

## **THE FUTURE OF FERNALD: COMMUNITY-BASED STEWARDSHIP PLANNING**

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### **ABSTRACT**

For more than a decade, the U.S. Department of Energy (DOE) has managed an environmental remediation project at its former uranium processing facility near Fernald, Ohio. To address public concerns about what will happen at the site once remediation is completed, the Site-Specific Advisory Board for the site, the Fernald Citizens Advisory Board (FCAB), designed and implemented the *Future of Fernald* process to involve the public in planning for the site's future. The FCAB recently coordinated a feasibility study of post-remediation public access to site information. Information is a key component of Community-Based Stewardship, a system in which the public plays an integral role in long-term stewardship of a site. This study found that has just begun to address community needs for information during long-term stewardship. Through a public workshop, conducted as part of the study, the public was able to identify the kinds of information that are needed and how that information should be presented.

### **INTRODUCTION**

Several years ago, community members began to ask serious questions about what will happen to the U.S. Department of Energy (DOE) property in Fernald, Ohio, once environmental remediation of the site is completed. To address these concerns, the Site-Specific Advisory Board for the site, the Fernald Citizens Advisory Board (FCAB), designed and implemented a process to involve the public in planning for the site's future. To distinguish the process from advice giving on remediation issues, the FCAB uses the title *Future of Fernald* to describe activities that are part of this process.

In April 1999, the FCAB sponsored its first *Future of Fernald* community workshop. These workshops provide an invaluable opportunity for members of the community to receive information about the site and to interact with staff from the Fernald site and each other in small, facilitated dialogues. Following a third workshop, held in September 2000, the FCAB formally adopted a stakeholder vision statement and made a formal recommendation to the DOE that it be used as a model for designing future use of the site. The consensus vision solidified stakeholders resolve to ensure that a positive legacy remains at the Fernald site following remediation, and that future use of the site is focused on community education. This vision has become the cornerstone for site planning, as is clearly reflected by the DOE's 2002 Master Plan for Public Use of the Fernald Environmental Management project.

**A Stakeholder Vision for the Future of Fernald**

Fernald Stakeholders envision a Future for the Fernald property that creates a federally owned regional destination for educating this and future generations about the rich and varied history of Fernald. We envision a community resource that serves the ongoing information needs of area residents, education needs of local academic institutions, and reinterment of Native American remains. We envision a safe, secure, and partially accessible site, integrated with the surrounding community that effectively protects human health and the environment from all residual contamination and full maintains all aspects of the ecological restoration.

As the site's anticipated 2006 closure date approaches, *Future of Fernald* activities have shifted focus from future use of the site to the role the public will play in long-term stewardship. Long-term stewardship is the term used by DOE to categorize all activities that are needed to protect human health and the environment from hazards that remain at a site after an environmental remediation project is completed. The term Community-Based Stewardship has been coined at Fernald to describe a system that actively involves the public in the ongoing management of a site and its residual contamination.

Fernald community members have voiced concern that the public will not have the access to site information it needs for successful Community-Based Stewardship. In late 2001, the FCAB received funding from the DOE Office of Long-Term Stewardship to conduct a feasibility study of post-remediation public access to site records. Carried out by the FCAB's contractor, The Perspectives Group, Inc., this study offered a unique opportunity to understand community perspectives on what information will be needed by people living and working near the Fernald site and how to make that information accessible. The study also investigated the degree to which DOE is prepared to meet public information needs, and recommended actions that should be taken by DOE at the Fernald site and at a national level (1).

**FERNALD BACKGROUND**

From 1952 to 1989, the Fernald site produced uranium metals used in the production of nuclear weapons. Low levels of radioactive contamination blew as far as five miles from the site during production, and a large plume of contaminated groundwater spread away from the site. For more than a decade, DOE has conducted an environmental remediation project at the site to address this historical contamination. As part of this project, thousands of tons of highly contaminated materials have been shipped off the Fernald property, while a much greater volume of materials with lower concentrations of contamination have been placed in a specially designed disposal facility located on the site. Meanwhile, groundwater is being pumped to the surface, treated to remove contaminants, and injected back to the aquifer.

The site is scheduled for closure in 2006, meaning that soils will meet agreed upon levels for contaminants and that contaminated groundwater will be contained, with long-term treatment and monitoring in place. Following site closure, public access to the on-site disposal facility will be restricted and use of the site will be limited to environmental, educational, and passive recreational uses. Nearly eighty percent of the one thousand and fifty-acre site will be restored to native wetlands, forest, and prairie, and a network of public walking trails will crisscross these habitats. Some areas of the Fernald site also will be used for the reburial of Native American remains, which have been removed from original burial sites elsewhere. To help ensure appropriate future use, the site will remain under federal ownership.

