ICs) included placing deed restrictions on the property to control future land use.

5. Long term cap monitoring.

The Remedial Objective for the selected remedy is to protect human health and the environment by reducing the potential risks associated with exposure to sludge constituents. The cover over the lagoons reduces the potential for human exposure through dermal contact, ingestion, and inhalation. The potential for wildlife exposure is reduced by the lagoon covers. Dike monitoring and maintenance activities will ensure sludge containment.

A CERCLA Remedial Action Consent Decree was signed by the District in December 1997 and entered with the United States District Court for the Western District of Wisconsin in May 1998. The Consent Decree included a requirement that the District submit a Remedial Design (RD) Report and a Remedial Design Work Plan for U.S. EPA approval prior to initiating the selected remedial response. U.S. EPA approved both submittals in December 1997.

**Remedial Implementation**

Construction activities associated with the remedial alternative began in January 1998 and included the construction of a soil and fabric cover for the lagoons and new dike construction. Sludge in these lagoons with PCB concentrations less than 50 ppm would be used in the MMSD agricultural program. It was initially anticipated that construction activities would be conducted in three phases over a three year period. However, weather conditions resulted in a one year delay in project completion. Placement of the geotextile fabric and soil/woodchip mixture was completed in February 2001. Seeding, signage and culvert installation were completed in July 2001.

**Institutional Controls**

Institutional controls (ICs) are required to ensure the protectiveness of the remedy as is described in the ROD and summarized below. Institutional controls are non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for exposure to contamination and protect the integrity of the remedy. Compliance with ICs is required to assure long-term protectiveness for any areas which do not allow for unlimited use or unrestricted exposure (UU/UE).

Site Description: The property consist of two sludge lagoons, totaling approximately 140 acres that are located adjacent to the municipal wastewater treatment plant facilities, south of the city of Madison in Dane County, Wisconsin. Nine Springs Creek has water that flows along the south and east site borders. Several drainage ditches run along other site borders and empty into the creek. With respect to the lagoons, both have been covered with geotextile fabric and soil/woodchip mixture and dikes have been constructed for drainage.

Decision Document: The cleanup goals for former lagoons and soil were based on containment.

The ROD states that MMSD will maintain physical barriers which limit site access, signage, routine dike monitoring activities and routine maintenance activities. The physical barriers

include fencing along the west end of one lagoon and a creek/drainage channel along the south, east and north portions of the lagoon system. The ROD also required placing deed restrictions on the property to control future land use.

Institutional controls identified in the RA Consent Decree include the following:

- There can be no residential, agricultural or commercial use of the site except uses that already existed.
- That no excavation, construction or drilling or any other activity which may damage any remedial action component can take place at the site.
- That ground water wells for drinking water or domestic purposes shall not be installed at the Site.
- That there shall be no use of the property that would allow the continuous presence of humans at the site.
- That fencing and warning signs at the site be maintained.
- That no waste material from off-site shall be transported to the property.
- Notice of entry of consent decree with the Dane County Register of Deeds.

### Table 2: Institutional Controls Summary Table

| Media, Engineered Controls, & Areas that Do Not Support UU/UE Based on Current Conditions. | IC Objective | Title of Institutional Control Instrument Implemented (note if planned) |
|---|---|---|
| **MMSD Property – Former lagoons Area which is capped.**<br><br>(Maps to be developed) | Prohibit residential, agriculture and commercial uses;<br>Prohibit use except maintenance and assure integrity of the landfill cap | Under Review |
| **Groundwater** – As a precautionary measure on property. There is a prohibition of groundwater well installment. | Prohibit groundwater use until cleanup standards are achieved | Under Review |

Current Compliance: Based on the Site inspection and data – no inappropriate land or groundwater use was observed. U.S. EPA is not aware of site or media uses which are inconsistent with the stated objectives of the ICs and cleanup goals. Cleanup goals for soil are based on containment for soils. The site is zoned for industrial use. The physical barriers remain in place and access is further restricted by use of warning signs. The integrity and effectiveness of the perimeter containment dikes is determined through routine monitoring of instrumentation clusters which measure both settlement and lateral movement. No waste material has been transported from off-site and disposed of on the property. Notice of entry of the Consent Decree with the Dane County Register of Deeds was given to U.S. EPA in a letter dated February 1999. As mentioned, based on inspections, monitoring data and interviews with officials, there appears to be no inappropriate site and groundwater uses and no apparent violations of the ICs. Long-term protectiveness requires compliance with the ICs for the land use restrictions.

