MISSOURI DEPARTMENT OF
HEALTH &
SENIOR SERVICES

Bureau of Environmental Epidemiology

Childhood Lead Poisoning Prevention Program

- Population served: Children under age 6
- Services:
  - Nursing consultation and education
  - Case Management training
  - In-home Risk Assessments
  - Data collection and analysis
- Local Public Health Agency responsibilities:
  - Case management for children under age 6
  - Reporting of lead tests conducted at the LPHA
  - Education to providers/parents
- Additional information:
  - All lead tests are reportable to DHSS regardless of the results

WIIN GRANT: Lead Testing in Schools and Child Care Facilities

MISSOURI DEPARTMENT OF HEALTH & SENIOR SERVICES

- DHSS awarded Water Infrastructure Improvements for the Nation (WIIN) Grant from EPA

- Priority to elementary schools and child care facilities
  - Children under 6 years of age
  - Low income areas, 50% of children receiving free and/or reduced lunches
  - Age of building (constructed before 1996)

- Funding to assist in voluntary water testing for lead in drinking water
  - Covers sample test kits and sample analysis
  - $400 per sample plan and $5 per sample

Contact Information:

Morgan Price, WIIN Grant Coordinator
573-751-6102
HealthyDrinkingWater@health.mo.gov

MISSOURI DEPARTMENT OF HEALTH & SENIOR SERVICES

Get the Lead Out of Schools Drinking Water Act – RSMo160.077

- **Requires schools to provide drinking water with a lead concentration level below 5 ppb before the 2023-2024 school year**

- **By August 1, 2024, all schools required to have completed:**
  - **Test all water outlets used for drinking and cooking**
  - **Make test results and remediation plans available to the public**
  - **Remediate all lead contamination before by August 2024**

- **$27 Million in American Rescue Plan Act (ARPA) funding to reimburse school districts for testing, filtration, and remediation, for work completed prior to December 31, 2024**

- **Project is wrapping up as we work with remaining schools to complete reporting and provide final invoice submissions**

- **Schools are required to continue to test and maintain systems with at minimum 5-year testing cycle**

Contact Information:
Melissa May, Healthy Drinking Water Unit Chief
573-751-6102

BEE – Health and Risk Assessment Program (HRAP)

Responsible for evaluating human exposure to hazardous substances in the environment and for making health-protective recommendations regarding actions needed.

Primary Functions

- **Health Assessment** - Public document used to identify possible harmful exposures and to recommend actions needed to protect public health.
- **Risk Assessment -** Technical document used in decision-making for site cleanups and other risk management strategies.

Other Program Functions

- Radon Program
- Private Drinking Water Program
- Choose Safe Places for Early Care and Education (CSPECE) Program
- EPA Superfund Lead Site Cooperative Agreements and County Contracts
- Methamphetamine Labs Exposure/Cleanup Recommendations
- Pesticide Exposure and Other Chemical Exposure Inquiries
- Addressing chemical emergencies and other emerging issues
- Community Education and Outreach

