

Glynn County Superfund Sites

Brunswick Wood Preserving Superfund Site

Technical Assistance Report

September 2012

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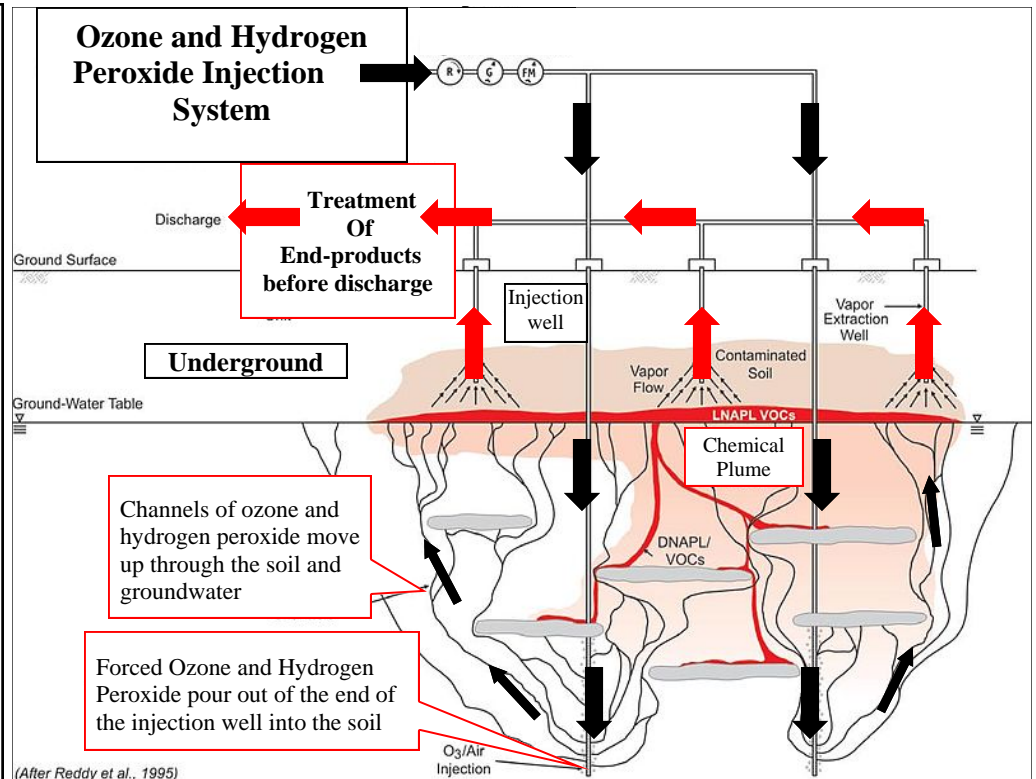
This update and more information about the Glynn County Superfund Sites can be accessed at:

www.glynnenvironmental.org

For more information, contact the Glynn Environmental Coalition

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The chemical removal system at the site injects ozone and hydrogen peroxide into the contaminated groundwater and as they move up through the soil, they react with Site chemicals and break them down into less toxic end-products. The end-products are removed from the groundwater and then discharged into a well found within the slurry wall. The chemical plume is a high concentration of chemicals in a given area. Black = injection chemicals; Red = removed end-products from the chemical plume

Brunswick Wood Preserving Site

Background

For over 30 years, wood treatment operations were conducted at the Brunswick Wood Preserving Site (Site). These operations left the groundwater and soil contaminated with chemicals such as creosote, pentachlorophenol (PCP), and copper chromium arsenate (CCA). In addition to these chemicals, contaminants of concern at the Site include dense non-aqueous phase liquids (DNAPL), naphthalene, benzene, and semi-volatile organic compounds. (SVOCs)

EPA took emergency action to remove and treat some of the contamination at the site from 1991 to 1995. The site, however, requires long-term cleanup measures. The long-term cleanup of the Site has been divided into two separate treatment areas: 1.) Site-wide soils/sediments and groundwater and 2.) Ecological risks posed to Burnett Creek and surface water.

Proposed Plan

The Environmental Protection Agency (EPA) released the *Proposed Plan for Remedial Action* on June 15, 2012. The *Proposed Plan* for the site includes Burnett Creek and other surface waters. The document is intended to describe the selected cleanup actions for ecological risks posed to Burnett Creek and surface water at the Site. Chemicals currently impacting the Site below ground include: Dense Non-Aqueous Phase Liquids (DNAPL) and other Chemicals of Concern (COCs) including naphthalene, benzene, pentachlorophenol (PCP), and Semi-volatile Organic Compounds (SVOCs). The *Proposed Plan* can be accessed at http://tiny.cc/BWP_PP_OU2

Decision: No Action?

The recommendation from the Proposed Plan for Remedial Action was “no action”. This means Burnett Creek would be left as is because the EPA does not believe the site poses a grave risk to the local ecology or inhabitants. The site would enter a phase where it is subject to only monitoring and maintenance, but no new cleanup efforts would be attempted.

Comments on the Proposed Plan

ESC found three main types of errors.

