

Public Awareness of Environmental Data

AWMA Midwest Annual Technical Conference

April 22, 2025

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Where can environmental information about your facility be found?

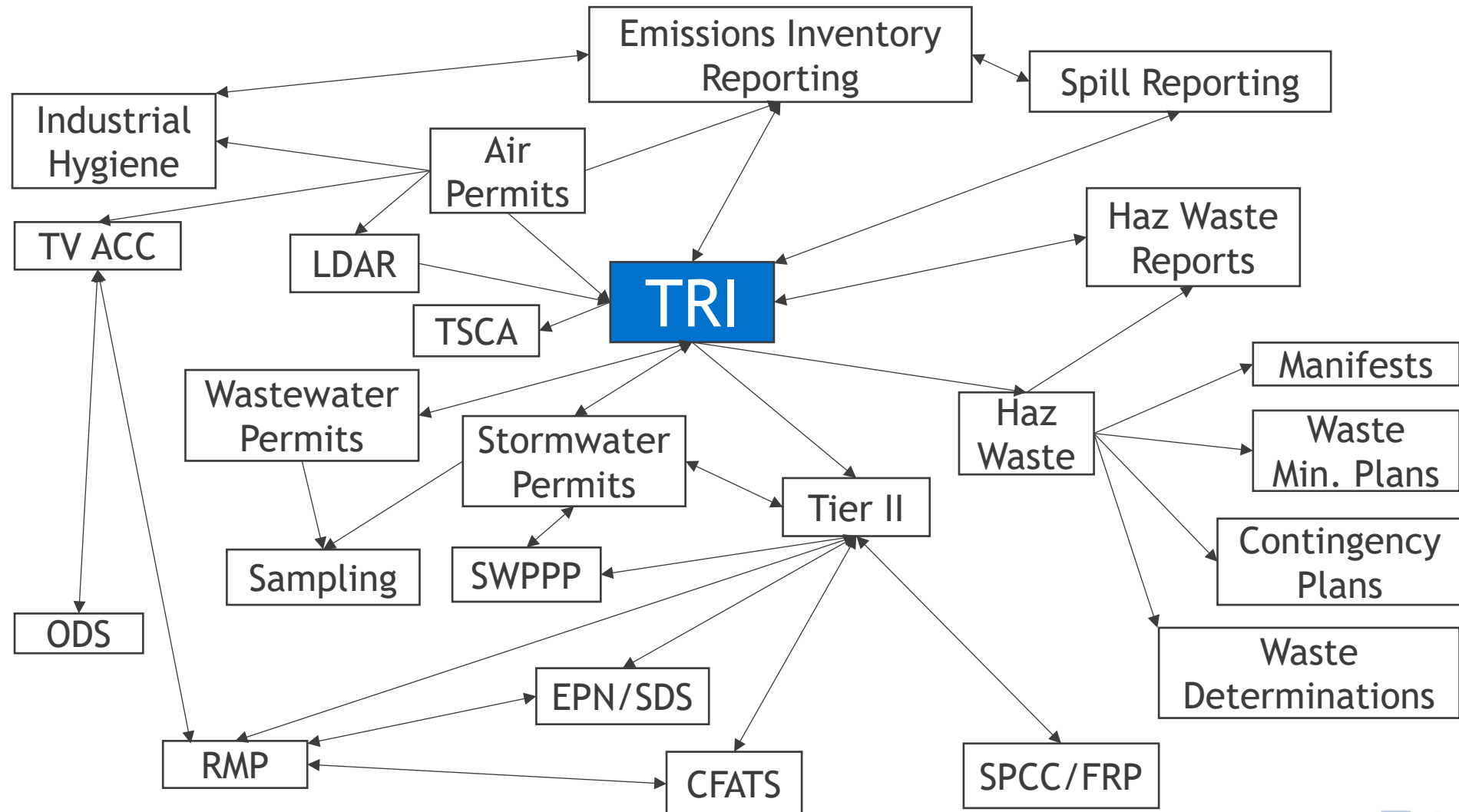
- ▶ TRI Data
- ▶ EPA Enforcement and Compliance History Online (ECHO)
- ▶ National Air Toxics Assessment (NATA) and AirToxScreen
- ▶ EJSCREEN
- ▶ Environmental Defense Fund – Chemical Action Map
- ▶ Propublica reports
- ▶ State websites (Permits, Reports, Enforcement)

- ▶ **This data is accessible by anyone!**

Why is TRI an important report?

Because it contains information about all environmental releases – and it is all publicly available!

