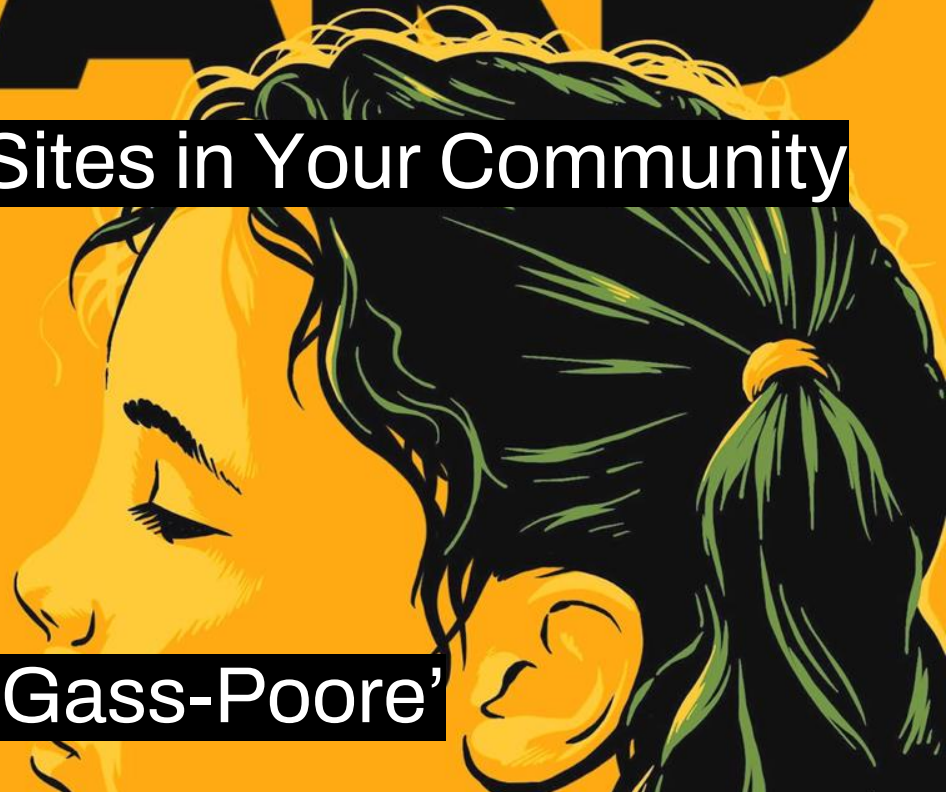


HAZARD

Covering Contaminated Sites in Your Community



Host: Jordan Gass-Poore

LIVING ON THE FRONTLINES OF THE CLIMATE CRISIS



HAZARD NJ is an investigative podcast series that highlights the different ways climate change and extreme weather is predicted to impact hazardous Superfund sites in New Jersey.

