

It's The Environment
Chemicals in the James River Watershed
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Events of the past two years have raised the specter of how vulnerable our rivers are to pollution from industrial accidents. Last year, it was the chemical spill in West Virginia, then the coal ash spill into the Dan River, and finally the oil train derailment and spill into the James River in Lynchburg. These accidents raise the logical question of what chemical pollution threatens our rivers, including the James River, where we at ESC live and work. The James River Association asked us to analyze the risks from environmental releases that include coal ash ponds, toxic chemical storage, and crude oil transport into the James River watershed. Today the report is public, along with a Public Summary, on our website: www.estewards.com.

This report release comes on the 40th anniversary of the closing of the chemical plant that dumped the pesticide Kepone into the James River. In 1975, Life Sciences of Hopewell was shut down by the Commonwealth of Virginia for poisoning workers and the community, contaminating the James River and making seafood unsafe to eat. All fishing in the James River was closed. Today, Kepone remains in the sediments and was found in fish the last time the state measured Kepone in fish in 2009.

To analyze the risks, ESC gathered information on several different sources of chemical releases into the river within the James River watershed: oil trains, coal ash ponds, chemical storage tanks, industrial discharges and stormwater. The information we gathered from public sources (much of it from the Virginia Department of Environmental Quality) startled us. Vast quantities of crude oil move through the watershed regularly, but we could not find out how much. Only a few coal ash ponds lie in the watershed, but the Environmental Protection Agency rated more than one of them as highly vulnerable to failure. More than 1000 chemical storage tanks in the James River watershed have incomplete information on contents and condition. Stormwater from industrial facilities could have any number of chemicals, but no one collects that information and reports it publically. Of the hundreds of sewage plants and chemical facilities that discharge waste into the James, there is no complete list of all the chemicals in the discharge, nor the toxicity of all the chemicals. We could not find complete information on sources of chemical risks in the watershed.

Permitted discharges of wastewater and stormwater do not monitor everything in the discharge. However, we know from work in other states and by the USGS that a range of chemicals are found in the nation's waters downstream from cities like Richmond, Hopewell, Newport News and Lynchburg. The consequences of such chemicals may be diseases and abnormalities in fish and other animals.

The big accidental releases are not likely common, but each one has a big impact on the river and its resources, people, and the economy. We continue to live with the legacy of Kepone, but have not done enough to prevent its repeat.