



Share your opinions

EPA invites your comments on proposed cleanup plan for Zone 1 from **February 11 to March 13, 2019**. There are four ways for you to submit comments:

- Fill out and return the enclosed comment sheet.
- Orally or in writing at the public meeting.
- On the internet at www.epa.gov/uss-lead-superfund-site

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Information repository

Site documents, including the transcripts from the Nov. 29, 2018 public meeting and the USS Lead Superfund Site Community Involvement Plan can be viewed at the East Chicago Public Library locations:
2401 E. Columbus Drive
1008 W. Chicago Ave.
East Chicago

All documents are also available online at:
www.epa.gov/uss-lead-superfund-site

Frequently Asked Questions on Proposed Cleanup Plan for Residential Area, Zone 1

U.S. Smelter and Lead Refinery Superfund Site

East Chicago, Indiana

February 2019

The U.S. Environmental Protection Agency held a public meeting in November 2018 to explain the proposed cleanup plan for the Residential Area, Zone 1. On Nov. 30, 2012, EPA signed a “record of decision,” or ROD, to address soil contaminated with lead and arsenic in the residential and commercial area north of the former USS Lead facility. EPA proposed this cleanup plan after studying the site and considering several alternatives. The figure on Page 7 shows the boundaries of the site.

One consideration in selecting the 2012 plan was that EPA anticipated the houses and apartment buildings, along with the sidewalks and parking lots of the West Calumet Housing Complex, would act as barriers to resident’s exposure to the lead and arsenic soil contamination. However, the closing and demolition of the WCHC removed all these barriers and the risk to human health and the environment that was originally calculated in the 2012 ROD has not changed. This amended cleanup plan is for the modified Zone 1 area (*see the modified figure Page 7*) only. The amended plan calls for EPA to dig up and remove contaminated soil and take it to an off-site facility. Though lead is the most widespread contaminant, arsenic was also found at some locations.

At the November meeting several questions were asked and this fact sheet provides EPA’s response to the many questions (*Some questions have been modified for clarification*).

1. What is the standard for clean sand?

At the USS Lead Superfund site, all soils, including sand, greater than 400 parts per million lead and/or 26 parts per million arsenic, will be addressed as part of the site cleanup. Site sampling has shown that the clean sand at depth, which we refer to as native sand, is uncontaminated.

2. Where is the clean soil coming from? To what standard is the soil clean?

We do not yet know the source for clean backfill and topsoil that will be used in the Zone 1 cleanup. The backfill and topsoil will meet strict specifications and undergo analytical and geophysical testing - similar to the requirements that are in place for the Zone 2 and Zone 3 backfill materials. For more information, there is a “Backfill Requirements” document available online and at the information repositories (*see box, left*) that describes the specifications used for the backfill for Zone 2 and Zone 3 cleanups.

(continued on next page)

3. Why do you have to excavate contamination only in the 18- to 24-inch interval? Why do you have to clean it if the top is okay? Will the contamination that's under 18 inches eventually come up to the ground level or will it stay in place? Is it just a standard?

Excavation to 24 inches for a residential soil cleanup is based upon assumed activities, such as gardening, that could result in a resident digging 24 inches deep in their yards and being exposed to contaminated soils in the top 24 inches. If there is contaminated soil anywhere within the top 24 inches, it merits cleanup, even if the surface soil or "top" of those 24 inches is not contaminated. If a yard is excavated to 24 inches then backfilled with clean soil, and has contaminated soil left in place below 24 inches, then engineering controls and institutional controls are put in place to prevent exposure to contamination below 24 inches. The excavation and off-site disposal of two feet of contaminated soil meets the statutorily-mandated requirement of selecting a remedy that is protective of human health and the environment. In such cases an inspection and maintenance program will be put in place. In addition, if institutional controls are put in place, EPA evaluates the site remedy every five years to ensure that it remains protective of human health and the environment in the future.

Lead and arsenic do not easily move in soil and there is no expectation that contamination at depth (greater than 24 inches) will move to the surface.