Therefore, at this time, initial IC evaluation activities have revealed that the remedy is functioning as intended since the property is not being used in a manner which is inconsistent with the required use restrictions or ICs. Hence the remedy is protective in the short term. However, long term protectiveness requires compliance with effective ICs.

IC Evaluation Activities: To assure that the ICs are effective and that long-term stewardship procedures are in place, U.S. EPA requested that MSSD conduct IC evaluation activities. MMSD submitted the IC report to U.S. EPA in December 2007 which is currently under review. With regard to governmental controls, the Site is zoned commercial/industrial. Also, the MMSD report states that the County Recorder of Deeds has a copy of the Consent Decree which regulates groundwater wells in the area. MMSD also noted that that since the City owns the property and will continue to own and operate the treatment facility, which includes the lagoon site, for the foreseeable future, that MMSD expects that ICs will remain in place and be maintained.

Initial IC evaluation activities have revealed that additional steps must be taken to evaluate the protectiveness of ICs. Even though ICs are in place, they need to be studied to assure term protectiveness. Long term protectiveness at the site requires compliance with land and groundwater use restrictions. Long-term stewardship must be assured which includes maintaining and monitoring effective ICs.

Maps (paper) which depict the current conditions of the site and physical areas which do not allow for UU/UE, including the information contained in Table 2, will be developed as part of the IC evaluation activities discussed below, land use restrictions/objectives stated in/covered by the IC will be reviewed; title work will be reviewed to confirm proper recording and that no other existing property rights will interfere with the site remedy or cause undue exposure.

Once the IC evaluation activities have been completed, according to the schedule in Table 4, an IC plan will be developed by U.S. EPA to plan for steps necessary to ensure that effective ICs are monitored and maintained. The IC Plan will incorporate the results of the evaluation and will plan for additional IC evaluation activities as needed including planning for IC implementation and long- term stewardship as discussed below.

Long Term Stewardship: Long term protectiveness at the site requires compliance with use restrictions to assure the remedy continues to function as intended. To assure proper maintenance and monitoring and effective ICs, long term stewardship procedures will be reviewed and a plan developed. The plan will call for regular inspection of ICs at the site and annual certification to U.S. EPA that the required ICs are in place and effective. Additionally, development of a communications plan and a one-call system should be explored for long term stewardship.

## Operations and Maintenance (O&M)

There are a series of planned and ongoing operation and maintenance planned activities that are associated with this project. These activities fall into the following general categories:

1. Settlement/consolidation management
2. Surface water control
3. Vegetation management
4. Cover and dike monitoring system

Settlement/consolidation of the sludge underneath the cap and differential settling of the cover material may occur. As part of routine O&M activities, all cells will continue to be inspected annually to determine if placement of additional fill material is needed in select locations. If necessary, additional cover material will be added.

Surface water control includes the installation of drainage swales and culverts to direct precipitation away from the capped areas and into other segments of the lagoon system where it can then be pumped back to the treatment plant. The effectiveness of the drainage system is evaluated annually through visible inspection. If necessary, existing culverts may be repositioned and/or additional culverts may be installed.

Vegetation management includes reseeding/overseeding of areas on an "as needed" basis and the control of unwanted herbaceous vegetation. Unwanted herbaceous vegetation is generally controlled through periodic cutting/mowing, although other techniques may also be used.

Cover performance and containment dike performance are monitored through a combination of periodic visual observations; measuring consolidation/settlement at strategically placed settlement platforms; surveying the elevation of survey markers; and by collecting information on water pore pressure from the piezometers. It may also be necessary to exhume the soil/woodchip cover at select locations to visually inspect the performance of the geotextile fabric. These inspection activities may identify the need to perform routine maintenance activities such as dike grading, placement of additional soil/woodchip material on the cover, pumping of any accumulated precipitation, reseeding, etc.

