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**ENVIRONMENTAL ASSESSMENT
FOR PROPOSED FINAL LAND USE
AT THE FERNALD ENVIRONMENTAL
MANAGEMENT PROJECT**

**FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO**



JUNE 1999

**U.S. DEPARTMENT OF ENERGY
FERNALD AREA OFFICE**

**REV. 1
FINAL
DOE/EA-1273**

000001

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**ENVIRONMENTAL ASSESSMENT
FOR
PROPOSED FINAL LAND USE
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FERNALD ENVIRONMENTAL MANAGEMENT PROJECT**

1.0 PURPOSE AND NEED

The U.S. Department of Energy (DOE) must identify a final land use at the Fernald Environmental Management Project (FEMP) to appropriately plan for future remediation and restoration activities (Figure 1). This final land use must incorporate DOE commitments to remediation of the FEMP, as well as input from stakeholders and The Fernald Natural Resource Trustees. DOE has prepared this Environmental Assessment (EA) to identify the final land use alternatives and present DOE's preferred alternative for final land use at the FEMP.

This EA has been prepared under DOE's guidelines for implementation of the National Environmental Policy Act (NEPA, 10 CFR 1021). This EA is being made available for public review consistent with the spirit of NEPA, which mandates public input into decisions of Federal Agencies. This is also in accordance with the DOE commitment to consult the public prior to any decisions on land use. Upon completion of the public involvement process, DOE will either issue a Finding of No Significant Impact (FONSI) documenting their final decision, or proceed with a full Environmental Impact Statement (EIS). The FONSI would function as the decision document in the NEPA EA process, and would be made available for public comment for 15 days prior to finalization. If an EIS is initiated, DOE will issue a Notice of Intent.

2.0 BACKGROUND

Regulatory Compliance

The DOE has made specific commitments to the U.S. Environmental Protection Agency (EPA) pertaining to remediation of the FEMP under the Comprehensive Environmental Response, Compensation and Liability Act, as amended (CERCLA). These commitments are documented in the Operable Unit (OU) 2 Record of Decision (ROD) (DOE 1995), the OU3 ROD (DOE 1996a), and the OU5 ROD (DOE 1996b). The CERCLA process did not identify a final land-use for the FEMP, but the OU5 ROD did use an undeveloped park as the representative land use in order to establish cleanup levels. In addition, the OU5 ROD committed DOE to obtain stakeholder input on final land use decisions at the FEMP. Commitments made in the RODs will influence the proposed action, as well as the potential alternatives to the proposed action for future land-use at the FEMP. Therefore, DOE has incorporated these commitments into the

development of the proposed final land use for the FEMP. The key commitments are summarized below.

- DOE will remediate the FEMP to the final remediation levels (FRLs) for all contamination attributed to the FEMP. Sitewide cleanup levels for soil are documented in the OU2 ROD (DOE 1995) and the OU5 ROD (DOE 1996b). The FRLs, once achieved, will not allow unrestricted use of the FEMP and institutional controls will be required.
- Per the OU 2 ROD (DOE 1995), the FEMP will remain under federal ownership. Therefore, any final land use alternative has to contemplate DOE's commitment to federal ownership of the FEMP and comply with the additional limits specified above.
- Per the OU 3 ROD (DOE 1996a), no buildings or below grade structures will be left at the FEMP for future use after completion of remedial activities with the possible exception of mobile office trailers. Any use of buildings would require a change in the OU3 ROD.
- As established in the OU5 ROD, DOE will monitor and maintain an On-site Disposal Facility (OSDF) in perpetuity.
- Commitments for other environmental monitoring will be carried out for as long as appropriate per the existing RODs.
- DOE will protect the existing natural resources at the FEMP, as committed to in the OU5 ROD (1996b).
- To meet wetland mitigation requirements under Section 404 of the Clean Water Act, 15-acres of wetlands will be established, preferably on-site.

The CERCLA documentation prepared for remediation of the FEMP Site also included the appropriate NEPA evaluations. These "integrated" CERCLA/NEPA evaluations considered the potential impacts that would result from remediation activities at the FEMP, including the disturbance of drainage patterns, excavation of soil, and the loss of wetland and other habitats. The OU 4 Feasibility Study/Proposed Plan - Environmental Impact Statement was the lead CERCLA/NEPA document for remediation of the FEMP. The OU 4 ROD was issued as an integrated CERCLA/NEPA ROD (DOE, 1994). Subsequent CERCLA/NEPA documents for the remaining OUs were tiered from the OU 4 integrated CERCLA/NEPA documentation and also incorporated

NEPA values as appropriate. The integrated CERCLA/NEPA evaluations for remediation of the FEMP did not assess environmental impacts for final land-use activities.

Public Involvement

Another key consideration in the development of the proposed alternative for final land use at the FEMP is public involvement. Discussions have occurred with the Fernald Citizens Advisory Board (FCAB), the Community Reuse Organization (CRO), Fernald Residents for Environmental Safety and Health (FRESH), Native American Groups and local governmental entities. In addition, the FCAB and the CRO have previously made recommendations regarding final land use. The recommendations of these various groups are summarized as follows:

Fernald Citizens Advisory Board (FCAB)

In its 1995 report, the FCAB did not have any specific recommendations for final land use, but did recommend that final land use decisions should be made with input from local communities (FCAB 1995). Furthermore, FCAB recommended that residential and agricultural uses of the FEMP after clean up should not be considered (FCAB 1996). Finally, FCAB also recommended that all existing natural resources at the FEMP be protected and enhanced, and that all necessary natural resource restoration activities take place on-site (FCAB 1996).

Community Reuse Organization (CRO)

The CRO has begun an investigation into the feasibility of using a 23-acre portion of the FEMP for commercial development (CRO 1997). The findings of this investigation will help the CRO determine if there is a market demand for commercial development on this portion of the site. In addition, the CRO has expressed an interest to DOE and the Fernald Natural Resource Trustees (NRTs) to help integrate recreational uses into the final land use at the FEMP (CRO 1997).