4. Will the removal of the highly contaminated soil lead to further contamination in the neighborhood surrounding the remediation area? What steps will be taken to protect the nearby residents and the people working and playing in Carrie Gosch?

EPA will monitor the Zone 1 cleanup to measure if contamination reaches the surrounding neighborhood. Air monitors will surround the site and measure total dust concentrations during remediation. If dust exceeds a pre-determined action level, alarms will sound and additional control measures will

be put in place immediately to control dust. Dust monitors are set up to detect contamination well below health-based action levels to provide early detection and to allow any necessary mitigation measures to protect the community and on-site workers. In addition to monitoring, regular controls measures, such as misting (spraying the excavation area with clean water), will be in place during construction activities to prevent contaminated dust and soil from reaching the surrounding neighborhood.

5. How are the control measures reflected in the costs of different alternatives?

Tables 4-3 through Table 4-9 in the Feasibility Study Addendum, dated August 2017, contain costs for each alternative. The costs for control measures are reflected in the excavation and loading of impacted soil. The Feasibility Study Addendum cost estimates are within a +50% to -30% cost range. This means that the actual cost of the remedy can be 50% higher or 30% lower than estimated costs. Once the Remedial Design is conducted, additional detailed cost estimates, including estimates for control measures, will be available.

6. How will removing the soil reduce the toxicity and volume of the contaminated soil?

The toxicity and volume of contaminated soil would not be reduced by removing the soil. However, under the proposed cleanup plan, some of the contaminated soil will require treatment to reduce the mobility of the contaminants in the soil, which will prevent the contamination from moving from the soil in the eventual landfill disposal unit.

7. Where will the contaminated soil be disposed?

It is unknown at this time which landfill(s) will receive contaminated soils from Zone 1. Under the Superfund law, waste disposed off-site from a Superfund site must go to a landfill operating properly and in compliance with applicable laws. Contaminated soil from Zone 2 and Zone 3 cleanups was sent to Republic County Landfill in Brook, Indiana and US Ecology in Belleville, Michigan.

8. What is going on with the HUD letter and the future use for Zone 1?

It is EPA's understanding that HUD does not have any plans to fund the construction of housing on Zone 1. You may contact HUD directly at 312-353-5680 concerning HUD's future use plans or involvement in Zone 1. The public may also obtain further information regarding future use from the Zone 1 property owner, the East Chicago Housing Authority (ECHA).

9. When will the Statement of Work be completed? Will it be shared with the community before the work starts?

The Statement of Work is an attachment to the Consent Decree (a legal agreement between EPA and the potentially responsible parties), and it will be released when the Consent Decree is submitted to a federal judge for approval. The public will have an opportunity to comment on the Consent Decree and Statement of Work at that time.

10. Do you have metrics showing how the Pollution Control Plan worked to control air emissions and soil tracking during the demolition of West Calumet Housing Complex?

EPA provided full-time oversight during the demolition of the housing complex and did not note any issues during the demolition. Dust alarms on monitoring equipment were set at levels below what was deemed protective of human health. When dust alarms were triggered during the housing complex demolition, additional control measures were used. Daily air sampling results for lead and arsenic did not exceed any action levels. The East Chicago Housing Authority has the monitoring data from the West Calumet Housing Complex demolition. You can contact ECHA directly at 219-397-9974 ext. 30 concerning any additional questions regarding the air monitoring data.

11. Did you learn anything that convinced you to make changes to the remediation plan?

EPA has not finalized the revised cleanup plan for Zone 1 and is still evaluating all information, including public comments.

12. Will EPA open the Consent Decree as part of amending the Record of Decision? Would it go back before the judge?

EPA will begin negotiations with the responsible parties to amend the Consent Decree after the amended ROD is final. Once negotiations are complete, the amended Consent Decree would go back before the judge.

13. Can you explain how the amendment would include a contingent plan to determine how certain conditions would be triggered with the change of intended use?

EPA may structure the ROD amendment to allow for a second remedy that would be contingent on future conditions. EPA has not chosen a final cleanup plan; a contingent plan has not been developed at this time.

