United States
Environmental Protection
Agency

Site Update

San Jacinto River Waste Pits Superfund Site

Harris County, Texas August 2014

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Current Status

Because of the complexity of the San Jacinto River Waste Pits Superfund Site, the EPA has decided that additional information is needed prior to a recommendation of a cleanup alternative. The EPA plans to undertake an independent review of site modelling and potential river/weather conditions that might influence remedy selection. Once this is completed, the EPA will announce a proposed alternative in a Proposed Plan that will be available for public comment. The EPA will also host a public meeting during the comment period to allow public participation in the remedy selection process. The EPA anticipates that the Proposed Plan will be released for public comment during 2015. The EPA will continue to communicate with site stakeholders and the community on the progress at the Site.

Site Background

The San Jacinto River Waste Pits Site (Site) is on the western bank of the San Jacinto River, in Harris County, Texas, located north and south of the Interstate Highway 10 (I-10) bridge over the San Jacinto River. The waste pits were constructed in the 1960s for disposal of pulp and paper mill waste. The Site was placed on the National Priorities List (Superfund) in March of 2008. EPA is currently evaluating remedial alternatives to address contamination at the Site.

Site Contaminants

Soil, sediment and fish tissue sampled during Site investigations indicate that dioxins are the chemicals that need to be addressed. Other chemicals including arsenic and polychlorinated biphenyls (PCB) are also present but do not contribute to a significant amount of risk compared to the dioxins.

A temporary armored cap installed over the waste pits in 2011 isolated the dioxin in the pits. The cap prevents continuing dioxin releases to the river as well as direct exposure to persons in the area. However, fish and shellfish in the river still contain high levels of dioxin (as well as pesticides and PCBs from other sources) and are covered by a fish consumption advisory issued by the Texas Department of State Health Services.

About Dioxin

Dioxins are produced from a variety of natural and man-made processes, primarily involving burning or combustion. Sources of dioxin include paper bleaching, petroleum refining, forest fires, diesel trucks, back-yard barrel burning, diesel off-road equipment, boilers/industrial furnaces, and volcanic activity among others. The dioxin found in the site impoundments originated from the Champion International Paper Mill. Dioxins are adhered to the materials in the impoundments and are virtually insoluble in water.

Water Quality

A total of 11 monitoring wells were installed and groundwater samples were collected from across the site from 2011 to 2013. The results of the groundwater sampling indicate that dioxins have not migrated to the deeper Chicot aquifer, which is a drinking water source. Because dioxins are virtually insoluble, they do not move readily in the groundwater system. Groundwater is neither a transport pathway nor an exposure pathway at the Site.

Sampling in surface water just above the cap in 2012 did not detect any tetra-dioxin or furan, and showed that the cap is effective in preventing dioxin releases to surface water.

Residential Soil Sampling

In 2011 and 2012 soil samples were collected from yards near the river banks in two residential areas: an area to the west of the Site (between Meadowbrook and River Road), and a second area along the eastern shoreline of the San

Jacinto River to the northeast of the impoundments.

The results of the residential soil sampling program show that dioxins in soil in residential areas near the site are no different than background concentrations (for example soil in public parks of Houston) and are below levels considered protective by USEPA for residential soils. As noted above, dioxins originate from a variety of sources.

Containment in Capped Areas

The wastes in the impoundments are effectively contained by the temporary armored cap installed in 2011. Sampling indicates that the wastes are not leaking, and visual inspections as well as elevation surveys show that the cap is intact and stable. The armored cap includes three layers of protective geotextile and geomembrane covered by rock, and was designed and constructed in accordance with USEPA and US Army Corps of Engineers design guidance to withstand major storms, including those that would only occur once every 100 years. The cap continues to be routinely monitored and maintained. In July 2012 a relatively minor storm (much less than the 100-year design storm) event occurred and resulted in a loss of armor material in some areas. The cap was repaired following the minor storm, but a review by the U.S. Army Corps of Engineers found that the cap slope was too steep in some areas, and that the cap contained too much smaller sized material. The cap was upgraded in January 2014 to address these deficiencies. The various remedial alternatives that EPA is evaluating include methods of treating or removing the waste and affected sediment, or enhancing the effectiveness and reliability of the cap.

Community Engagement

In 2012, EPA awarded a Technical Assistance Grant (TAG) to the Galveston Bay Foundation. Galveston Bay is the lead agency to interpret site information and data for the community with the assistance of a Technical Advisor.

The San Jacinto Community Awareness Committee (CAC), comprised of EPA, state and Harris County agencies, also meets frequently to review and respond to site community engagement and public issues impacted by the site.

For more information

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All inquiries from the news media should be directed to the Region 6 Press Office at 214.665.2200.

San Jacinto River Waste Pits Superfund Site on the internet:

http://www.epa.gov/region6/6sf/pdffiles/san-jacinto-tx.pdf

http://www.epa.gov/region6/6sf/texas/san_jacinto/

https://www.epaosc.org/site/site_profile.aspx?site_id=6534

To receive a Spanish translation of this fact sheet call U.S. EPA at 1.800.533.3508 (toll-free).

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