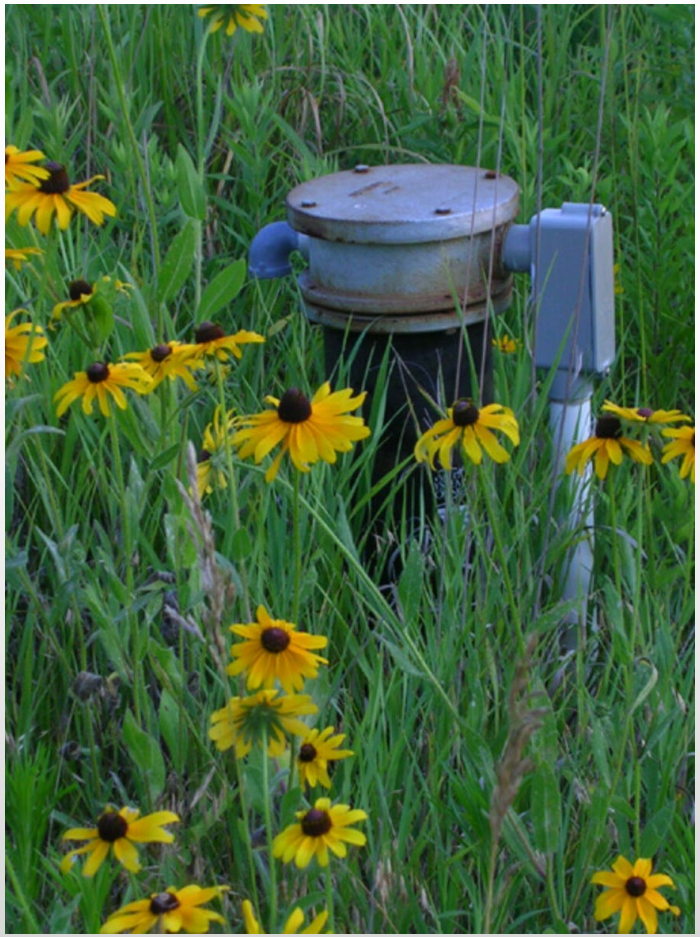
HRAP Program

Community Education and Outreach

- Public Meetings/Public Availability Sessions
- Presentations and educational materials
- Door-to-door events
- Blood-Lead Testing Events
- ATSDR SoilSHOPs
- Exhibits – Health Fairs and Home Shows
- EPA Superfund Cooperative Agreements and County Contracts - Jasper, Newton, Jefferson, Washington, and Madison counties

HRAP - ATSDR Component 2

Addressing Community Cancer Concerns and Effects of Weather on Private Wells



- Additional funding awarded from ATSDR; 3rd year of 5-year period

1. Strengthen collaborations and response to community cancer concerns at sites
- Videos out by fall; general cancer concerns and environmental exposure risks
- Educational publications forthcoming

2. Providing education and resources to private well users for weather-related events
- Guidance document under review
- Factsheets on flooding and drought in private wells forthcoming
    - Training for LPHAs

HRAP Program

Key Statistical Data and Key Facts

- The HRAP team typically completes over 200 reviews of risk assessment and related documents each year on a variety of hazardous waste sites in the state. HRAP estimates that the recommended actions in health assessments in the past 3 years may prevent or mitigate exposures to nearly 400,000 Missourians once they are fully implemented. Risk assessment has determined the need for remedial actions that have protected the health of many more Missourians.

- 33 EPA National Priority List (NPL) sites are located in Missouri and we have the 14th highest number of active NPL sites in the country.

- Missouri has a long history of widespread lead mining and associated operations. Sixty of Missouri's 114 counties are impacted by historical lead mining and 9 of Missouri's lead-contaminated sites are on EPA's NPL as a result of these historical mining operations.

- Missouri is also one of 10 states in the country with active Formerly Utilized Sites Remedial Action Program (FUSRAP) sites. These sites are impacted by radioactive contamination from the World War II and Cold War eras. Four of the 25 active FUSRAP sites are located in Missouri.

- Approximately 2.22 million Missourians live in counties that have been extensively impacted by contamination at current NPL sites, including lead-mining sites (e.g., Jasper, Jefferson, Madison, Newton, St. Francois, and Washington Counties) and World War II and Cold War-era radiological contamination sites (e.g., St. Charles and St. Louis Counties and St. Louis City).

MISSOURI DEPARTMENT OF HEALTH & SENIOR SERVICES
Environmental Public Health Tracking

Environmental Public Health Tracking Program

EPHT is a nationwide network that delivers a core set of environmental health, exposure, and hazards data, information, and tools to enable analysis, visualization and reporting of insights on environmental public health

Contact Information:
Elizabeth Semkiw, Program Manager
573-526-6649
EPHTN@health.mo.gov

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MOPHIMS

Missouri Public Health Information Management System

The Missouri Public Health Information Management System (MOPHIMS) provides a common means for users to access public health related data to assist in defining the health status and needs of Missourians.

Community Data Profiles

Community Data Profiles are available on various subject areas and provide data on 15-30 indicators for each geography selected.