Natural Resource Trustee (NRT) Negotiations

Over the past several years, negotiations with the NRTs have played an important role in identifying a proposed final land use alternative. The Fernald NRTs include the State of Ohio (represented by the Ohio Environmental Protection Agency), the Department of the Interior (DOI) including representatives from the Office of Environmental Policy and Compliance and the U.S. Fish and Wildlife Service, and the DOE. The DOE has a dual role as an NRT and as the "Responsible Party" for remediation of the FEMP Site. In 1986, the State of Ohio filed a \$206 million claim against DOE for injury to natural

resources, and ongoing negotiations with the NRTs have centered around settling this claim and any natural resource liability DOE may face.

The NRTs have developed a draft Natural Resource Impact Assessment (NRIA) and draft Natural Resource Restoration Plan (NRRP) outlining the proposed restoration activities at the FEMP (DOE 1997a). The NRIA and NRRP are companion documents and contain the following information relevant to the proposed settlement between the NRTs:

- The NRIA provides an assessment of natural resource impacts that have occurred from the past release of hazardous materials at the FEMP.
- The NRRP proposes a series of natural resource restoration projects which are designed to compensate for natural resource impacts that have occurred at the FEMP.
- A Habitat Equivalency Analysis (HEA) is provided as an appendix to the NRRP which provides an assessment of how much restoration is required given the impacts identified in the NRIA. The HEA concluded that 540 acres of restoration would be required for non-groundwater impacts. The HEA is used as a tool to ensure that proposed restoration projects adequately compensate for natural resource impacts (excluding groundwater).
- A Water Availability Study is also provided as an appendix to the NRRP which evaluates the feasibility of converting the excavated areas in the Production Area to open water habitat.

The revised NRIA and NRRP (DOE 1998b) are being made available to the public at the same time that this EA is available for public comment. Anyone who wishes to review the revised NRIA and NRRP can obtain a copy at the FEMP Public Environmental Information Center, 10995 Hamilton-Cleves Highway, Harrison, Ohio 45030, (513) 648-7480.

In April 1998, an approach for resolution of the existing and potential natural resource damage claims was developed by DOE and the other NRTs. This settlement proposed by the NRTs includes natural resource restoration of a large portion of the FEMP after remedial activities are completed. Under the terms of the proposed settlement, areas of FEMP to be restored do not include the area occupied by the OSDF or the 23-acre area currently being evaluated by the CRO for commercial development. The natural resource restoration area also does not include approximately 20 acres of the FEMP where natural resource restoration projects and research activities are being conducted

in accordance with the OU4 Dispute Resolution Agreement (DOE 1998a). Although these projects do relate to natural resource restoration, they are being conducted pursuant to a separate settlement and are not being included in the proposed settlement related to natural resources. In addition, natural resource restoration would allow for the reburial of Native American remains, if determined feasible.

The DOE believes onsite restoration of the FEMP site to be the most appropriate approach for resolution of the natural resource claim. Alternative avenues for settlement could require offsite activity to meet DOE's natural resource restoration obligations. The conduct of offsite actions is contrary to the DOE's mission and is not considered to be a cost-effective option.

3.0 PROPOSED ACTION

The proposed action for final land use at the FEMP accommodates all DOE commitments regarding remediation of the site, as summarized in Section 2.0. The proposed action also includes input from community groups and the approach for resolution among the NRTs (DOE 1998a). Under the proposed action:

- A majority of the FEMP (approximately 884 acres of the 1,050-acre site) would undergo natural resource restoration by implementing a series of restoration projects after remedial activities are complete in each area.
- The area where the OSDF will be located is excluded from natural resource restoration to allow DOE to fulfill its commitment for continued monitoring and maintenance of this facility.
- A 23-acre plot in the south-central portion of the site may be set aside for potential commercial development at the request of the CRO if the results of their investigation determine there is a market demand for commercial development. If DOE determines that there is interest in commercial development, an additional NEPA evaluation will be performed prior to the decision whether to lease the property for commercial use.

Figure 2 identifies the proposed action for conceptual final land use at the FEMP. The restored habitat types will include upland forest, riparian forest, tallgrass prairie, wetlands, and open water. As the remediation of specific areas at the FEMP is completed, natural resource restoration activities will be initiated. Restoration will be carried out in a phased approach, essentially following the sequence of soil remediation. As remediated areas of the site are certified clean, restoration will occur

as soon as possible. Restoration in undisturbed (i.e., unremediated) areas of the site will occur after certification of the area and as the schedule for the restoration of remediated areas permits. Remediated areas of the site will be regraded slightly to establish proper drainage patterns as part of restoration. Once proper drainage patterns have been established, revegetation will occur. Deep excavations in the central portion of the site (i.e., former production area) will be converted to open water systems (i.e., ponds or lakes) surrounded by tallgrass prairie. Other excavation areas, which are closer to Paddys Run, will be replanted with the appropriate vegetation to expand the wooded corridor along the stream. Restoration activities will also occur in undisturbed portions of the site to enhance existing natural resources.

There are several commitments and considerations that will be factored into the development of the FEMP's proposed final land use and the restored habitat types, as follows:

- Restoration projects must fit into the remediation schedule for each area of the site, and no restoration project can begin until the soil remediation area in which it will take place is completed, and the area has been certified clean.
- To optimize the success of the various natural resource restoration projects, the site will be restored to approximate the topography and drainage patterns as they existed prior to the construction of the site facilities, to the extent practical.
- Drainage patterns and water availability will be considered for wetland mitigation and open water habit formation as part of the detailed design of restoration projects.
- DOE has proposed that all wetland mitigation and natural resource restoration occur on-site to avoid the acquisition of additional property.
- As committed to in the various RODs and to support future restoration work, vegetation in the Paddys Run corridor (and in other areas) will be protected as much as possible during remediation.
- The reburial of Native American remains would also be integrated with restoration, as necessary.