- Show site: <https://www.njspotlightnews.org/hazardnj/>

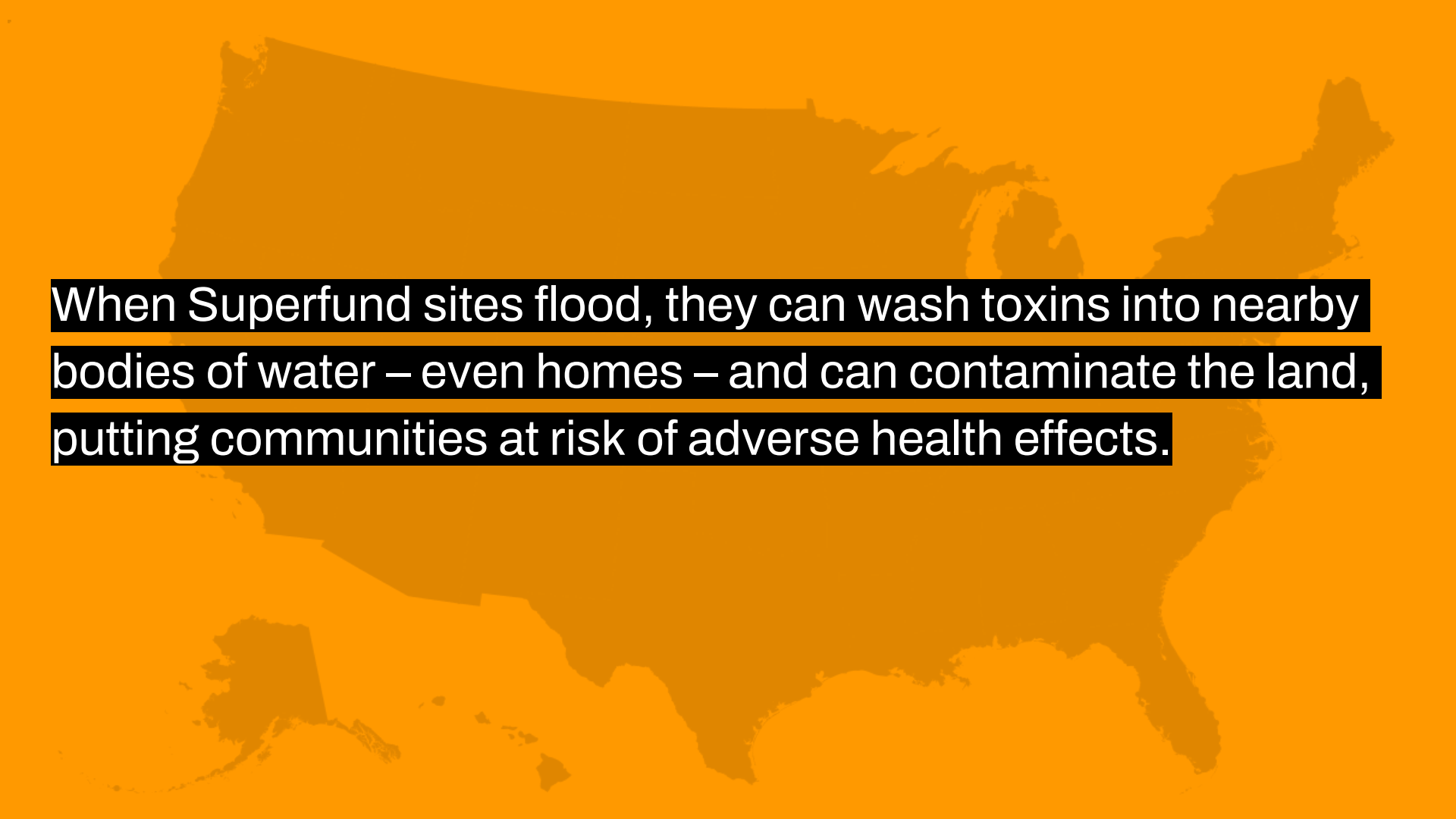


Superfund sites:

They're the black sludge on our collective conscience, with **more than 1,336** active sites across the country, and more than 400 cleanups completed to date.



The federal government is responsible for the country's massively underfunded – and highly dangerous – Superfund sites nationwide.



When Superfund sites flood, they can wash toxins into nearby bodies of water – even homes – and can contaminate the land, putting communities at risk of adverse health effects.



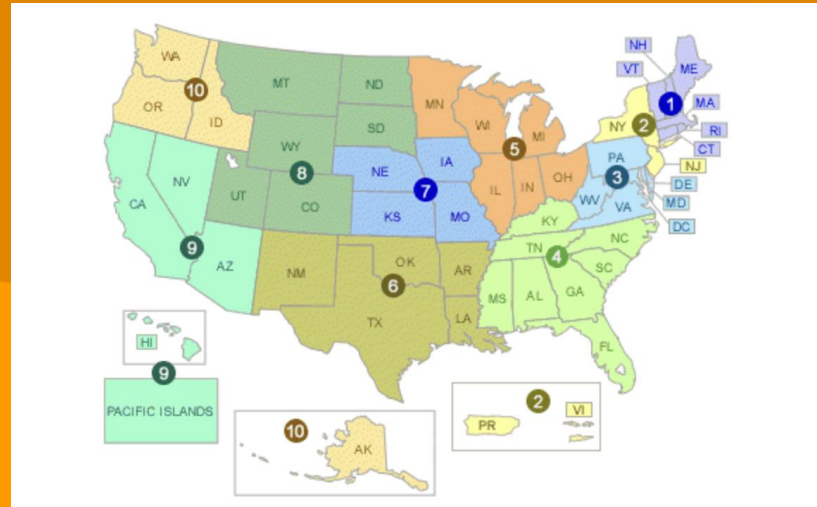
The EPA's National Priorities List (NPL) is a priority list of hazardous sites throughout the U.S. eligible for cleanup under the federal Superfund program.



[2019 GAO](#) report found that more than 60% of the country's Superfund sites are in places vulnerable to climate change.

The report didn't look into how climate change may impact cleanup efforts.

EPA has 10 regional offices that work with states and territories.





How does the city, state, and federal environmental agencies work together to clean up hazardous sites?