- Maternal, Infant and Child Health Profiles
- Chronic Disease Profiles
- Injury Profiles
- Death Profile
- Hospital and Emergency Room Visit Profiles
- Special Demographic Profiles
- County-Level Study Profiles

Data MICAs

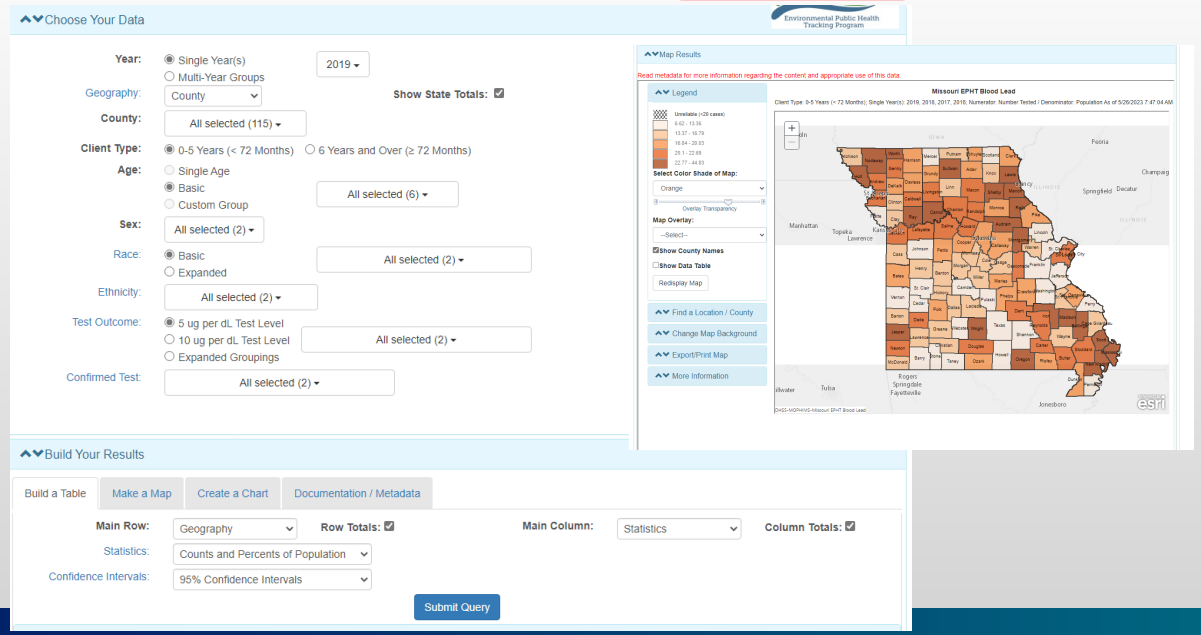
The Missouri Information for Community Assessment (MICA) allows users to summarize data, calculate rates, and prepare information in a graphic format.

- Maternal, Infant and Child Health MICAs
- Chronic Disease MICAs
- Injury MICA
- Death MICA
- Hospital and Emergency Room Visit MICAs
- Population MICA
- Medicaid/TANF MICAs

Environmental Tracking

The Missouri Environment Public Health Tracking (EPHT) program was developed to assist the public, communities, policymakers, and scientists, answer fundamental questions about the relationships between environmental exposures and health effects. Data on this site also include hazard and disease surveillance.

- Health Data
  - Blood Lead Levels
  - Asthma
  - Birth Defects
  - Myocardial Infarction
  - Carbon Monoxide Poisoning
- Environmental Data
  - Agriculture
  - Air Quality
  - Water Quality
- Community Data
- National Data



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EPHT

The Missouri Environmental Public Health Tracking (EPHT) is a tracking system that was developed to assist scientists, communities, policymakers, and the public answer fundamental questions about the relationships between environmental exposures and health effects. Data on this site also include hazard and disease surveillance. Data may be used to create charts, tables, and maps. Most forms of output are available for download.