Additional details of the proposed natural resource restoration of the FEMP can be found in the revised NRRP (DOE 1998b). Table 1 of this EA identifies the planned schedule for the design and implementation of the various natural resource restoration

projects, along with the section in the NRRP where the project is discussed. Restoration will be carried out through a series of projects that will be designed and integrated into the current soil remediation schedule.

It is possible that recreational uses or ecological research/educational uses could be integrated into restoration activities depending on the input received during stakeholder involvement. If this is the case, the recreational uses should be consistent and compatible with the natural resource restoration use of the site. Examples of these possible recreational uses include hiking trails, bike paths, interactive/ educational displays, and/or wildlife viewing areas.

4.0 ALTERNATIVES TO THE PROPOSED ACTION

Each alternative was evaluated using the following criteria:

- The alternative should not result in significant negative impact to the environment.
- The alternative must meet all regulatory commitments.
- The alternative should contribute to settlement of the state's Natural Resource Claim.
- The alternative must be acceptable to the public. The public has expressed a desire for natural resource restoration as well as some commercial development.

Table 2 provides a summary of the evaluation of alternatives.

Alternatives to the proposed action are discussed in this section. The alternatives have been developed while considering previous DOE commitments, as summarized in Section 2.0.

No Action Alternative

Under the No Action Alternative, all DOE commitments would be fulfilled through site remediation, and following remediation:

- Areas of the site that are excavated and disturbed from remedial activities would be regraded only to the degree necessary to stabilize slopes and ensure

proper drainage. Depressions created during remediation (e.g., waste pit area, production area and borrow area) would not be backfilled, but slopes would be stabilized to ensure proper drainage. Once areas are stabilized and proper drainage is established, seeding per guidelines of the Sitewide Excavation Plan (SEP, DOE 1998c) would occur to establish vegetation and control erosion.

- Access controls, such as fencing, signs and gates on access roads would be put in place at the conclusion of remedial activities.
- Areas of the site that are not disturbed during excavation (e.g., Paddys Run corridor and northern woodlot) would be protected and maintained in their current condition. Wetlands remaining at the FEMP after remediation would also be protected and maintained. Protection would consist of prohibiting access and development.
- There would be no planned use of the site, and no ecological restoration would take place.

While the no action alternative would fulfill DOE's commitment to site remediation, it may not fully compensate for natural resource impacts that have occurred at the FEMP. This alternative would result in no adverse human health effects, and very limited environmental impacts (e.g., air and water quality impacts), as the site would be left in a stabilized condition. These impacts are discussed in more detail in Section 5.0.

Enhanced Grading Alternative

Under the Enhanced Grading Alternative, all DOE commitments would be fulfilled through site remediation, and following remediation:

- Areas of the site which have been excavated during remediation would be backfilled to approximately pre-excavation elevations and graded to support proper drainage. These areas would be seeded per SEP guidelines to help control erosion.
- Access controls, such as fencing, signs and gates on access roads would also be in place at the conclusion of remedial activities.
- Areas of the site that are not disturbed during excavation (e.g., Paddys Run corridor and northern woodlot) would be protected and maintained in their

current condition. Wetlands remaining at the FEMP after remediation would also be protected and maintained.

- "Priority Natural Resource Areas" would be enhanced, as feasible, for resolution of natural resource issues at the site (e.g., the State of Ohio's 1986 claim, wetland mitigation). However, this restoration may not fully compensate for natural resource impacts that have occurred at the FEMP. Priority natural resource areas are on-property areas that are considered of greater ecological value than the rest of the site, such as the Paddys Run corridor and the northern woodlot.
- Areas of the site which have been backfilled and regraded (Waste Pit Area, Production Area, Borrow Area) may be available for some alternate use (e.g., commercial, industrial) depending on the level of interest and the technical feasibility.

The Enhanced Grading Alternative would provide the opportunity for more of the site to be used for a commercial or industrial use, while preserving and enhancing existing natural resources. If DOE did not receive any interest in development of the regraded areas of the site for alternate land use, then these areas would be evaluated for additional natural resource restoration to address natural resource trustee and mitigation issues. This alternative would result in no adverse human health effects, and very limited environmental impacts. These impacts are discussed in more detail in Section 5.0.

5.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

Proposed Action

The proposed alternative is to conduct natural resource restoration over the majority of the FEMP. The proposed action is recommended by the DOE because it meets all regulatory requirements and is consistent with the public input received to date. This alternative would result in positive long-term impacts to human health and the environment. Following remediation, all existing habitats would be enhanced so that the natural resources would be more diverse and of a higher quality than prior to construction of the site or at any point during site operations. In addition, the alternative allows DOE to settle its Natural Resource Claim through on-site restoration activities, thus avoiding the need to purchase additional property.

Grading activities associated with natural resource restoration could result in air impacts through fugitive dust emissions. Grading activities will be necessary to establish appropriate stability and drainage patterns and are not anticipated to take longer than a few weeks with the possible exception of the production area. Controls such as watering and seeding will be used to ensure that fugitive dust emissions are minimized.

Grading activities associated with natural resource restoration could result in some increased runoff to Paddys Run or other water ways. However, silt fences and other controls will be used to minimize runoff from areas where grading is occurring. Because of the relatively short duration and minimal scope of grading activities, minimal impacts to local water ways or groundwater are anticipated.

The proposed action would not result in any further impact of wetland or floodplain areas above and beyond those that occur during remediation of the FEMP. Wetland and floodplain impacts were evaluated in the integrated CERCLA/NEPA documents for OU 5, including the requirements for evaluation and notification under 10 CFR 1022, "Wetland/Floodplain Environmental Review Requirements." The proposed action would result in the creation of at least 15-acres of new wetlands in order to meet wetland mitigation requirements under 404 of the Clean Water Act.

