



EPA Releases Proposed Plan for Upland Soil at LCP Chemicals Site



Background

The U.S. Environmental Protection Agency (EPA) issued its Proposed Plan for soil contamination at the LCP Chemicals Georgia Superfund Site in August 2019. The LCP Chemicals Superfund site is located between the Turtle River and New Jesup Highway, just northwest of the Brunswick city limits. The 813-acre site has a 100-year history of industrial activity, including an oil refinery, coal-fired power plant, and both chemical and paint manufacturing plants. Past activities contaminated soil, ground water, and adjacent surface waters and marshlands until operations ceased in 1994.

Contaminants of concern include polychlorinated biphenyls (PCBs), mercury, lead, dioxins, and cancer-causing polycyclic aromatic hydrocarbons (cPAHs). The site cleanup is being managed in three parts, referred to as Operable Units by the EPA: Operable Unit 1 - the estuary and salt marsh; Operable Unit 2 - the cell buildings area and groundwater; and, Operable Unit 3 the upland soils and sediments where industrial activities took place. Each of these Operable Units has its own documents and schedule.

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This report is provided by the Glynn Environmental Coalition to inform the community about recent developments in the U.S. Environmental Protection Agency's LCP Chemical Co. Superfund Site cleanup project. The Glynn Environmental Coalition receives funding from EPA that enables us to retain technical assistance to help the community understand what is happening at Superfund sites in Brunswick. With our consultant's help, we are working to enhance the public's ability to participate in the decision-making process at these Sites.

EPA's Proposed Plan for Upland Soils

The EPA proposes 'No Further Action' for soils across the 134-acre Upland portion of the site. This decision is based on the results of human-health and ecological risk assessments that are summarized in the Proposed Plan.

The EPA believes that previous removals of about 130,000 cubic yards of contaminated soil and industrial wastes in the 1990s cleaned up this part of the site enough to allow future industrial or commercial uses, and not cause unacceptable ecological risks. Soil cleanup levels used by EPA

during the removal actions were 20 parts per million (ppm) for mercury; 25 ppm for PCBs; 50 ppm for cPAHs; and 500 ppm for lead.

The EPA will develop deed restrictions to prevent residential use of this part of the site, however, because residual soil contamination still present causes unacceptable health risks to people who might live on the site in the future. The deed restrictions will become part of the land records and would be enforced by Georgia and/or local government agencies.

Concerns about Residual Soil Contamination

The Glynn Environmental Coalition (GEC) is concerned that EPA's Proposed Plan is inconsistent with the findings of a Public Health Assessment of the Uplands soil contamination conducted by the Agency for Toxic Substances and Disease Registry (ATSDR). EPA and ATSDR evaluated potential future health risks differently and reached different conclusions.

While EPA says the human health risk assessment shows residual soil contamination presents no unacceptable risks to future site workers, ATSDR determined that, in some areas, residual contamination could cause unacceptable risks. ATSDR reported that PCBs, mercury, and cPAHs at nine (9) half-acre parcels could harm future commercial and/or industrial workers.

ATSDR evaluated soil-sample results to develop a representative concentration of each contaminant for one-half-acre parcels of the site. EPA did the same thing but used approximately 40-acre parcels for the human health assessment (see Figure 1). ATSDR identified what might be termed "hot spots" – localized areas of higher contamination within the nine, half-acre parcels (see Figure 2). EPA's approach produced lower representative contaminant concentrations, essentially masking those hot spots.

Some of these hot spots are within the cell buildings area which the EPA has excluded from

this Proposed Plan. But four of the hot spots are located at different parts of the site, as the ATSDR map shows. ATSDR noted that contamination at those four locations was above the EPA soil cleanup levels cited above, with concentrations of mercury as high as 85 ppm, and PCBs as high as 167 ppm.

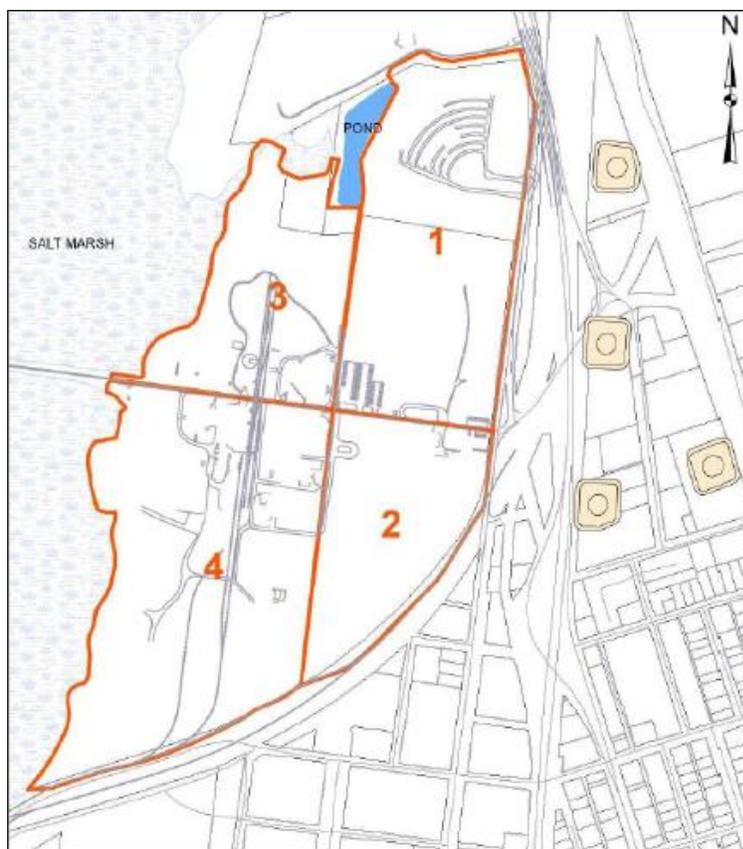


Figure 1: LCP Chemicals Upland Soil Area split into four 40-acre quadrants for EPA Risk Assessment.