Agriculture
- Interactive Map
- More Information

Asthma
- Tables, Charts, & Maps
- More Information

Chronic Obstructive Pulmonary Disease (COPD)
- Tables
- More Information

Myocardial Infarction
- Tables, Charts, & Maps
- More Information

Water Quality
- Tables
- More Information

National Data
- Tables, Charts, & Maps

Blood Lead Levels
- Tables, Charts, & Maps
- More Information

Carbon Monoxide
- Tables, Charts, & Maps
- More Information

Birth Defects
- Tables, Charts, & Maps
- More Information

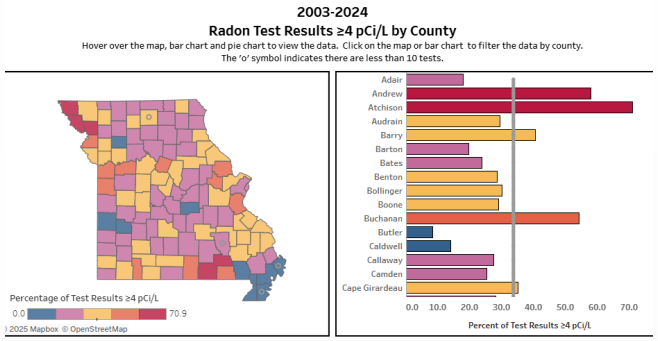
Air Quality
- Tables
- More Information

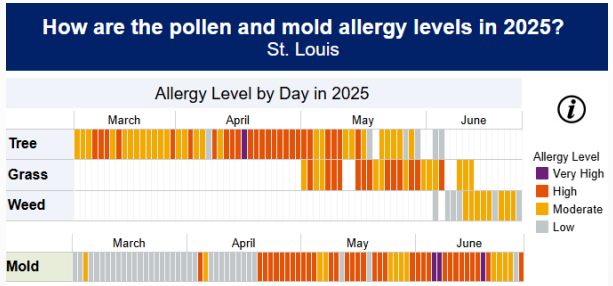
Community Data
- Community & Infrastructure
- Occupational Health
- Health, Environment, & Community Profiles

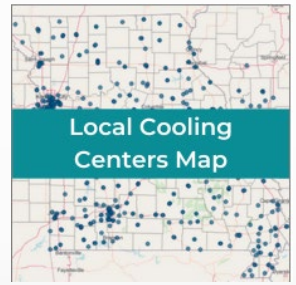
Environmental Public Health Tracking

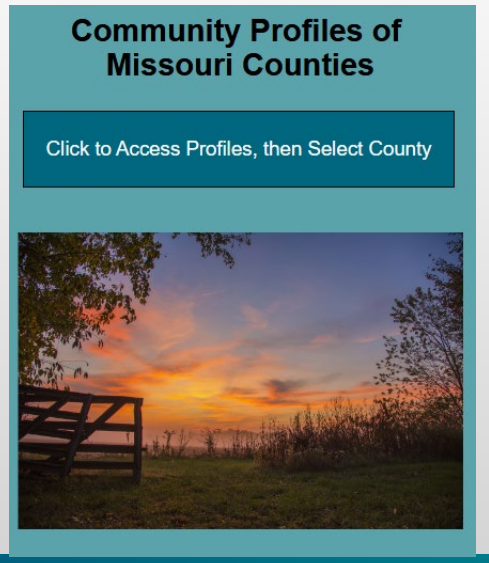
Additional Maps and Dashboards

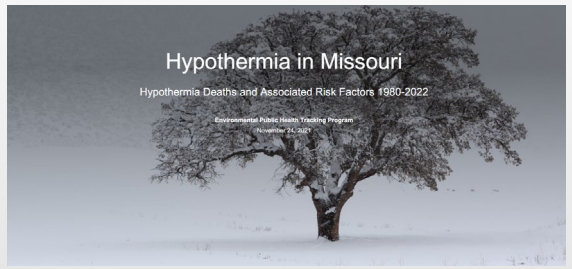
- Lead Exposure Risk Tool
- Tickborne Disease StoryMap
- Mosquito-borne Disease StoryMap
- Pollen and Mold dashboard
- Food Access StoryMap
- Radon data dashboard
- Hyperthermia/Hypothermia
  - Warming and Cooling Centers Maps
- Missouri Fish Advisory dashboard
- Community Profiles