## V. Progress Since the Last Five-Year Review

This is the second five-year review for the MMSD Lagoons Site. No further remedial actions or enforcement actions have taken place since the initial five-year review. The previous five-year review recommended continued monitoring. This five-year review took note of the recommendation and has reported the results.

## VI. Five Year Review Process

### Administrative Components

The Madison Metropolitan Sewage District Lagoons Site five-year review was prepared by David Linnear, U.S. EPA Remedial Project Manager. WDNR was notified of the five-year review in 2007.

From June 2007 to January 2008, the Project Manager reviewed documents, data, and developed the second five-year review report.

### Community Notification and Involvement

Community involvement and relations ongoing at the Site include responding to local resident general questions about the progress of the operation and maintenance of the remedy and conducting visits to affected community members when issues and / or concerns arise. Public notice is scheduled to inform the community of significant events and progress at the Site.

Notification, attached, was made to the public of this Five Year Review report allowing further comments and informing them where to locate a copy of this report if necessary.

### Document Review

For purposes of this review Madison Metropolitan Sewage District Lagoons Site documents and data reviewed in preparation of this five-year review report includes the following: the 1997 ROD, 2003 Five-Year Review, 2007 Semi-Annual Report, 2007 ICs Report, and MMSD correspondence file.

### Data Review

In December 2007, the Semi-Annual Report produced by MMSD showed that the contaminants contained in the lagoon cell remain intact. Settlement of the cap over the lagoon is unchanged. Dikes have maintained stability. Normal O&M activities such as mowing the cap and removing ponded rain water are on-going.

### Site Inspections

The Site inspection was conducted in November 2007. U.S. EPA conducted the inspections with the MMSD. The lagoons were in place and the Site cover was intact. Visual inspections of the site, the selected remedy, and the containment components were satisfactory.

## VII. Technical Assessment

The following questions address the issue of protection of human health and the environment by the remedy at the Madison Metropolitan Sewage District Lagoon Site.

**Question A: Is the remedy functioning as intended by the decision document?**

Yes. The review of documents, risk assumptions, and the results of the site inspection indicates that the remedy is functioning as intended by the ROD. The remedy has achieved the remedial objectives to minimize the migration of contaminants to groundwater and prevent direct contact with, or ingestion of, contaminants in soil. Last, no Site uses which are inconsistent with the implemented ICs or the remedy objectives have been noted during the Site inspection or via interviews. Long term protectiveness requires compliance with effective ICs. To that end, effectives ICs must be implemented, monitored and maintained.

**Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?**

Yes. The property is currently zoned for industrial use and is being used for commercial/industrial purposes. Industrial uses on adjacent parcels are not anticipated to impact the site. Last, no Site uses which are inconsistent with the implemented ICs or the remedy objectives have been noted during the Site inspection or via interviews.

There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy.

**Changes in Standards and To Be Considered:**

There have been no changes in standards or things to consider that would change the protectiveness of the remedy.

**Changes in Exposure Pathways, Toxicity and Other Contaminant Characteristics:**

There have been no changes in exposure pathways, toxicity or other contaminant characteristics that could affect the protectiveness of the remedy.

**Question C: Has any other information come to light that could call into question the protectiveness of the remedy?**

No. There is no other information that calls into question the protectiveness of the remedy.

**Technical Assessment Summary**

According to data reviewed and the site inspection, the remedy is functioning as intended by the ROD. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy.