Source: EPA

(continued...)

At the September 12, 2019 Public Meeting, the GEC asked the EPA if it could demonstrate that all of these apparent hot spots of higher contamination do not still exist at the site. EPA responded it was not certain that all the hot spots were no longer present. EPA stated that some of the hot spots were in or adjacent to the cell buildings area and they may have been removed or are now under the soil cap. Also, EPA pointed out that more-recent sampling at some other locations found lower levels of chemicals.

Four of those hot spots identified by ATSDR are not in the cell buildings area that will be addressed in remediation of Operable Unit 2. If these areas of high contamination are still present, does EPA believe that they would not cause unacceptable risks to future site workers?

The GEC believes that if hot spots are still present beyond the cell building area that will be

addressed in Operable Unit 2 remediation, EPA should remove or contain those soils to prevent future exposure to the contamination. This would be a more certain way to protect people and the environment in the future.

In addition, GEC is concerned that there is not enough data to support 'No Further Action' for the entire extent of Operable Unit 3. According to ATSDR, about half of the OU-3 property was not adequately sampled, including some suspected disposal areas that appear on historical aerial photographs taken before LCP operated at the site.

What are the Primary Residual Contaminants?

EPA identified these primary contaminants:

- **Mercury:** Large quantities of mercury were used to produce chlorine and caustic soda. The record shows that about 300,000 pounds of mercury were possibly released into the environment at the site. It is toxic to humans and animals. One type of mercury (methyl mercury) is particularly troublesome as it accumulates in fish and mammals.
- **Polycyclic aromatic hydrocarbons (PAHs):** Numerous chemicals including the primary components of petroleum. They can be formed by incomplete combustion of organic matter (such as coal and wood). Some PAHs are highly carcinogenic (cause cancer) and highly toxic to aquatic organisms.
- **Polychlorinated biphenyls (PCBs):** Man-made chemicals present in industrial fluids used to cool machinery and for other purposes. Arochlor 1268 is the primary PCB contaminant at the site. PCBs accumulate in humans and animals, and they are a "probable human carcinogen" (likely to cause cancer) and can cause other adverse health effects. PCBs are persistent and do not breakdown in the environment.

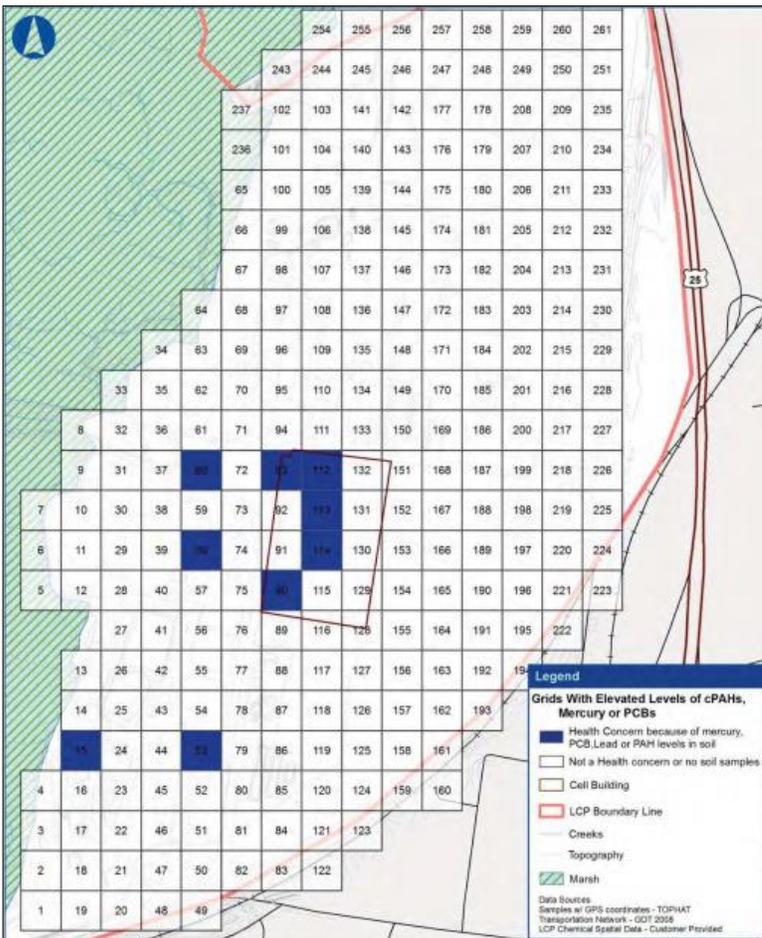


Figure 2: Shows nine 1/2-acre grids that ATSDR believes are a health concern if the site becomes commercial or industrial. Source: ATSDR Public Health Assessment



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Opportunity for Public Comment

The EPA needs to hear from you!

The public is encouraged to comment on the Proposed Planned during the public comment period. **The public comment period will end on December 2, 2019.** Comments should be addressed to Pam Scully, EPA Remedial Project Manager, and can be submitted directly to the EPA by email or US Mail using the following contact information:

US Mail: Pam Scully

Email: Scully.pam@epa.gov

US EPA Region 4

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Resources For Additional Site Information

EPA: <https://www.epa.gov/superfund/lcp-chemicals-georgia>

ATSDR: <https://www.atsdr.cdc.gov/sites/lcp/index.html>

GEC: <https://www.glynnenvironmental.org/lcp-chemical-superfund-site>