

Congress of the United States
Washington, DC 20515

November 18, 2019

The Honorable Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

Dear Administrator Wheeler:

We write today to request information regarding a recent report issued by the U.S. Government Accountability Office (GAO) entitled “EPA Should Take Additional Actions to Manage Risks from Climate Change”.¹ GAO found that approximately 60 percent of all nonfederal Superfund sites are located in areas that may be impacted by the effects of climate change such as flooding, hurricanes, or wildfires. The risks that these potential impacts pose to human health and the environment are sobering, and GAO has found that EPA leadership has not provided needed direction, dedicated sufficient resources, or fostered the necessary technical expertise with the EPA regions to address the significant challenges it faces in managing these risks. We are concerned by EPA’s response to GAO’s findings and recommendations, and we write to ask about EPA’s actions and planning process to address the impacts of climate change effects in Superfund site management.

The scientific community is in agreement that climate change is leading to rising global temperatures, rising sea levels, and more intense and frequent extreme weather events. According to the Fourth National Climate Assessment (NCA), the “Earth’s climate is now changing faster than at any point in the history of modern civilization ...[, and t]he impacts of global climate change are already being felt in the United States and are projected to intensify in the future.”² Just some of these impacts include substantial losses to infrastructure and property, significant impediments to economic growth, impairments to agricultural and aquaculture production, threatened access to safe and dependable water supplies, increased risk of heat-related illnesses, and heightened exposure to waterborne and foodborne diseases.³

According to GAO’s study, of the 1,571 nonfederal Superfund sites overseen by EPA, 945 sites located across 47 states, Puerto Rico, American Samoa, and the U.S. Virgin Islands may be impacted by sea level rise, increased flooding, intensified storm surge, greater frequency and intensity of wildfires, or a combination thereof.⁴ The following map shows the locations of Superfund sites across the country and indicates which sites are potentially impacted by the climate change effects that GAO identified.

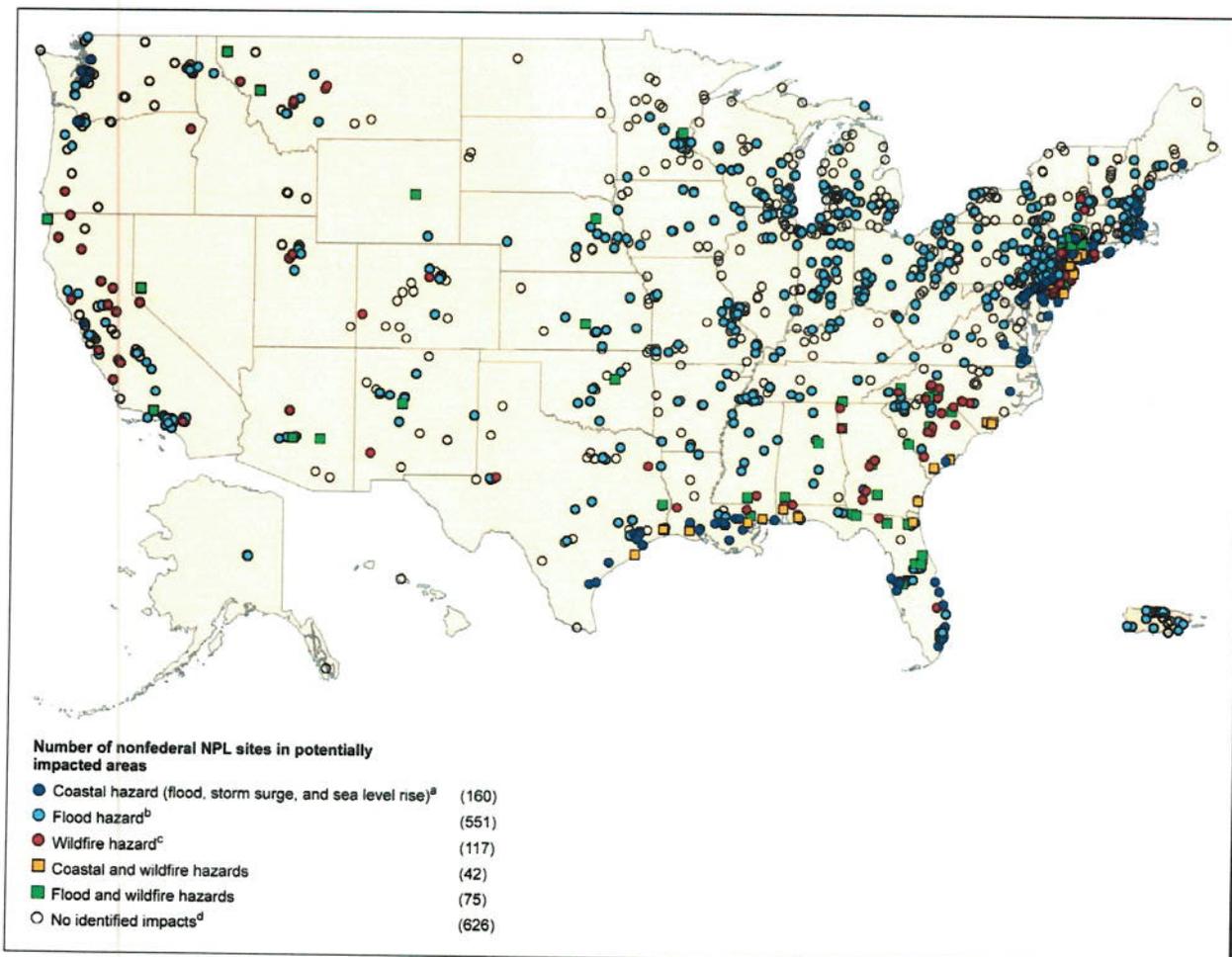
¹ GAO, *Superfund: EPA Should Take Additional Actions to Manage Risks from Climate Change*, GAO-20-73 (Washington, D.C.: Oct. 2019)

