

**Annual Assessment of the
Effectiveness of
Sitewide Institutional Controls
Applied to the Former DOE
Mound Site Property
Miamisburg, Ohio**

June 2012



**U.S. DEPARTMENT OF
ENERGY**

Legacy
Management

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Abbreviations

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRP	Comprehensive Reuse Plan
DOE	U.S. Department of Energy
EM	Office of Environmental Management
EMCBC	Environmental Management Consolidated Business Center
EPA	U.S. Environmental Protection Agency
ES	<i>Environmental Summary CERCLA 120(h) Summary Notice of Hazardous Substances 120(h)</i>
IC	institutional control
LM	Office of Legacy Management
MDC	Mound Development Corporation (formerly MMCIC)
MMCIC	Miamisburg Mound Community Improvement Corporation
MNA	monitored natural attenuation
NESHAPs	National Emission Standards for Hazardous Air Pollutants
O&M Plan	<i>Operation and Maintenance (O&M) Plan for the Implementation of Institutional Controls at the 1998 Mound Plant Property, Phase I Parcel</i>
ODH	Ohio Department of Health
Ohio EPA	Ohio Environmental Protection Agency
OU-1	Operable Unit 1
ROD	record of decision
Stoller	S.M. Stoller Corporation

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1.0 Introduction

This report documents the U.S. Department of Energy (DOE) Office of Legacy Management (LM) 2012 annual assessment of the effectiveness of sitewide institutional controls (ICs) for the entire Mound Site¹ in Miamisburg, Ohio, for the period from April 30, 2011, to April 30, 2012. The site has completed all of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 120(h) requirements for property transfer as an industrial-use site.

This annual IC assessment determined that the ICs continue to function as designed, adequate oversight mechanisms are in place to identify possible violations of ICs, and adequate resources are available to correct or mitigate any problems if violations occur.

ICs are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and protect the integrity of the remedy. Each annual IC assessment includes a physical inspection of land parcels; discussions with the property owners; a review of all applicable records, including construction, street-opening, occupancy, and other permits; zoning modification requests; and well drilling logs.

The Mound Site ICs, which take the form of deed restrictions, are defined in each parcel's record of decision (ROD) and *Environmental Summary CERCLA 120(h) Summary Notice of Hazardous Substances* (ES) which are listed in Section 12, "References." The ICs were developed with input from the public; the City of Miamisburg; the U.S. Environmental Protection Agency (EPA); the Ohio Environmental Protection Agency (Ohio EPA); the Ohio Department of Health (ODH); and the Mound Development Corporation (MDC), formerly called the Miamisburg Mound Community Improvement Corporation (MMCIC).

Although not an IC, groundwater monitoring is required by CERCLA remedies for some land parcels. The annual IC assessment physical inspection examines the physical conditions of wells and seeps associated with these remedies.

DOE contacted EPA, Ohio EPA, and ODH 30 days before the visual inspection. DOE must submit the annual assessment report to EPA and Ohio EPA no later than June 13 of each year.

2.0 RODs and the Parcel Transfer Process

In January 1998, DOE executed the original sales agreement with MDC. The agreement called for the transfer of discrete land parcels to MDC, via a series of quitclaim deeds, after the parcels were declared excess to DOE's needs and after all requirements of CERCLA 120(h) for property transfer were met. As MDC acquired a parcel, it became part of the Mound Advanced Technology Center, a light industrial/technology park that MDC operates. The same parcel transfer process was continued in the revised sales agreement, *Sales Contract by and between the United States Department of Energy and the Miamisburg Mound Community Improvement Corporation, August 28, 2008* (DOE 2008).

¹ The Mound Site was also formerly identified by the Atomic Energy Commission as the Mound Laboratory and the Mound Plant.

Table 1 summarizes the final parcels, ROD dates, remedies, IC objectives, and legal enforcement instruments.

Table 1. Mound Site Summary of Parcel RODs, Remedies, ICs, and Legal Instruments

Parcel	Former ID or Other Names	ROD Date	Acreage	Remedy	Objectives of ICs	Legal Instrument
OU-1	OU-1	1995		See Parcel 9		
D	Release Block D	1999	12.43	ICs	Prohibit the removal of soil. Prohibit the use of groundwater. Restrict land use to industrial only. Prohibit the removal of concrete floor material in specified rooms of T Building. Prohibit the penetration of concrete floor material in specified rooms of T Building.	Deed restrictions in quitclaim deeds
H	Release Block H	1999	14.29	ICs		
3	None	2001	5.581	ICs		
4	South property	2001	94.838	ICs		
Phase I	A	2003	2.542	Monitored natural attenuation ICs		
	B		42.882			
	C		6.568			
6	Parcels 6, 7, and 8	2010	13.636	Monitored natural attenuation ICs		
7			42.307			
8			45.247			
6A	Within Parcel 7	2010	2.352	ICs		
9	OU-1 ROD amendment	2011	23.148	Hydraulic containment Surface water controls Long-term groundwater monitoring ICs	Deed restrictions in environmental covenant	
OU-4	Miami Erie Canal	2004		No action	None required.	None required

At the time of this annual IC assessment, MDC owns Parcels D, H, 3, and 4 and the Phase I parcel (which comprises sub-parcels A, B, and C). The DOE Office of Environmental Management (EM) owns Parcels 6, 6A, 7, 8, and 9. EM amended the Operable Unit 1 (OU-1) ROD in 2011, expanding the footprint and renaming the area “Parcel 9.” Figure 1 shows the original boundaries of the former DOE Mound Site Property divided into parcels. The shaded areas indicate the parcels that have been transferred to MDC.

