



U.S. DEPARTMENT OF
ENERGY

Legacy
Management



Fernald
Preserve

Community Meeting

December 17, 2013

8945

The U.S. Department of Energy Office of Legacy Management (LM) community meeting on the Fernald Preserve was held December 17, 2013.



Jane Powell

DOE-LM Site Manager 2006–2013



Jane Powell, LM, managed the Fernald Preserve from 2006 to 2013.



Jane Powell

DOE-LM Site Manager 2006–2013



8945.03 12/13

Jane Powell, LM, managed the Fernald Preserve from 2006 to 2013.



Agenda

- **Safety**
- **Aquifer Restoration**
- **On-Site Disposal Facility**
- **Environmental Monitoring**
- **Ecological Restoration**
- **Nature Nook**
- **Community Relations**



Fernald Preserve

Legacy Management Mission



Manage DOE's post-closure responsibilities and ensure the protection of human health and the environment.



Worker Health and Safety

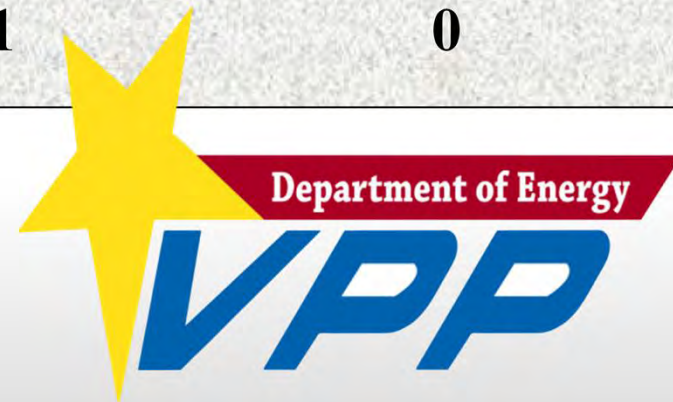
Legacy Management Mission

OSHA Recordables (yearly)

DOE Complex	LM	Industry
1.0	0.6	4.2

Fernald Preserve (quarterly)

Lost Time	First Aid	Recordables
0	1	0



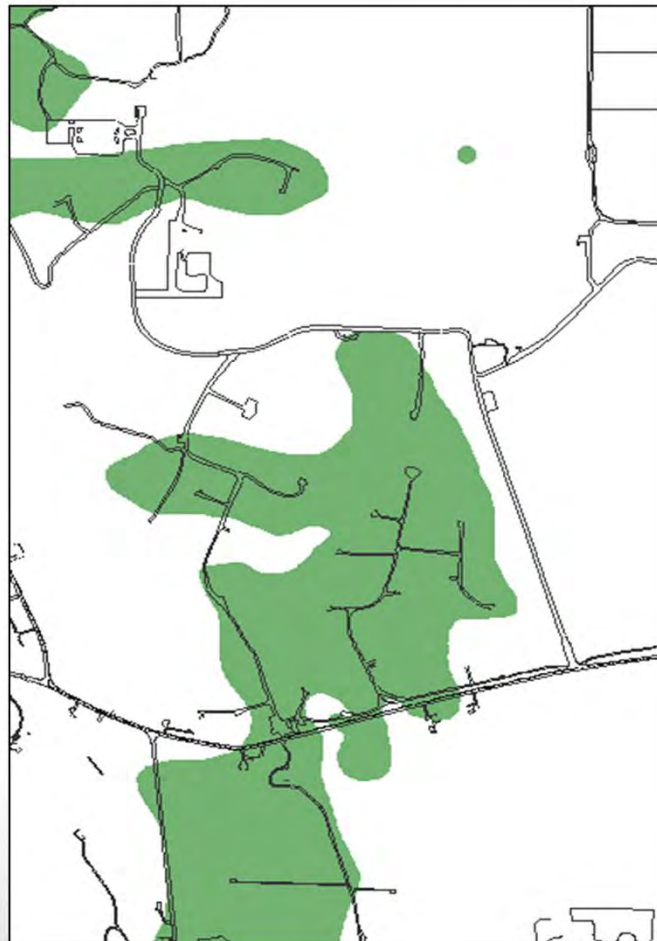
Safety at the Fernald Preserve, and across the LM complex, continues to surpass industry standards.