² USGCRP, 2018: *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018.

³ Id.

⁴ In this letter, when discussing Superfund sites, we are specifically referring to nonfederal sites on the National Priorities List of the Superfund program.

EPA's Nonfederal National Priorities List Sites in Areas That May Be Impacted by Flooding, Storm Surge, Wildfire, or Sea Level Rise.⁵



Sources: GAO analysis of Environmental Protection Agency (EPA), Federal Emergency Management Agency (FEMA), National Oceanic and Atmospheric Administration (NOAA), and U.S. Forest Service data; MapInfo (map) | GAO-20-73

Superfund Sites at Risk of Flooding

The GAO report found that flooding caused by climate change is already impacting Superfund sites. For example, at the San Jacinto River Waste Pits site, located approximately 20 miles east of Houston, sea level rise, increased risk of storm surge and increased flood risk are all impacting the ongoing effort to clean up hazardous by-products of pulp bleaching from papers mills that operated in the mid-1960s. GAO reports that portions of this site are already under water, that the location has a 1 percent or higher annual chance of flooding (FEMA's highest flood hazard category), and that the site may be impacted by storm surge from Category 1 hurricanes or greater. In fact, in September 2017, record-breaking rainfall from Hurricane Harvey led to flooding at the site, which damaged the containment structure that had been erected at the site, resulting in the release of contaminated material.

⁵ GAO at p. 19; *Figure 3*. GAO has created an interactive guide that maps all 1,571 nonfederal National Priorities List Superfund sites and identifies how climate change related hazards impacts each site. This resource is linked to the online version of the report (<https://www.gao.gov/products/GAO-20-73>) under *Multimedia*.

