

LUCKEY FUSRAP SITE ~ PROPOSED PLAN SUMMARY SHEET



US Army Corps
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Buffalo District

INTRODUCTION

The Proposed Plan for the Luckey site was prepared by the United States Army Corps of Engineers (USACE), which is implementing the Formerly Utilized Sites Remediation Action Program (FUSRAP), under the authority and procedures of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Proposed Plan explains USACE's recommendation, the preferred remedy, to address soils (on-site and off-site contiguous soils) and groundwater impacted by beryllium production activities performed for the Atomic Energy Commission (AEC) in the early years of the United States' atomic energy program.

A number of operable units were investigated during the prior Remedial Investigation and determined to require no further action:

- France Stone Quarry
- Troy Township Dump (landfill)
- Toussaint Creek (including on-site/off-site drainage ditches)
- On-site buildings

Analytical results from the Remedial Investigation do not indicate any unacceptable impacts from AEC-related activities at either France Stone Quarry or Troy Township Dump. There were no unacceptable risks to human health or the environment due to AEC-related constituents for Toussaint Creek. Evaluation of data collected during investigation of the on-site buildings did not indicate a release to the environment; therefore, the buildings do not qualify to be addressed under CERCLA.

The public is encouraged to review and comment on the selection of the preferred remedy. Comments provided by the public will be considered by USACE prior to selection of the final remedy which will be documented in the Record of Decision.



The Luckey site is located at the corner of Luckey and Gilbert Roads in Wood County outside the village of Luckey, Ohio.

HUMAN HEALTH AND ECOLOGICAL RISK

The nature and severity of identified risks influence the development and selection of remedial alternatives. Risk was evaluated for possible receptor populations at the Luckey site: industrial workers, resident farmers, subsistence farmers, adolescent trespassers, and ecological receptors. The subsistence farmer exposure scenario is a more conservative assessment of site risks than any other scenario evaluated for human receptors. The subsistence farmer scenario (i.e., a human health receptor who resides on the site and is self-sufficient from food grown or produced on site) is equivalent to an unrestricted release scenario under Ohio law.

Current land use at the Luckey site is industrial and is expected to remain industrial for the near future. The property is currently zoned light industrial and is anticipated to remain so. However, it is possible that future use could be residential or agricultural since surrounding land use is primarily agricultural and residential. These are the dominant land uses throughout Troy Township. In addition, there is no other industry in the immediate area and the most recent deed to the property lists no specific restrictions or easements that would preclude residential or subsistence farming.

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IMPACTED SOILS

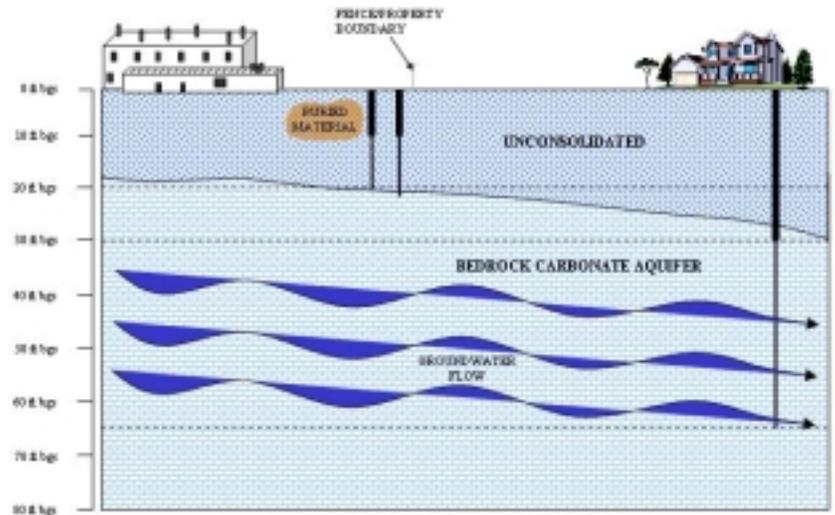
USACE identified six AEC-related COCs in impacted soils posing unacceptable risk to human health under the subsistence farmer exposure scenario: beryllium, lead, radium-226, thorium-230, uranium-234, and uranium-238. The total ex situ volume of impacted soils exceeding unrestricted land use cleanup goals is estimated at 88,000 cubic yards. Impacted soils consist of on- and off-site soils. On-site soils are those located within the current fenced boundaries of the site. Off-site soils are located on the land adjacent to the facility, which is used for residential and agricultural purposes.

