



## Questions & Answers about O'Sullivan's Island, Derby

**This fact sheet was developed by the CT Department of Public Health and the Naugatuck Valley Health District to provide information and answer questions about the O'Sullivan's Island site in Derby. Please refer to the information at the end of this fact sheet to contact us.**

### BACKGROUND



O'Sullivan's Island in Derby, CT is the southwestern portion of a peninsula located where the Naugatuck and Housatonic Rivers join together. It is directly south of Derby's downtown commercial district.

From the 1950s until 2000, the northern portion of O'Sullivan's Island was used for training by the Valley Fire Training School. In the 1970s and early 1980s, the southern portion of the site was used as a source of sand and gravel for cover material at the nearby Derby Landfill. In 1983, rusted, leaking 55-gallon drums were uncovered. From 1983-1985, the Environmental Protection Agency worked to remove 900 drums and a large amount of contaminated soil from the southern portion of the site. EPA fenced off two piles of contaminated soil they left behind because there was no disposal site available. Over the next 20 years, the site remained off limits to the public. In 2007, the fire training buildings were demolished. EPA returned in 2008 to remove the piles of contaminated soil and do additional PCB soil testing across the site. EPA also removed an additional 50 drums (some of which contained volatile chemicals and unknown products), and removed a large amount of contaminated soil from the southern and eastern portions of the site. EPA placed clean soil over all the excavated areas, and planted grass and trees. In 2009, the City opened the area to the public. A paved greenway trail completed in the spring 2013 extends from the parking lot across the northern portion of the site. The greenway cuts between the inner pond and the open lagoon and loops around the northeastern (Hogs Island) portion of the peninsula, along the Naugatuck River.

### WHAT CHEMICALS HAVE BEEN FOUND ON THE O'SULLIVAN'S ISLAND SITE?

The primary contaminants found on the southern portion of the site are volatile organic chemicals (VOCs) and polychlorinated biphenyls (PCBs). These contaminants were found in the portion of the site where the leaking drums were buried. PCBs were found in the soil across most of the southern portion of the site. Some of the drums that were removed by EPA contained VOCs. Because the drums were leaking, VOCs got into the soil too. The VOCs found at elevated levels in the soil include xylenes, toluene, chlorobenzene,

ethylbenzene, and vinyl chloride. EPA's cleanup work removed drums and a large amount of contaminated soil from this area.

The northern portion of the site is the area that was used as a fire training facility. Chemicals found at elevated levels in soil in this part of the site include total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs), arsenic and lead. These chemicals were also found at elevated levels in soil in the southern part of the site.

More information about all of these chemicals can be found at the end of this factsheet.



## WHY DID THE CITY CLOSE O'SULLIVAN'S ISLAND IN JANUARY?

The City of Derby made the decision to temporarily close O'Sullivan's Island because questions had been raised about whether the cleanups EPA did in 1983 and 2008 had made the site clean enough for recreational use. To be extra cautious, the City wanted to restrict public access while they consulted with health officials to be sure that the area was safe for recreational visitors.

## IS THE GREENWAY TRAIL SAFE?

Yes. State and local health officials recommend to the City that the greenway trail could be re-opened. Unpaved areas of O'Sullivan's Island will remain closed until soil testing confirms that they are safe. Until this new testing has been completed, visitors should observe the snow fencing in place on O'Sullivan's Island and stay on the paved path.

## WHEN WILL THE SOIL TESTING ON O'SULLIVAN'S ISLAND BE DONE?



The City of Derby is working with state and local health officials, the Department of Energy and Environmental Protection, the Valley Council of Governments (VCOG) and US EPA to develop soil testing plans.

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## I FREQUENTLY VISITED O' SULLIVAN'S ISLAND TO FISH AND HIKE. HAVE I BEEN EXPOSED TO SOMETHING HARMFUL? WILL I GET SICK?

**It is unlikely that anyone visiting the site has been exposed to chemicals in the soil at high enough levels to cause health problems.**

Exposure to a hazardous chemical happens when you ingest (eat), breathe (inhale) or have direct skin contact with a chemical and it gets into your body. At the O'Sullivan's Island site, the only way you could be exposed is through direct contact with contaminated soil. This could occur from touching the soil or more importantly, getting contaminated soil on your hands/fingers and then putting your hands/fingers into your mouth. Breathing soil dust is another way to be exposed but because the area is vegetated, this is a less important way to be exposed.