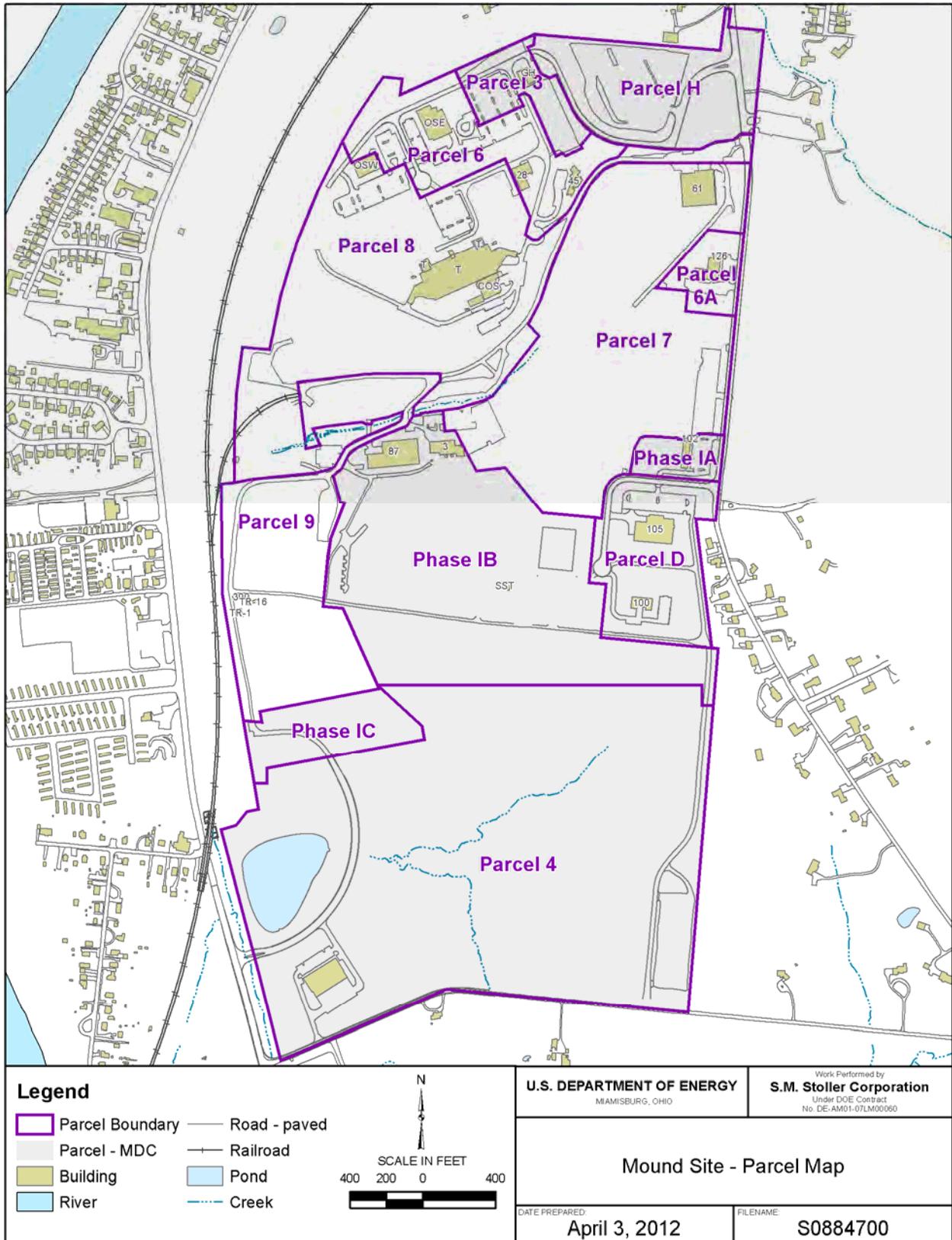


Figure 1. Parcel Map of the DOE Mound Site, Miamisburg, Ohio

Table 2 summarizes the existing buildings and the parcel transfer dates.

Table 2. Mound Site Parcels, Buildings, and Transfer Information

Parcel	Number of Structures	DOE Building Names/Numbers (See Table 3 for current street addresses)	Date Transferred	Owner
D	2	100, 105	March 1999	MDC
H	0		August 1999	MDC
3	1	Guard House (GH)	August 2002	MDC
4	1	MDC Flex Building	April 2001	MDC
Phase I	8	3, 87, 102, Magazines 80–84, salt storage shed	February 2009	MDC
6	3	Office Support East (OSE), 28, 45		EM
7	1	61 (MDC demolished 2, 63, and 63W in 2011)		EM
8	3	Central Office Space (COS), Office Support West (OSW), T Building		EM
9	3	300, Trailers 1 and 16		EM
6A	1	126		EM
Total	23			

3.0 Overview of Institutional Controls (ICs)

ICs are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and protect the integrity of the remedy. ICs are defined in each ROD and described in the *Operation and Maintenance (O&M) Plan for the Implementation of Institutional Controls at the 1998 Mound Plant Property, Phase I Parcel (O&M Plan)* (DOE 2004a).

DOE remediated the former DOE Mound Site Property to EPA’s risk-based standards for industrial/commercial use only. Because the site is not approved for unlimited use, ICs were imposed as part of the CERCLA remedy. The Mound ICs take the form of deed restrictions, which were developed with input from the public, the City of Miamisburg, the regulators, and MDC.

The ROD and ES for each parcel contained deed-restriction language that was embedded in the quitclaim deed or environmental covenant. These documents are recorded with Montgomery County, Ohio, so that all future property owners will know about the deed restrictions.

Additional information on ICs can be found in *Institutional Controls: A Citizen’s Guide to Understanding Institutional Controls at Superfund, Brownfields, Federal Facilities, Underground Storage Tank, and Resource Conservation and Recovery Act Cleanups* (EPA 2005).

The Mound Site ICs in the form of deed restrictions are designed to:

1. **Prohibit the removal of soil** from the original DOE Mound Site Property boundaries, unless prior written approval from Ohio EPA and ODH has been obtained.
2. **Prohibit the extraction or consumption of, exposure to, or the use in any way of the groundwater** underlying the premises, unless prior written approval from EPA and Ohio EPA has been obtained.
3. **Limit land use to industrial/commercial only.** Each parcel ROD identifies land uses that will not be permitted, but the list is not all-inclusive. Parcels may not be used for any residential or farming activities, or any activities that could result in the chronic exposure of children less than 18 years of age to soil or groundwater from the premises. Restricted uses include:
 - Single- or multi-family dwellings or rental units.
 - Daycare facilities.
 - Schools or other educational facilities for children less than 18 years of age.
 - Community centers, playgrounds, or other recreational or religious facilities for children less than 18 years of age.
4. **Prohibit the removal of concrete floor material** in specified rooms of T Building (Figure 15) to offsite locations without prior approval from EPA, Ohio EPA, and ODH.
5. **Prohibit the penetration of concrete floors** in specified rooms of T Building (Figure 15) without prior approval from EPA, Ohio EPA, and ODH.
6. **Allow site access for federal and state agencies** for sampling and monitoring.