IMPACTED GROUNDWATER

There are two groundwater sources present in the vicinity of the Luckey site, one in the unconsolidated sediments above the bedrock surface and the other in the bedrock. The groundwater in unconsolidated sediments above the bedrock surface is not typically used as a water supply because of the high clay and silt content and low yield. The bedrock contains the regional aquifer that is used as a primary source of groundwater by the rural population.

USACE identified three AEC-related COCs in groundwater exceeding drinking water standards: beryllium, lead, and total uranium. These groundwater COCs generally are confined to the upper aquifer located in the unconsolidated sediments or overburden (between ground surface and approximately 20 feet below ground surface).

Groundwater in bedrock at depth does not appear to have been impacted. Groundwater transport scenarios were simulated using a site-specific groundwater model for each alternative to evaluate the alternative's effectiveness and the timeframe to achieve groundwater cleanup goals.



EVALUATION OF ALTERNATIVES

USACE evaluated several potential alternatives to remediate impacted soils and groundwater at the Luckey site:

- Alternative 1: No Action (Soils and Groundwater) ~ *evaluation of no action is required under CERCLA*
- Alternative 2: Limited Action (Soils and Groundwater) ~ Restricted Land Use
- Alternative 3: Consolidation and Capping (Soils) ~ Restricted Land Use
- Alternative 4: Excavation of Soils and Off-site Disposal (Soils) ~ Industrial Land Use
- Alternative 5: Excavation of Soils and Off-site Disposal (Soils) ~ Unrestricted Land Use
- Alternative 6: Excavation of Soils, Treatment, and Off-site Disposal (Soils) ~ Unrestricted Land Use
- Alternative 7: Monitored Natural Attenuation (Groundwater) ~ Unrestricted Land Use
- Alternative 8: Active Groundwater Treatment – Ex Situ (Groundwater) ~ Unrestricted Land Use
- Alternative 9: Electrokinetics (Groundwater) ~ Unrestricted Land Use

Since Alternatives 2, 3, and 4 do not achieve unrestricted land use of the Luckey site, these Alternatives were not considered to address impacted soils – only alternatives 5 and 6. Alternatives 5 and 6 are very similar. Both alternatives involve the removal and transportation of impacted soils above unrestricted land use cleanup goals for off-site disposal. Impacted soils would be excavated and transported to an off-site disposal facility licensed or permitted to accept these wastes. Clean backfill would be placed in excavated areas. Alternative 6, incorporates treatment to reduce the volume of contaminated materials requiring disposal. Soils successfully treated to meet cleanup goals would be used as backfill in excavated areas.

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Groundwater treatment alternatives (Alternatives 7, 8, and 9) include monitored natural attenuation (MNA), active remediation (pump and treat), and electrokinetics, respectively. Each would be implemented in conjunction with Alternative 5 or 6, which effectively remove the sources contributing to groundwater contamination. Long-term monitoring and five-year reviews would be conducted until concentrations in groundwater are achieved allowing unlimited use and unrestricted exposure at the property.

The following table summarizes the detailed evaluation and comparison of each alternative included in the Proposed Plan with respect to the evaluation criteria required under CERCLA.

Evaluation Criteria	SOILS			GROUNDWATER		
	Alternative 1 No Action	Alternative 5 Excavation and Off-site Disposal	Alternative 6 Excavation, Treatment, and Off-site Disposal	Alternative 7 Monitored Natural Attenuation	Alternative 8 Active Groundwater Treatment	Alternative 9 Electrokinetics
Overall Protection of Human Health and the Environment	Low	High	High	Low / Medium	High	High
Compliance with ARARs	Low	High	High	Low / Medium	High	High
Long-Term Effectiveness and Permanence	Low	High	High	Medium	High	High
Reduction of Toxicity, Mobility, or Volume through Treatment	Low	Low	Medium	Medium	High	High
Short-Term Effectiveness (includes potential for environmental impacts)	Low	Medium	Medium	High	Medium	Low
Time to complete O&M Period.	0 years 0 years	2.9 years 0 years	3 years 0 years	0 years 40 to 150 years	0.5 years 80 years	1 year 40 years
Implementability	High	High	Medium	High	Medium	Medium
Cost	\$0	\$36.5 million	\$42.8 million	\$0.83 million	\$3.7 million	\$9.4 million

