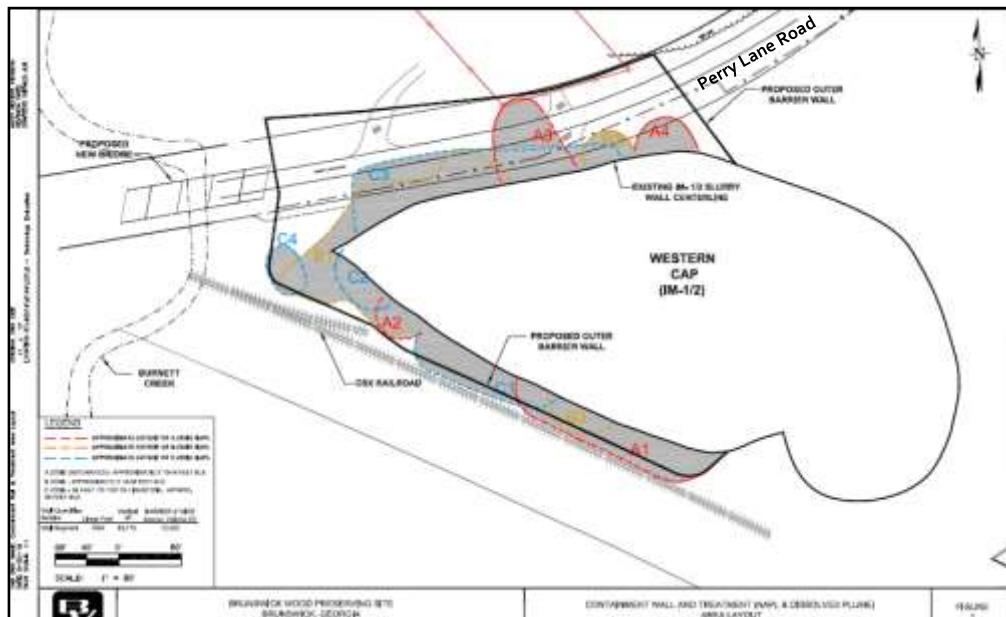




The report is produced by an independent technical advisor to interpret and help the community understand technical information about our Superfund Sites.

## EPA Releases the Explanation of Significant Difference Report for the Brunswick Wood Preserving Site



### What is the Explanation of Significant Difference Report?

The EPA has released an **Explanation of Significant Difference (ESD)** report for the Brunswick Wood Preserving Superfund Site. An **ESD** must be written when changes are made to the original cleanup plan found in the Record of Decision (**ROD**). The cleanup plan changed when EPA sampling in 2013 and 2014 found that creosote still remains in the ground outside the Western Containment Area (see map above). The Western Containment Area has two barrier walls to try and contain the creosote, the first one was built in 2009 and the second one was built in 2011. This new cleanup plan addresses creosote in shallow soil, not creosote deeper than 25 feet. The EPA's **ESD** states that the changes to the cleanup plan are not significantly different and the cost and level of protection are mostly unchanged between the original and the new cleanup plan.

January  
2016

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#### Brunswick Wood Preserving Site

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- *Site Background*
- *Superfund Process: Where are we now at the BWP site?*

This update and more information about Glynn County Superfund Sites at:

[www.glynnenvironmental.org](http://www.glynnenvironmental.org)

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This report was produced by **Environmental Stewardship Concepts, LLC** (ESC, LLC) for and in cooperation with the **Glynn Environmental Coalition**.

## Site Background

### Background

From 1958 to 1991, the Brunswick Wood Preserving Site housed wood treatment and preserving operations. The site requires long-term cleanup due to regular use of chemicals such as creosote, pentachlorophenol, and copper chromium arsenate, which contaminated the groundwater and soil. The cleanup is managed in two parts, 1) the Upland, or site-wide soils, sediments, and groundwater and 2) the ecological risks in Burnett Creek and other surface waters.

### Current Activities

EPA has finalized an **Explanation of Significant Difference (ESD)** report, which details the cleanup plan for the shallow creosote still outside the Western Containment Area. EPA is not currently proposing additional remediation for creosote found deeper in the ground near Perry Lane Road. Creosote has not shown up yet in samples on the west side of Burnett Creek.

In-situ chemical oxidation, which has been used in other areas of the site, is not being used because it cannot successfully remove the large amounts of shallow creosote present. Instead, the cleanup plan for the shallow zone includes **in-situ solidification (ISS)** which is being used to immobilize and contain the creosote outside the Western Containment Area that was not captured by the two containment walls (ISS Area 1 and 2, see map below).