Fernald
Preserve

Aquifer Restoration

Maximum Uranium Plume: 2008



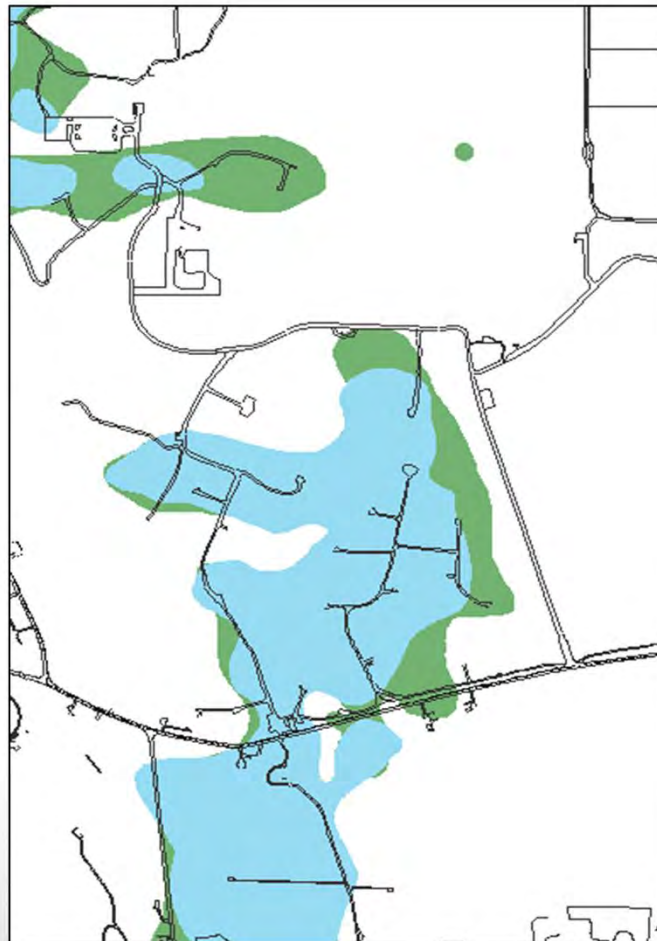
8945.07 12/13

Progress continues on the cleanup of Fernald Preserve groundwater as demonstrated by the decrease of the uranium plume from 2008 to 2012.