There are several plants and animals that are listed as either threatened or endangered by the State of Ohio and/or on the Department of Interior that are present or have the potential to be present at the FEMP. The Indiana Bat is Federally Endangered and the northern portion of the Paddys Run corridor has been identified as excellent habitat, although no Indiana Bat individuals have been found on the FEMP. The Sloan's crayfish is listed as threatened in the State of Ohio and is thriving in the northern portions of Paddys Run. The spring coral root is also endangered in Ohio and has the potential to occur on the FEMP. The proposed action would enhance the existing habitat for these species and would result in no further impact to any threatened or endangered species.

Because all remediation areas of the FEMP have been previously surveyed for cultural resources, the proposed action would not result in any adverse impact on archaeological or other historic resources. The FEMP was declared eligible for the National Register of Historic Places by the Ohio Historic Preservation Office (OHPO) in 1995. As a result, DOE-FN entered into a Programmatic Agreement (PA) with the Advisory Council on Historic Preservation and the OHPO to document past operations at the FEMP to help preserve the history of what has occurred at the site (DOE 1996c). A second PA has been reached between DOE, the Ohio Historic Preservation Office and the Advisory Council on Historic Preservation regarding future

archaeological investigations at the FEMP (DOE 1997b). This PA provides a streamlined mechanism for conducting and reporting the results of archaeological investigations. Restoration activities in areas of the FEMP that have not been remediated will be surveyed prior to any ground disturbing activities pursuant to the Archaeological PA. No other socioeconomic impacts are anticipated from the proposed action.

The area under consideration by the CRO for potential commercial development will have to be evaluated in the future when proposed development activities are better defined in order to adequately address NEPA. The specific factors surrounding the lease of the 23-acre tract of land by DOE for potential commercial development can not be completely anticipated and will be subject to additional NEPA evaluation. Therefore, the NEPA process will be utilized to obtain stakeholder input on specific proposals for leasing this land when and if there is a demand for it. Likewise, DOE will solicit stakeholder input on specific proposals for natural resource restoration as design documents are completed.

While the area within the footprint of the OSDF would also be subject to negative environmental impacts, the OSDF is a DOE commitment under the OU 2 ROD and will be present regardless of the selected alternative for FEMP final land use. Impacts related to the OSDF were evaluated in the Integrated OU2 Feasibility Study - National Environmental Policy Act evaluation, and are not subjected to a reevaluation under this EA.

There are no anticipated negative cumulative impacts that would result from the proposed action.

No Action Alternative

Under the No Action Alternative, site remediation would be carried out per the RODs and the site would be stabilized by reseeded disturbed areas with grass so that excess erosion problems would not occur. Undisturbed areas of the site (e.g., Paddys Run, Northern Forested Woodlot) would be protected. The No Action Alternative would not result in adverse human health or environmental impacts. The no action alternative would not have negative impacts on air quality, water quality, groundwater, floodplains, wetlands, or endangered species, as existing natural resources at the FEMP would be protected. For example, the Paddys Run Corridor and Northern Woodlot would remain in their current condition under this alternative. It also would not result in negative impacts to cultural resources; however, any reburial of Native American remains would occur in protected areas of the FEMP, such as the Paddys Run Corridor and the Northern Woodlot.

This alternative is not preferred because it does not leave the site in a condition that provides benefit to stakeholders from the standpoint of natural resources. Also, it does not allow DOE, pursuant to the proposed settlement with the NRTs, to resolve any liability associated with natural resource injuries. In addition, it does not allow DOE to satisfy negotiated commitments or to satisfy regulatory requirements related to natural resources (e.g., wetland mitigation).

Enhanced Grading Alternative

Under the Enhanced Grading Alternative, site remediation would be carried out per the RODs, then the excavated areas of the site (e.g., production area, borrow area) would be extensively backfilled and regraded so that excess erosion problems did not occur. Backfilling and regrading activities would be carried out in these areas to support possible commercial development. This alternative would lead to additional environmental impacts resulting from the transportation and placement of backfill material. These impacts include fugitive dust emissions and increased sediment load to stream. In addition, the restoration of impacted natural resources would be delayed while backfill and grading activities took place.

Undisturbed areas of the site (e.g., Paddys Run, Northern Forested Woodlot) would be protected and possibly enhanced to help resolve natural resource issues. Additionally, this alternative would not impact the Great Miami Aquifer, floodplains, wetlands, or endangered species, as existing natural resources on the FEMP would be protected. No cultural resources would be impacted as a result of the proposed action; however, any reburial of Native American remains would be limited to protected areas of the FEMP (e.g., Paddys Run Corridor, Northern Woodlot).

This alternative would require renegotiations with the Fernald NRTs, as it does not provide sufficient compensatory acreage for natural resource restoration as required by the proposed settlement reached between DOE and the other Fernald NRTs. This alternative would provide only limited opportunities for resolving natural resource issues at the FEMP. The alternative is cost-prohibitive due to the need to purchase backfill material, perform extensive regrading, and settle the Natural Resource claim through offsite activity.

Cumulative impacts such as traffic flow and noise are expected to be minimal, but would vary depending on the level of commercial development that occurred on the site.

6.0 REFERENCES

Fernald Citizens Advisory Board, 1995, Letter, to Jack Craig from John Applegate, "Recommendations on Final Land Use of the Fernald Site", July 1995.

Fernald Citizens Advisory Board, 1996, Letter, to Thomas Grumbly from John Applegate, "Natural Resource Priorities", March 14, 1996.

Fernald Community Reuse Organization, 1997, Letter, to Natural Resource Trustees c/o Jack Craig, "Economic Development Study on Fernald Site", December 1, 1998.

U.S. Dept. Of Energy, 1994, "Record of Decision for Remedial Actions at Operable Unit 4," Final, Fernald Environmental Management Project, DOE, Fernald Area Office, Cincinnati, OH.

U.S. Dept. Of Energy, 1995, "Record of Decision for Remedial Actions at Operable Unit 2," Final, Fernald Environmental Management Project, DOE, Fernald Area Office, Cincinnati, OH.