14. Once the decision is finalized, will the specific plan be laid out ahead of time? What will the process be?

EPA will make the ROD Amendment and its associated response to public comments available to the public once finalized. EPA will also begin negotiations with the responsible parties to implement the site cleanup plan.

15. What steps beyond this meeting and public comment period will EPA take to determine whether EPA obtained this community's acceptance? What is the evaluation criteria for deciding that EPA has community acceptance?

Community acceptance is one of the nine criteria that EPA uses to determine the appropriate cleanup plan for a site. EPA has extended the public comment period and is holding an additional meeting due to the large amount of community interest. When evaluating cleanup options, the major objective is to evaluate the relative performance of each option

with respect to the nine criteria so that the advantages and disadvantages of each are clearly understood. The nine criteria consist of two threshold criteria, five balancing criteria and two modifying criteria. Each option is required to meet the two threshold criteria - overall protection of human health and the environment and compliance with ARARs (regulations). The five balancing criteria, implementability; cost; reduction of toxicity, mobility, or volume through treatment; long-term effectiveness and permanence; and short-term effectiveness, help weigh each of the alternatives against one another. The two modifying criteria are state acceptance and community acceptance.

16. What does short-term effectiveness mean?

Short-term effectiveness is one of the nine evaluation criteria and addresses the period of time when the remedy is being constructed or implemented. It addresses any adverse impacts that may be posed to workers, the community, and the environment during construction and operation of the remedy until cleanup levels are achieved.

17. What are deed restrictions?

A deed restriction, sometimes called an environmental restrictive covenant, is a legally enforceable mechanism that can be placed on a property which has contamination left in place that, if disturbed, could create a risk to human health and the environment. Deed restrictions ensure that the remedy remains protective of human health and the environment. For example, with the agreement of a property owner, a deed restriction could be put on a property that was cleaned up to an industrial/commercial standard that could prevent any residential development on the property. This may be necessary because, in most cases, the cleanup to an industrial standard is less stringent than a residential standard. At the USS Lead Site, the lead residential cleanup standard is 400 parts per million and a typical industrial cleanup standard is 800 parts per million.

18. Where does this clean soil come from? Clean to what standard? Do you consider 400 ppm clean for lead? Are you buying it from farmers and taking their soil?

The soil used for backfill and topsoil must undergo testing prior to replacing excavated soils. The source of the backfill and topsoil has not been determined at this time, but a number of different sources were used for the Zone 2 and Zone 3 cleanups. Each source of backfill and topsoil will have to undergo testing for various constituents and geotechnical testing to ensure the soil is appropriate to use. For more information, there is a “Backfill Requirements” document available online and at the information repositories (*see box, Page 1*) that describes the specifications used for the backfill for Zone 2 and Zone 3 cleanups.

19. Why is EPA excavating to 8 feet at the DuPont North site but only 2 feet in the possible residential site?

The former DuPont site has different chemicals of concern, and a large portion of the site is not being excavated. The entire 52-acre Zone 1 area is being proposed for excavation to a residential cleanup standard, compared with the DuPont site which will be cleaned up to an industrial cleanup standard. To get more answers regarding work at the DuPont site, please call Rafael Gonzalez at 312-886-0269.

20. What is “OU2”?

There are two parts of the USS Lead site, designated as Operable Units or OUs. OU1 is the contaminated soil in residential Zones 1, 2, and 3. OU2 covers the remaining contamination at the USS Lead factory site and any contaminated groundwater associated with the entire USS Lead site, including groundwater in residential Zones 1, 2, and 3.

21. Why isn't the public more involved in your decision making?

Under the Superfund law, the public plays a role in the decision making. EPA released its Proposed Plan for public comment to identify EPA's recommended cleanup plan and other alternative cleanup options. EPA will evaluate

and consider all public comments on the Proposed Plan and will provide a written response to the public comments. Community acceptance is one of the nine criteria evaluated before EPA chooses a final cleanup plan.

22. Can we have another public meeting?

EPA will hold another public meeting on February 13, 2019 and extend the public comment period to March 14.