Aquifer Restoration

Maximum Uranium Plume: 2008 and 2012



30 ug/L

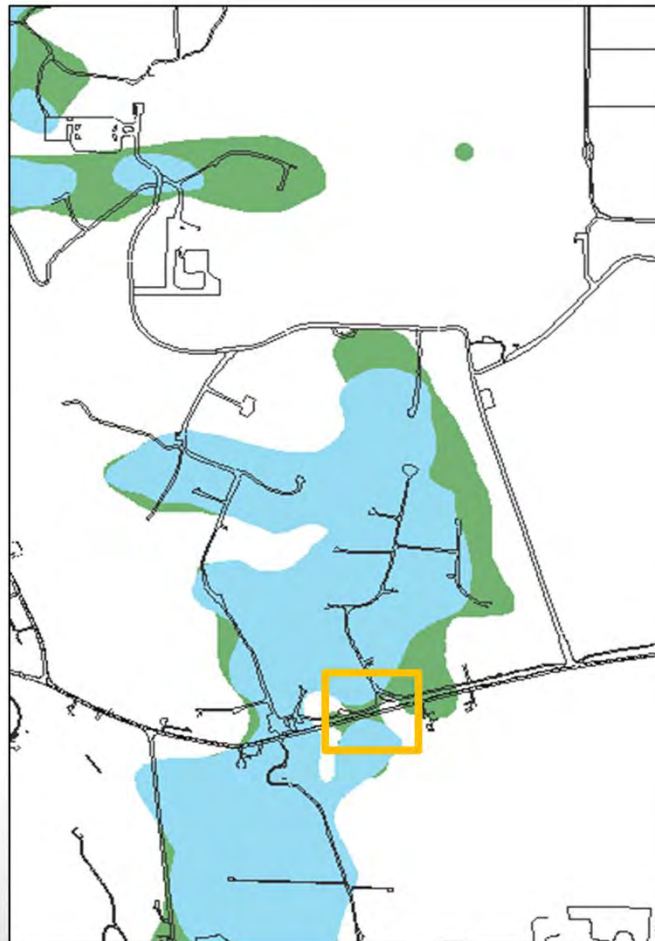


The mapped interpretation of the groundwater uranium plume has decreased approximately 57 acres since 2008.



Aquifer Restoration

Maximum Uranium Plume: 2008 and 2012



30 ug/L

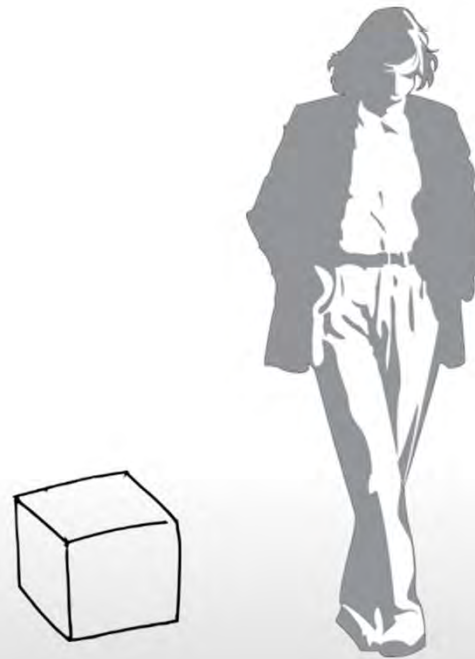


Computer modeling is used to predict cleanup durations.



Aquifer Restoration

- **More than 11,300 pounds of uranium and 32.5 billion gallons of groundwater removed from the aquifer since 1993.**



8945.10 12/13

The 11,313 pounds of uranium removed from the aquifer since 1993 would fit into a 2-foot cube.



On-Site Disposal Facility



8945.11 12/13

The On-Site Disposal Facility (OSDF) has been performing as designed since construction was completed in 2006. Image: June 2006.