TRI – “Ultimate” Report



TRI Publicly Available Tools

(1 of 4)

Envirofacts

- All listed TRI reporting forms in TRI history
- Form A and Form R download
- Customized search providing most flexibility in search and how results are organized
- EZ Search: create reports on multiple focus areas with data grouping and statistical functions
- <https://enviro.epa.gov/>

Risk-Screening Environmental Indicators (RSEI)

- Explore potential impacts of TRI-reported chemical releases on relative risk and compared to other chemicals, locations, and years
- <https://www.epa.gov/rsei/rsei-results-map>

EPA ECHO

- Enforcement and compliance information on TRI
- <https://echo.epa.gov/>

TRI Publicly Available Tools

(2 of 4)

TRI Toxics Tracker

- Search TRI data near specified locations, by facility, by NAICS code, etc.
- Includes RSEI modeling results, facility compliance and enforcement information, and demographic information
- Create customizable maps, tables, and graphs
- <https://edap.epa.gov/public/extensions/TRIToxicsTracker/TRIToxicsTracker.html>

TRI Explorer

- Search by chemical, location, industry sector, or tribal land
- Focus on chemical releases, waste transfers, or waste quantities
- https://enviro.epa.gov/triexplorer/tri_release.chemical

National Reports/ Fact Sheets

- TRI Fact Sheets
- Overview of TRI data by location, industry sector, or chemical
- https://enviro.epa.gov/triexplorer/tri_factsheet_search.searchfactsheet

TRI Publicly Available Tools

(3 of 4)

TRI National Analysis

- Annual analysis of TRI data in narrative and graphical format with interactive maps, charts, and tables summarizing national level data
- <https://www.epa.gov/trinationalanalysis>

TRI Basic Data Files

- Download all basic TRI data for Form R and Form A by geographical area (U.S. or by state)
- <https://www.epa.gov/toxics-release-inventory-tri-program/tri-basic-data-files-calendar-years-1987-present>

TRI Basic Plus Data Files

- Contains all data elements from TRI report
- <https://www.epa.gov/toxics-release-inventory-tri-program/tri-basic-plus-data-files-calendar-years-1987-present>

EnviroMapper

- Map environmental data and add points of interest
- Not managed by TRI program
- <https://enviro.epa.gov/enviro/em4ef.home>

TRI Publicly Available Tools

(4 of 4)

DMR/TRI Comparison Dashboard

- Not managed by TRI program
- Compares data from NPDES program and TRI
- Interactive charts and graphs
- <https://echo.epa.gov/trends/loading-tool/comparison-dashboard>

TRI P2 Search Tool

- Comprehensive look at source reduction and waste management data
- <https://enviro.epa.gov/facts/tri/p2.html>

TRI-CHIP

- Toxicity information for TRI-listed chemicals
- <https://www.epa.gov/toxics-release-inventory-tri-program/tri-chemical-hazard-information-profiles-tri-chip>

Dioxin/TEQ Data Files

- TRI reporting data from Schedule 1
- <https://www.epa.gov/toxics-release-inventory-tri-program/tri-dioxin-and-dioxin-compounds-and-teq-data-files-calendar>

What can you find from ECHO – EPA's Compliance and Enforcement History Online?

EPA ECHO


- ▶ <https://echo.epa.gov/>
- ▶ Recommend that every facility check what is currently listed in ECHO
 - Sometimes, the information can be incorrect!
- ▶ Enforcement and Compliance Summary (CAA, CWA, RCRA)
 - Past inspections, evaluations, stack testing, etc.
 - Details any violations
- ▶ All issued permits
- ▶ History of TRI reported releases
- ▶ Environmental Justice (EJ indices, demographic profile)





Enforcement and Compliance History Online


[Login](#) [Contact Us](#)


Quick Search

 [Search Options](#)

 [Analyze Trends](#)

 [Find EPA Cases](#)

 [Data Services](#)

 [Help](#)

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Quick Search

Search By

Location Facility Name/ID

[More Search Options](#)

Use EPA's Enforcement and Compliance History Online website to search for facilities in your community to assess their compliance with environmental regulations. You can use ECHO to:

- Search for Facilities
- Investigate Pollution Sources
- Search for EPA Enforcement Cases
- Examine and Create Enforcement-Related Maps
- Analyze Trends in Compliance & Enforcement Data



[Read the Quick Start Guide](#)



[Watch a Video Tutorial](#)



[Explore the Tool Guide](#)



Name	EPA Region	Number of Facilities	Facilities in Indian Country	Facilities with Current Violations	Facilities with Significant Violations (3 years)	Facilities with Violations (3 years)	Facilities with Compliance Monitoring (5 years)	Facilities with Informal Enforcement Actions (5 years)	Facilities with Formal Enforcement Actions (5 years)	Total Penalties (5 years)
Zip Code 68502: LINCOLN	07	37	0	0	0	1	10	2	0	\$0
Zip Code 68503: LINCOLN	07	22	0	0	0	0	4	0	0	\$0
Zip Code 68504: LINCOLN	07	68	0	2	1	4	21	4	2	\$5,330,722

Facility Summary

Select a facility row from the search results table.

