Frog Mortar Creek Surface Water Conditions

Frog Mortar Creek Swimming Advisory

Lockheed Martin conducts surface water monitoring in Frog Mortar Creek by Martin State Airport six times each year. This includes each of the four summer season months of June, July, August, and September. A total of 40 samples are collected along the western Frog Mortar Creek shoreline, and four samples are collected from the eastern shore off of Edwards Lane.

Chemical concentrations for one compound, vinyl chloride, were higher than usual near the airport shoreline during the 2016 and 2017 summer seasons compared to the same time during the previous years. Prior to 2016, the typical summer average was 0.7 parts per billion (ppb) (also the swimming screening level). The average in 2016 and 2017 was two times higher at 1.4 ppb.

While higher than usual, these levels did not warrant prohibiting swimming in Frog Mortar Creek. Instead, the Maryland Department of the Environment (MDE), in the swimming advisory available on its website, continues to suggest that swimming in these waters be for no more than four hours a day, 70 days a year. MDE posted signs in the waters off of the airport providing advice to limit swimming in the advisory area marked on the accompanying graphic.

Where were the contaminants found? Higher than normal concentrations of the contaminants were found in the area marked in orange on the map, which is within the swimming advisory area. Samples taken throughout the summer on the east side of the creek near Edwards Lane were less than swimming screening levels.

What caused the 2016 and 2017 increases? Vinyl chloride concentrations were not appreciably greater than previous summers. Lockheed Martin, nevertheless, is collecting additional shoreline samples in the area known to consistently have the highest concentrations.

What are the primary contaminants being monitored? Trichloroethene (TCE) was a common solvent used for cleaning parts and machinery. It can break down over time into cis-1,2-dichloroethene and vinyl chloride.

Where do the contaminants come from? Solvents and degreasers were used in factory operations of Lockheed Martin heritage companies located in Middle River. These chemicals have been found in the Dump Road Area on Martin State Airport, in Frog Mortar Creek and in an underground plume of contaminated groundwater originating in the Dump Road Area and moving towards Frog Mortar Creek. Martin State Airport originally belonged to the Glenn L. Martin Company, a Lockheed Martin heritage company. Lockheed Martin has been investigating the source and extent of these contaminants since they were first found in 1991 and has a groundwater treatment system for the Dump Road Area, which went online in December 2017.

What are the potential health impacts of these chemicals? Studies have shown that prolonged exposure to high concentrations of these chemicals may increase the risk of cancer. People can be exposed to low levels of these chemicals while swimming in the water where these chemicals have been detected.

Is there a ban on swimming in this area? No. According to the Maryland Department of the Environment, the contaminants in this area are not high enough to pose a significant health risk.

What's being done to clean up these chemicals? Following detailed investigations, planning and permitting, construction is complete and operations are underway of a groundwater treatment system that captures and treats contaminated groundwater before it reaches Frog Mortar Creek. Sixteen capture wells have been installed within the Dump Road Area parallel to Frog Mortar Creek that extract groundwater and send it to the treatment system. The groundwater treatment plant is located between Frog Mortar Creek and Taxiway Tango at Martin State Airport.

For further information about the health risks associated with swimming in Frog Mortar Creek you are encouraged to read the Frog Mortar Creek Water Contact Advisory found on the Maryland Department of the Environment website at: http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/errp_superfund/pages/frogmortarcreekwatercontactadvisory.aspx

For further information about Lockheed Martin's remediation project at Martin State Airport you are encouraged to visit the Lockheed Martin website www.lockheedmartin.com/martinstate

Feel free to contact Bill Phelps, Communications Vice President for Lockheed Martin at 1.800.449.4486 or by email at william.phelps@lmco.com if you have questions or concerns.