LCP Site, Brunswick, Georgia: 2017



The environmental cleanup at the former LCP Chemicals site in Brunswick, Georgia, is moving forward as science and engineering experts develop a detailed work plan to remediate residual contamination in the marsh. This marks important progress in the remediation and restoration of the former LCP property that began 20 years ago with massive removal of contaminated soils and sediments.

This work plan, to be submitted by Honeywell and Georgia Power, will implement the remediation approach described in the Record of Decision (ROD)

issued by the U.S. Environmental Protection Agency (EPA) in 2015. The ROD followed two EPA-led public information sessions in Brunswick and years of study and investigation by Honeywell, ARCO, and Georgia Power, known as "potentially responsible parties." The additional remediation will help the marsh continue its recovery, much as the early excavation of 25,000 tons of contaminated marsh flats and 2,650 linear feet of tidal channels improved the ecosystem.

When completed, the remediation will have reduced the residual risk by both removing and isolating mercury, PCBs (polychlorinated biphenyls), lead and PAHs (polycyclic aromatic hydrocarbons). An extensive sampling and verification program will provide the basis for demonstrating that the long-term risk objectives established by the EPA have been met.

A Remedy Based on Science, Data, and Engineering

EPA evaluated the extensive data collected, along with current scientific understanding about and recent experiences with coastal salt marshes. Examples of the scientific research include:

- Testing of specific fish species found in the Purvis Creek area in 2011. The study found continued reductions in chemical levels in fish tissue. Based on that data, the Georgia Department of Natural Resources eased fish consumption standards for most species in the Purvis Creek area in 2012;
- Extensive sediment testing in creeks, tributaries, and marsh flats; and
- Comprehensive study and evaluation of potential residual risks to human health and the ecosystem.

The remedy specified in the ROD will comprise 24 acres of marsh and will use a mix of technologies:

- Dredging out the higher concentrations in the creeks;
- Capping the lower concentrations in the creeks with a capping system engineered to prevent exposure;
- Covering low residual risk concentrations in the marsh flats to reduce concentrations; and
- Conducting long-term monitoring.



The anticipated timeline:

| 2016 – 2017 | Design of Marsh Remediation |
|-----------------|-----------------------------|
| 2017 – 2019 | Implementation of remedy |
| 2019 and beyond | Long-term monitoring |





History and Milestones

The LCP property was the location of various industrial operations over the last 75-plus years. Linden Chemicals and Plastics, Inc. (LCP Chemicals), the last operator at the site, went bankrupt in 1994. Following LCP Chemical's bankruptcy, the site was placed on the federal Superfund list. In the late 1990s, under the supervision of federal and state authorities, the most contaminated soils were removed by three PRPs – Atlantic Richfield, Georgia Power and Honeywell. Approximately 225,000 tons of contaminated soils and materials across more than 40 acres of upland area were excavated and disposed of in approved, off-site landfills. Thirteen acres of impacted marsh flats adjacent to the former industrial site were removed. Monitoring continues to confirm that no significant risks to public health or the ecosystem exist.

Continuing to Address Groundwater and Soils

After the property was designated a Superfund site in the 1990s, EPA organized the 681 acres of tidal marsh and 120 acres of land into three sections called "Operable Units" or "OUs":

- Marsh (OU1);
- Groundwater (OU2); and
- Upland soils (OU3).

Work on the assessments for the groundwater and upland soils will continue in parallel with the marsh remediation.

Groundwater - More than 150 groundwater monitoring wells have been installed at the site. Monitoring has shown that local drinking water supplies are unaffected by the conditions at the site. In addition, in order to neutralize a localized groundwater condition referred to as the "caustic brine pool," Honeywell is utilizing an innovative and sustainable treatment technology. That technology injects or "sparges" carbon dioxide into the sub-surface to reduce the pH in the pool. The three-phase treatment approach utilized 209 sparging wells. The three phases are now complete and testing has shown significant improvement with nearly all areas achieving substantial pH and mercury reductions.

Upland soils - The next step will be a feasibility study that will look at different approaches for remediating the residual soil risk, if any, not addressed in the 1990s remedial action. The Remedial Investigation report and a technical memorandum were submitted to EPA. Honeywell is awaiting EPA approval before moving forward.

Contact Us

Honeywell is committed to regular, timely, and informative communications with the community. Anyone who has questions or would like more information may visit: www.lcpbrunswickcleanup.com/content/Remediation/

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