Current Search

547 Facilities Found

Selected Criteria

Media Selected: All Media Programs
 City, State, and/or ZIP Code: Lincoln, NE
 Active/Operating: Yes

Explore Enforcement and Compliance Criteria

- 8 Facilities with Current Violations
- 4 Facilities with Significant Violations
- 26 Facilities with Violations (3 years)
- 9 Facilities with Formal Enforcement Actions (5 years)
- 32 Facilities with Informal Enforcement Actions (5 years)
- 295 Facilities Flagged as Potential Environmental Justice Concerns

[View Search Form for More Criteria...](#)

Filter Facilities

Refine search results to 500 or fewer facilities to use interactive filters.

Layers

⚠ Each map layer requires a specific map scale for display. Layers are only available for selection if the map is zoomed in to a sufficient scale. Zoom in further to enable selection of additional layers. Note that adding multiple overlapping map layers may cause performance issues in the browser and display.

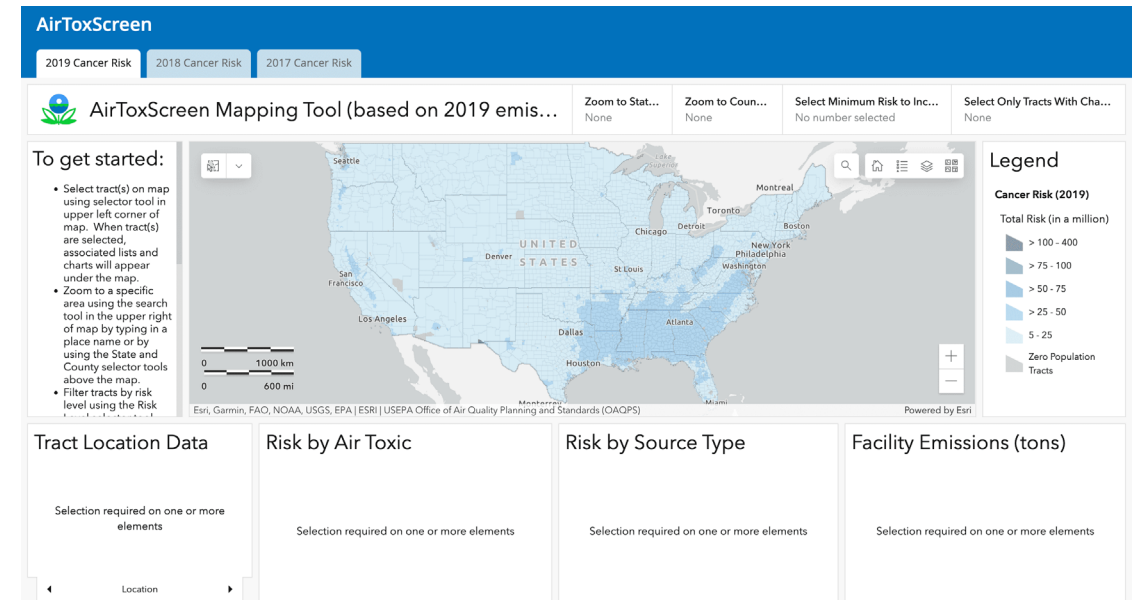
Do not show again

What can you learn from NATA and AirToxScreen?

NATA and AirToxScreen

Risk Assessment

- ▶ AirToxScreen/NATA
 - Ongoing review of air toxics in the US
 - Used to learn which air toxics and emission source types may raise health risks in certain places
- ▶ 4 Step Process
 - 1) Compile emissions inventory data
 - 2) Estimate ambient concentration of air toxics
 - 3) Estimate population exposure
 - 4) Determine potential public health risks from breathing air toxics



NATA and AirToxScreen

Risk Assessment

- ▶ Integrated Risk Information System (IRIS) Program
 - Pollutant toxicity value from chronic exposure
 - HAP data will help inform priorities for nominations
 - Has real-world effects (i.e., EtO)
- ▶ Compliance and enforcement
 - Discrepancies between reported and monitored data
 - Facility search based on risk
- ▶ Siting of ambient air monitors