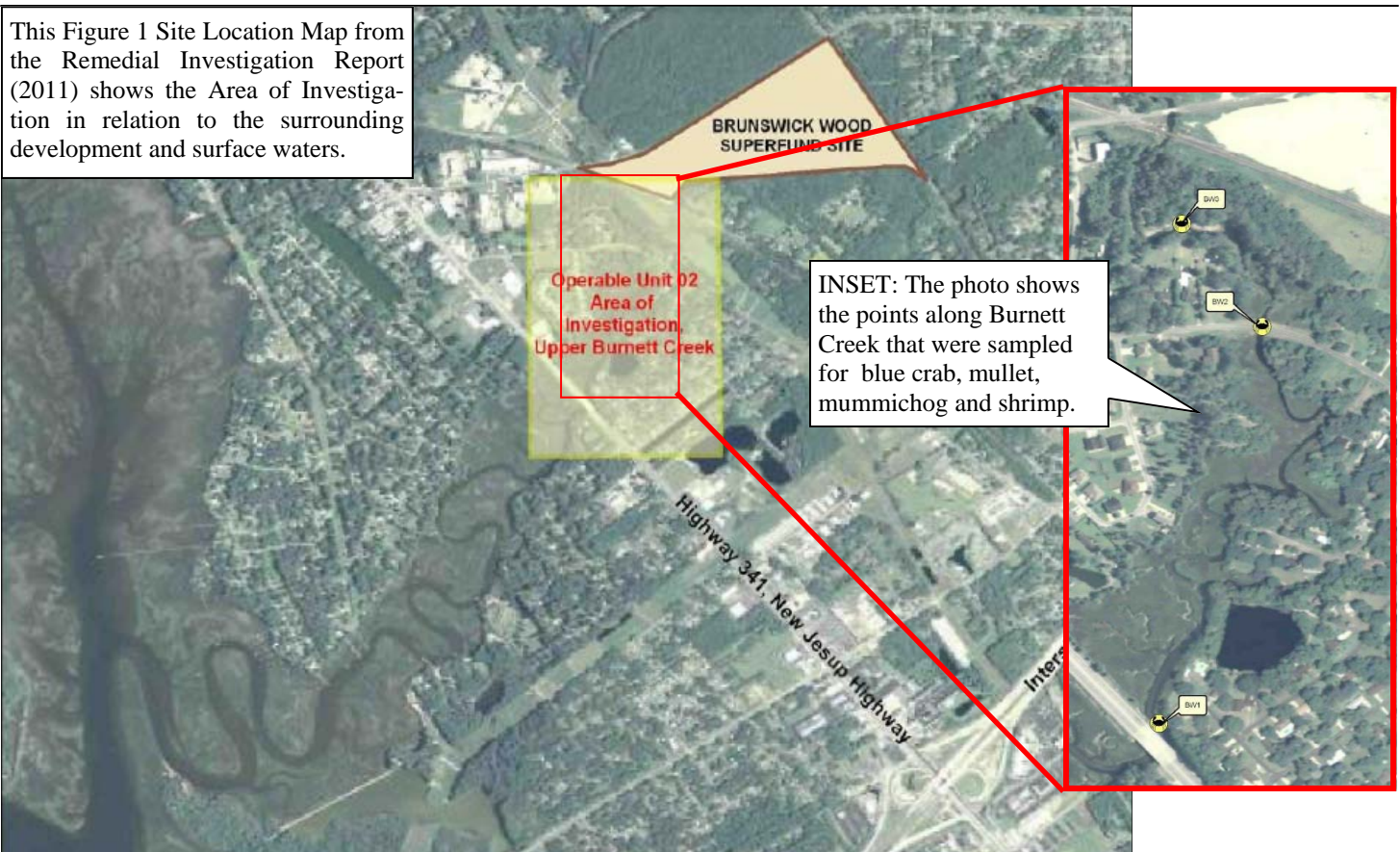
How data is presented ...

- There is no discussion in the Proposed Plan on potential impacts to human health
- The forage fish which were tested are too small for human consumption and levels may be much higher in predator fish

Out of date information...

- Soon after the Nov 9, 2009 Baseline Ecological Risk Assessment was complete, a manatee was sighted in the creek
- February 17, 2012: EPA released a new reference dose for dioxin at 72 ppt (parts per trillion); levels reported in the proposed plan exceed that limit

This Figure 1 Site Location Map from the Remedial Investigation Report (2011) shows the Area of Investigation in relation to the surrounding development and surface waters.



Sampling errors or omissions...