MISSOURI DEPARTMENT OF HEALTH & SENIOR SERVICES

Harmful Algal Bloom (HAB) Reporting Tools

Bureau of Environmental Epidemiology

Development Team

MISSOURI DEPARTMENT OF HEALTH & SENIOR SERVICES

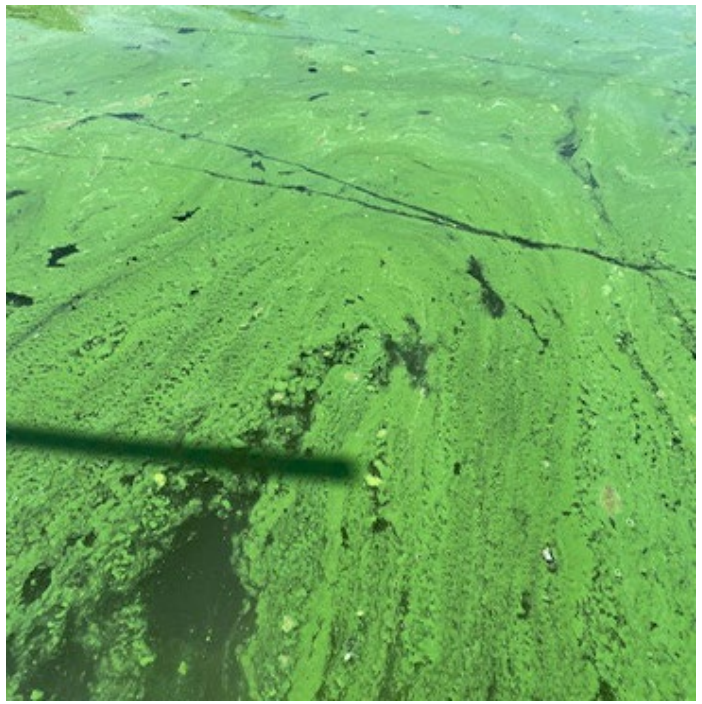
MISSOURI NATURAL RESOURCES

ITSD

CONSERVATION DEPARTMENT MISSOURI

What are Harmful Algal Blooms (HABs)?

- Rapid growth of algae or cyanobacteria that may produce toxins
- Driven by nutrients, sunlight, warm temperatures, low flow
- Exposure may cause illness to people or animals