Case Study: Ethylene Oxide

- ▶ Highly carcinogenic per USEPA
- ▶ Industries that emit EtO
- ▶ As part of the 2014 National Air Toxics Assessment (2014 NATA), ethylene oxide risk value lowered
 - USEPA lowered the IRIS value (Inhalation Unit Risk) to $0.003 \mu\text{g}/\text{m}^3$ from $0.1 \mu\text{g}/\text{m}^3$
 - Inhalation Unit Risk = Concentration at which 1 cancer case is expected
 - Expected cancer impacts suddenly >30x higher
- ▶ Several census tracts that were below cancer risk of 1 in 10^6 MM were now over 50 in 10^6 after 2016 toxicity change for EtO
 - ◆ Contributes to being classified as an overburdened census tract

Regulatory Fallout of new EtO Standards

- NESHAP – Subpart FFFF – Miscellaneous Organic Chemical Manufacturing (MON)
 - ◆ Final rule addressing the toxicity of EtO
 - ◆ Revised as part of the RTR (Residual Risk & Technology Review)
- NESHAP – Subpart O – Sterilization Plants
 - ◆ Final rule published April 5, 2024
 - EJ was a significant focus in EPA’s rule analysis
 - ◆ Cancer risks after implementation of final amendments <100 in 10⁶ cancer risk for all facilities.
 - ◆ **Higher cancer risk main driver in revising regulation**
- NESHAP – Subpart VVVVV – Chemical Manufacturing Area Source
- Additional Transparency and Community Involvement

Table 3—Summary of Cancer Risk Reductions

	Current cancer risks— actual emissions	Current cancer risks— allowable emissions	Cancer risks after implementation of final amendments
Maximum Individual Risk (MIR) ¹	6,000-in-1 million	8,000-in-1 million ³	100-in-1 million.
Number of People with Cancer Risks >100-in-1 million	19,000	260,000	0.
Number of People with Cancer Risks ≥1-in-1 million	8.5 million	62 million	700,000 to 1.4 million. ²
Estimated Annual Cancer Incidence (cases per year)	0.9	8	0.1 to 0.2. ²

What can you learn from EJSCREEN and what is the current status of the tool?

EJ Screen – A Basic Overview

- ▶ Used to identify communities disproportionately impacted by pollution
- ▶ Removed from website as of February 2025



The screenshot shows the EPA website header with the logo and navigation menu. The main heading is "EJScreen: Environmental Justice Screening and Mapping Tool". Below the heading is a banner image of children running in a field with a call to action "Launch the EJScreen Tool" and a link "Explore EPA's environmental justice screening and mapping tool". Below the banner is a paragraph of text and three navigation links: "What is EJScreen?", "Learn to Use EJScreen", and "Launch the Tool".

EPA United States Environmental Protection Agency

Search EPA.gov

Environmental Topics ▾ Laws & Regulations ▾ Report a Violation ▾ About EPA ▾

CONTACT US

EJScreen: Environmental Justice Screening and Mapping Tool

Launch the EJScreen Tool

[Explore EPA's environmental justice screening and mapping tool](#)

In order to better meet the Agency's responsibilities related to the protection of public health and the environment, EPA has developed a new environmental justice (EJ) mapping and screening tool called EJScreen. It is based on nationally consistent data and an approach that combines environmental and demographic indicators in maps and reports. [Learn more about Environmental Justice at EPA.](#)

What is EJScreen? **Learn to Use EJScreen** **Launch the Tool**

Consequences of Removal

- ▶ Limits access to data and tools needed for advocating for environmental justice and holding polluters accountable
- ▶ EPA's ECHO Database is still available
 - Still presents **Demographic Profile data** for the area surrounding facilities/locations throughout the US
 - Provides **EI/TRI/DMR, compliance and enforcement action information** for sources throughout the country
 - For a while, the EJ Indexes were still available for sites in ECHO after EJSCREEN was removed; however, that has since been removed from ECHO
- ▶ Specific power plant mapping tool is still available - <https://www.epa.gov/power-sector/power-plants-and-neighboring-communities>