On-Site Disposal Facility

Cover

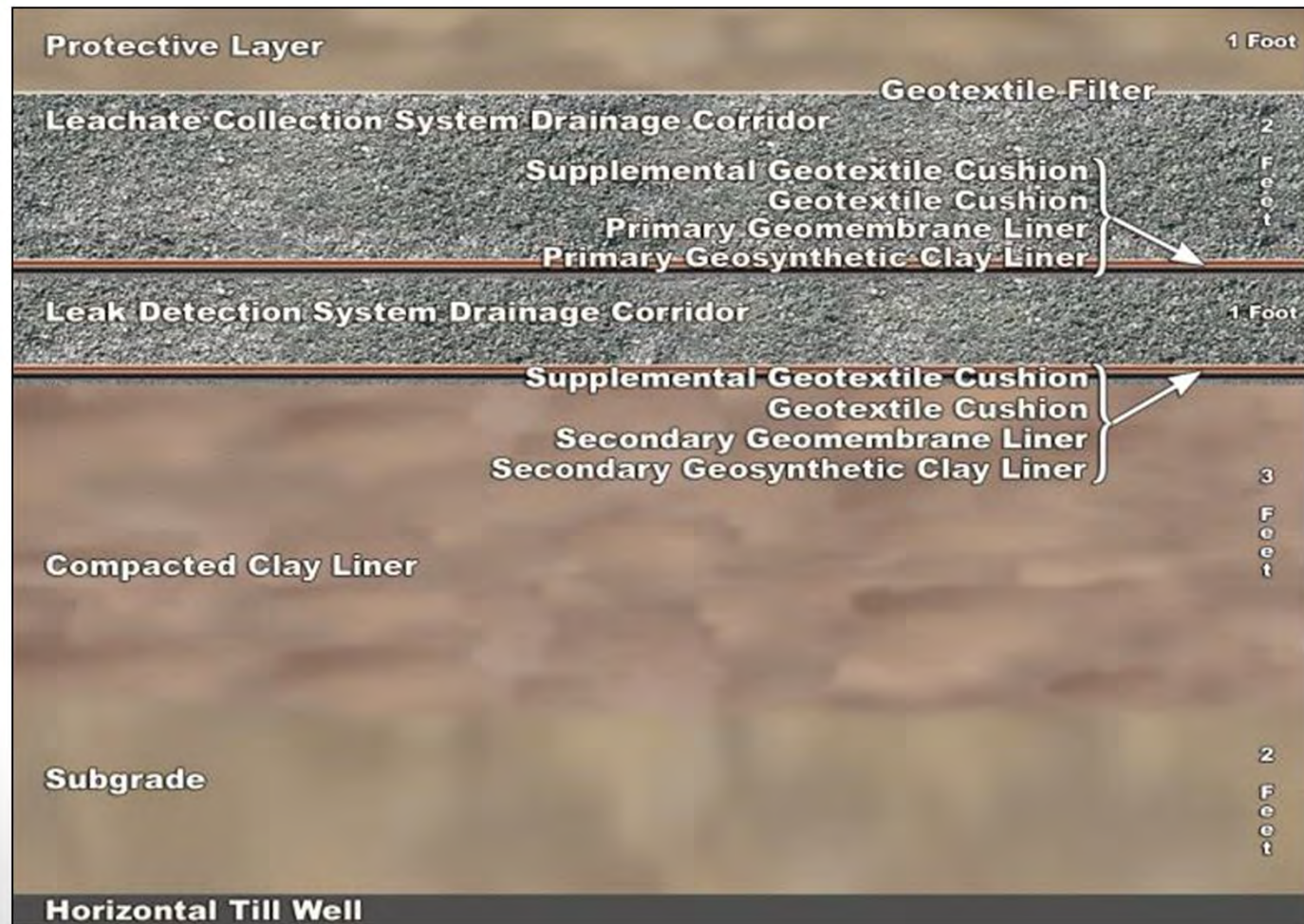


The OSDF engineered cover system.



On-Site Disposal Facility

Liner



The OSDF engineered liner system.