PREFERRED REMEDY

The preferred alternative for impacted soils is excavation and off-site disposal, and the preferred alternative for groundwater is Monitored Natural Attenuation (MNA). The estimated total cost to implement both alternatives is \$37.3 million. The soil alternative is considered to be the most protective both in the short- and long-term and is permanent because all soils exceeding the unrestricted land use cleanup goals will be removed from the Luckey site. This complete removal also precludes further potential for contamination of the groundwater system. Implementation of both the soil and groundwater alternatives together will allow release of the site for unrestricted use in a reasonable period of time. Release of the Luckey site would only be with respect to the AEC-related materials associated with the beryllium production process.

A mitigation action plan will be developed during the remedial design phase to specify measures (e.g., environmental controls, monitoring, and contingency response actions) to be taken during implementation of the remedial actions to minimize risk to on-site workers, the surrounding community, and the environment. This plan will address best management practices, engineering controls, construction techniques/practices, protocols for packaging and transporting materials, worker protection, protection of the surrounding community, and environmental restoration.

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PUBLIC PARTICIPATION

USACE will select a final remedy to be documented in the ROD for the site after reviewing and considering all information submitted during a 30-day comment period. USACE encourages the public to review and comment on all the alternatives presented in the Proposed Plan. USACE also invites and encourages members of the public to review the supporting documents which further describe the conditions at the Luckey site and the basis for the Proposed Plan. These documents may be found in the administrative record files for the Luckey site available at the following locations:

USACE FUSRAP Public Information Center

1776 Niagara Street
Buffalo, NY 14207
(716) 879-4410
(800) 833-6390 [press "5" at the recorded message]

Luckey Public Library

228 Main Street
Luckey, OH 43443
(419) 833-6040

General information regarding the Luckey Site also can be obtained at the following website:

<http://www.lrb.usace.army.mil/fusrap/luckey/>

Comments on the proposed remedial action at the Luckey site will be accepted for 30 days following issuance of the Proposed Plan in accordance with CERCLA. Members of the public who wish to comment on the Proposed Plan may submit their comments in writing to USACE at the following address:

U.S. Army Corps of Engineers ~ Buffalo District FUSRAP Information Center ~ Luckey

1776 Niagara Street
Buffalo, NY 14207-3199

or electronically via e-mail at:

fusrap@usace.army.mil

Please refer to the Proposed Plan or to the Luckey FUSRAP site, in any comments. Comments should be postmarked no later than July 9, 2003 (30 days after the publication date of the Proposed Plan). USACE will hold a public meeting during the comment period on June 19, 2003 to present the preferred remedy and receive verbal as well as written comments.

At the close of the public comment period, USACE will review all public comments, as well as the information contained in the administrative record file for this site, and any new information developed or received during the course of this public comment period, in light of the requirements of CERCLA. An authorized official of USACE will then make a final selection of the remedial action to be conducted at this site. This decision will be documented in a Record of Decision, which will be issued to the public, along with a response to all comments submitted regarding the preferred remedy and the Proposed Plan.

If there are any questions regarding the comment process, or the Proposed Plan, please direct them to the address noted above, or telephone 1-716- 879-4410 or 1-800-833-6390.

PUBLIC MEETING ~ PREFERRED ALTERNATIVE FOR THE LUCKEY FUSRAP SITE

- ✓ Date: Thursday, June 19, 2003
- ✓ Time: 6:30 PM
- ✓ Location: Troy Fire Hall
313 Krotzer Avenue
Luckey, Ohio 43443

STAMP

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FUSRAP Information Center ~ Luckey
1776 Niagara Street
Buffalo, NY 14207-3199