Environmental Defense Fund – Chemical Action Map

Environmental Defense Fund – Chemical Action Map

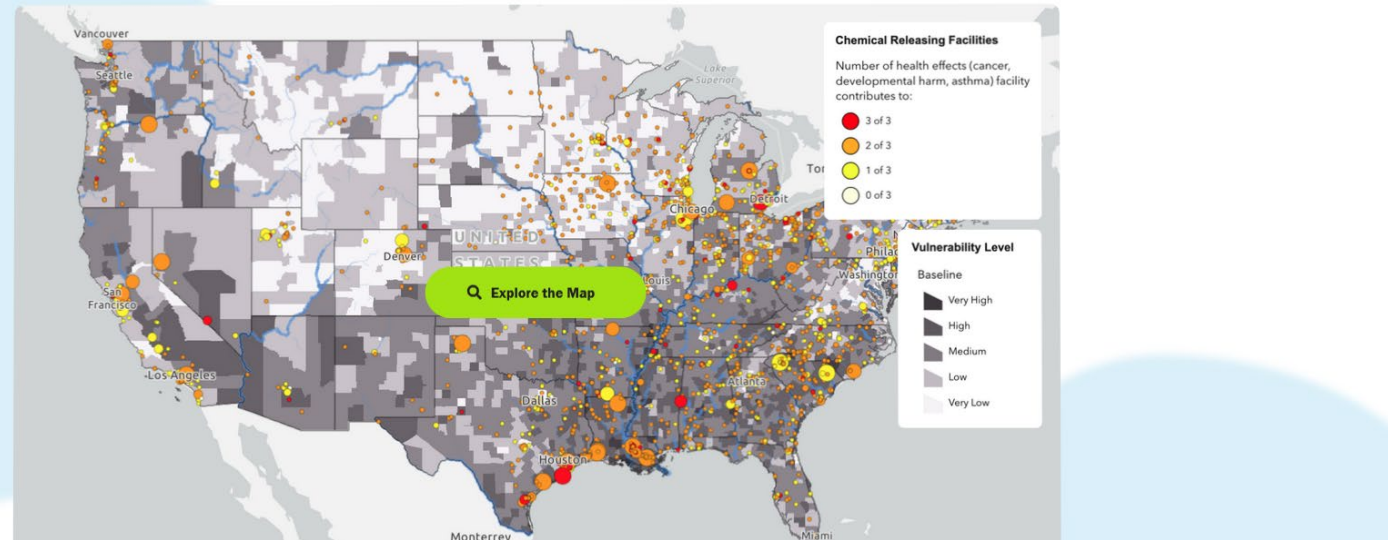


The Problem

Cumulative Risk

Take Action

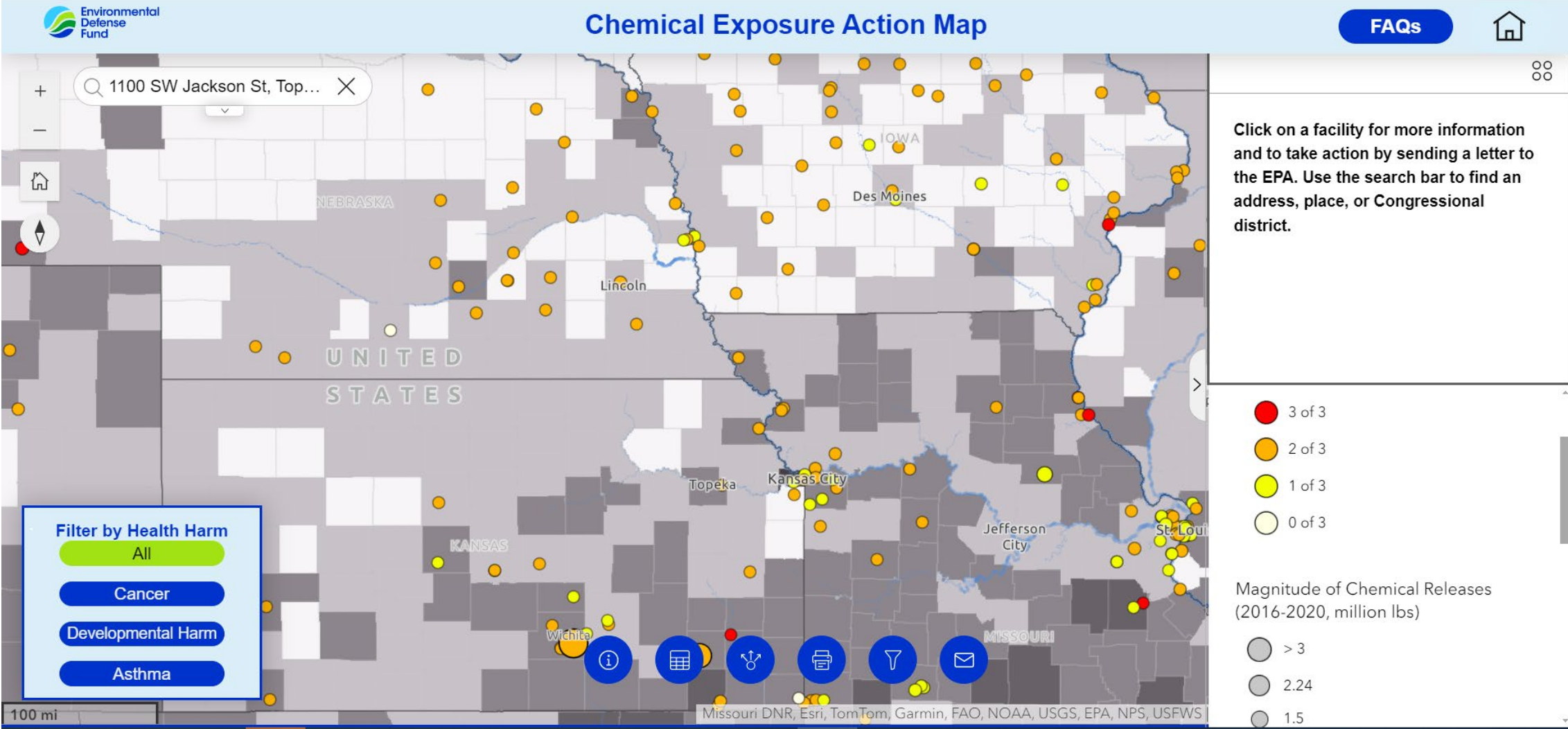
We need a better way to measure risks from toxic chemicals—and take action