The preceding deed-restriction language is a summary only. The RODs contain the parcel-specific deed-restriction language. RODs and other CERCLA administrative record documents are available in the CERCLA Public Reading Room and electronically on the LM Mound website (<http://www.lm.doe.gov/land/sites/oh/mound/mound.htm>).

OU-1; the Phase I parcel; and Parcels 6, 7, and 8 have CERCLA remedies that also require groundwater monitoring. The physical conditions of the wells and seeps covered by those remedies were inspected for this assessment and are included in this report.

4.0 Period of Review

This annual assessment covers the period from April 30, 2011, to April 30, 2012.

This annual assessment identifies new information—such as new construction, demolition, or excavation; lot-splits or the sale of parcels to new landowners; and permit applications filed by property owners or their agents—since the last reporting period. Previous annual assessments are available in the CERCLA Public Reading Room or online at the LM Mound website (<http://www.lm.doe.gov/land/sites/oh/mound/mound.htm>).

5.0 Aerial View of the Mound Site Property

Figure 2 is an aerial photo, taken in March 2011, that shows the entire site looking north.

Figure 3 shows the parcel boundaries laid over a March 2011 aerial photograph of the Mound Site.

The next aerial photo, normally taken before each CERCLA Five-Year Review, is planned for 2016.

6.0 Summary of 2011 Annual Assessment and CERCLA Five-Year Review

6.1 2011 Annual Assessment

6.1.1 Summary

As stated in the *Annual Assessment of the Effectiveness of Site-Wide Institutional Controls Applied to the Former DOE Mound Site Property* (DOE 2011b), the assessment concluded that the Mound Site ICs functioned as designed, adequate oversight mechanisms appeared to be in place to identify possible violations, and adequate resources were available to correct or mitigate any problems if a violation were to occur.

6.1.2 Recommendations or Findings

There were no recommendations from the 2011 annual assessment.

6.2 2011 CERCLA Five-Year Review

6.2.1 Five-Year Review Summary

In 2011, DOE also conducted the CERCLA Five-Year Review, which evaluated the implementation and performance of the selected site remedies. The *Third Five-Year Review for the Mound, Ohio, Site, Miamisburg, Ohio* (DOE 2011d) stated:

The ICs implemented at the Mound Site are protective of human health and the environment because they are functioning as intended. The groundwater remedies for Phase I and Parcels 6, 7, and 8 are expected to be protective of human health and the environment upon attainment of cleanup goals. In the interim, exposure pathways are being controlled through ICs. The remedy for OU-1 is protective of human health and the environment as exposure pathways are being controlled through plume containment and Federal ownership of the land. Controlled access to the landfill is no longer necessary since excavation was completed; however, for the remedy to be protective in the long-term, ICs to restrict soil removal and groundwater use need to be implemented.

6.2.2 Five-Year Review Recommendations

The following three recommendations were identified as a result of the Five-Year Review and associated actions:

1. Verify that the quitclaim deed for Parcels 6, 7, and 8 is appropriately recorded and is free and clear of all liens and encumbrances.
2. Finalize the *Sitewide IC Management/Land Use Control Plan (with CERCLA Summary)*.
3. Finalize the Sitewide O&M Plan for groundwater remedies.

6.2.3 EPA-Identified Issues to be Addressed in the 2016 Five-Year Review

In the September 27, 2011, approval letter, EPA concurred with the protectiveness statements and approved the report. However, EPA also listed the following issues that must be addressed in future Five-Year Reviews at the Mound site:

- While the Summary Form on p. *xii* makes title work for Parcels 6, 7, and 8 a follow-up action, it leaves out title work for Parcels D, H, 3, and 4 and Phase 1. Title work must be completed for all parcels as part of the Five-Year Review of the ICs process.
- EPA, Ohio EPA, and DOE are currently finalizing a *Sitewide IC Management and Land Use Control Plan* for the DOE Mound property. This plan should be included as an appendix in future Five-Year Reviews to aid in the review process.

7.0 2012 Physical Inspections Performed

S.M. Stoller Corporation (Stoller) personnel conducted thorough physical inspections in March and April 2012 before hosting the joint annual site walkdown with the regulators. Those inspections looked for violations of ICs, such as soil removal, well installation, nonindustrial/noncommercial use, and the physical conditions of wells and seeps.

The annual walkdown with the regulators and stakeholders occurred on April 19, 2012, with a driving tour of the site. Gwen Hooten, LM Mound Site Manager, began the walkdown at the Mound Science and Energy Museum with a presentation that defined the scope of the annual assessment and presented the results of the preliminary inspections. Participants were given a safety briefing, a copy of the presentation, and the IC checklist for the walkdown.

Participants in the annual walkdown included: Gwen Hooten, LM; Larry Kelly and Paul Lucas, Environmental Management Consolidated Business Center (EMCBC); Tim Fischer, EPA; Anthony Campbell, Ohio EPA; Joe Crombie, ODH; Frank Bullock, MDC; Ellen Stanifer, City of Miamisburg; Bill Hertel, Chuck Friedman, Yvonne Deyo, Greg Lupton, and Gary Weidenbach, Stoller; and Joyce Massie, JGMS.



Figure 2. Mound Site Looking North (March 2011)



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Figure 3. Mound Site, Showing Parcel Boundaries (March 2011)

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*Figure 4. IC Assessment Walkdown (April 19, 2012).
(Left to Right: Tim Fischer, Paul Lucas, Larry Kelly, Frank Bullock, Anthony Campbell, Joe Crombie, Ellen Stanifer, Chuck Friedman, Bill Hertel, Greg Lupton, Gwen Hooten.)*

The following sections summarize the results of the preliminary inspections and the physical walkdown on April 19, 2012. Appendix A contains the completed checklist.

7.1 Parcel D

There were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation, soil removal, or site activities inconsistent with industrial/commercial use within this parcel.

7.2 Parcel H (Formerly Release Block H)

There were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation, soil removal, or site activities inconsistent with industrial/commercial use within this parcel.

One area of Parcel H, shown in purple in Figure 5, is exempt from the soil-removal restriction. Modifications to the entry and the rerouting of Mound Road isolated this area from the original Mound property.