## VIII. Issues

### Table 3: Issues

| Issues | Affects Current Protectiveness (Y/N) | Affects Future Protectiveness (Y/N) |
|---|---|---|
| The ICs have not been fully evaluated. A review of the ICs is needed to assure that the remedy continues to function as intended with regard to the ICs and to ensure effective procedures are in-place for long-term stewardship at the Site. | N | Y |
| Long-term stewardship must be assured which includes maintaining and monitoring effective ICs. | N | Y |

## IX. Recommendations and Follow-up Actions

### Table 4: Recommendations and Follow-up Actions

| Issue | Recommendations and Follow-up Actions | Party Responsible | Oversight Agency | Milestone Date | Affects Protectiveness (Y/N) | |
|---|---|---|---|---|---|---|
| | | | | | Current | Future |
| A review of the ICs is needed to assure that the remedy continues to function as intended with regard to the ICs and to ensure effective procedures are in-place for long-term stewardship at the Site. | IC evaluation activities (are underway or) will be undertaken | PRP | U.S. EPA | September 2008 | N | Y |

| Issue | Recommendations and Follow-up Actions | Party Responsible | Oversight Agency | Milestone Date | Affects Protectiveness (Y/N) | |
|---|---|---|---|---|---|---|
| | | | | | Current | Future |
| Long-term stewardship must be assured which includes maintaining and monitoring effective ICs. | Based upon the IC evaluation activities, an IC Plan will be prepared for required follow-up actions to assure that the remedy remains protective including planning for long-term stewardship. | U.S. EPA | U.S. EPA | March 2009 | N | Y |

## X. Protectiveness Statement

The remedy selected in the 1997 ROD continues to be protective of human health and the environment in the short term. The existing Site use is consistent with the objectives set forth in the ROD and zoning restrictions and the implemented remedial actions at the MMSD Site are functioning as intended. Long term protectiveness requires compliance with land use restrictions that prohibit interference with the soil/wood chip and geotextile cap and restrict the Site to limited commercial/industrial uses and limit the groundwater use to ensure that the remedy continues to function as intended. Compliance with ICs will be accomplished by planning for long-term stewardship which includes maintaining and monitoring effective ICs.

## XI. Next Review

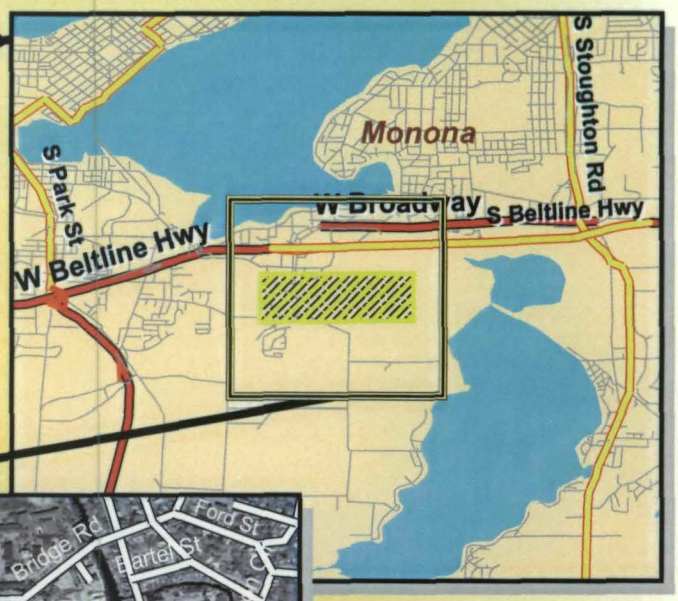
The next five-year review will be completed within five years from the date of this five-year review.