On-Site Disposal Facility



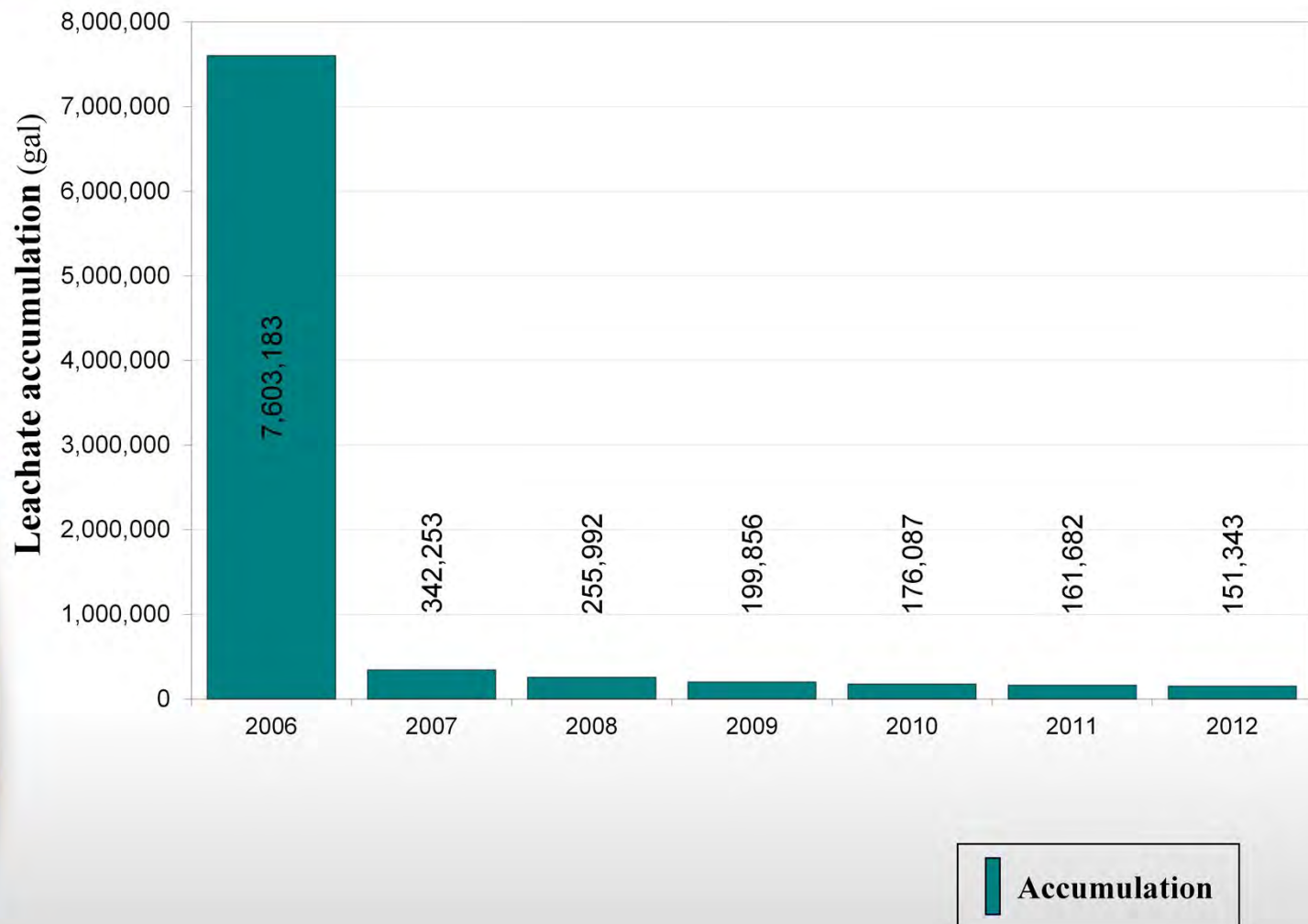
8945.14 12/13

Visual inspections and collected data indicate that the OSDF has been performing as designed. Image: June 2013.