A large volume of contaminated materials will be contained in the on-site disposal facility, and site soils will contain radioactive contaminants at levels too high to permit unrestricted use of the property. Physical barriers and institutional controls will be required to prevent excessive exposure to residual contaminants. The ongoing management of the site to protect human health and the environment from these hazards is called long-term stewardship. Long-term stewardship at Fernald will consist primarily of monitoring and maintenance of the on-site disposal facility, as well as maintaining institutional controls to ensure that residential or agricultural uses do not occur at the property. In addition, ecological restoration projects will be monitored and maintained, and any trails or other public use amenities will be maintained to a safe condition.

## **THE CRITICAL ROLE OF INFORMATION IN COMMUNITY-BASED STEWARDSHIP**

The current accepted approach to the remediation of sites like Fernald relies heavily on the use of physical and institutional controls, rather than on the total removal of hazardous materials. In cases involving nuclear materials, this approach places a perpetual burden on communities near the site, since the materials left on site will remain hazardous for tens of thousands of years after the cleanup is completed. The health and safety of the community, and their surrounding environment, can be ensured only through sound long-term stewardship of the site—physical barriers must be monitored and maintained, and institutional controls must be enforced and successfully communicated from generation to generation.

At Fernald, and similar sites, the public will provide integral oversight of long-term stewardship and play an active role in ensuring the integrity of physical and institutional controls. There are three primary reasons that the public will assume this role:

- The community will have a continuous presence near the Fernald site
- Members of the public who live and work near the Fernald site will bear the majority of risk associated with the hazards left on site
- The Fernald community has proven itself effective in prompting the government to address environmental risks at the site

The integrated awareness, education, and acceptance of responsibility for oversight of long-term stewardship is referred to in this paper as Community-Based Stewardship. In short, Community-Based Stewardship is a vision for post-remediation stewardship of a site that assumes the local community will play a critical, ongoing role.

The community cannot play this role unless it has the tools necessary to provide meaningful oversight of site management. Community-Based Stewardship requires an aware, well-informed public, which has access to a rich source of information about the site:

- An active transfer of information to future generations and new residents will sustain community awareness of the hazards remaining at the site and the controls in place to manage the risks from these hazards.
- Accessible information about conditions at the site and requirements for site managing provides the public with the tools necessary to play a meaningful role in oversight of the site's management.
- The community needs information in order to understand and accept the decisions that were made during the remediation of the site and to understand how their health and environment have been protected.

- Information is needed to communicate the full story of Fernald's history and the important lessons that have been learned at the site and in the community, in order to help prevent future generations from repeating past mistakes.

## **INFORMATION MANAGEMENT AT CLOSURE SITES**

Providing information to the public is a critical component of effective long-term stewardship, but it is just one piece of the larger DOE obligation for managing information at closure sites.

The operation of a federal facility and remediation project generates substantial volumes of documents, photographs, and other kinds of information. At the end of 2001, there were more than thirty thousand boxes of site records and more than one hundred thousand photographic images in storage near the Fernald site. There are also thousands of Native American and Cold War artifacts that have been collected at the site.

Before the Fernald site reaches closure, there are three main information management needs that must be met by DOE and its contractors:

- Per regulations of the National Archives and Records Administration (NARA), site records must be managed and archived properly. This means that some temporary records must be destroyed, while long-lived and permanent records are indexed and sent to federal storage facilities.
- Information resources required to carry out long-term stewardship activities must be identified, organized, and transferred to a designated site steward.
- Information needs of the public must be met.

DOE has shown varying degrees of progress towards meeting each of these three needs at Fernald. A system is in place for DOE to meet NARA's requirements for records management. Recent DOE guidance for closure sites has begun to outline the kinds of information that will be required for long-term stewardship and site personnel has begun to determine what will be needed at Fernald. However, DOE has only begun to recognize the importance of providing for the specific long-term information needs of the public and has not yet determined the best way to meet these needs.

## **INFORMATION NEEDS OF THE FERNALD COMMUNITY**

At the fourth *Future of Fernald* workshop, held in March 2002, the Fernald community began to delineate its specific future information needs. At this workshop, the public was able to learn about information management and long-term stewardship issues at the site, and then participate in small group discussions regarding the kinds of information that will be needed and how that information should be provided to the public. As occurred at prior *Future of Fernald* workshops, staff members from DOE Fernald and its contractors acted as important informational resources and participated in breakout discussions.

### **What Information Does the Fernald Community Need?**

The types of information needed that were identified by the public can be divided into three categories:

- Information concerning the history and cultural significance of the site
- Background information on environmental conditions at the site and remedies that were put in place during cleanup

- Up-to-date information generated during long-term stewardship, such as environmental monitoring reports and administration of the site
- Examples of these three types of information are provided in Table 1 below.