U.S. Dept. Of Energy, 1996a, "Operable Unit 3 Record of Decision for Remedial Actions," Final, Fernald Environmental Management Project, DOE, Fernald Area Office, Cincinnati, OH.

U.S. Dept. Of Energy, 1996b, "Record of Decision for Remedial Actions at Operable Unit 5," Final, Fernald Environmental Management Project, DOE, Fernald Area Office, Cincinnati, OH.

U.S. Dept. Of Energy, 1996c, "Programmatic Agreement for Disposition of Facilities Under the Operable Unit Three Record of Decision For Interim Remedial Actions at the Fernald Environmental Management Project", January 16, 1996.

U.S. Dept. Of Energy, 1997a, "Natural Resource Restoration Plan," Draft, Fernald Environmental Management Project, DOE, Fernald Area Office, Cincinnati, OH.

U.S. Dept. Of Energy, 1997b, "Programmatic Agreement for Archaeological Investigations, Department of Energy, Fernald Environmental Management Project", March 6, 1997.

U.S. Dept. Of Energy, 1998a, Letter, from Jack Craig to the Natural Resource Trustees, "Proposed Settlement of the Fernald Environmental Management Project Natural Resource Issues", May 23, 1998.

U.S. Dept. Of Energy, 1998b, "Natural Resource Restoration Plan," Draft Final, Fernald Environmental Management Project, DOE, Fernald Area Office, Cincinnati, OH.

U.S. Dept. Of Energy, 1998c, "Sitewide Excavation Plan," Draft Final, Fernald Environmental Management Project, DOE, Fernald Area Office, Cincinnati, OH.

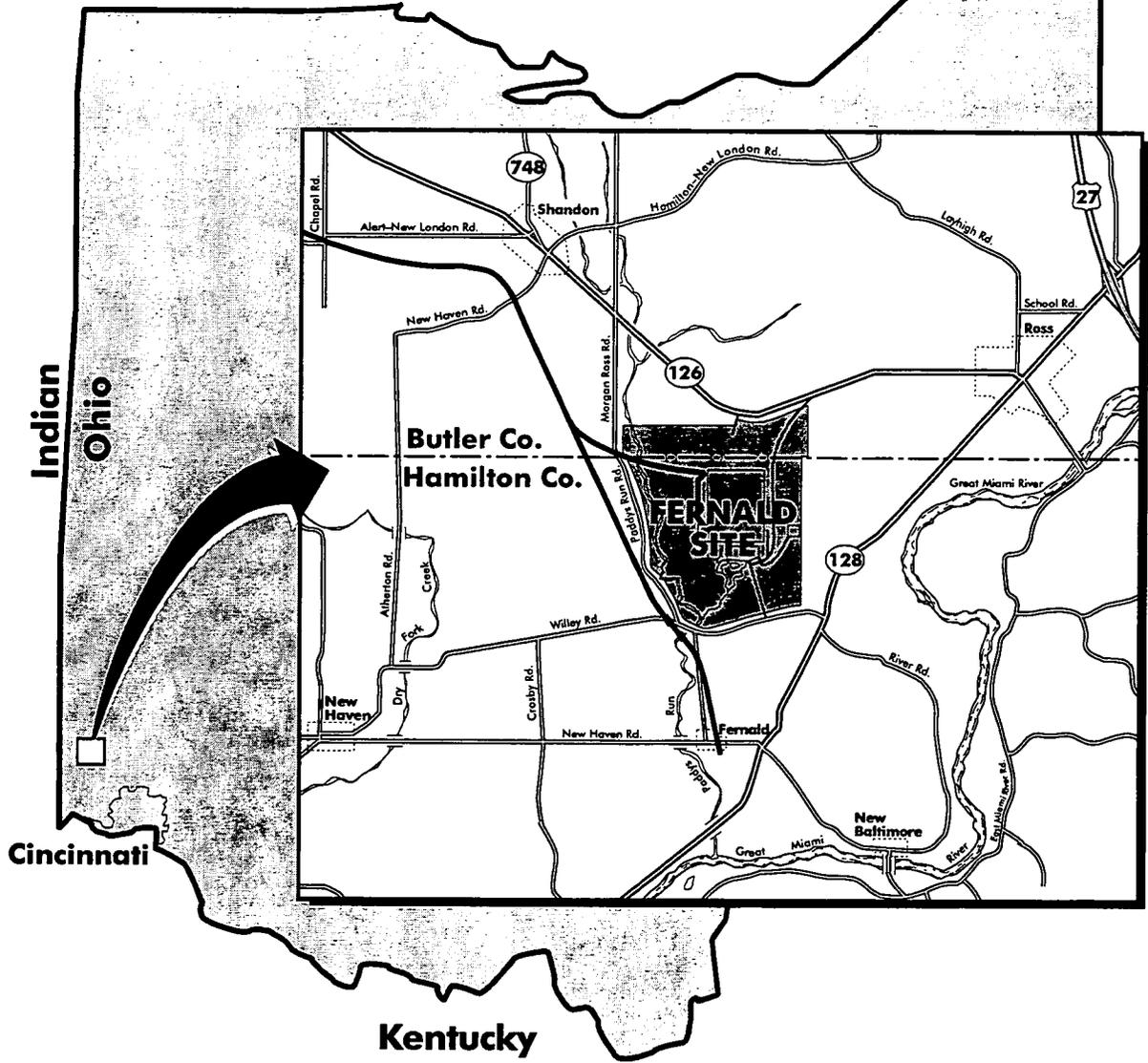
7.0 LIST OF AGENCIES CONSULTED

Fernald Citizens Advisory Board (FCAB)
Community Reuse Organization (CRO)
Ohio Environmental Protection Agency
U.S. Department of the Interior
U.S. Fish and Wildlife Service
Fernald Residents for Environmental Safety and Health (FRESH)
Crosby Township Trustees
Morgan Township Trustees
Ross Township Trustees
Butler County Planning Commission
Hamilton County Planning Commission