- Paint-like, clumped, pea soup appearance
- Varying colors: green, teal, white, red, brown



HAB-Associated Symptoms

Human symptoms

- Depends on exposure route and toxin amount
- Skin irritation/rash
- Vomiting
- Cramps
- Diarrhea
- Dizziness
- Fainting
- Numbness
- Tingling
- Temporary paralysis
- Inhaled: allergy/asthma-like symptoms

Animal symptoms

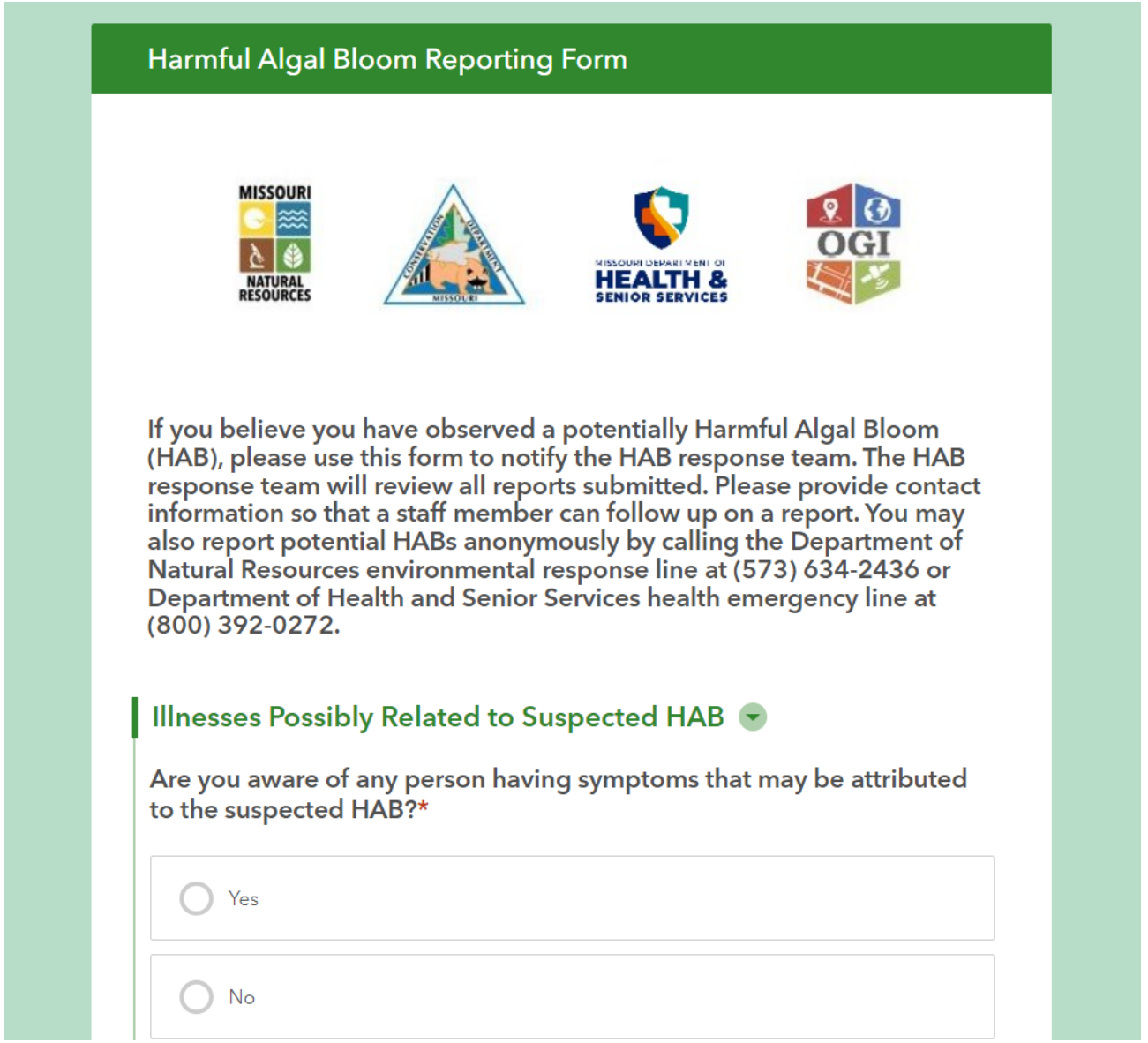
- Vomiting
- Diarrhea
- Rash
- Difficulty breathing
- General weakness
- Liver failure
- Seizures
- Drooling
- Convulsions/death

