

towards Frog Mortar Creek. Sampling results were used to assess potential risks to human health and the environment and to assess the appropriate level of cleanup to match current and anticipated future use of the properties.

The Middle River Complex consists of eight parcels of land, called tax blocks, identified separately by the letters A through I. Investigations have been conducted primarily by tax block or site-wide by medium (e.g., groundwater).

Risk Assessments

Soil, groundwater, soil vapor, indoor air and sediments were assessed to evaluate potential risks to human health and the environment. The risk assessments determined which specific chemicals to target for cleanup in all of the various media and proposed target cleanup concentrations for various future uses of the site such as industrial, residential or recreational. The information provided in the risk assessments was then used in the next step of the process to select and design appropriate cleanup remedies that could effectively reduce chemical concentrations in soil, groundwater, indoor air and sediments to health-protective levels in a timely manner.

Environment in 2013 and early 2014. The public reviewed and commented on the plans, which proposed cleaning this soil to industrial standards, consistent with historical property use. The panhandle portion of Block D is an exception: Lockheed Martin proposed to clean up the Block D panhandle to recreational standards developed in the risk assessment. Soil remedy design proceeded during 2014

slab vapor and to assess if there is a potential risk to human health. Soil-gas sampling indicates the presence of volatile organic compounds (VOCs) in several locations under and outside the buildings. In early 2008, as a precaution, Lockheed Martin installed sub-slab vapor-mitigation systems in the two areas of A and C Buildings where sub-slab vapor concentrations exceed established screening concentrations. The systems are essentially vacuums that draw out the sub-slab vapor and direct it through a filter before releasing the cleaned vapor to the outside air. They have significantly reduced VOC concentrations in vapors under the buildings and have helped maintain concentrations in indoor air below the conservative screening levels of the U.S. Environmental Protection Agency and the Maryland Department of the Environment.

Air samples collected while the A Building system was shut down in March 2013 for maintenance revealed that concentrations of volatile organic compounds (VOCs) remain below risk levels even when the system is not operating. Nonetheless, the mitigation system continues to

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conditions may need to be addressed in preparation for potential future airport improvements.

Frog Mortar Creek

While earlier sampling found no issues of concern, sampling in the last five years indicates the discharge of

some concentrations of the volatile organic compounds (VOCs) trichloroethene (TCE) and vinyl chloride into Frog Mortar Creek, resulting in surface water concentrations in a portion of Frog Mortar Creek above the swimming criteria developed for this project. The highest concentrations are located in a small area along the shoreline of Frog Mortar

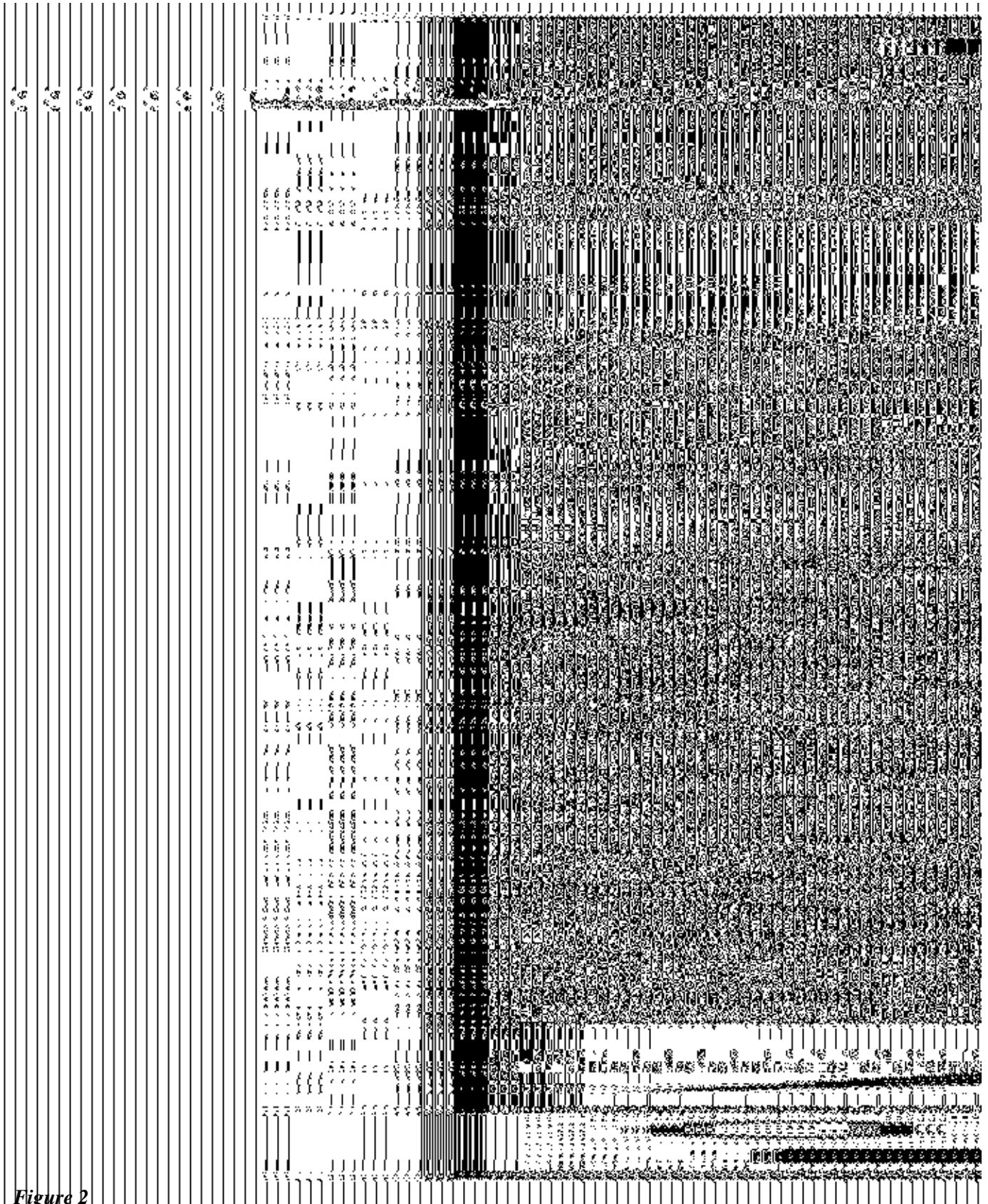


Figure 2

Creek in the Dump Road Area. Consequently, following a public information meeting, in April 2012 the Maryland Department of the Environment issued a water contact advisory for a 2,000-foot long stretch of shoreline next to the airport, recommending that swimming within 200 feet of the shoreline be limited to 4 hours per day and approximately 20 days per year. Lockheed Martin and the Maryland Department of the Environment have established an on-going surface water monitoring program for Frog Mortar Creek where over 40 water samples are now collected 6 times a year, focusing on the summer swimming months. Results are published monthly in the summer and in an annual report. A summary of average summer Frog Mortar Creek Surface Water Conditions is available as a poster that is updated annually and can be found on the project website at: lockheedmartin.com/martinstat. The groundwater Interim Remedial Action system described above is being installed to remedy this situation.

Stansbury Creek

Lockheed Martin collected sediment samples in Stansbury Creek in 2009 to identify and characterize the nature and extent of possible contamination resulting from current and past airport activities. Elevated concentrations of polycyclic aromatic hydrocarbons (PAHs) were found next