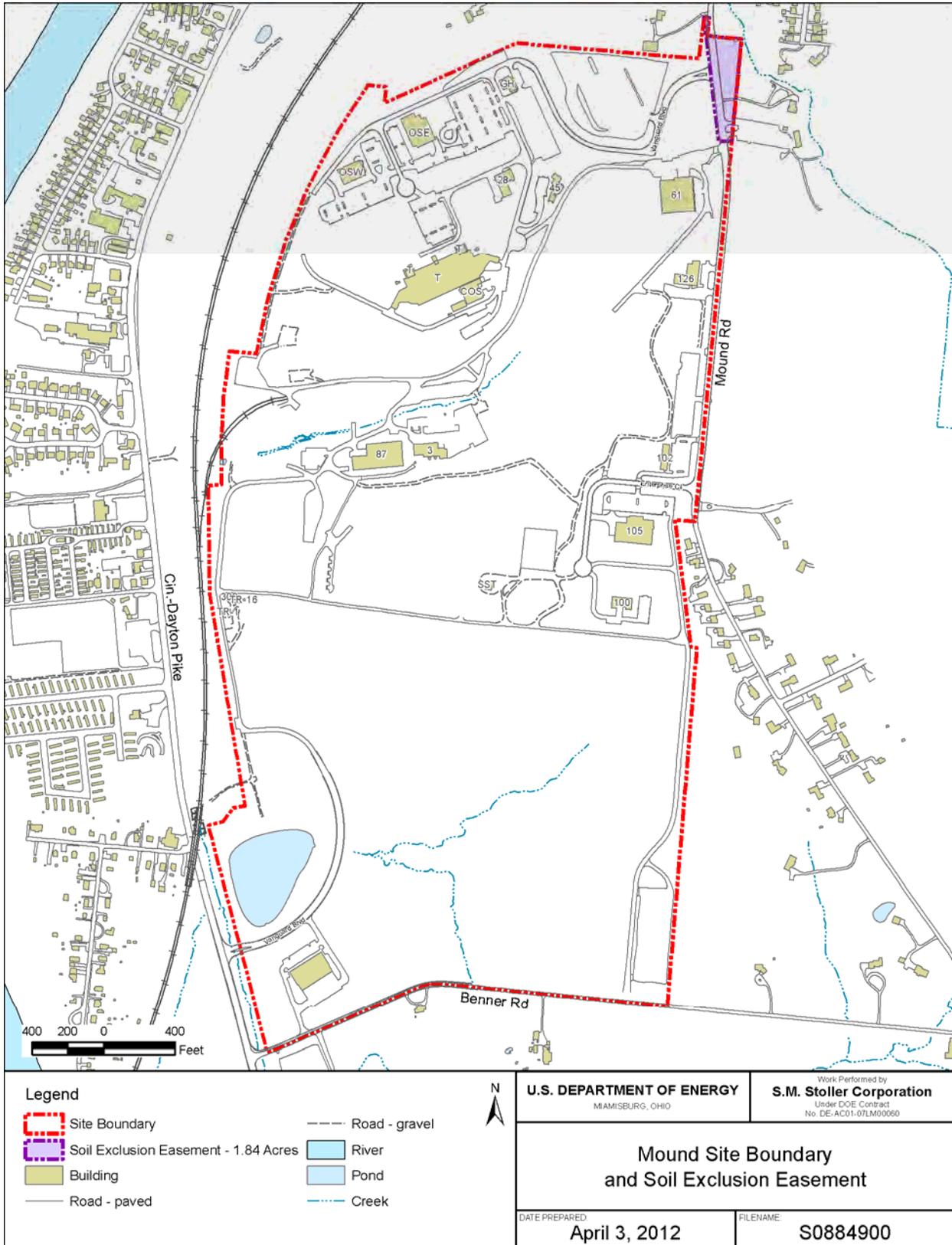


Figure 5. Parcel H Soil-Removal Exclusion Area within the Original Mound Site Boundary

7.3 Parcel 3

There were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation, soil removal, or site activities inconsistent with industrial use within this parcel.

7.4 Parcel 4

There was no evidence of unauthorized well installation or soil removal within this parcel.

Two signs, which state, "Recreational Use Prohibited," were observed at the pond used for retaining and detaining storm-water runoff in the southwestern part of Parcel 4.

Stoller personnel observed one person fishing at the pond in February 2012 and advised them that the site is cleared for industrial reuse but not for recreational use.

The Core Team agreed on the following wording regarding the signage beginning with the 2011 annual IC assessment:

The second five-year review for the DOE Mound site recommended that the issue of adequate signage around the Parcel 4 retention basin be addressed by DOE, EPA, and Ohio EPA. Signs placed around the basin to inform area visitors that recreational use around the basin is prohibited have been damaged and removed on several occasions by members of the public.

After reconsidering the exposure assumptions that were used to develop the industrial/commercial cleanup standards for the Mound site, DOE, EPA, and Ohio EPA have reached the conclusion that occasional visits to the retention pond by area residents will not result in an unacceptable risk to the visitors. Even so, DOE and the Mound Development Corporation will continue to monitor and discourage these unauthorized uses of the Parcel 4 retention basin area. No further action is required to assure protectiveness of human health or the environment.

7.5 Parcels 6, 7, and 8

7.5.1 Parcel 6, 7, and 8 Physical Inspection

In Parcel 6A, DOE and Stoller vacated Building 126 at 955 Mound Road in September 2011. EM personnel moved to the EMCBC office in Cincinnati, Ohio. LM and Stoller consolidated offices at the Fernald Preserve in Harrison, Ohio.

In Parcel 7, MDC removed Buildings 2, 63, and 63W and added parking areas in 2011. These activities were funded by a state grant and overseen by MDC. Figure 6 and Figure 7 show the buildings in 2010, and Figure 8 shows the parking area in March 2012 after the buildings were removed.



Figure 6. Buildings 63 and 63W in 2010



Figure 7. Building 2 in 2010



Figure 8. Parking Area That Replaced Buildings 2, 63, and 63W

There was a theft of steel grates from over the concrete storm drains along the western site boundary in Parcel 8 during the reporting period. Figure 9 to Figure 13 show the open storm drains. Stoller personnel advised that the thefts were reported to local law enforcement.