# FIGURES

# Madison Metro Superfund Site

1) State

2) Dane County




3) Madison Metro Site

SEPA Region 5 Superfund GEOS

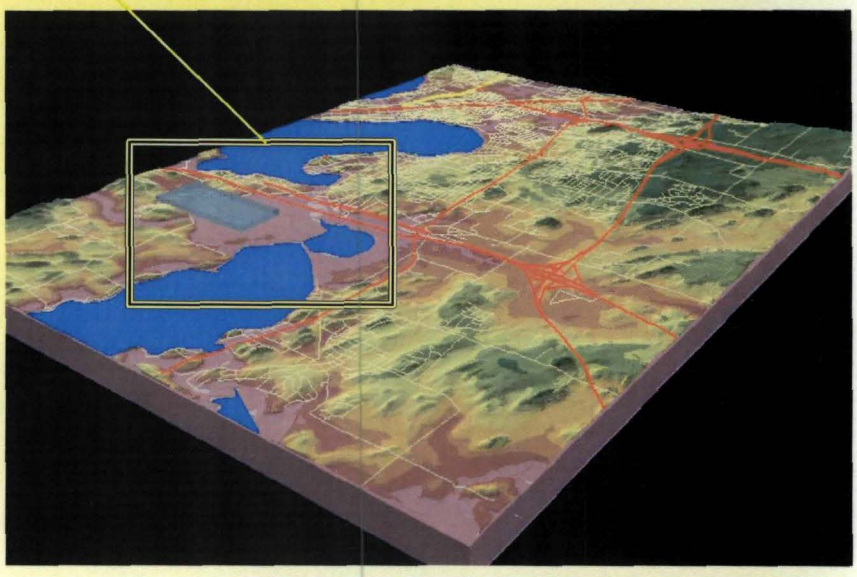
Plot created by David Wilson U.S. EPA Region 2/27/2003
B&W Image Date: 5/16/2000

Figure 1

# Madsion Metro Superfund Site
# 3D Surface Terrain Model

**Elevation**

- 949 - 1063
- 845 - 851
- 851 - 858
- 858 - 864
- 864 - 873
- 873 - 887
- 887 - 908
- 908 - 949
- 949 - 1063



N

Figure 2

SEPA Region 5 Superfund GEOS

Plot created by David Wilson U.S. EPA Region 5 on 2/28/2003
B&W Image Date 5/16/2000

# ATTACHMENTS

I'm a Republican in the United States.

His detailed message to the U.S. citizenry that he faithfully supports, in spite of the harassment that has filled the airwaves, is commendable.

His outline of our unmet national needs focused on past leadership failures as well as on Congressional groups that have failed to produce the true needs of "we the people."

We realize more than ever how important and valuable our individual votes are to elect the right person to promote the future needs of our nation.

*— Miriam B. Huth, Markesan*

reporter Jason Stein's article a couple of weeks ago, I just had to say something. These two articles have brought a great deal of awareness to the public about the actions of our elected officials. Now if we only have the backbone to do something about it.

There is no way a business or individual running his own affairs could last by robbing Peter to pay Paul. How our elected officials think this is an answer to balancing a budget is beyond my reasoning. All it does is cause hardship for whoever is losing the money.

If they must borrow it, let it be done with a contract to pay

formation. You have done the citizens of Wisconsin a service by reminding them of the real connection between our environment and our mood.

NAMI Wisconsin maintains a Web site at *www.namiwisconsin.org* that offers information, services and support for people dealing with depression and other serious mental illnesses. Visit our site, or call our Dane County affiliate at 608-249-7188. Depression — whether seasonal or chronic — is treatable and, to quote the feature, "You are not alone."

*— Cheryl Porior-Mayhew, executive director, NAMI Wisconsin, Madison*


# Friends

ons: 9–noon OR 1–4 p.m.

EPA to Review
Madison Metropolitan Sewerage District Lagoons
Superfund Site
Dane County, Wisconsin

U.S. Environmental Protection Agency is conducting a status review of the Madison Metropolitan Sewerage District Lagoons Superfund Site. The Superfund law requires regular reviews of sites every five years where construction of the cleanup is complete but hazardous waste remains managed on-site. These reviews are done to ensure that the cleanup continues to protect human health and the environment.

EPA's original cleanup plan included:

--dike construction to isolate and consolidate sludge containing contamination
--a soil cover with seeding over areas not covered by vegetation
--institutional controls on the deed
--long-term monitoring.

This is the second review of the site. The first was done in 2003.

This review includes an evaluation of background information, cleanup requirements, effectiveness of the cleanup, and any anticipated future actions. A report detailing the site's progress will be available this summer at:

Madison Public Library-
Local Documents Section
201 W. Mifflin St.

Madison Metropolitan
Sewerage District
1610 Moorland Road

Further information can be obtained by contacting:

Susan Pastor
EPA Community Involvement Coordinator
312-353-1325
pastor.susan@epa.gov

David Linnear
EPA Remedial
Project Manager
312-886-1941
linear.david@epa.gov

800-621-8431, 9 a.m. – 4:30 p.m., weekdays