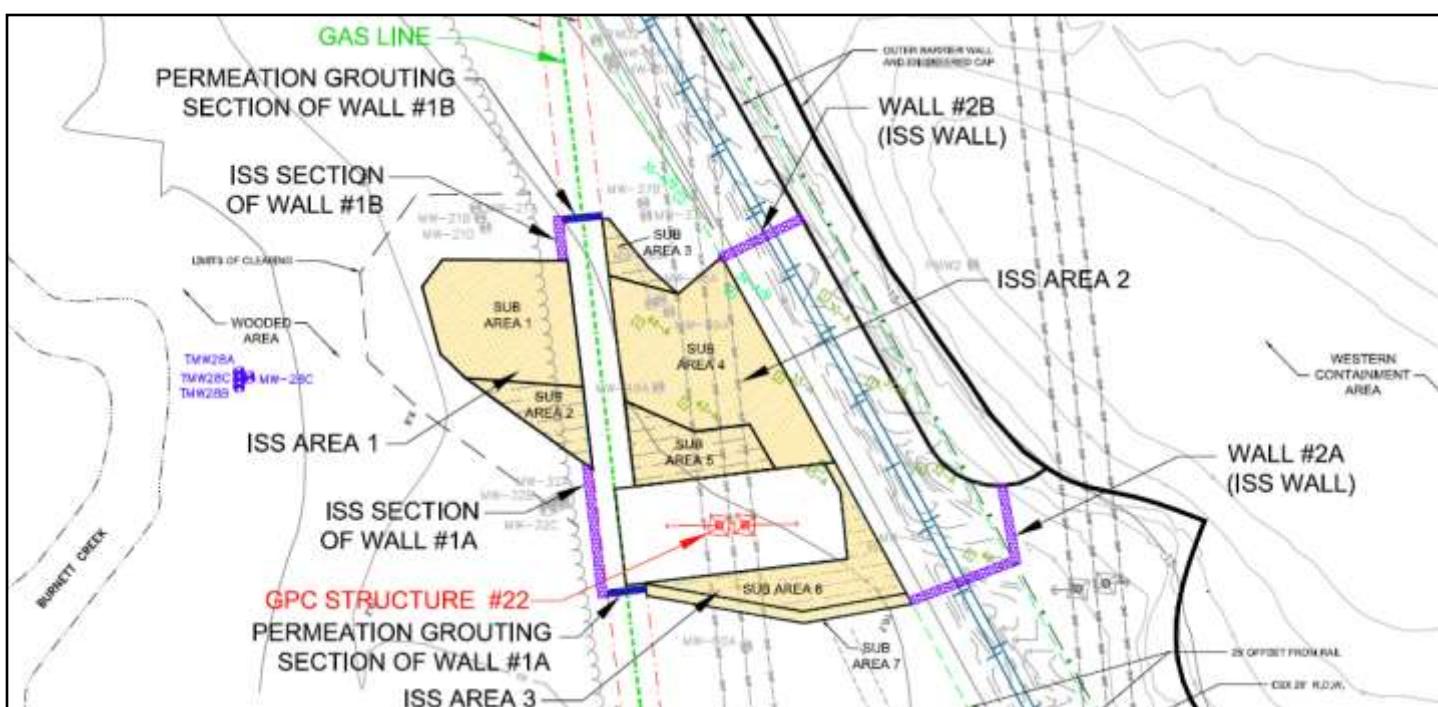
**In-situ solidification (ISS)** is a process used to bind hazardous wastes into a stable, solid block of material and trap it in place. ISS involves mixing the contaminated site soil with a binding agent that will make the loose materials stick together. The solid soil/cement mixture binds the contaminants in the soil so that they cannot move about in the ground. Using an excavator blender attachment, the cement mixture will be mixed with almost 13,000 cubic yards of contaminated soil in the Western Containment Area at the Site.

Additional remedial components will be required due to the utilities and railroad tracks in that area where the creosote will remain untreated. ISS will be used again at the railroad to construct two subsurface barrier walls (Wall #2A and #2B below). At the gas pipeline, ISS and permeation grouting will be used to construct subsurface barrier walls (Walls #1A and #1B). Permeation grouting injects liquid grout into the ground to form a barrier to groundwater flow and keep the contaminants from moving. Capping will be used at the gas pipeline and the railroad tracks to keep rainwater out.

The technologies used to contain the contaminants are supposed to keep them from moving sideways, but may not keep them from moving downward deeper into the soil. Creating barrier walls has already been unsuccessful at containing the creosote at the site.

**Brunswick Wood Preserving Site map showing areas of in situ solidification**

Source: ESD, 2015



## Superfund Process: Where are we now at the BWP Site?



**Superfund** is the federal law to clean up contaminated sites; the process is displayed at left.

The **Remedial Investigation** (June 1998) involves testing the site to determine the health risk to humans, plants, and animals from the harmful chemicals at the site. If the health risks are above what is allowed, the site must be cleaned up.

A **Feasibility Study** (June 2001) looks at each of the cleanup options to figure out the best cleanup for the site to protect human health and the environment from current or future exposure to the site chemicals. Because the cleanup can be accomplished in different ways, the cleanup options must be compared to each other.

EPA selected a cleanup plan, known as the **Proposed Plan** (July 2001) and EPA wrote the **Record of Decision** (June 2002) which officially states how a site will be cleaned up and the long-term monitoring that will be put in place.

A **Remedial Design** was released in October 2004 and work began in 2006 to create a barrier with two subsurface walls around the creosote ponds; solidification/stabilization of contaminated soils/sediments from the site and Burnett Creek; treat groundwater using in situ chemical oxidation. Both walls were built by 2011 and by December 2013, all groundwater treatment was discontinued.

The Brunswick Wood Preserving Site is now at the **Explanation of Significant Difference** report, which is utilizing solidification/stabilization to remediate shallow creosote outside the western containment area.

Explanation of Significant  
Difference Report

★ BWP Site Is Here

Construction is the actual work that will be done to address the contamination.

Long Term Monitoring checks on the progress of the cleanup in the future.



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## Technical Assistance Report: EPA Releases the Explanation of Significant Difference for the Brunswick Wood Preserving Site

### In-Situ Solidification

**In-situ solidification (ISS)** is a process used to bind hazardous wastes into a stable, solid block of material and trap it in place. ISS involves mixing the contaminated site soil with a binding agent that will make the loose materials stick together. The solid soil/cement mixture binds the contaminants in the soil so that they cannot move about in the ground. Using an excavator blender attachment, the cement mixture will be mixed with almost 13,000 cubic yards of contaminated soil in the Western Containment Area at the Site.

An excavator (pictured at right) and how the excavator mixes soil and a binding agent below the ground (pictured below).



Source: EPA



Source: EPA