8.0 LIST OF ACRONYMS

| | |
|--------|--|
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CFR | Code of Federal Regulations |
| CRO | Community Reuse Organization |
| DOE | Department of Energy |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| EPA | Environmental Protection Agency |
| FCAB | Fernald Citizens Advisory Board |
| FEMP | Fernald Environmental Management Project |
| FONSI | Finding of No Significant Impact |
| FRESH | Fernald Residents for Environmental Safety and Health |
| FRL | Final Remediation Level |
| HEA | Habitat Equivalency Analysis |
| NEPA | National Environmental Policy Act |
| NRIA | Natural Resource Impact Assessment |
| NRRP | Natural Resource Restoration Plan |
| NRT | Natural Resource Trustees |
| OHPO | Ohio Historic Preservation Office |
| OSDF | On-site Disposal Facility |
| OU | Operable Unit |
| PA | Programmatic Agreement |
| ROD | Record of Decision |
| SEP | Sitewide Excavation Plan |

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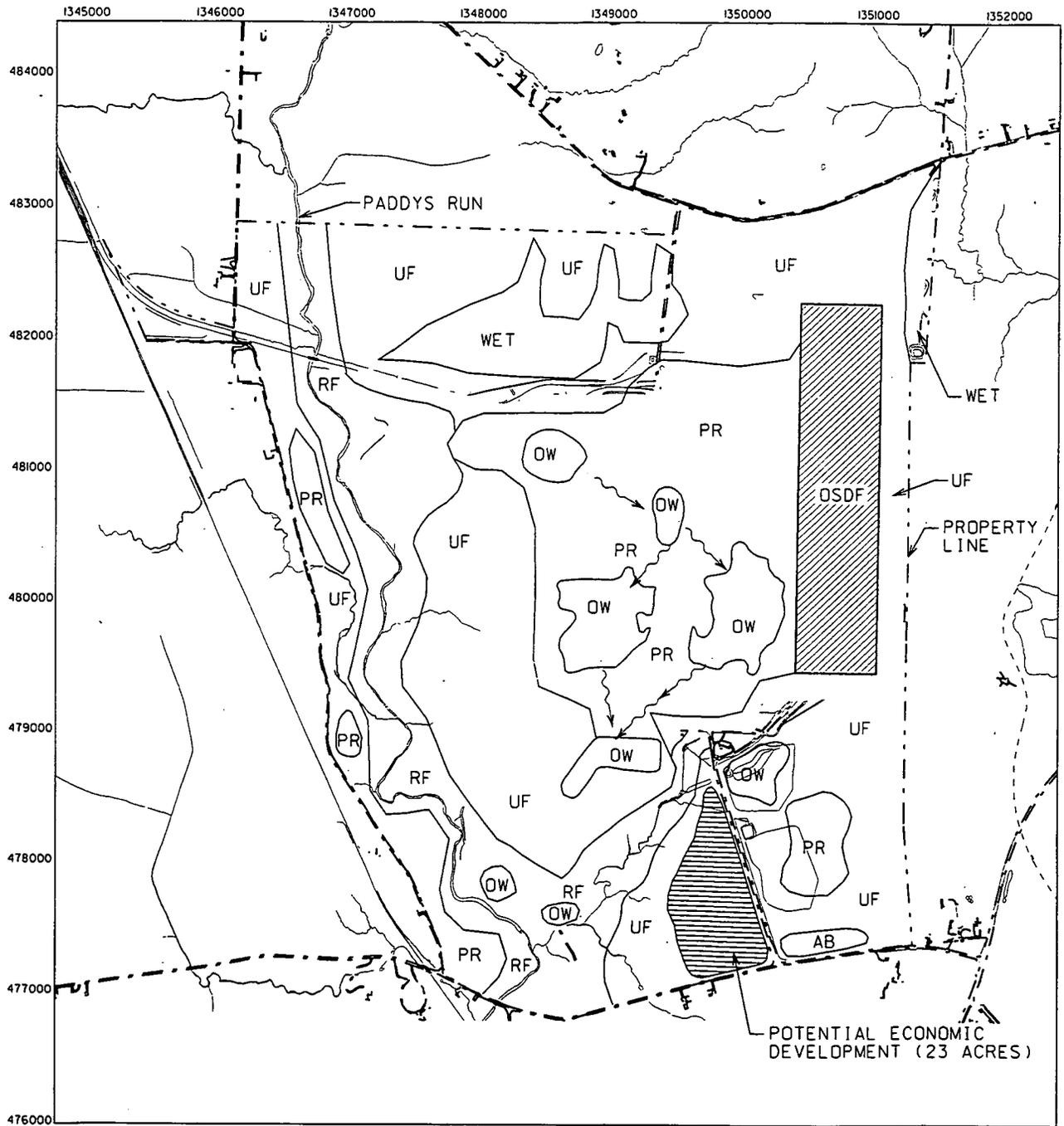


The Fernald Site covers about 425 hectares (1,050 acres).

