# EPA Superfund Site Data

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### Context

"EPA's Superfund program is responsible for cleaning up some of the nation's most contaminated land and responding to environmental emergencies, oil spills and natural disasters"

https://www.epa.gov/superfund



Gowanus Canal Superfund Site

### Context

- Around since 1980s
- Protect public health and the environment
- Identify, analyze, clean up and contain sites with hazardous waste in U.S.
- Force responsible parties to perform cleanups of contaminated sites or reimburse the government
- Work with communities and return sites to productive use

#### Why is this important?

Continued exposure to the hazardous substances can be **detrimental to human health** 

The effects of **climate change** are also making these sites more dangerous (ex: flooding)

# Topics of Exploration & Perspective

The EPA makes Superfund data publicly available on their website, but it's spread across multiple formats so it difficult to analyze the data holistically. The aim of this project is to connect all of the data in a central database to make it **more accessible**.

Many articles and visualizations map the location of the superfund sites and the status of the site, but usually not the **media and contaminants** of that site, possibly since the data is separate. Additionally, a number of sites are classified as a **Native American Entity**, but that field is also difficult to retrieve and seemingly less discussed.

# Findings

What percent of sites are classified as having Native American Entity status? How are these sites distributed across the country?

Are there any geographical trends in the contaminated media of sites?

Which are the most prevalent chemical contaminants and what are their remedies?

## Central Units of Observation

#### Media

- Media types (groundwater, sediment, soil, etc.)
- Remedies for each type of media (excavation, monitoring, wetlands replacement, etc)
- Contaminants for each type of media (different chemicals)

#### Status

- Native American Entity (Y/N, tribe name)
- National Priorities List (proposed, final, deleted)
- Cleanup Status (construction complete, human exposure under control, etc.)

## EPA Data Available

Superfund Data and Reports:

https://www.epa.gov/superfund/superfund-data-and-reports

Search Superfund Site Information:

https://cumulis.epa.gov/supercpad/Cursites/srchsites.cfm

## Data Reports

PDFs with data in tables for Proposed, Final and Deleted NPL Sites (including Native American Entity status)

CSVs for Contaminant & Remedy data

#### **Superfund Data Reports**

The datasets below cover active and archived contaminated sites evaluated by the Superfund program, including proposed and final National Priorities List (NPL) sites

Show 15 v entries	Search:	
Search for Superfund Data Reports		

Document Title	Date ^	Document (
Superfund Data and Reports Data Dictionary(1 pp, 245.96 KB)	07/29/2022	401148
Sites with Potential Smelting-Related Operations (FOIA 1) (366 pp, 1.39 MB)	10/24/2024	401496
Completed RODs, ROD Amendments and ESDs (FOIA 2)(219 pp, 1.5 MB)	10/24/2024	401497
All current Proposed NPL Sites (FOIA 3)(3 pp, 165.98 KB)	10/24/2024	401498
All current Final NPL Sites (FOIA 4)(39 pp, 562.48 KB)	10/24/2024	401499
All current Deleted NPL Sites (FOIA 5) (12 pp, 287.34 KB)	10/24/2024	401500
Contaminant of Concern Data for Decision Documents by Media , FYs 1982-2023 (Final NPL, Deleted NPL, and Superfund Alternative Approach Sites) (0 pp, 4.98 MB)	10/24/2024	406001
Remedy Component Data for Decision Documents by Media, FYs 1982-2023 (Final NPL, Deleted NPL, and Superfund Alternative Approach Sites) (0 pp, 2.76 MB)	10/24/2024	406002
CERCLA to RCRA Site Associations (FOIA 8)(155 pp, 2.02 MB)	10/24/2024	406003
<u>Lien on Property (FOIA 12)(21 pp, 282.59 KB)</u>	10/24/2024	406005
Public Settlement Report (FOIA 13)(801 pp, 7.46 MB)	10/24/2024	406006
Superfund Alternative Approach Agreement Sites and Settlements (FOIA 14) (18 pp, 254.2 KB)	10/24/2024	406007
Active Site Inventory (List 8R Active) (5541 pp, 22.67 MB)	10/24/2024	406008
Archived Site Inventory.(List 8R Archived)(13178 pp, 45.32 MB)	10/24/2024	406009
Noticed Parties at Sites in SEMS (FOIA 11)(10478 pp, 35.42 MB)	10/25/2024	406004
Document Title	Date	Document ID

