

Toxic Floodwaters in Chesapeake, Norfolk, and Newport News



Climate change is bringing toxic flooding to Hampton Roads. The region faces even higher sea level rise than other coastal areas, increasing rainfall rates, and more intense hurricanes, leaving the area's many industrial facilities vulnerable to flooding. Unfortunately, current regulations do not require enough preparation to protect against floods. When these facilities flood, chemicals and hazardous waste may overflow and mix with floodwaters, exposing communities to toxic contaminants.

Communities near industry in Hampton Roads are bearing the burdens of social and environmental stressors.

- Hampton Roads is known for its economically successful industrial sector, but that success comes at a cost to residents living near industrial facilities.
- Many of these facilities are in communities that the Centers for Disease Control and Prevention consider socially vulnerable due to systemic inequalities that contribute to low wealth, barriers to accessing health care, and the lack of adequate transportation.
- Families in these communities are disproportionately exposed to air and water pollutants emitted by industrial facilities located in their neighborhoods.



Toxic floodwaters threaten the health and safety of communities in Hampton Roads.

- The threat of climate-driven disaster for coastal communities became clearer than ever when Hurricane Harvey's floodwaters inundated more than 650 industrial facilities near Houston, Texas, causing at least 22,000 barrels of oil and other toxic substances to wash into floodwaters.
- After the floodwaters receded, toxic residue was left in people's homes. Many residents near these facilities complained of headaches, burning eyes and throats, and dizziness. **Exposure to toxic floodwaters** has also been linked to abdominal pain, fever, decreased appetite, and nausea.
- The same situation could play out in Hampton Roads. With one foot of sea-level rise, predicted by 2050, **91 toxic facilities** in the lower James River watershed would be flooded. Nearly half a million Virginians in the watershed live in socially vulnerable communities near 1,000 toxic facilities that are at risk of flooding.
- Past events in the region give cause for concern. In 2004, Hurricane Isabel caused an aboveground storage tank at the Allied Chemical Facility in Chesapeake to collapse. Then, in 2008, an overfilled tank at the same facility broke open, causing at least 200,000 gallons of liquid fertilizer to be released, requiring evacuation of the community and hospitalization of two workers.

In 1999, flooding from Hurricane Floyd toppled storage tanks and carried away oil drums, resulting in floodwater contamination in Franklin, Virginia. Credit: Liz Roll/FEMA News Photo.

Better preparation, monitoring, and enforcement can protect communities from chemical disasters.

- Neither state or federal agencies require facilities to comprehensively address extreme weather and flood risks in pollution prevention and management programs.
- Aboveground hazardous chemical storage tanks are not regulated or tracked by Virginia at all. These tanks can corrode, leak, or be damaged by storms and flooding and then release toxic chemicals into streets and rivers.
- Proactive planning can prevent the spread of toxic floodwaters from vulnerable facilities:
 - Industrial facilities should implement preparedness plans that consider major storms and flooding.
 - Lawmakers should require industrial facilities to prepare for extreme weather by hardening their facilities against flooding, relocating operations or hazardous chemicals, using fewer or less toxic chemicals, and implementing a variety of additional practices to prevent and mitigate spills.
 - The state must rigorously enforce existing environmental standards to prevent future releases.



*Dominion Coal Terminal in Newport News, Virginia.
Credit: James River Association.*

Talk to us.

The Center for Progressive Reform (CPR) is raising awareness about risks to vulnerable communities and advocating for regulatory reforms to prevent catastrophic chemical spills. We'd like to partner with you to continue this work.

Which polluting facilities in your community concern you and your neighbors? What is your community's experience with flooding? Have you ever been exposed to chemical spills or contaminated floodwaters? Contact David Flores at dflores@progressivereform.org with your stories, data, and more.