If you or your pets come in contact with a suspected HAB, wash immediately with clean water and monitor for symptoms.

HAB Reporting Form

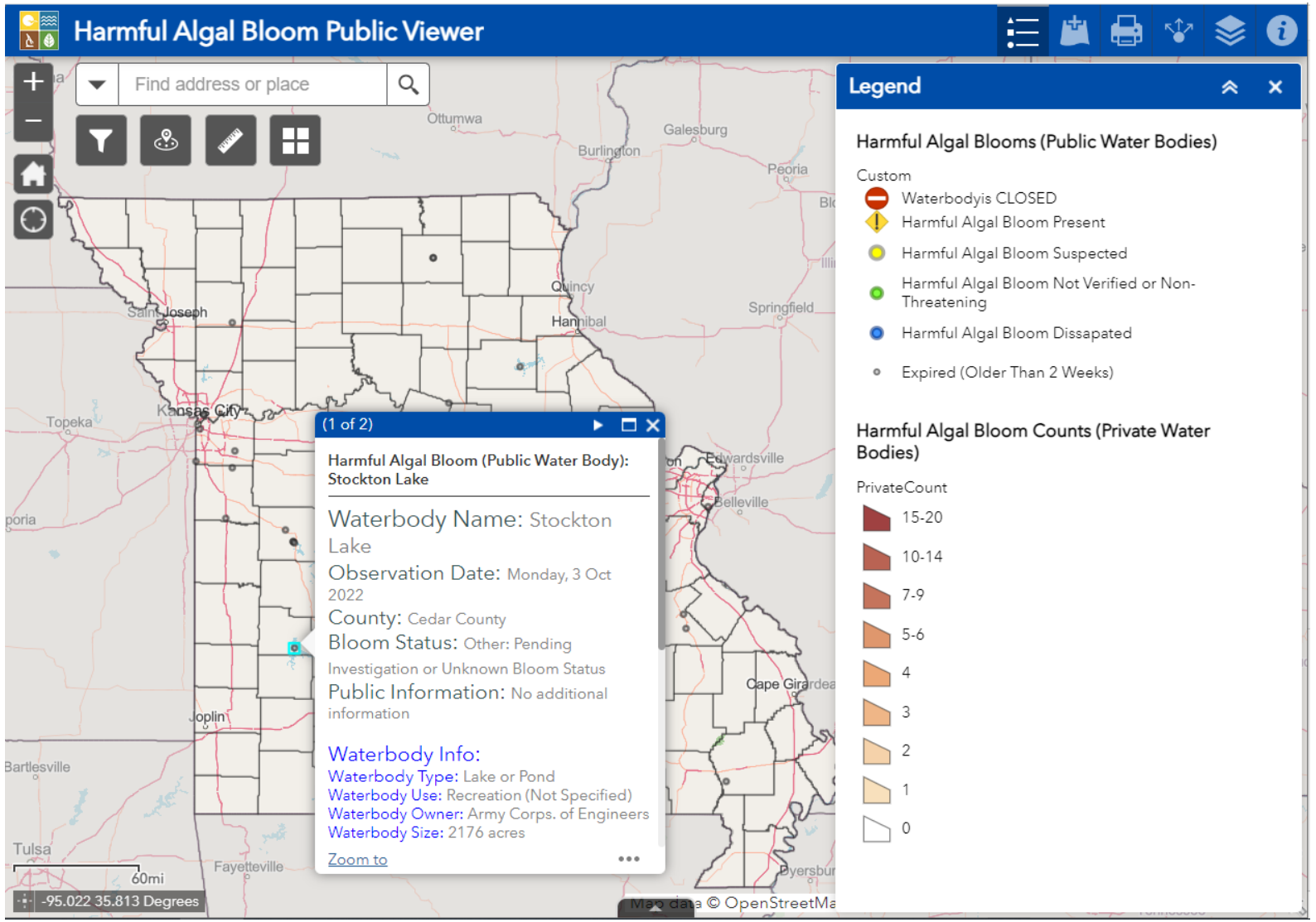
When in Doubt, REPORT and stay out!