23. Why would Zone 1 become an industrial development?

Future use of the property is determined by the property owner. In the case of Zone 1, this is the East Chicago Housing Authority. EPA does not have a role in determining the future use of a Superfund site.

24. EPA said there was no contamination below two feet but there is still smelter waste at 11 feet, how can that be right?

Contamination does exist below two feet in the vicinity of the former smelting facility at Zone 1, and debris from the former smelter was discovered at a depth around 11 feet.

25. Why did EPA cancel the Jan. 10 meeting?

EPA was unable to hold the January 10 meeting because of the partial government shutdown. The agency did not have funds to conduct business. The meeting was rescheduled for February 13 soon after the agency reopened on January 27.

Groundwater

1. Is the buried lead left in Zone 1 still going to leach into the groundwater? Has long-term groundwater treatment been looked at as a cheaper remedy than simply removing the whole lead plant now? Is EPA sure these materials won't leach? Does EPA have studies to prove that?

The existing shallow groundwater sampling results do not show high concentrations of lead, therefore, EPA does not think lead will leach to the groundwater from the soils that remain in place after Zone 1 cleanup. Zone 1 groundwater is currently under investigation. If unacceptable

contamination attributable to the USS Lead site is found in Zone 1 groundwater, it will be addressed as part of a subsequent cleanup action.

2. How will controls impact the groundwater?

It is unknown at this time if Zone 1 groundwater will require controls, or what they might be.

3. If you find that there is lead leaching in Zone 1 that you hadn't originally found, would you stay the course of this current soil removal rather than going further?

If the selected remedy is found in the future, before or after implementation, to provide inadequate protection, EPA will adjust the selected remedy as necessary to provide for a protective remedy. Once construction of a Superfund site cleanup is initiated, EPA reviews the cleanup every five years in situations where the site does not allow for unrestricted use to assure that the remedy remains protective.

4. What makes you think that all the debris being left in place from the smelter is not going to be leaching into groundwater?

Limited sampling data is available at depth. Soil borings and sampling data indicate that the debris is mainly bricks and construction debris. EPA does not expect these materials to leach contaminants to the groundwater.

5. Have you taken the hydrology of the area into account with your groundwater models?

The groundwater investigation is in early stages. EPA expects to conduct groundwater modeling once the necessary data have been gathered.

6. Do you think that you should remove and pump groundwater?

It is unknown at this time if groundwater will require treatment. The ongoing groundwater investigation will determine if treatment of groundwater is necessary. EPA will release a Proposed Plan for public comment in the future that addresses groundwater.

7. Why is the cleanup or water studies being done in Phase II or later? Why couldn't that be done first? Who makes decisions about the phases?

EPA decided early on to first address those areas of the site that present the most risk to the public (i.e., the contamination in the residential areas in OU1) before initiating an investigation at OU2. Access to the land area of OU2 is restricted, and no residents are currently drinking site groundwater, therefore risk to the public from OU2 contamination is much lower than OU1.

Additional questions

1. What is occurring in the area between OU1 and OU2?

The property that is directly south of Zone 1 has been cleaned up through the State of Indiana Voluntary Remediation Program.

2. Are there cleanup records for Carrie Gosch prior to construction?

EPA has not conducted a cleanup at the former Carrie Gosch elementary school. The Indiana Department of Environmental Management conducted limited sampling on the Carrie Gosch property in 1997 and records indicate that lead-contaminated soil from the Carrie Gosch property was disposed of in 1997. You may contact the East Chicago School District or IDEM for further information.

3. What happened to the Moving Forward Program that the governor signed off on? Why is nothing being done with it in Zone 1?

EPA is not involved with the Moving Forward Program. EPA suggests that you contact the State of Indiana or the City of East Chicago to obtain additional information.

4. Does the public have any recourse if they disagree with the City's decision for intended use for Zone 1? What if the City's anticipated use would be contrary to public health?

EPA does not make determinations regarding future land use. All questions regarding the future use of Zone 1 should be directed to the property owner, ECHA.