Figure 1 FEMP and Vicinity

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FILE NAME: H:/RES/RES3256/SKQTE.DGN PER QUS 9/14/98 GES STATE PLANNING COORDINATE SYSTEM 1983



LEGEND:

- AB AESTHETIC BARRIER
- PR PRAIRIE
- UF UPLAND FOREST
- RF RIPARIAN FOREST
- OW OPEN WATER
- WET WETLAND
- ← DRAINAGE PATTERN

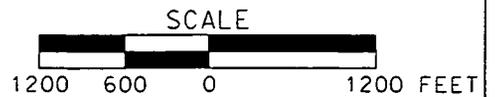


FIGURE 2 CONCEPTUAL FINAL LAND-USE

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TABLE 1

NATURAL RESOURCE RESTORATION PROJECTS AT THE FEMP

| Restoration Project | Fiscal Year for Design | Fiscal Year to Implement | Section in NRRP | Acres Restored |
|---|------------------------|--------------------------|-----------------|----------------|
| Aesthetic Barriers | 1998 | 1998 | 4.1 | 1 |
| Wetland Mitigation-Phase I | 1998 | 1999 | 4.2 | 6 |
| Demonstration Forest Project | 1998 | 2000 | 4.3 | 20 |
| Area 2, Phase I Revegetation | 1999 | 2001 | 4.4 | 20 |
| Area 1, Phase I Northern Pines Enhancement | 2000 | 2002 | 4.5 | 49 |
| Area 1, Phase III Northern Woodlot/ Wetland Mitigation - Phase II | 2001 | 2002 | 4.6 | 103 |
| East Paddys Run Corridor | 2002 | 2003 | 4.7 | 70 |
| West Paddys Run Corridor | 2003 | 2004 | 4.8 | 77 |
| A1P11 Borrow Area, Area 2, Phase III | 2004 | 2005 | 4.9 | 139 |
| Former Production Area | 2005 | 2006 | 4.10 | 217 |
| Waste Storage Area | 2006 | 2007 | 4.11 | 72 |
| OSDF Buffer | 2007 | 2008 | 4.12 | 110 |
| TOTAL | | | | 884 |

TABLE 2

SUMMARY OF ALTERNATIVES EVALUATION

| | ROD Requirements | Wetlands Mitigation Requirement | Commercial Development | Threatened & Endangered Species | Historic Preservation | Natural Resources Claim |
|------------------|------------------|---------------------------------|------------------------|---------------------------------|-----------------------|-------------------------|
| No Action | + | 0 | - | 0 | 0 | 0 |
| Enhanced Grading | + | 0 | + | 0 | 0 | 0 |
| Proposed Action | + | + | + | + | + | + |

"+" = Positive Impact
 "-" = Negative Impact
 "0" = No Impact

000022

**Finding of No Significant Impact
for the
Fernald Environmental Management Project
Proposed Final Land Use
Environmental Assessment**

1.0 Summary

The U.S. Department of Energy, Ohio Field Office (DOE-OH) has prepared an Environmental Assessment (EA) under the National Environmental Policy Act (NEPA) to obtain public input on and evaluate the environmental impacts associated with the proposed final land use at the Fernald Environmental Management Project (FEMP). The proposed final land use as described in the EA calls for DOE-OH to commit approximately 884 acres of the 1,050-acre FEMP site to natural resource restoration. The area where the On-Site Disposal Facility (OSDF) will be located is excluded from natural resource restoration and a 23-acre plot in the south central portion of the site will be set aside for potential future use as a community facility and/or economic development area. After careful evaluation of the proposed action, the range of alternatives, the environmental effects of all alternatives, and the public input received, DOE-OH has determined that the EA supports the finding that the proposed action will not have a significant effect on the human environment. As a result, no further NEPA documentation is required regarding the final land use decision at the FEMP, except for an additional NEPA evaluation to be performed prior to the decision to lease the 23 acres set aside for a community facility and/or economic development area. DOE-OH is issuing this Finding of No Significant Impact (FONSI) to document the decision.

2.0 EA Availability

Copies of the EA for the Proposed Final Land Use at the FEMP are available at the Public Environmental Information Center (PEIC), 10995 Hamilton-Cleves Highway, Harrison, Ohio 45030, (513) 648-7480.

3.0 Background

While specific commitments regarding environmental remediation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, have been made, DOE has not identified a proposed final land use for the FEMP until now. The Operable Unit (OU) 5 Record of Decision (ROD) did use an undeveloped park scenario for the development of cleanup levels, but also committed to obtain stakeholder input on final land use decisions. Several other ROD commitments have a bearing on final land use. The OU2, OU3, and OU5 RODs require the following: use restrictions and institutional controls based on chosen Final Remediation Levels (FRLs); continued federal ownership of the FEMP; the demolition of all buildings and below-grade structures; perpetual maintenance and monitoring of the On-Site

Disposal Facility (OSDF); long-term monitoring as necessary for other portions of the FEMP; protection of existing natural resources; and the conduct of on-site wetland mitigation. Any decisions regarding final land use must address all these commitments.

Public involvement has had an influence on the process of determining final land use. The EA was made available to the public for a period of 30 days. A public hearing was held to explain the issues outlined in the EA and obtain input from all interested members of the public. Discussions have also occurred with various organizations and individuals, including the Fernald Citizens Advisory Board (FCAB), the Fernald Residents for Environmental Safety and Health (FRESH), the Fernald Community Reuse Organization (CRO) and several Native American Tribes and organizations. The FCAB has made formal recommendations for final land use that call for the restriction of agricultural and residential use and the protection and enhancement of existing natural resources. The FCAB did not make a specific final land use recommendation, but rather stated that specific decisions should be made with input from local communities. The CRO has investigated the feasibility of commercial development on a 23-acre portion of the FEMP. While the results of the CRO's investigation did not identify significant market demand for commercial development at the FEMP, the CRO has made the recommendation to set aside the 23-acre plot for potential commercial development in the future, when local market conditions may change. The 23 acres would remain under federal ownership and control.

Another factor in the final land use determination involves the ongoing Natural Resource Trustee (NRT) negotiations. The Fernald NRTs include the State of Ohio (represented by the Ohio Environmental Protection Agency and the Attorney General's office), the Department of Interior (including the U.S. Fish and Wildlife Service), and DOE-FN, which has a dual role as an NRT and as the responsible party for remediation of the FEMP. In 1986, the State of Ohio filed a \$206 million claim against DOE for injury to natural resources at the FEMP. Ongoing negotiations with the NRTs have centered around settling this claim and any additional natural resource liability DOE may face.