-Brownfields: property “that may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” (State program)

-E-Designation: “As a consequence of a zoning action, a property has environmental requirements relating to air, noise or hazardous materials that must be investigated and addressed before an owner can obtain a building permit for the property's redevelopment.” (City program)



RESOURCES

-GAO: List of Superfund sites in a publicly available database ([spreadsheet](#) & [CSV](#))

-EPA's Superfund Sites By State data:

<https://www.epa.gov/superfund/national-priorities-list-npl-sites-state#MI>



RESOURCES: COASTAL SITES/FLOODING

- NOAA: [National Storm Surge Risk Maps](#)
- [FEMA Flood Map Service Center](#)



RESOURCES: HARMFUL SUBSTANCES

-“Toxin” vs “Toxicant”

- Toxin: “poison produced by an organism, such as a snake, fungus, or bacterium.”
- Toxicant: “synthetic, human-made, toxic chemicals.”

<https://discardstudies.com/2017/09/11/toxins-or-toxicants-why-the-difference-matters/amp/>



RESOURCES: HARMFUL SUBSTANCES

-Agency for Toxic Substances and Disease Registry
(ATSDR)

- Glossary of Terms: <https://www.atsdr.cdc.gov/glossary.html>



RESOURCES: HARMFUL SUBSTANCES

-Toxics Release Inventory:

- First national database released in 1989
- Latest edition released in 2022, covers calendar year 2020 (certain PFAS were added to the list)
- Tells you where the chemicals are located



RESOURCES: INDUSTRIAL HYGIENIST

-Calculating the amount of chemical exposure a person would have been exposed to in a space over hours based on the highest recorded level of the chemical measured

- ASTDR's Minimum Risk Levels (MRLs) to account for potentially more susceptible people.
- How the MRL's are calculated: <https://www.atsdr.cdc.gov/minimalrisklevels/index.html>
- This can find an estimate of how much a person can be exposed to per day without a detectable risk to their health. The key thing to note, however, is that MRLs are developed for health effects other than cancer.



RESOURCES: INDUSTRIAL HYGIENIST

So, looking at the ASTDR MRL (you can look at how they got to the MRLs for TCE here, but basically they calculated them from 3 exposure studies):

Chronic MRL = 0.4 ppb, with a 1,000X uncertainty/safety factor on the lowest result in the 3 studies

This is meant for continuous (24 hr) exposure

This is also EPA's number

Intermediate MRL = 0.4 ppb

Acute MRL = none (not enough data)

So, if the people working/spending time inside were doing that for 24 hours, then the exposure would be high.

But, if we are looking for an 8-hour work shift exposure, then we need to look at the American Congress of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs). They are:

TLV – TWA: 10 ppm (54 mg/m³)

This is calculated for an 8-hour time weighted average (TWA) – I can show you how these are calculated, if you're interested, but basically this is meant to account for the variation in levels a worker might be exposed to over the course of their full 8-hour shift.

Please note that if a work shift exceeds 8 hours (eg, if a worker is working 10- or 12-hour shifts instead of 8, then the TWA needs to be adjusted, and the TLV would be lower because you're spending more continuous time at the worksite, and less time away from work where you presumably have 0 exposure).

TLV – STEL: 25 ppm (135 mg/m³)

This is a short term exposure limit (STEL), usually calculated for a 15 minute exposure – they're designed to be used to compare exposure for a brief task that doesn't take up a full shift.

So, looking back at our 40ug/m³ (0.04mg/m³ or 0.0075ppm) levels that were found inside the building, we can see that they are below the ACGIH TLV.



RESOURCES: LIBRARIES

- Archives: newspapers, photos, audio, video, maps
- Community members
- Interview/event space
- Flyering



RESOURCES: SOURCES

- [Intelius](#)
- [Wayback Machine/Internet Archive](#)
- [Social Media](#)
- [Community groups](#)



THIS SPRING: HAZARD NEW YORK CITY

New York City has 4 Superfund sites, some are at risk of flooding.



NEW YORK CITY EPISODES

- Meeker Avenue Plume (Superfund, March 2022)
- Gowanus Canal
- Newtown Creek
- Wolff-Alport Chemical Company



POTENTIAL IMPACT

Accountability—shining a light on the negligence of state, local, and federal governments, and the companies who operate or formerly operated these Superfund sites.



POTENTIAL IMPACT OF HAZARD NYC

Awareness—raising in both affected and unaffected communities where these sites are located.



POTENTIAL IMPACT OF HAZARD NYC

Connecting efforts—what can we learn from these Superfund sites to create legislative reform and prevent catastrophe?

HAZARD NJ

The HAZARD NJ podcast is a limited series about the impacts of climate change on hazardous Superfund sites in New Jersey.

This was the first podcast for NJ Spotlight News, the news division of NJ PBS.

So far, the show has been downloaded a total of 200,000 times.

In 2022, the show was recognized for its significant impact on journalism with the New Jersey Journalism Impact Award.

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