Showing 1 to 15 of 15 entries

Previo



## Searchable Table

Searchable table with list of all sites including status information

("Download Excel file..." link is broken)



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#### Superfund

You are here: EPA Home » Superfund » Search Sites » Search Results

#### **Superfund Site Search Results**

Found 1904 site(s) that match your search criteria listed below.

Search Criteria:

Active, Archived, or All:

All Sites

NPL Status:

Currently on the NPL Deleted from the NPL Proposed for NPL Superfund Alternative Approach

To conduct another search, return to the <u>Search Superfund Site Information</u> page.

Download Excel file containing values for all search criteria

Displaying sites 1 through 50

Next (51 - 100)

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A ID ⊕	Site Name	City $\theta$	County	State	National Priorities List Status $\phi$	Superfund Alternative Approach	Construction Complete	Site-wide Ready for Anticipated Use	Human Exposure Under Control $\phi$	Groundwater Migration Under Control
D981713837	10TH STREET SITE	COLUMBUS	PLATTE	NE	Final NPL	No	Yes	Yes	Yes	Yes
D007241656	29TH & MEAD GROUND WATER CONTAMINATION	WICHITA	SEDGWICK	KS	Deleted NPL	No	No	No	Yes	Yes
N000410750	35TH AVENUE	BIRMINGHAM	JEFFERSON	AL	Proposed NPL	No	No	No	Status Unavailable	Status Unavailable
D981710247	57TH AND NORTH BROADWAY STREETS SITE	WICHITA	SEDGWICK	KS	Final NPL	No	Yes	No	Yes	No
D980918387	68TH STREET DUMP/INDUSTRIAL ENTERPRISES	ROSEDALE	BALTIMORE	MD	Proposed NPL	Yes	No	No	Yes	Yes
D981548985	700 SOUTH 1600 EAST PCE PLUME	SALT LAKE CITY	SALT LAKE	UT	Final NPL	No	No	No	No	Insufficient Data
980397079	A & F MATERIAL RECLAIMING, INC.	GREENUP	CUMBERLAND	IL	Deleted NPL	No	Yes	Yes	Yes	Yes
D030253355	A. O. POLYMER	SPARTA TOWNSHIP	SUSSEX	NJ	Final NPL	No	Yes	Yes	Yes	Yes
D004351003	A.I.W. FRANK/MID- COUNTY MUSTANG	EXTON	CHESTER	PA	Final NPL	No	Yes	Yes	Yes	Yes
D980500961	A.L. TAYLOR (VALLEY OF DRUMS)	BROOKS	BULLITT	кү	Deleted NPL	No	Yes	No	Yes	Yes
D024644494	ABC ONE HOUR CLEANERS	JACKSONVILLE	ONSLOW	NC	Final NPL	No	Yes	No	Yes	Yes

Displaying sites 1 through 50

Next (51 - 100)

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# Data Approaches

- CSV joining
- PDF tables text analysis
- Scraping table from EPA website
- Transforming data into geojson

## Visualization

- Map that denotes sites with Native American Entity status
- Map that denotes the category of the contaminated media
- Simple charts to examine the most prevalent chemical contaminants and the remedies

## References

- https://www.epa.gov/superfund/what-superfund
- https://www.nationalgeographic.com/superfund/#charts
- https://www.nature.com/articles/s41467-021-22249-2
- https://www.climaterealityproject.org/blog/climate-change-could-spell-disa ster-superfund-sites
- https://gowanuscanalconservancy.org/superfund/