5. How did Carrie Gosch become separated from Zone 1? Who, what, why, where, when, and how did this become separated?

The former Carrie Gosch school is still being addressed through the original 2012 ROD and Consent Decree. Since the cleanup plan for the former school is not changing, it is not part of this Proposed Plan and ROD Amendment.

6. Why is this backward? Why are we having this public meeting if the city has yet to put in writing what they intend to do? Why doesn't the city take the community's comment into account?

The City of East Chicago has stated that the future use of Zone 1 is residential, and that there have been a number of proposals for commercial redevelopment. Any questions on the future use of the Zone 1 property should be directed to the East Chicago Housing Authority.

7. Who is in charge of these decisions? Who on the school board can we direct our questions about Carrie Gosch to? Why isn't there any information about who to contact here tonight at the public meeting? Is the mayor involved?

EPA has developed a contact list for various entities who own property associated with Zone 1.

East Chicago Housing Authority

Tia Cauley
Executive Director
219-37-9974 x30

Carrie Gosch Elementary School

Dr. Paige McNulty
Superintendent
School City of East Chicago
219-391-4100 x12344

Goodman Park

Department of Public Works
City of East Chicago
219-391-8463

8. Why didn't EPA sample the residential neighborhoods in 1985? Why weren't they looking at what the impact on public health was?

A soil survey was completed in 1985, that included soil samples collected in the vicinity of the former USS Lead facility. EPA's Resource Conservation and Recovery Act program addressed contamination on the area of land associated with the former USS Lead facility. In the early 2000s, as part of this RCRA corrective action, the scope of the investigation was expanded beyond the former facility's boundaries into the OU1 residential area. In coordination with the State of Indiana, EPA proposed the USS Lead site for cleanup under Superfund in 2009, and EPA has been moving forward with investigation and cleanup since that time. EPA expects to be nearly completed with the Zone 2 and Zone 3 work by the end of 2019.

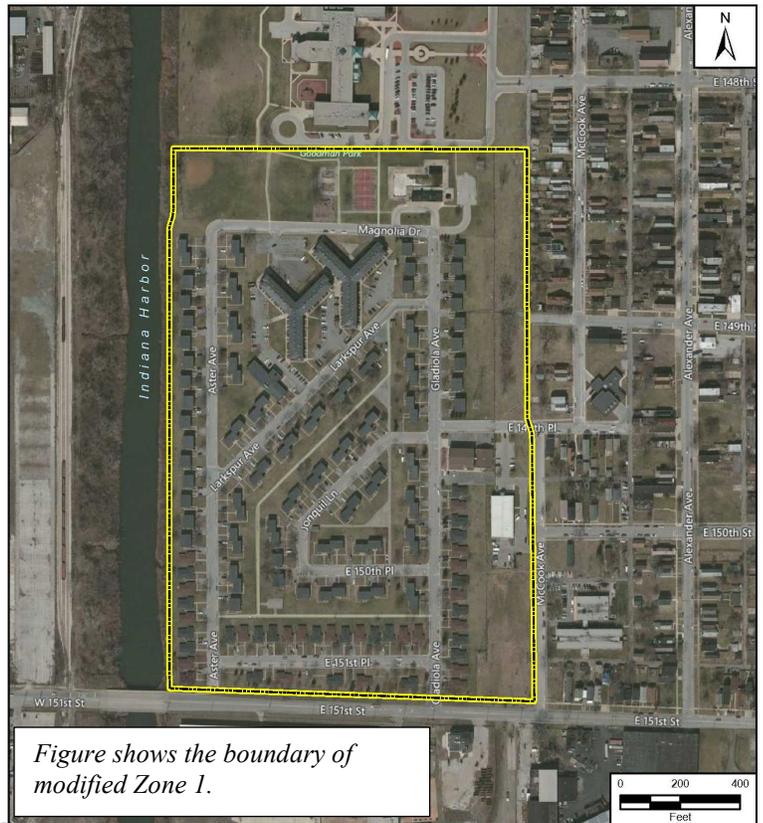


Figure shows the boundary of modified Zone 1.