Environmental Defense Fund – Chemical Action Map

- ▶ “We’ve focused on three major categories of health harms from exposure to these chemicals: cancer, developmental harm and asthma.”
- ▶ “Using emissions data for 23 of EPA’s high priority toxic chemicals, this map visualizes how communities are cumulatively exposed to multiple toxic chemicals that cause the same harms, leading to serious health issues.”
- ▶ “Use this tool to see where facilities are polluting these toxic chemicals into our air, water and land and how it’s putting our health at risk, then click through to **encourage EPA to take action.**”

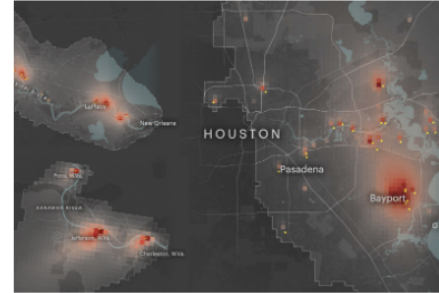
Environmental Defense Fund – Chemical Action Map



ProPublica

ProPublica

FEATURED



The Most Detailed Map of Cancer-Causing Industrial Air Pollution in the U.S.

Using the EPA's data, we mapped the spread of cancer-causing industrial air emissions down to the neighborhood level. Look up your home to see if you and your loved ones are living in a hot spot.

by Al Shaw and Lylla Younes, Nov. 2, 2021, 5 a.m. EDT

- ▶ Nonprofit newsroom
- ▶ Analysis published in 2021 and last updated in 2023 which identified toxic “hot spots” across the country:
 - Uses TRI data from 2014-2018, along with EPA Risk-Screening Environmental Indicators and EPA Integrated Risk Information System
 - Calculates excess cancer risk from industrial facilities
- ▶ Be aware of how reporting data is being used by various groups

<https://projects.propublica.org/toxmap/>

1 in 100,000 1 in 10,000 1 in 1,000 1 in 50
incremental lifetime cancer risk

Each grid cell is
810 x 810 meters

North →

• Port Neches
Elementary
School

The estimated excess cancer
risk around the facility is higher
than 1 in 100 over the course of
a lifetime.

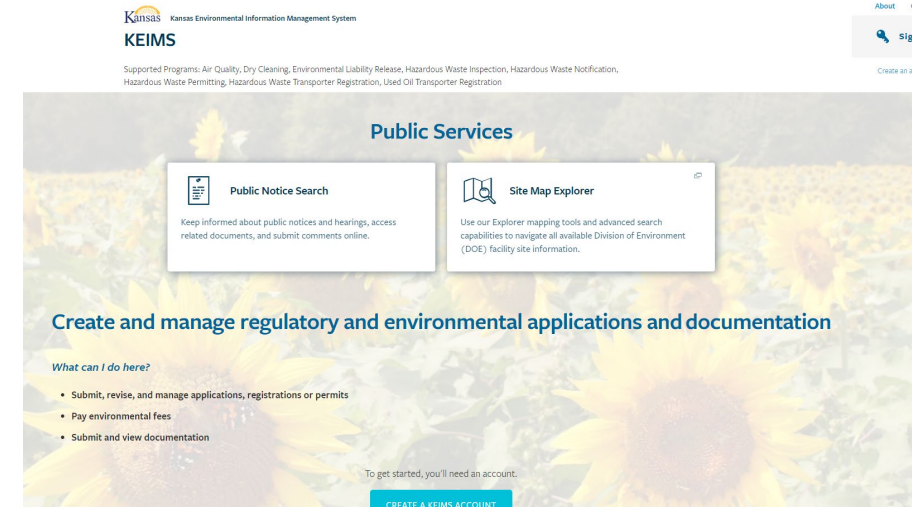
• Huntsman
Petrochemical
facility

• Groves Middle
School

What is available from state websites?