Figure 9. Storm Drain from Which a Grate Was Stolen in Parcel 8, Looking North and Uphill Along the Western Site Boundary



Figure 10. Section of Parcel 8's Western Site Boundary from Which Grates Were Stolen, Looking North and Uphill



Figure 11. Storm Drain from Which Grates Were Stolen, Looking Southwest in Parcel 8



Figure 12. Storm Drain from Which Grate Was Stolen in Parcel 8



Figure 13. Manhole from Which Grate Was Stolen in Parcel 8

There were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation, soil removal, or site activities inconsistent with industrial/commercial use within Parcel 6, 7, or 8.

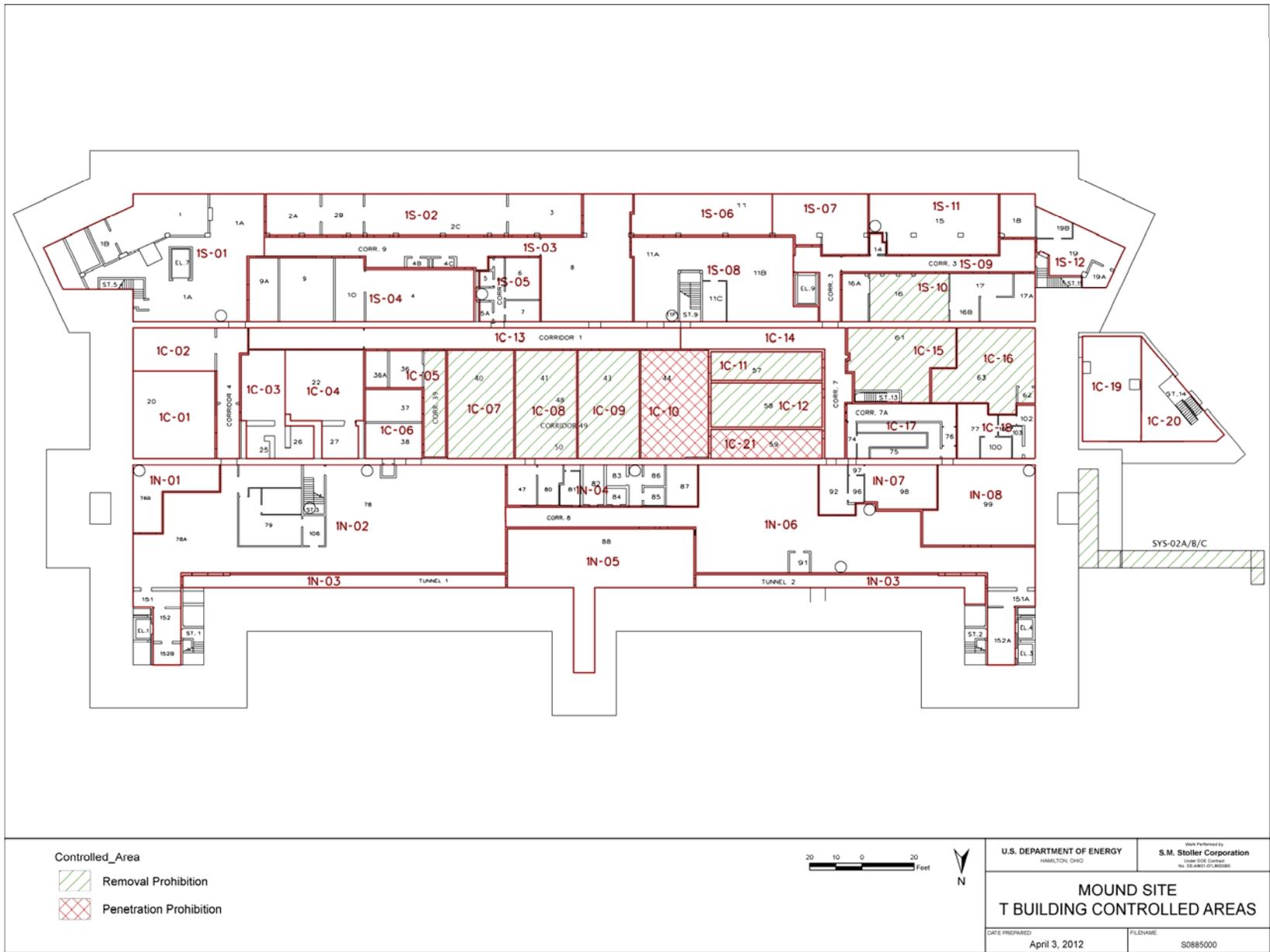
The physical inspection included the areas within T Building to which special ICs—which prohibit the penetration of concrete in some areas, and the removal of concrete in others, without prior approval—apply. In Figure 15 the special-IC areas on the first floor of T Building are depicted with crosshatching.

Appendix C to this report provides additional information regarding these areas with special ICs. It includes the four-page agreement and position paper *T Building Special ICs Core Team Agreement and Position Paper, 6-29-09*, which provided policy guidelines. It also includes the 2010 baseline photos of each room that these special ICs cover. On April 24, LM took additional photos of the cracks and documented their locations and current condition as a baseline for future inspections. This information, which is included in Appendix E, will assist in future inspections.

Figure 14 shows the red concrete area; the photo was taken during the April 5, 2012, physical inspection of the building. These cracks were observed and noted in previous annual IC assessments. Appendix E, “Photos of T Building Red Concrete Cracks,” provides more detailed photos of the cracks taken during April 2012. As stated in the 2011 annual IC assessment report, the cracks are not of concern to the Core Team at this time, but DOE will continue to monitor them during future IC assessments.



Figure 14. 2012 Photo of Crack in Red Concrete Slab in T Building Areas Where Penetration of Concrete Floor is Prohibited Without Prior Approval



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Figure 15. T Building Areas with Additional ICs

7.5.2 Parcel 6, 7, and 8 Wells and Seeps

Appendix D lists the Parcel 6, 7, and 8 groundwater monitoring wells and seeps, maps their locations, and provides photos taken during the physical inspections.

Because the groundwater monitoring is not an IC, the annual IC assessment only verifies the conditions of the wells and seeps; it does not determine the effectiveness of the monitored natural attenuation (MNA) remedy. The remedy for Parcels 6, 7, and 8 includes MNA and ICs for the land (which encompass groundwater monitoring requirements described in the *Parcel 6, 7, and 8 Remedy [Monitored Natural Attenuation] Groundwater Monitoring Plan, Final* [DOE 2006b]). The *Parcel 6, 7, and 8 Groundwater Monitoring Report Calendar Year 2011* (DOE 2012a) includes an analysis of the groundwater monitoring. Both of these documents are available on the LM website at <http://www.lm.doe.gov/mound/Sites.aspx>.