- In November 2011 EPA collected 21 samples from locations in the creek bed, but did not collect sediment samples from the tidal flats
- The Proposed Plan will leave contaminated sediments in place in the tidal flats, in the marsh, and perhaps, in the groundwater beneath Burnett Creek, with no remedy or chance for improvement

Groundwater Analysis

Site Groundwater Background

Slurry and Barrier Wall Construction

- May 2010: EPA constructed subsurface slurry walls and cap at the Eastern and Western ends of the Site
- March 2011: EPA installed an outer barrier wall and cap. The contaminants remaining outside of the barrier wall primarily consist of Semi Volatile Organic Compounds (SVOCs); some areas still contain Dense Non-Aqueous Phase Liquids (DNAPL)

Chemical Removal System

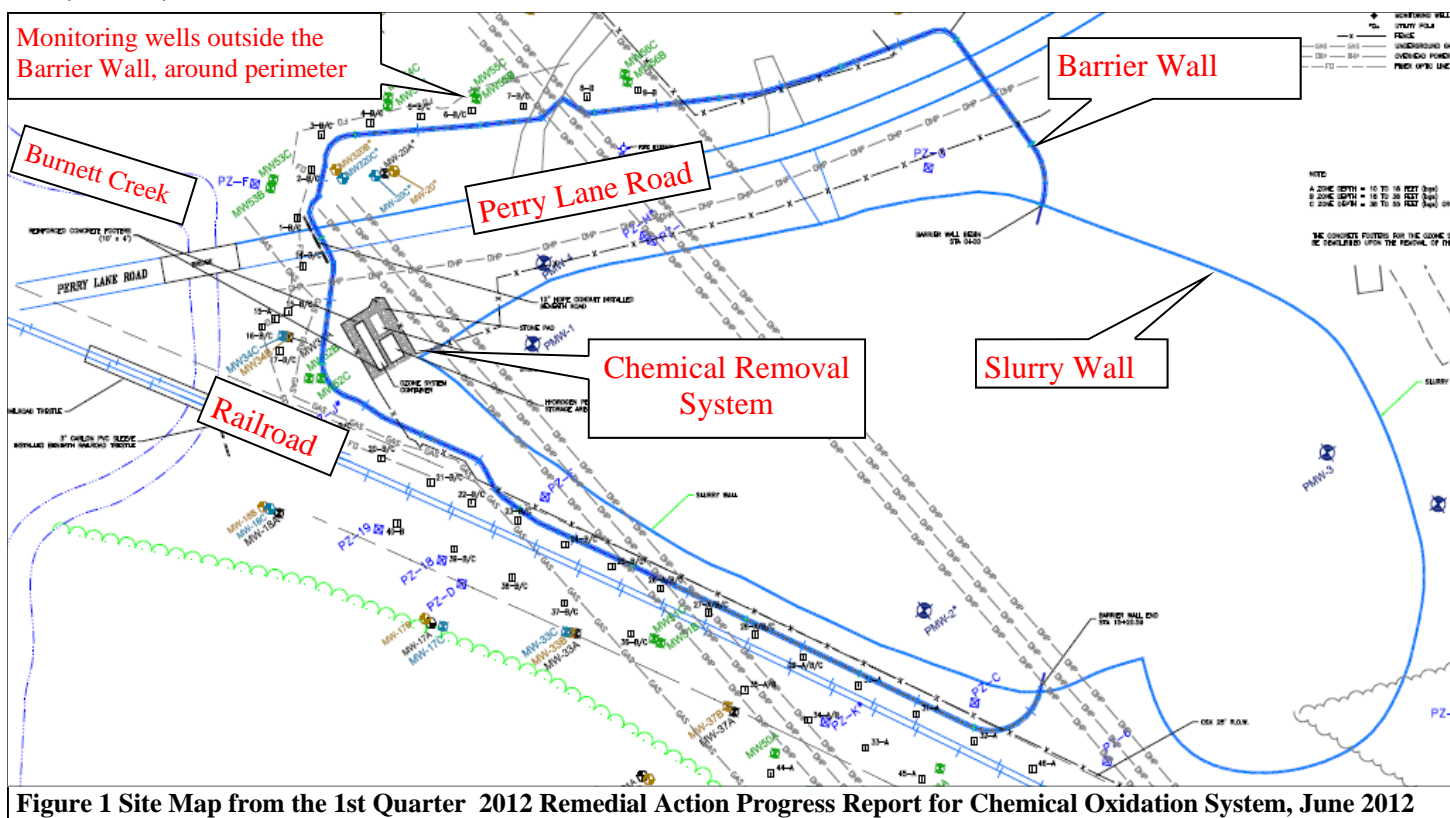
- October 2010: Testing of the chemical removal system at the Site
- July 2011: Chemical removal system installed to treat the underground chemical plume—74 injection wells outside the barrier wall

Monitoring Wells

Monitoring wells have been installed outside of the outer barrier wall constructed around the Site to determine if the chemical removal system is effectively removing the chemicals that have moved beyond the barrier walls.

Groundwater Data Results

The groundwater monitoring wells tested for several chemicals before the chemical removal system was installed and indicated that these chemicals had moved beyond the outer barrier wall at the Site. After the chemical removal system was installed, the groundwater monitoring wells tested for the same chemicals and showed decreased amounts of chemicals in some groundwater wells, but increased amounts of chemicals in other wells.



Return Service Requested

Comments on the groundwater data:

- The source for these chemicals at the Site have still not been fully identified
- The groundwater wells must be tested for more specific chemicals, not “Total Semi-volatile Organic Chemicals” which can include many chemicals
- Soil needs to be tested to determine complete chemical removal at the Site, not just groundwater
- Many of the higher amounts of chemicals were found in the groundwater wells closest to Burnett Creek, which puts those animals, and people who eat them, at risk for being exposed to chemicals

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