Publicly Available Data in Kansas

- ▶ Two main sources:
- ▶ nSITE Explorer – go to keims.kdhe.ks.gov
 - Site Map Explorer
 - Shows permits, applications, submittals, inspection reports, contact information



LEAVENWORTH CO. S.D. #1 HIGH CREST
UNKNOWN
LEAVENWORTH KS 66048

PROFILE MAP ENVIRONMENTAL INTERESTS COMPLIANCE DOCUMENTS

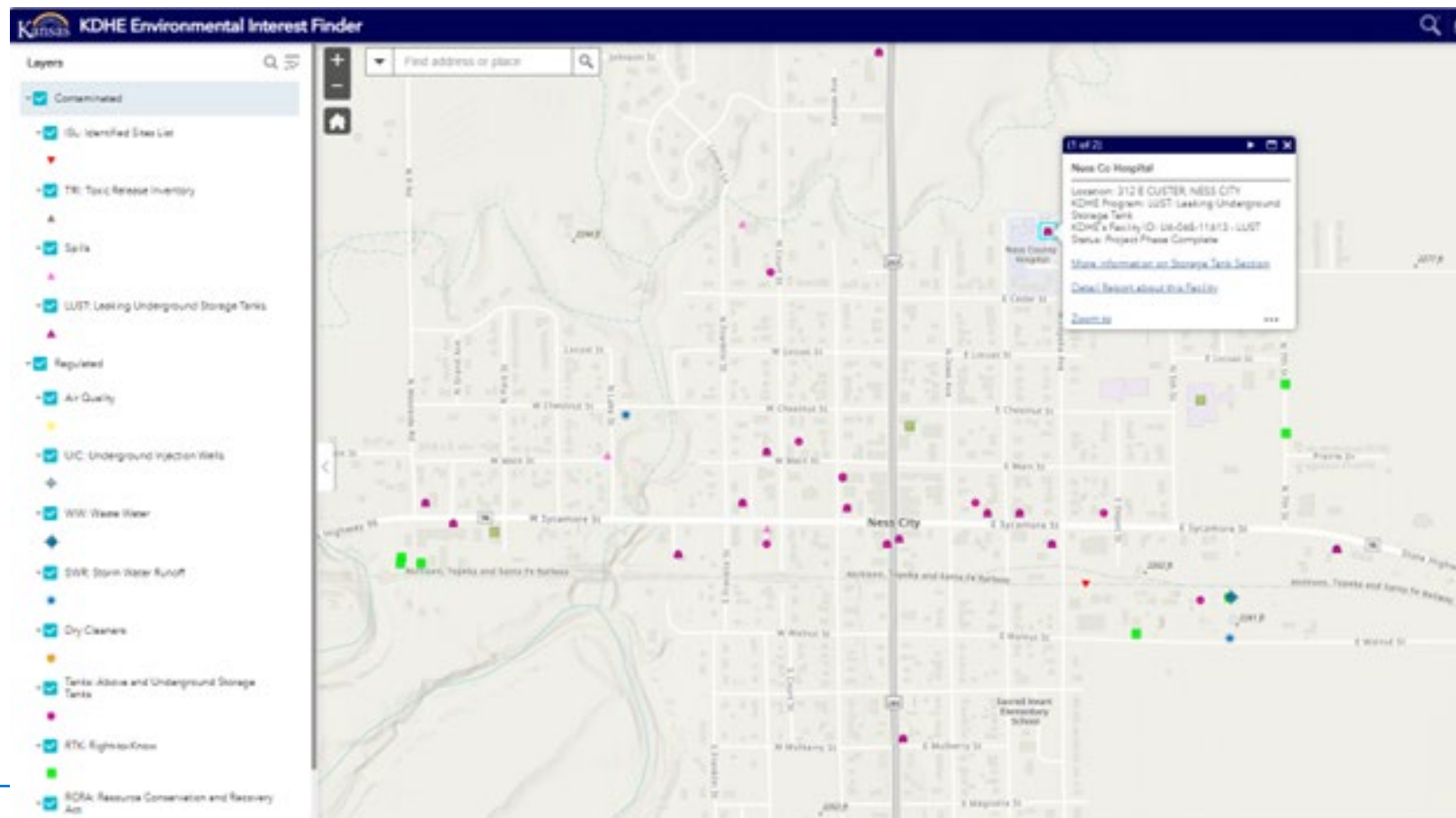
DOWNLOAD 0 DOCUMENTS Select All 16 Documents Clear Selections

