

## **Response from the EPA's Office of Solid Waste and Emergency Response staff to an SAB Members' question on December 5, 2014**

Question: Does the EPA have data or information about the effects of climate change on releases from brownfields or contaminated sites, and, if not, does the agency have research underway or planned to address this topic?

### Response from OSWER Staff:

Potential threats from weather, such as flooding resulting from extreme rain or hurricanes, are already considered as part of EPA's cleanup strategies at contaminated sites. EPA recognizes that the threats from these impacts may increase in frequency and severity, or occur in previously unaffected areas, as a result of climate change. In developing the OSWER Climate Change Adaptation Implementation Plan, staff used best professional judgment and information from literature to develop a list of potential vulnerabilities to OSWER's processes, activities, and functions, including restoring contaminated sites. Recent experiences also informed the actions in our plan. In the aftermath of Hurricane Sandy, EPA evaluated the storm's effects on Superfund sites through response actions, sampling and analysis and other activities to ensure the remedies of sites in the storm's path continued to protect affected communities. After the hurricane, EPA assessed 105 sites at which removal activities had been performed and 142 long-term remedial sites in the storm's path. EPA also partnered closely with New York, New Jersey, and the Federal Emergency Management Agency (FEMA) to investigate more than 1,000 UST sites for potential damage.

Data are available at a fine enough geographic resolution to execute the actions that OSWER has identified. EPA can use the best available data to evaluate which of our sites or which types of cleanup remedies may be impacted. Each EPA program has an existing data set and group of assumptions to support these decisions. Ensuring this data reflects changing conditions as a result of climate change at the site level and understanding emerging science is a priority action in OSWER's proposed Climate Change Adaptation Implementation Plan. For example, the draft Implementation Plan includes actions to identify data sources for mapping and review protocols to ensure consistency across programs. Although we recognize that data are available to make these decisions, OSWER is exploring approaches to improve delivery of information to grantees.

OSWER has also identified priority actions that will evaluate the efficacy of remediation technologies under these stresses. For those programs where we share responsibilities with our partners at the state, local and tribal level, as well as private entities, we will also share the results from our analyses and research.