The NRTs drafted several documents that establish requirements for settlement of the existing natural resource damage claim. The Natural Resource Impact Assessment (NRIA) and Natural Resource Restoration Plan (NRRP) laid out the extent of natural resource impacts and used a process called Habitat Equivalency Analysis to establish the amount of restoration required. The NRRP also sets forth a conceptual restoration plan for the FEMP. Through this process, the NRTs negotiated an approach to resolve existing and potential damage claims wherein DOE agrees to ecologically restore the majority of the FEMP, except the OSDF and the 23-acre set aside area. The agreement also allows for reburial of Native American remains, if determined feasible. These documents are available for review at the PEIC.

4.0 Proposed Action

The proposed action calls for the restoration of approximately 884 acres of the FEMP site through a series of ecological restoration projects. The OSDF and the 23-acre set aside area are excluded from the restoration acreage. The individual restoration projects would be implemented in a phased approach for each area of the site, essentially following the sequence of soil remediation. By implementing the proposed action, DOE would avoid purchasing additional property since on-property restoration would settle the existing natural resource claim with the State of Ohio.

The NRRP outlines a conceptual restoration approach for each area of the site. Restored habitats would include upland forest, riparian forest, tallgrass prairie, wetlands, and open water. Following restoration of an area, positive drainage would be established and exposed soils would be revegetated with native tree, shrub, and grass species. The NRRP calls for deep excavations in the Former Production Area to be converted to open water systems surrounded by tallgrass prairie. Other remediated areas would be revegetated with trees in order to expand the wooded corridor along Paddys Run. Restoration will also occur in undisturbed portions of the site to enhance existing natural resources.

Public access and recreation are anticipated for at least some portion of the restored site. Access could provide recreational uses such as hiking trails, bike paths, interactive/educational displays, and/or wildlife viewing areas. Also, the reburial of Native American remains could be integrated with restoration, if mutually agreed upon by the appropriate Native American Tribes, DOE, and other stakeholders. An Institutional Control Plan will be developed by DOE-FN in 1999 to outline access restrictions and permissible uses of the FEMP once remediation and restoration work is complete.

5.0 Environmental Effects

The proposed action would have positive long-term impacts to human health and the environment. After ecological restoration activities have been completed, on-property habitats would be more diverse and higher quality than pre-restoration conditions.

During grading activities, fugitive dust and stormwater runoff would be minimized by appropriate administrative controls (i.e. work restrictions during inclement weather) and engineering controls (i.e. silt fences, sedimentation basins). The use of these controls and the limited scope of grading activities would result in minimal impact to the affected media.

The proposed action would not impact floodplains and wetlands above and beyond anticipated remediation impacts. Restoration would increase existing on-property wetlands by at least 15 acres. The 100-year floodplain of Paddys Run would also be expanded in several locations, thereby providing a further positive impact on the stream by reducing downstream flow and thus slowing bank erosion.

Threatened and endangered species would be impacted positively as well. Suitable habitat exists at the FEMP for the federally endangered Indiana bat (*Myotis sodalis*). The state-listed Sloan's

crayfish (*Orconectes sloanii*) is present on-site in the upper portion of Paddys Run. These species and their habitats would be protected and restored under the proposed action. Grading activities in the vicinity of Paddys Run may have short term impacts to the Sloan's crayfish population, but these impacts would be minimized with the administrative and engineering controls mentioned above.

Through implementation of existing Programmatic Agreements with the Advisory Council on Historic Preservation and the Ohio Historic Preservation Office, impacts to cultural resources would be minimized. No other socioeconomic impacts are anticipated.

All other impacts, such as those associated with the OSDF, have been addressed in previous NEPA documentation. Also, there are no anticipated negative cumulative impacts that would result from the proposed action. Impacts associated with commercial development of the 23-acre tract were not evaluated in this EA. As stated in the proposed action, separate NEPA documentation would be used to evaluate any future development proposals.

6.0 Alternatives Considered

Two alternatives to the proposed action were considered in the Environmental Assessment: the No Action alternative and the Enhanced Grading alternative. Under the No Action alternative, excavated and other disturbed areas following remediation would be regraded to stabilize slopes and ensure proper drainage. Following stabilization, areas would be seeded to establish vegetation and control erosion. Access controls (i.e. fencing) would be kept in place following remediation. Undisturbed areas of the site, such as the northern woodlot, would be protected and maintained in their current condition. Remaining wetlands would also be protected and maintained. No recreational or commercial use of the site would be permitted.

Most public participants did not support the no action alternative. While the No Action alternative would result in no adverse human health or environmental impacts, it would not resolve the existing natural resource damage claim against DOE. This would require additional compensatory actions by DOE, such as off-property land acquisition and/or cash settlement. As stated in the EA, contribution to the existing Ohio natural resource claim was one of the criteria used to evaluate alternatives.

Under the Enhanced Grading alternative, excavated areas would be backfilled to approximately pre-excavation elevations and graded to ensure proper drainage. All disturbed areas would be seeded to establish vegetation. Access controls would be maintained on portions of the site not made available for industrial or commercial development. Backfilled areas would be available for industrial or commercial reuse, depending on level of interest and technical feasibility. Undisturbed portions of the site, as well as remaining and mitigated wetlands, would be protected and maintained in their current conditions. Priority natural resource areas, such as endangered species habitat along the Paddys Run corridor, would be enhanced, as feasible, to help resolve the existing natural resource damage claim by the State of Ohio. This alternative would not result in significant human health or environmental impacts. However, like the no action alternative, it may not fully compensate for natural resource impacts, thus requiring DOE to compensate by

other means. Also, the large majority of public commentors did not support additional commercial or industrial use of the FEMP after remediation has been completed.

7.0 Determination

In summary, environmental impacts associated with the proposed action are expected to be positive. Public comments were largely in favor of the proposed action as well. Also, the proposed action would most fully compensate for the existing natural resource claim by the State of Ohio. Based on these findings, DOE-OH has determined that the proposed action would have no significant impact on human health and the environment. Therefore, no further NEPA documentation is required, except as may be subsequently required for the 23-acre tract.



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Date