All of the Parcel 6, 7, and 8 wells were locked and in good condition. Several marker flags for the seep locations were missing and replaced after the March 2012 inspection. Personnel who sample the seeps typically use Global Positioning System locations.

7.6 Parcel 9 (Formerly OU-1)

The OU-1 area was formerly covered by the *Operable Unit 1 Record of Decision* (DOE 1995) and the selected remedy, which included:

- The collection and treatment of groundwater contaminated with volatile organic compounds, and the disposal of treated water, using the pump-and-treat system.
- The control of surface water in the OU-1 area and long-term groundwater monitoring.
- ICs to control access.

EM amended the OU-1 ROD in 2011. The amended ROD, *Amendment of the Operable Unit 1 Record of Decision, U.S. Department of Energy, Mound Closure Project, Final* (DOE 2011a), incorporated the physical changes in OU-1, expanded the area to include all of Parcel 9, and added the general site ICs described in Section 3.0.

7.6.1 Parcel 9 Physical Inspection

There were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation, soil removal, or site activities inconsistent with industrial/commercial use within this parcel.

In March 2012, MDC began construction of the spine road to improve Vanguard Boulevard from Parcel 4 to Excelitas. Figure 16 through Figure 19 are photos of roadwork construction taken on April 5, 2012.



Figure 16. Work on Spine Road, Looking South Toward Wells 0315 and 0347



Figure 17. Work on Spine Road in OU-1 Area, Looking Southeast from Roadway. Well P053 is in Center Right of Photo.



Figure 18. Work on Spine Road, Looking North Toward OU-1 Area



Figure 19. Work on Spine Road, Looking Southeast from Trailer 1 in OU-1 Area

7.6.2 Parcel 9 (OU-1) Wells

Appendix D lists the OU-1 wells, maps their locations, and provides photos taken of them during the physical inspections.

Because the groundwater monitoring is not an IC, the annual IC assessment only verifies the conditions of the wells and seeps; it does not determine the effectiveness of the remedy. Environmental restoration monthly reports provide data on the OU-1 pump-and-treat system and the results of groundwater monitoring. Historical water quality and water level data for existing wells can be found at the LM website <http://gems.lm.doe.gov/imf/ext/gems/jsp/launch.jsp>. Photographs, maps, and physical features can also be viewed on this website.

All of the OU-1 wells were locked and in good condition. LM installed a new monitoring well (well 0451) during the rebound study conducted during this reporting period. This well did not have a permanent marker.

7.7 Phase I Parcel

7.7.1 Phase I Physical Inspection

The Phase I parcel consists of three noncontiguous sub-parcels (A, B, and C), which were transferred to MDC in February 2009. The remedy for the Phase I parcel includes ICs for the land and MNA to address trichloroethylene-impacted groundwater.

The Mound Science and Energy Museum moved into the former DOE Building 102 at 1075 Mound Road in 2011.

Metal grates that covered the concrete storm drain along the east-west roadway in the Phase IB parcel were stolen. See Figure 20 through Figure 25.



Figure 20. Single Remaining Grate



Figure 21. Single Remaining Grate



Figure 22. Section of Storm Drain from Which Grates Were Stolen



Figure 23. Section of Storm Drain from Which Grates Were Stolen, Looking East



Figure 24. Section of Storm Drain from Which Grates Were Stolen, Looking West from Center Roadway



Figure 25. Section of Storm Drain from Which Grates Were Stolen, Looking East from Center Roadway

There were no observations of noncompliance with the ICs. In particular, there was no evidence of unauthorized well installation, soil removal, or site activities inconsistent with industrial/commercial use within this parcel.

7.7.2 Phase I Parcel Wells and Seep

Appendix D lists the Phase I wells and seep, maps their locations, and provides photos taken of them during the physical inspections.

Because the groundwater monitoring is not an IC, the annual IC assessment only verifies the conditions of the wells and seeps, and it does not determine the effectiveness of the MNA remedy. The Phase I remedy includes ICs and MNA, which include groundwater monitoring requirements describe in the *Phase I Remedy (Monitored Natural Attenuation) Groundwater Monitoring Plan* (DOE 2004b). The *Phase I Groundwater Monitoring Report Calendar Year 2011* (DOE 2012b) includes an analysis of the groundwater monitoring. Both of these documents are available on the LM website <http://www.lm.doe.gov/mound/Sites.aspx>.

All wells were locked, had permanent markers, and were in good condition.

8.0 Interviews and Record Reviews

8.1 Interviews with City Personnel and Review of City Records

In addition to conducting the physical inspections for the annual assessment, DOE reviews documents from local governments to ensure that ICs are being followed. These include construction, street-opening, occupancy, or other permits; zoning modification requests; City Planning Commission requests; and well logs issued for land parcels that have completed the CERCLA 120(h) process for property transfer. Documents may be at the City of Miamisburg, at

Miami Township, at Montgomery County, or in the Ohio Department of Natural Resources' well log files.

The City of Miamisburg database allows permits to be searched by keyword (e.g., permit number, date, location, nature of work). Permits issued before the database was implemented (i.e., permits documented in DOE's annual reports dating back to 2001) may not be in the City's database. However, the City retains hard copies of all permits in accordance with a records-retention plan that meets all State of Ohio requirements.

LM and Stoller personnel requested that the City of Miamisburg Engineering Department query their computer tracking system for permits issued to any addresses on Capstone Drive, on Vanguard Boulevard, on Enterprise Court, on Vantage Point, on Mound Road (between 885 and 1195), and on Benner Road (between 799 Benner Road and Dayton Cincinnati Road, on the odd-numbered side of street). In addition, the Engineering Department checked for other construction work or other activities, such as the creation of parking lots or roads that require any City Planning approvals. Table 5 lists those permits.

Although the property is not subject to City of Miamisburg permitting requirements until DOE conveys the land parcel to MDC, the City-permitting process familiarizes the City with the Mound Site. DOE has performed spot-checks of permits in the City Engineering Department files since May 2001 to confirm that the permits are maintained under configuration control. The City does not maintain files on buildings that MDC plans to demolish. City files do exist on buildings that have been demolished; however, those files are now considered obsolete.