On-Site Disposal Facility

Leachate Collection



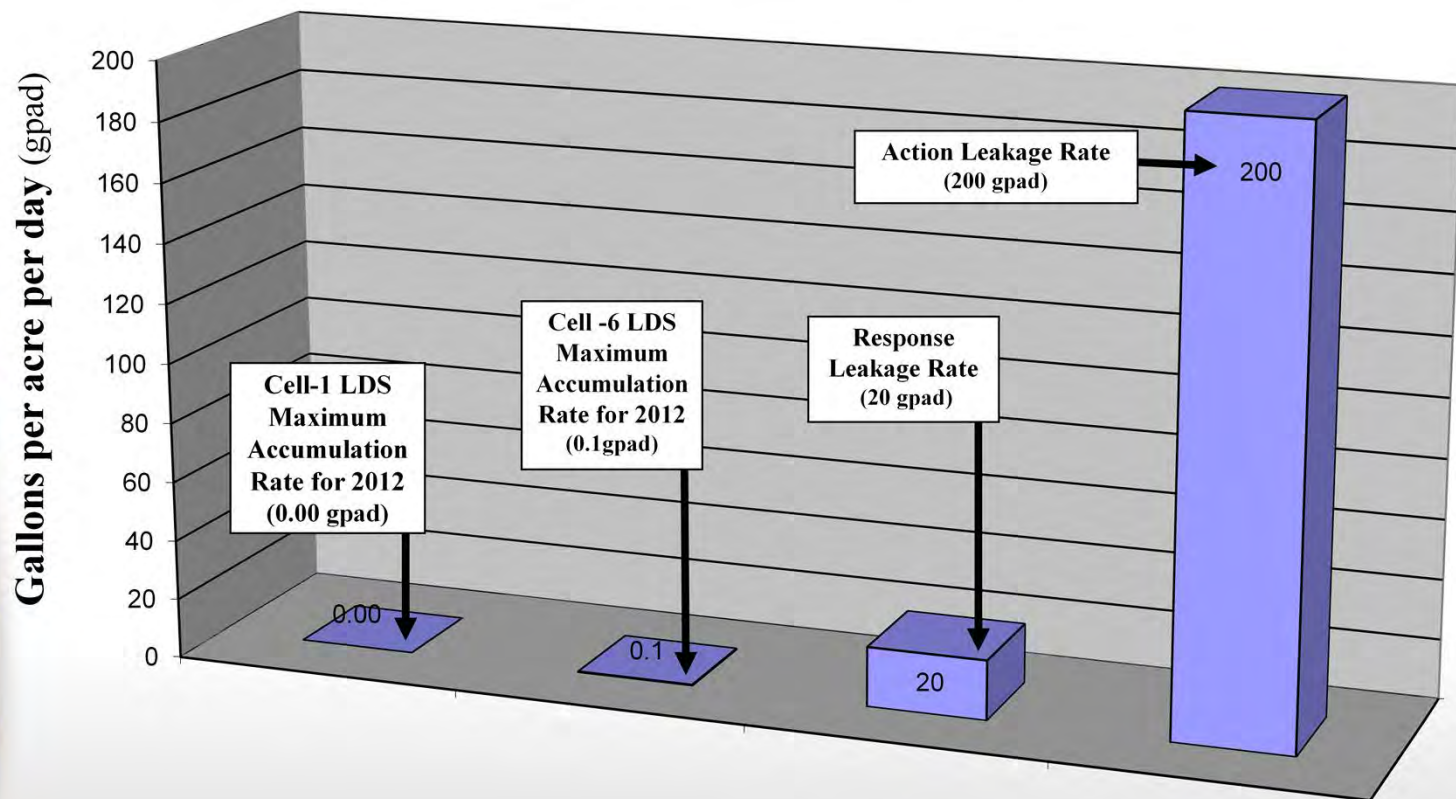
8945.15 12/13

Moisture given up by the waste within the OSDF is called “leachate.” This leachate, which is collected and treated, has decreased dramatically—as anticipated—since the disposal facility was closed in 2006.



On-Site Disposal Facility

2012 Cells 1 and 6 Leak Detection System Accumulation, Response, and Action Level Rates



8945.16 12/13

Leak Detection System accumulation rates remain well below the conservative response rate of 20 gallons per-acre-per-day (gpad) and the design action rate of 200 gpad.



Environmental Monitoring



More than 11,600 samples have been collected as part of the environmental monitoring activities at the Fernald Preserve since 2008.



Fernald
Preserve

Inspections



U.S. Department of Energy, Office of Legacy Management
Fernald Preserve Field Worksheet-Inspection

Date: 12/12/13
Inspector: [Signature]

No.	Location (Site Name, Mileage, etc.)	Inspected	Remarks	Inspector	Inspector Title
1	...				
2	...				
3	...				
4	...				
5	...				
6	...				
7	...				
8	...				
9	...				
10	...				
11	...				
12	...				
13	...				
14	...				
15	...				
16	...				
17	...				
18	...				
19	...				
20	...				

Additional Notes: [Signature] 12/13



Site inspections and OSDF inspections are conducted quarterly, per the Fernald Preserve Legacy Management and Institutional Controls Plan.



Ecological Restoration



Ecological restoration activities continue at the Fernald Preserve. Aerial image: June 2007.



Ecological Restoration



Ecological restoration activities continue at the Fernald Preserve. Aerial image: June 2013.