More broadly:

- The GAO report found that nearly half of all Superfund sites are under higher risk of flooding, including 713 sites with a 1 percent or higher annual chance of flooding (FEMA's highest flood hazard category).
- GAO identified 187 sites (about 12 percent) that are located in areas that may be inundated by a storm surge caused by Category 4 or 5 hurricanes, with 102 sites that are located in areas that may be inundated by a storm surge caused by Category 1 hurricanes.
- GAO identified 84 Superfund sites that are located in areas that may already be inundated by high tides. If sea levels rise by just 1 foot, as the Fourth National Climate Assessment forecasts will likely occur in coming decades, 97 Superfund sites would be inundated by sea water. If sea level was to rise 3 feet above current conditions, as many as 110 sites would be inundated, and if sea level rose 8 feet, 158 sites would be inundated.⁶

Superfund Sites at Risk of Wildfires

GAO also found that wildfires are already impacting Superfund sites. For example, the Iron Mountain Mine site, near Redding, California, is located in an area with high wildfire hazard potential. In July 2018, the mine was overrun by the Carr Fire, which eventually burned 239,651 acres in Northern California. The fire nearly destroyed the water treatment system that had been installed on the Iron Mountain Mine site to capture acid mine drainage containing copper, cadmium, and zinc metals from the mine, which are toxic to aquatic life. As the Carr Fire raged in the Iron Mountain area, firefighters used specialized equipment to successfully extinguish fires before they reached the ore deposits in the mine. Had those deposits been ignited by the wildfire, an explosion could have occurred, which would have created substantial immediate environmental and health hazards in the area.

In all, GAO identified 234 Superfund sites – 15 percent of all sites – that are located in areas that have high or very high wildfire potential, based on U.S. Forest Service modeling.

EPA's Efforts to Manage the Risks of Climate Change are Inadequate

GAO's evaluation of EPA's risk management of the potential impacts of climate change at Superfund sites delivered mixed results. GAO judged some risk management activities to be in line with best practices and some activities to be partially effective, while still other activities were judged to be entirely inadequate to the challenges that climate change presents. In sum, GAO's findings support the conclusion that EPA's most serious shortcomings in managing risks from climate change at Superfund sites are largely the result of decisions made by leadership at EPA headquarters under the Trump Administration.

While GAO found that the EPA regional officials who conduct the day to day work of assessing, planning for, and supervising remedial activities are taking productive steps to identify climate change impacted

⁶ See GAO at p. 30; "According to the NCA, global average sea levels are very likely to continue to rise by at least several inches in the next 15 years and by 1.0 to 4.3 feet by 2100. Further, the NCA states that a rise of as much as 8 feet by 2100 cannot be ruled out."

risks to human health and the environment at specific Superfund sites, GAO's report indicates that this valuable work by EPA regional officials is, in part, the product of prudent organizational planning that was conducted by EPA during the previous administration.⁷

The report also found that across the Superfund program, climate change information is inconsistently incorporated into site level risk assessments and remedy selection and design, because officials either do not have the climate data they need to take effective action, are unsure how to use the relevant data, or have not received adequate direction from EPA headquarters.

Finally, GAO also found that "EPA has not taken action to clearly align its process for managing risks to human health and the environment from the potential impacts of climate change effects at Superfund sites with agency-wide goals and objectives." For example, GAO's report cites that unlike in the past Administration, EPA's current strategic plan [2018-2022], "does not include goals and objectives related to climate change or discuss strategies for addressing the impacts of climate change effects. Moreover, neither the fiscal years 2018-2019 nor fiscal years 2020-2021 national program manager guidance for EPA's Office of Land and Emergency Management mentions climate change among its goals and priorities."

The Superfund program is not providing necessary resources and direction to regional officials that would help them assess and respond to site-specific risks due to climate change. The lack of resources for regional offices is a direct result of EPA headquarters' failure to embrace addressing climate change as a strategic objective. In fact, when speaking with GAO, one EPA official stated that senior agency officials were not aware of the potential risks to the Superfund program mission posed by the impacts of climate change effects when drafting the 2018-2022 EPA Strategic Plan.⁸

To address these shortcomings, GAO made several recommendations to EPA related to improving Superfund site information. These recommendations state that the EPA should provide direction to regional offices on how to integrate information on the potential impacts of climate change effects into risk assessments and response decisions. GAO also recommends that EPA align the agency's current goals and objectives with the need to address the effects of climate change.