Table 3 shows the DOE building identification and the Miamisburg street addresses for each building. Seven buildings (3, 87, 100, 102, 105, the MDC Flex Building, and GH), five magazines (80 through 84), and a salt storage shed are in land parcels transferred to MDC. Figure 26 shows the location of site buildings.

Since City permits are filed according to address, MDC or subsequent property owners must inform DOE of changes to the street names or building addresses.

Table 3. Crosswalk of Street Addresses to DOE Building Identifications

DOE Building ID	Former Address	Current Miamisburg Street Address	Parcel
2		Demolished 2011	7
28		925 Capstone Drive	6
45		930 Capstone Drive	6
61		885 Mound Road	7
63		1070 Vanguard Boulevard Demolished 2011	7
87 and 3		1100 Vanguard Boulevard	IB ^a
100		790 Enterprise Court	D ^a
102		1075 Mound Road	IA ^a
105		1195 Mound Road	D ^a
126		955 Mound Road	6A
COS		965 Capstone Drive	8
GH	500 Capstone Circle	500 Vantage Point	3 ^a
OSE	480 Capstone Circle	480 Vantage Point	6
OSW	460 Capstone Circle	460 Vantage Point	8
T Building		945 Capstone Drive	8
Magazines 80–84	None	None	IB ^a
Trailers 1 and 16, and Building 300	None	1275 Vanguard Boulevard	9
MDC Flex Building		1390 Vanguard Boulevard (main building)	4 ^a
	1390 Vanguard Boulevard	1388 Vanguard Boulevard (lighting)	4 ^a
	1390 Vanguard Boulevard	1384 Vanguard Boulevard	4 ^a
	1390 Vanguard Boulevard	1380 Vanguard Boulevard	4 ^a
	1390 Vanguard Boulevard	1374 Vanguard Boulevard	4 ^a
	1390 Vanguard Boulevard	1370 Vanguard Boulevard	4 ^a

^a Parcel has been transferred to MDC.

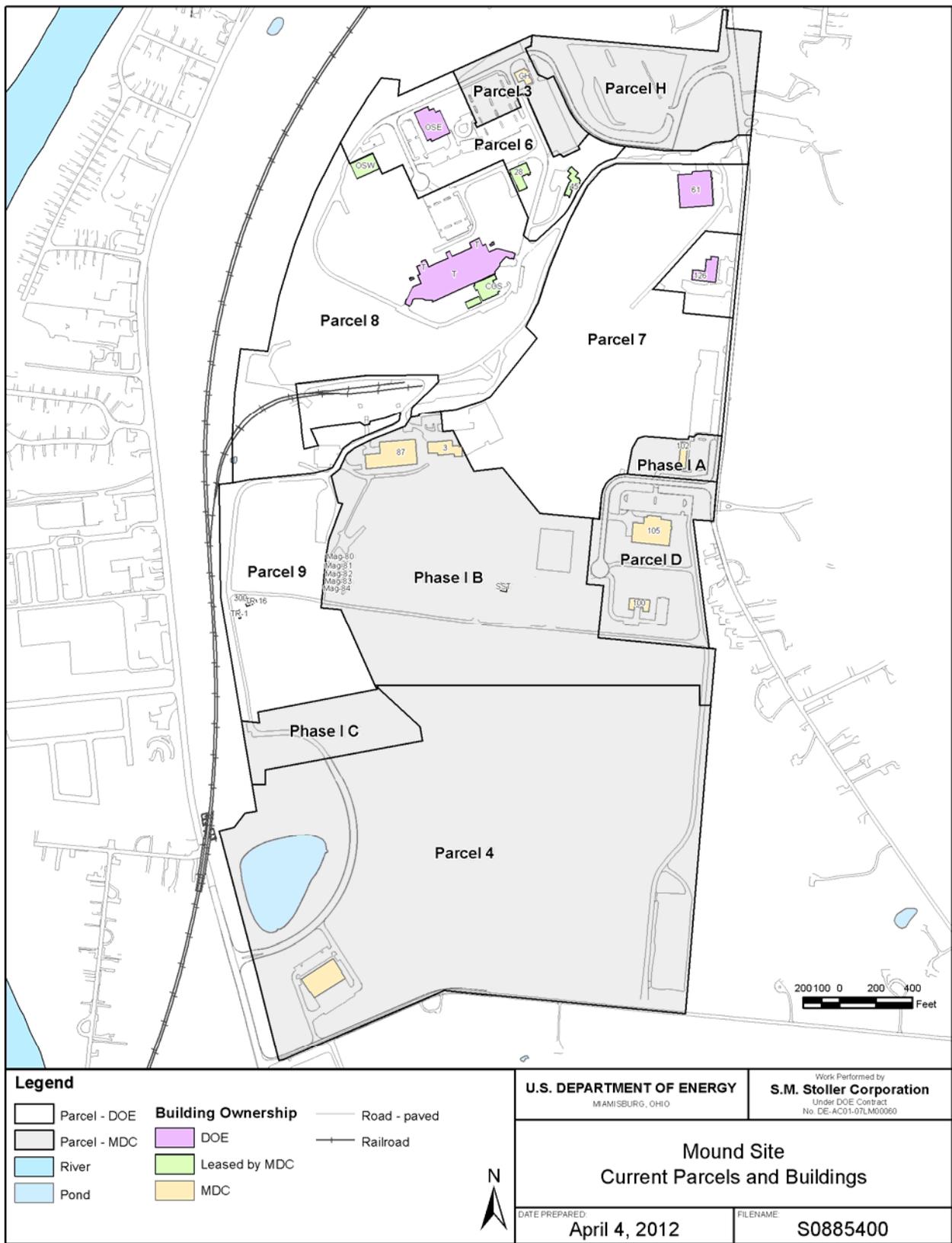


Figure 26. Mound Site Building and Parcel Ownership

Table 4 lists all permits on file that were issued for the site during the period being assessed. The City of Miamisburg Building Inspection Department provided a permit report on April 28, 2012.

