San Jacinto River Waste Pits Superfund Site
Frequently Asked Questions*

1. **What are the health risks associated with dioxins and furans?**

   Polychlorinated dibenzo-p-dioxins (also known as dioxins or CDDs): One chemical in this group, 2,3,7,8-tetrachlorodibenzo-p-dioxin or 2,3,7,8-TCDD, has been shown to be very toxic in animal studies. It causes effects on the skin and may cause cancer in people. More information at http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=363&tid=63

   Polychlorinated dibenzofurans (also known as furans or CFDs): In people, exposure to furans is most likely to cause skin and eye irritation, and increased vulnerability to respiratory infection and nervous system effects. You may find more information at http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=937&tid=194

2. **Is it safe to get in the waters of the San Jacinto River?**

   Dioxin is not very water soluble; i.e. not easily dissolved in the water. As a result, you are not likely to ingest dangerous concentrations of dioxin from the water, nor are you likely to absorb dangerous levels of dioxin from the water into your skin.

3. **Is it safe to walk or wade at the edge of the San Jacinto River?**

   Since dioxin is readily attached to sediment and soil particles, bare skin could come in contact with dioxin found in contaminated riverside sediments or soils. Dioxin starts to break down when exposed to sunlight, so concentrations on the surface of the soil or sediments would not likely be high enough to pose a serious health risk. Dioxin concentrations found in bottom or buried sediments would generally be higher and may pose a risk. You can lower your risk of exposure to dioxin by not walking or wading in the shallow waters immediately adjacent to the pits or walking barefoot on the edge of the river immediately adjacent to the pits. Children should be supervised while they are in the immediate vicinity of the pits so they do not place their fingers and hands in the sediments and then in their mouths.

4. **Is it safe to eat the fish out of the San Jacinto River? How about other waters including Galveston Bay?**

   When they are feeding in the sediments, small aquatic and marine animals can consume anything attached to them including toxic compounds such as dioxin. Then larger animals consume the smaller animals and accumulate dioxin in their fatty tissues. The longer lived the animal, the more it can bioaccumulate. This magnification of the contaminants is the reason for the seafood advisories in the San Jacinto River, Houston Ship Channel and the broader Galveston Bay system and its other tidal tributaries.

5. **If my drinking water is provided by a well in the vicinity of the San Jacinto River Waste Pits. Is it contaminated by dioxin?**

Since dioxin is not very soluble in water, groundwater is not thought of as a likely pathway of dangerous levels of dioxin.

6. **What is the cap that has been placed on the pits? Is the cap permanent?**

   The cap, made of various geotextile, geomembrane and various sized rocks and boulders, was placed on top of the waste pits as a temporary measure to prevent further release of dioxin-laden wastes from the previously exposed pits. The U.S. EPA describes the cap as temporary. The proposed permanent cleanup remedy will be presented to the public for review in late 2013.

7. **Since the cap has been placed on the pits, why aren't the concentrations of contaminants in the sediments decreasing?**

   Please keep in mind that the dioxins that had already escaped from these pits before the cap was placed wound up in river/bay sediments and thus became available to the food chain. Dioxins persist in the sediments a long time; if not exposed to sunlight and other factors, they can persist in the sediments decades or even a century. Placing the cap on the pits won't necessarily result in an immediate decrease in the concentrations of the dioxins that are in the sediments outside of the pits. Likewise, you may not expect to see a quick decrease in dioxins in fish tissues. That said, getting the cap on the site was very important to prevent more dioxin from becoming available to the food chain. Another factor is that the SJRWP may not be the only source of dioxin now found in the sediments and seafood. Other sources of dioxin are being investigated through the TMDL project.

8. **Will the U.S. EPA or the Potentially Responsible Parties (PRPs) take more samples? What is the future sampling schedule?**

   The Responsible Parties are currently analyzing the data collected from samples from the soils, sediments, and groundwater collected during the Remedial Investigation (RI). The purpose of the RI is to describe the nature and extent of contamination. The sampling plan provided good coverage of the area. If the RI samples show where the dioxin is, then it won't be necessary to collect additional samples to characterize the site. However, once a remedy is chosen, there will likely be sampling completed to evaluate the how well the remedy is working. But, we won't know what this sampling plan will be until the final remedy is chosen.

9. **When will the site be cleaned up?**

   The Superfund cleanup process' remedial investigation/feasibility study is happening right now. The results of investigation/study will dictate the final cleanup plan that will be proposed for this site. The proposed plan is scheduled to come out for public comment in late 2013. Once the clean up plan has been approved by the U.S. EPA, the responsible parties will begin the final clean up process.

If you do not see your question here, please check:
http://www.epa.gov/region6/6sf/texas/san_jacinto/documents/sanjacinto-site-faqs.pdf
-or-
http://www.epa.gov/region6/6sf/texas/san_jacinto/documents/sanjacinto-watershed-faqs.pdf.

If your question still isn't answered, please call or e-mail one of the contacts listed on the Galveston Bay Foundation's San Jacinto River Waste Pits webpage at http://galvbay.org/advocacy_sjrwp.html.

If you would like for us to add a question, please contact Scott Jones of the Galveston Bay Foundation at (281) 332-3381 x209 or sjones@galvbay.org.

*****_Answers provided by the Technical Advisors at the Houston Advanced Research Center and Galveston Bay Foundation_