**Table 1: Information needed by the Fernald Community after site remediation.**

<b>Type of Information</b>	<b>Examples</b>
Historical and Cultural significance of the Site	<ul style="list-style-type: none"> <li>• Fernald's role in the cold war</li> <li>• Impact of production and remediation on workers and the community</li> <li>• Grassroots environmental movement and its impact on site remediation</li> <li>• Role of the site in Native American cultures in the history and future of the Fernald area</li> </ul>
Background on Environmental Conditions and Remediation	<ul style="list-style-type: none"> <li>• Production and resulting contamination</li> <li>• Exposure of workers, the community , and the environment</li> <li>• Environmental remediation process</li> </ul>
Up-to-Date Information Generated during Long-Term Stewardship	<ul style="list-style-type: none"> <li>• Environmental conditions</li> <li>• Physical and institutional controls in place</li> <li>• Measures required to maintain controls</li> <li>• Monitoring reports</li> <li>• Entities responsible for long-term stewardship</li> <li>• Opportunities to further reduce risks</li> </ul>

### **How Should Information be Provided to the Public?**

The Fernald public also provided input on how to present and provide access to that information. In general, the public does not want to duplicate an archive of site records at the site. Instead, members of the Fernald community want information presented in formats that meet the particular needs of the public.

At or near the site, the public needs immediate access to technical information that has been summarized in user-friendly, graphics-rich formats. Specifically, the Fernald community has recommended the use of interpretive displays located in an on-site education facility. The community would also like to have some of the fundamental site records, such as the CERCLA Administrative Record, on hand.

The public would also like a clear and reasonable path for identifying and accessing in-depth, technical information that has been archived by DOE. This means that the public would have access to a database, which is searchable using familiar terms, that would allow them to identify records that address specific topics and request copies of those records.

It is not enough, however, to have the right information available in useful formats. Members of the community must know that information resources exist and are available to them. Thus, the Fernald community has identified the need for an active outreach program that can raise public awareness of information resources and why that information is of value to the community. In

particular, this outreach program needs to reach school age children and new residents when they move into the area.

## **RECOMMENDED ACTIONS**

The FCAB undertook this study because they felt it was important to identify the actions that are necessary to ensure public access to information during long-term stewardship of the Fernald site. To provide the information that will be required for successful Community-Based Stewardship, actions will be required both at the Fernald site and at DOE Headquarters.

### **Actions to Be Taken at Fernald**

Because DOE guidance for long-term stewardship has emphasized site-specific planning, the responsibility to provide public access to information also falls at the site level. In the spirit of Community-Based Stewardship, the public should have an opportunity to provide input and shape how these actions are carried out. Recommended actions to be taken by DOE at Fernald include:

- Commit to support public access to site information on an ongoing basis. Perhaps the best way to ensure that this commitment will be fulfilled is to pursue a legally binding Record of Decision for stewardship obligations at the site.
- Develop information resources that meet community needs. This means producing a wide range of resources that cover each of the topics identified by the community. These resources must summarize information in easy-to-understand formats.
- Establish an outreach program that communicates to the community what information resources are available.
- Establish a sustainable program for public information at the Fernald site. This means designating an entity to manage information resources and providing a long-term funding source. If a sustainable system is not established at the time of site closure, access to information may not be guaranteed through the duration of long-term stewardship.
- Construct an education facility at the Fernald site. An education facility may be the best way to meet the community's information needs.

### **Actions to Be Taken at a National Level**

As discussed earlier, long-lived and permanent site records will be archived off site after the Fernald site reaches closure. The Fernald community does not believe that it needs instantaneous access to all of these records, at or near the site. However, the community has identified that it needs a clear path to access these records in a reasonable amount of time. To achieve this, DOE Headquarters must take the following actions:

- Commit to a long-term funding strategy for long-term stewardship activities, including providing information to the public. Year-to-year budget requests are unlikely to sustain the needs of the community over the long term.
- Develop a searchable, national database of records from closure sites. DOE Headquarters must collaborate directly with the communities living and working near sites like Fernald, in order to ensure that this database meets community needs for access. In addition, DOE Headquarters must work with closure sites to ensure the public is aware that this information resource is available.

## **CONCLUSION**

The Future of Fernald process has provided the public living and working near Fernald to participate in planning for the site's future. This study offers a unique opportunity for the Fernald community to present its perspective on how and why information should be provided to the public after environmental remediation is completed. The Fernald community envisions a future in which the community continues to play a vital role in the management of the site, and the site plays an important role in teaching the community about its history and the environment. To reach this future, the public needs ongoing access to a rich source of information regarding the site. The FCAB believes that if this issue is not addressed quickly and completely at the Fernald site and at DOE Headquarters prior to site closure, the community's post-closure information needs will not be met.

## **REFERENCES**

(1) For the complete report from this feasibility study and the *Future of Fernald* process, please visit the Fernald Citizens Advisory Board web site ([www.fernaldcab.org](http://www.fernaldcab.org)).