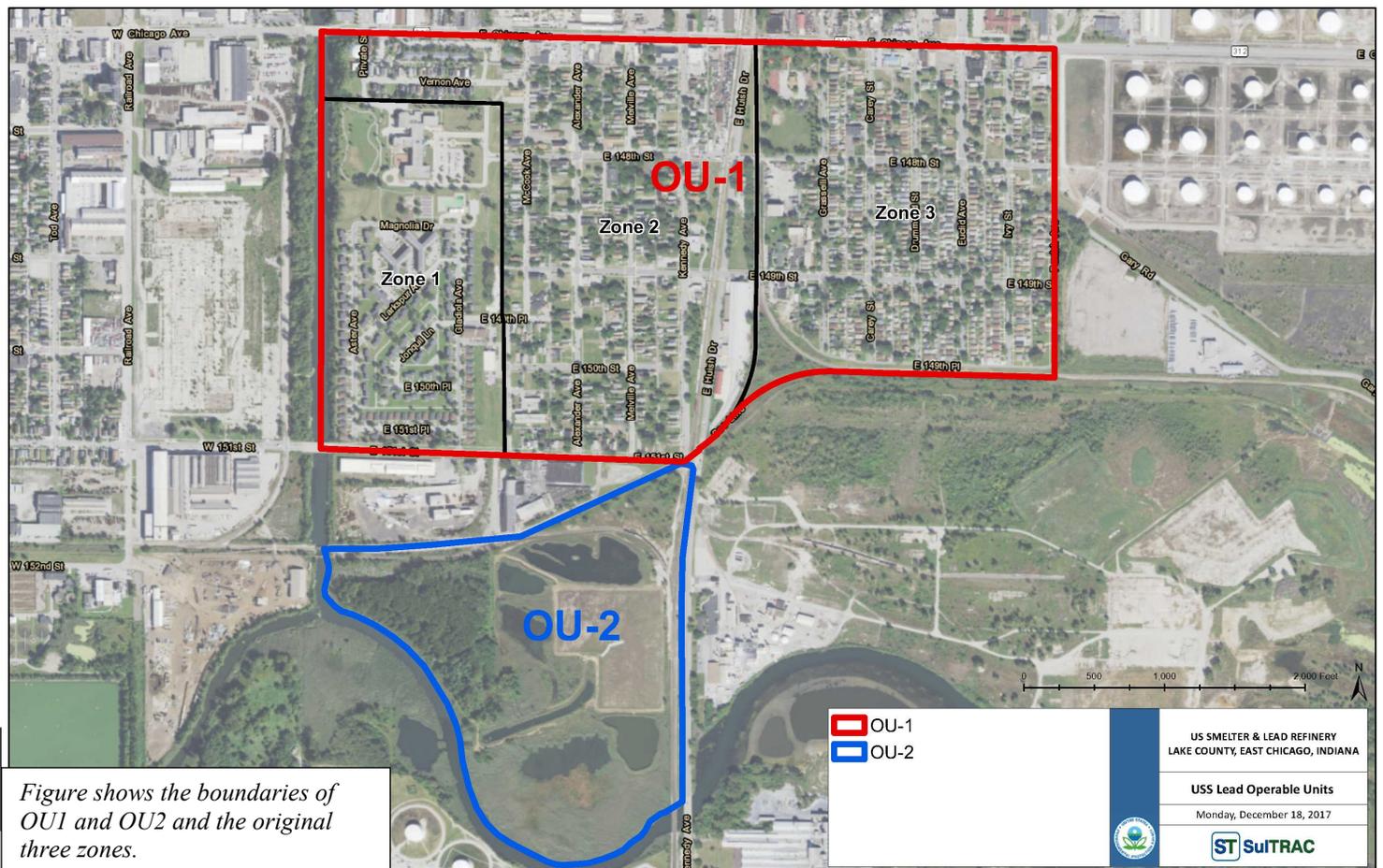


Figure shows the boundaries of OU1 and OU2 and the original three zones.