<input type="checkbox"/>	Date	File	Type	Description
<input type="checkbox"/>	04/24/2024	KS0086835_2024-01-01_to_2024-03-31_DMR.pdf	Schedule - DMR Documents	Permit: KS0086835 v3.0.
<input type="checkbox"/>	01/23/2024	KS0086835_2023-10-01_to_2023-12-31_DMR.pdf	Schedule - DMR Documents	Permit: KS0086835 v3.0.
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<input type="checkbox"/>	06/27/2023	20230627124030903.pdf	Misc. Permit Docs	Permit: KS0086835 v3.0. historic incident reports
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<input type="checkbox"/>	01/24/2023	KS0086835_2022-10-01_to_2022-12-31_DMR.pdf	Schedule - DMR Documents	Permit: KS0086835 v3.0.
<input type="checkbox"/>	09/29/2022	mks04oo04_LeavenworthCoCommDist1_2022	Wastewater Permit Documents	Permit: KS0086835 v3.0.
<input type="checkbox"/>	09/08/2022	LV CO #1 High Crest.pdf	Wastewater Inspection	Inspection/Evaluation: WWCOMP-056387 on 09/07/2022.

10 rows ▼ Page: 1 of 2 1 - 10 of 16

Publicly Available Data in Kansas (cont'd)

- ▶ KDHE Environmental Interest Finder
 - maps.kdhe.state.ks.us/keif/



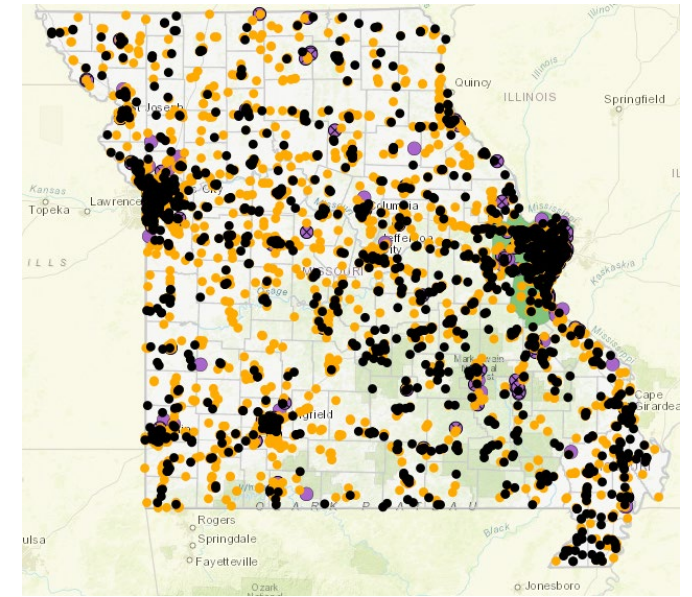
Publicly Available Data in Missouri

► Air

- [Issued Air Permits](#) – since January 1, 1997
- [Draft permits on public notice](#)
- [Pending air permits](#) – includes applications!
- [Issued Air Permits](#) – pre January 1, 1997 (basic information)
- [Air Facilities and Air Quality Monitoring Sites](#)

► [Water](#)

- Applications in process and Draft permits on public notice
- Draft permits on public notice
- Master General Wastewater and Stormwater permits



Publicly Available Data in Nebraska and Iowa

▶ Nebraska

- <https://dee.nebraska.gov/about/public-records-searches-and-interactive-map-server>
 - ◆ Documents Search
 - ◆ Interactive Map (similar to Kansas; very detailed)

▶ Iowa

- [https://programs.iowadnr.gov/documentsearch/Online Documents](https://programs.iowadnr.gov/documentsearch/OnlineDocuments)
 - ◆ Documents Search – Numerous Programs

Ways to Balance Risk

Awareness

- Review your public profile routinely
- Be knowledgeable with the facility public image
- Be knowledgeable how environmental groups and community are using data

Accuracy

- Ensure the data presented is as accurate as possible
- Correct inaccuracies in publicly available information

Improvement

- Implement easy improvements where possible
- Include plans for improvement in facility capital projects and initiatives

Contact Us

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