In an October 1, 2019 response to GAO's study, EPA Assistant Administrator Peter Wright agreed only to implement only one of GAO's recommendations. In disagreeing with all of GAO's other recommendations, Mr. Wright stated that "EPA believes existing processes, resources, and commitments adequately ensure that the Agency's risk management process aligns with current goals and objectives."

We believe that EPA's refusal to implement GAO's recommendations could result in real harm to human health and the environment as the effects of climate change become more frequent and intense. To better understand EPA's decision to reject GAO's recommendations on managing risks from climate change at Superfund sites and EPA's strategic planning process, please provide your responses to the following questions no later than December 13, 2019:

⁷ See *Id.* at pp. 36-37, 43. Specifically, this work benefited from a 2012 EPA study of adaptation of Superfund remediation to climate change, a 2014 EPA agency-wide climate change adaptation plan, and a 2016 EPA recommended template for Superfund sites Five-Year Reviews that includes a section for officials to document their consideration of whether any newly available information related to climate change may call into question a remedy's protectiveness.

⁸ *Id.*

1. During the drafting of EPA's 2018-2022 strategic plan, which was released in February 2018, why did EPA not incorporate the potential risks of the impacts of climate change effects into its strategic goals and objectives? If EPA believes these risks are otherwise addressed, please provide an explanation for that belief, including copies of any documents that demonstrate the manner in which the increased intensity and frequency of events such as flooding, wildfires and hurricanes in the coming decades are included in EPA's strategic goals and objectives.
2. In rejecting GAO's recommendation to "clarify how EPA's actions to manage risks to human health and the environment from the potential impacts of climate change effects at Superfund sites align with the agency's current goals and objectives", is EPA affirming that its current goals and objectives do not consider the potential impacts of climate change effects on human health and the environment? If so, how does EPA justify ignoring the increased risks from the potential impacts of climate change effects to human health and the environment? If EPA believes these risks are otherwise addressed, please provide an explanation for that belief, including copies of any documents that demonstrate the process by which the increased intensity and frequency of events such as flooding, wildfires and hurricanes in the coming decades are included.

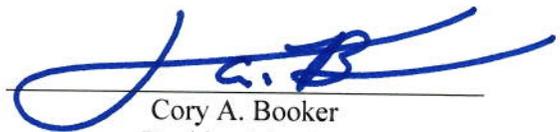
Thank you for your consideration of this consequential matter. Should you or your staff have any questions, please contact Brian Eiler (Brian_Eiler@epw.senate.gov) or Michal Freedhoff (Michal_Freedhoff@epw.senate.gov) of the Environmental and Public Works Committee Staff.

With best regards, we are

Sincerely yours,



Tom Carper
Ranking Member
U.S. Senate Committee on
Environment and Public Works



Cory A. Booker
Ranking Member
Subcommittee on Superfund, Waste
Management, and Regulatory
Oversight
U.S. Senate Committee on
Environment and Public Works



Betty McCollum
Chair
Subcommittee on Interior,
Environment and Related Agencies
U.S. House Committee on
Appropriations



Sheldon Whitehouse
United States Senator



Jeffrey A. Merkley
United States Senator



Kirsten Gillibrand
United States Senator



Benjamin L. Cardin
United States Senator



Edward J. Markey
United States Senator



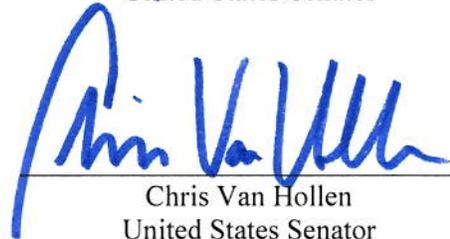
Bernard Sanders
United States Senator



Tammy Duckworth
United States Senator



Kamala D. Harris
United States Senator



Chris Van Hollen
United States Senator