Ecological Restoration



More than 230 species of birds have been identified at the Fernald Preserve.



Nature Nook



A wide variety of plants and animals have inhabited the Fernald Preserve.



American burying beetle
Nicrophorus Americanus

The American burying beetle is an endangered species that was released at the Fernald Preserve in May 2013. The U.S. Department of Energy partnered with the U.S. Fish and Wildlife Service and the Cincinnati Zoo to release 120 pairs of the beetle on the site.



Nature Nook



Bobcat
Lynx Rufus

Several sightings of bobcats have been reported at the Fernald Preserve.



Community Relations

- **Visitors Center**
- **Community Meeting Room**
- **Tours and Events**
- **Trails**



As a community asset, the Fernald Preserve fosters wildlife habitat and provides educational opportunities through environmental stewardship.



Visitors Center



8945.26 12/13

The Fernald Preserve Visitors Center has been open to the public since August 2008.



Visitors Center



More than 45,000 people have used the Fernald Preserve Visitors Center since it opened in 2008.



Community Meeting Room



www.lm.doe.gov/Fernald/Visitors_Center/Community_Meeting_Room.pdf

The Community Meeting Room is available for use by the public.



Tours and Events



A variety of tours and events have taken place at the Fernald Preserve.



Trails

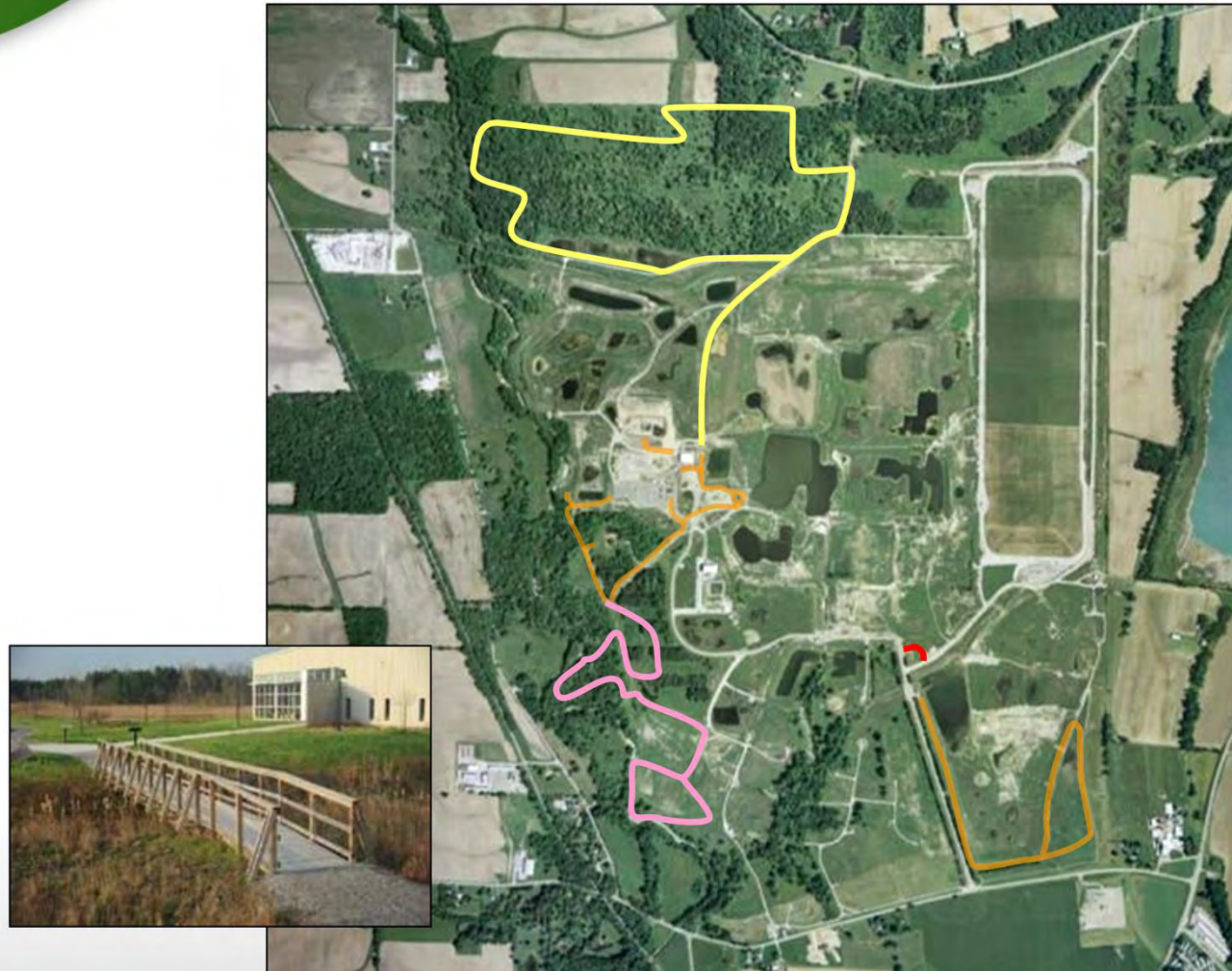


8945.30 12/13

Seven miles of trails are open to the public at the Fernald Preserve.



Trails



8945.31 12/13

Seven miles of trails are open to the public at the Fernald Preserve.



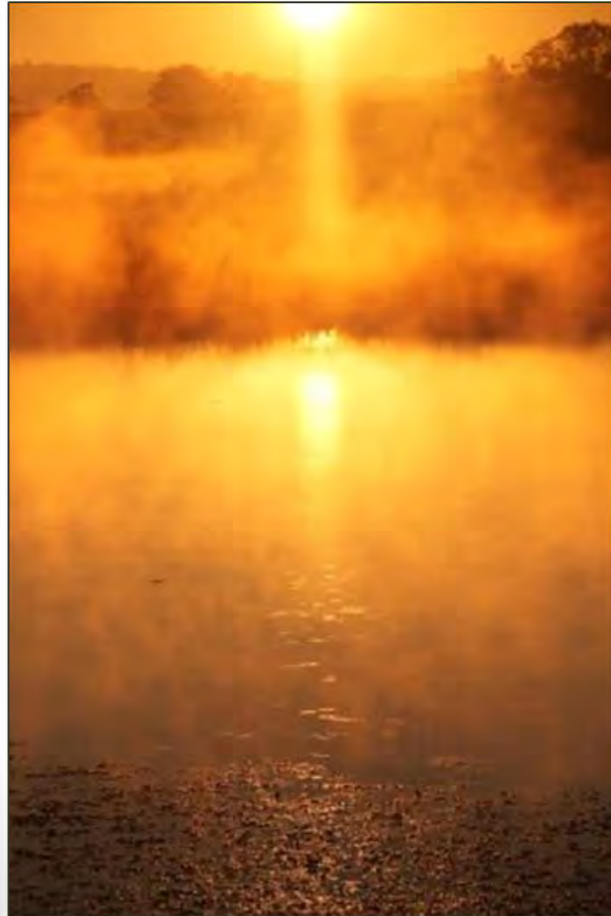
Trails



Seven miles of trails are open to the public at the Fernald Preserve.



What's Next



- *Legacy Management and Institutional Controls Plan*
- **Sheltered outdoor classroom**
- **Updated groundwater restoration approach**
- **New Year's Eve hike**

Several upcoming projects and events are planned for the Fernald Preserve, and updates have been made to the Legacy Management and Institutional Controls Plan.



Questions

Gwen Hooten

LM Fernald Preserve Manager
(513) 648-3333
gwen.hooten@lm.doe.gov

Sue Walpole

S.M. Stoller Public Affairs
(513) 648-4026
sue.walpole@lm.doe.gov

General

(513) 648-6000
fernald@lm.doe.gov
www.lm.doe.gov



Gwen Hooten is the new LM Site Manager for the Fernald Preserve.