If you were exposed to contaminated soil, it does not necessarily mean you will have a health problem. Health effects from exposure depend on:

- How long you were exposed
- How much contamination you were exposed to
- How you were exposed (skin contact, ingestion, inhalation)



## IS THERE STILL CONTAMINATION AT THE O'SULLIVAN'S ISLAND SITE?

Yes. Although EPA's two cleanup actions removed a great deal of contamination from the site, we know that there is still some soil contamination in the area of the former Fire Training buildings (mainly PAHs, TPH, arsenic and lead). We also know that there is some PCB contamination remaining in soil below the ground surface in the southern portion of the site. There may be VOCs in deep soils as well. Again, we do not believe that the presence of residual contamination at the site poses a danger to recreational visitors.

## SIGNS ABOUT CONSUMING FISH HAVE BEEN POSTED AT O'SULLIVAN'S ISLAND. IS THERE A DANGER FROM EATING FISH I CATCH?

The signs contain Connecticut's advisories about consuming certain freshwater and Long Island Sound fish species. The advisories are not because of contamination specific to the O'Sullivan's Island site but are statewide advisories. Anyone consuming fish caught at O'Sullivan's Island access points should observe the advisories.

## WHAT ARE THE NEXT STEPS FOR THE SITE?

As stated previously, the City is discussing testing the soil in locations across the site. This includes the former fire training area, river banks and paths used for fishing/recreation, and the area where drums were buried. After the results of the soil testing are available, the City (in consultation with state and local health officials) will make a decision about re-opening the unpaved areas of the O'Sullivan's Island site. The City and DEEP are discussing whether additional testing and/or cleanup of soil is needed in order for the site to meet state hazardous waste cleanup laws. After this is resolved, the City, along with VCOG, will pursue plans to build a handicap-accessible fishing pier and boat launch.

## MORE INFORMATION ABOUT SITE CHEMICALS

The paragraphs below provide additional information about the main chemicals found in the soil at the O'Sullivan's Island Site. **The health effects described here are not expected at the O'Sullivan's Island site because exposures would not be high enough.**

**PCBs** are a family of chemicals that were primarily used as coolants and lubricants in electrical equipment. Workers exposed to very high levels can get acne-like skin conditions, rashes and liver damage. Some babies born to women with high PCB exposures from the workplace or from eating large amounts of PCB-contaminated fish had growth/development and immune system problems. PCBs are suspected to cause liver cancer.

**Xylenes, toluene, chlorobenzene, ethylbenzene, and vinyl chloride** are volatile organic chemicals. Their primary uses are as solvents and ingredients in other chemicals such as paints, gasoline and plastics. Exposure to high levels for a short period of time can cause dizziness, eye and throat irritation and liver and kidney damage. Vinyl chloride is known to cause liver cancer.

**Polycyclic aromatic hydrocarbons (PAHs)** are a group of chemicals formed during incomplete burning of organic materials like coal, oil, wood tobacco or food. Animal studies show that PAHs can affect the skin, blood, immune system and the ability to reproduce. These effects have not been reported in people. Some people who had long-term exposures to high levels of PAHs developed skin and lung cancer.

**Lead** is a naturally occurring metal in the environment. However, most high levels of lead found in the environment come from the use of lead in battery production, paints and gasoline. Lead exposure can affect a child's mental and physical growth. Exposure to high levels of lead can affect the brain and kidneys of adults and children. Lead has not been shown to cause cancer.

**Arsenic** is found in nature at low levels. The major uses of arsenic are as wood preservatives and agricultural pesticides. Long-term exposure to arsenic can increase the risk of skin, bladder, kidney, liver and lung cancer. Exposure to high levels of arsenic can also cause skin effects such as irritation and skin darkening.

**TPH** describes a large family of chemicals that originally come from crude oil. Everyone is exposed to TPH from many sources including gasoline pumps, spilled oil, and home or workplace chemicals. At high levels, some TPH chemicals can cause headaches, dizziness and numbness. Other TPH chemicals can harm the liver, kidney, blood, immune system, lungs, skin, and eyes.



## WHAT IF I HAVE MORE QUESTIONS?



For Health Questions:		For Site Questions:
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