Table 4. City of Miamisburg Permit Files for Mound Site (April 1, 2011, to March 31, 2012)

Location of Work	Permit Number	Date of Permit Application	Nature of Work	Work Performed By
985 Capstone Drive	20110004S	2/08/11	Sign permit	Kap Signs
	20110168B	11/15/11	Sprinkler/fire	Dayton Fire Protection
1100 Vanguard Boulevard	20110067B	5/13/11	Sprinkler/fire	A-1 Sprinkler
1070 Vanguard Boulevard	20110125B	8/29/11	Demolition	B&B Wrecking
	20120003E	1/06/12	Electric	Chapel EI
790 Enterprise Court		1/11/12	OK to release to Dayton Power & Light	City Inspector
	20110043B	4/11/11	Occupancy	Self
1075 Mound Road		4/14/11	Certificate of occupancy	City Inspector
	20110021S	8/16/11	Sign	Kap Signs

Table 5 lists work requests that did not require a City permit but did require review by the City Planning Commission. These requests included excavation and paving activities.

Table 5. City of Miamisburg Files—Planning Commission and Other Reviews

Location of Work	ID Number	Date of Application	Submitted By	Nature of Work	Parcel/ Building	Status
The City Building Inspection Department reported that no City Planning Commission reviews were performed during this period.						

Permits filed with the City of Miamisburg do not have an expiration date. To ensure that the appropriate City officials approve permit work performed since the last annual assessment, DOE and the property owner should remain knowledgeable of permits if work covered by that permit were to be postponed.

Most of the work performed by MDC or other parties (e.g., contractors to MDC) on the former DOE Mound Site Property that Gwen Hooten (LM) and Frank Bullock (MDC) were aware of during the 12-month reporting period appeared to be adequately covered by permits submitted to, and approved by, the City of Miamisburg. However, there were no City permits issued for the work performed to upgrade the heating, ventilation, and air-conditioning controllers or for removing partitions and flooring in the OSE Building.

In general, the permit-review process demonstrated that the City of Miamisburg's recordkeeping system is adequate. However, continued education of City employees will be very important.

8.2 Records of Property Owners

DOE reviews MDC construction contracts or easements during the annual IC assessments to ensure that the IC restrictions continue to be included.

There were no permits issued for the road construction project extending Vanguard Boulevard and installing parking lots. The City Engineering Department stated in an e-mail, “Per Bob Stanley - EPA permits were required and received for: Water and sewer extensions and storm sewer. With Bob signing off on the drawings, was the ok to go ahead. He signed on 1/20/12.”

Because this work is on DOE-owned property, EMCBC issued a license to MDC to perform the work. EM and LM/Stoller personnel reviewed the work plans and technical specifications. The technical specifications required the contractor to adhere to all City construction requirements. The City inspector was onsite every day because Vanguard Boulevard is a City street, which the City will maintain. EM delegated responsibility to LM/Stoller to monitor the construction work to ensure compliance with the terms of the license.

MDC and all future property owners must ensure that contractors performing work (e.g., landscaping, utility work that involves excavation, construction) comply with the ICs. MDC provides a pre-construction package that includes a description of the ICs, and MDC includes the following language in the “Technical Requirements” section of its requests for proposal and subsequent work orders: “Excavated soils must be managed and remain on MDC property. Soils from excavation shall be placed at an on-site location, as directed by MDC.”

MDC monitors the vendor’s work and conformance with technical requirements. MDC also provides the vendor with a real estate easement that includes detailed information on the ICs. Appendix B is an example of a real estate easement used for utility work that is registered with Montgomery County.

MDC’s *Comprehensive Reuse Plan Update* (MMCIC 2003) (CRP) is available in the CERCLA Reading Room and online at <http://www.lm.doe.gov/mound/Sites.aspx>. To coordinate the movement of soil on the site, the CRP included a sitewide soil-grading plan. The CRP was incorporated into the City of Miamisburg’s comprehensive plan, which is the basis for the property zoning within the city limits. If MDC subdivides and sells portions of the Mound Site, the new property owners will be required to comply with the CRP and the City’s comprehensive plan.

MDC plans to plat the entire DOE Mound Site Property. In order to receive financing (i.e., for new construction) on land parcels that make up the original DOE Mound site property, MDC will record a lot-split with the Montgomery County Recorder’s Office. If MDC does not require financing for property improvements, it does not have to immediately record a Miamisburg Planning Commission–approved lot-split with the County. However, if MDC decides to sell the property, it has to record the lot-split with the County at that time. The recorded real estate documentation would include the original quitclaim deed and the ES associated with the original parcel to ensure that future property owners of individual lot-splits know of the ICs.

Public education is an important component of DOE’s post-closure responsibilities. Educating all future property owners about their responsibility to comply with the ICs is an essential element of DOE’s public-education campaign. It is also necessary to educate the general public on the

importance of adhering to the sitewide ICs. When the annual report is completed and made available in the CERCLA Reading Room and on the LM website, DOE publishes a public notice that describes the ICs. Postings (such as warning signs near the MDC pond, which state that recreational use is prohibited) are crucial to teaching the public to comply with ICs.

9.0 Conclusions

The ICs for the Mound Site continue to function as designed. Adequate oversight mechanisms appear to be in place to identify possible violations of ICs, and adequate resources are available to correct or mitigate any problems if violations occur.

10.0 Recommendations

Table 6 lists outstanding recommendations from previous inspections, and the status of those recommendations. Table 7 lists new recommendations from this year's inspection.

Table 6. Outstanding Recommendations from Previous Annual or Five-Year CERCLA Inspections of ICs

Origin	Issue/Recommendation	Status 2011 Report	Corrected?	Current Status 2012 Report
2011 Annual IC Assessment	No recommendations resulted from the 2011 annual IC assessment.			
2011 Five-Year Review	Verify that the quitclaim deed for Parcels 6, 7, and 8 is appropriately recorded and is free and clear of all liens and encumbrances.			In process
2011 Five-Year Review	Finalize the <i>Sitewide IC Management/Land Use Control Plan (with CERCLA Summary)</i> .			In process
2011 Five-Year Review	Finalize the sitewide O&M Plan for groundwater remedies.			In process

Table 7. Recommendations from 2012 Annual Inspection for ICs

Number	Issue/Recommendation	Responsible
1	Install a permanent marker for well 0451.	LM/Stoller
2	Work with the City to ensure that permit and zoning systems that capture future site work involving soil removal, regardless of property ownership, will be maintained.	LM/Stoller
3	Complete the soil removal white paper, which will become part of the O&M Plan.	EM/LM/Stoller

11.0 Contact Information

For further information on the content of this annual report or the former DOE Mound Site Property in general, contact:

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