https://dnr.mo.gov/water/hows-water/pollutants-sources/cyanobacteria-harmful-algal-blooms-blue-green-algae/report-algal-bloom



DNR HAB Public Map Viewer

https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=6add04e559bd431388ca0b7b8bc0a795



Additional HAB Resources

- Links on MO DNR webpage:
  https://dnr.mo.gov/water/hows-water/pollutants-sources/cyanobacteria-harmful-algal-blooms-blue-green-algae

- Call MO DNR Environmental Response Spill Line:
  573-634-2436

- Call MO DHSS Public Health Emergency 24/7 Hotline:
  800-392-0272

MISSOURI DEPARTMENT OF
HEALTH &
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Wastewater Surveillance Program

Funded by CDC/HHS.

This project is supported by the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS) as part of two financial assistance awards totaling $3,662,000.00 with 100 percent funded by CDC/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, not an endorsement, by CDC/HHS or the U.S. Government.

The Partnership

Wastewater Operators and Local Public Health Departments collect samples. It is a voluntary program with a sample reimbursement of $100 per sample submitted.

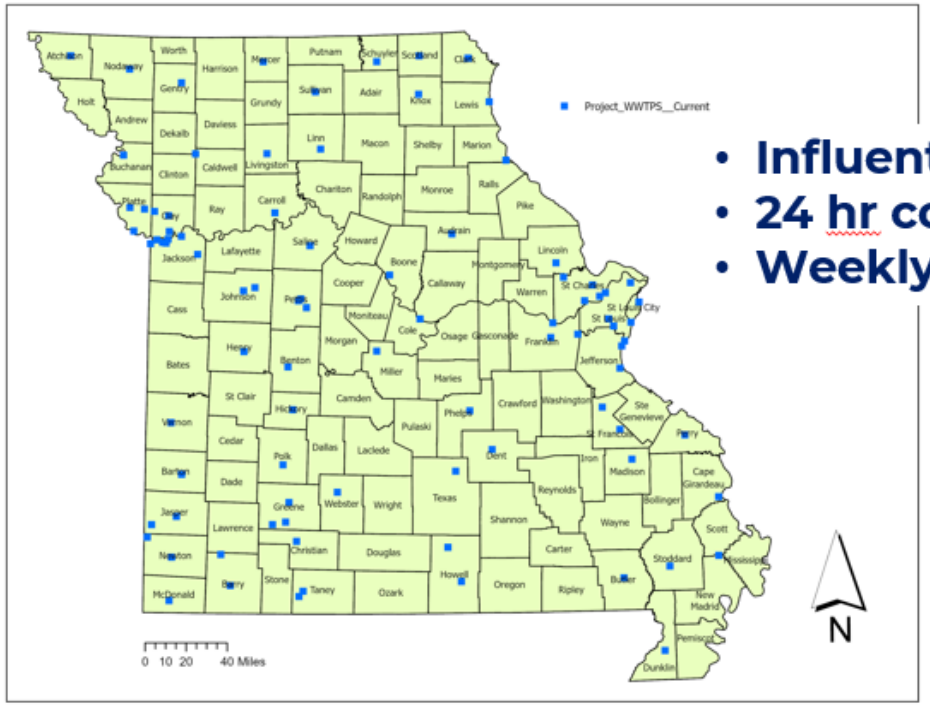
Mizzou
University of Missouri

University of Missouri–Columbia conducts sample analysis.

MISSOURI DEPARTMENT OF
HEALTH &
SENIOR SERVICES

DHSS administers project funding and conducts data analysis to inform public health strategy.

Current Sampling Sites and Analyses



- **Influent**
- **24 hr composite**
- **Weekly/bi-weekly**

Targets:

- Respiratory Illnesses
  - SARS-CoV-2
  - Influenza
  - RSV
- Non-respiratory Illnesses
  - C. Auris
  - Mpox
  - Measles
- Drugs
  - Opioids- school testing

2020	2021	2022	2023	2024	2025	**Present**
2112 Samples 9-92 sites ~59% population 36 state facilities	7555 Samples ~105 sites ~60% population 36 state facilities	6549 Samples ~103 sites ~60% population 36 state facilities	4801 Samples ~90 sites ~59% population 1 state facilities	4291 Samples ~84 sites ~58% population 1 University		~85 sites ~58% population 1 University 1 Hospital

The Missouri Wastewater Surveillance Program

A collaborative effort

April 28, 2025

Select a location below to view its data on the graph.

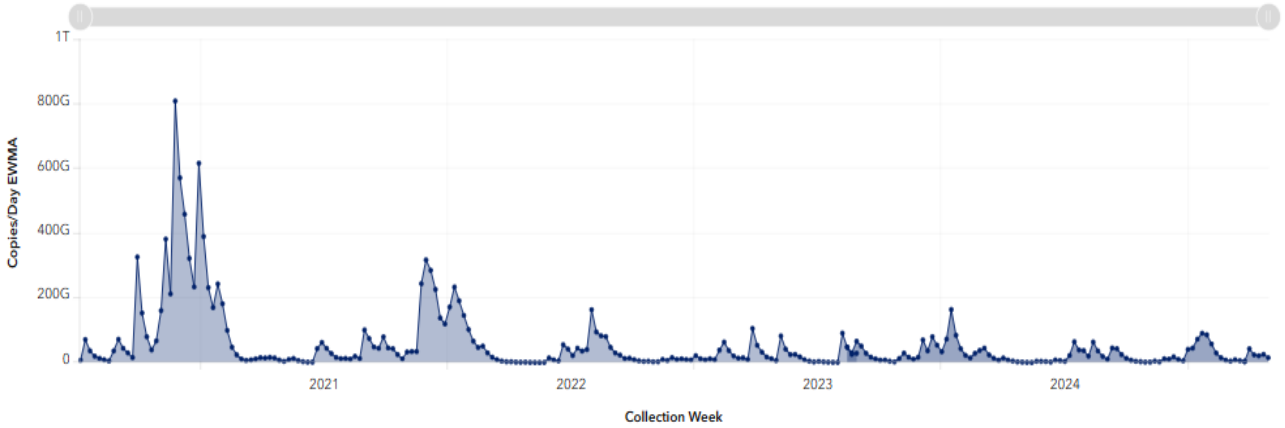
Search...

- (●) Albany WWTF
- ( ) Blue Springs, Sni A Bar WWTF
- ( ) Bolivar WWTP
- ( ) Bonne Terre Northwest WWTP
- ( ) Branson Cooper Creek
- ( ) Brookfield WWTP
- ( ) Cameron WWTF
- ( ) Canton WWTF
- ( ) Cape Girardeau Municipal WWTF
- ( ) Carrollton WWTP

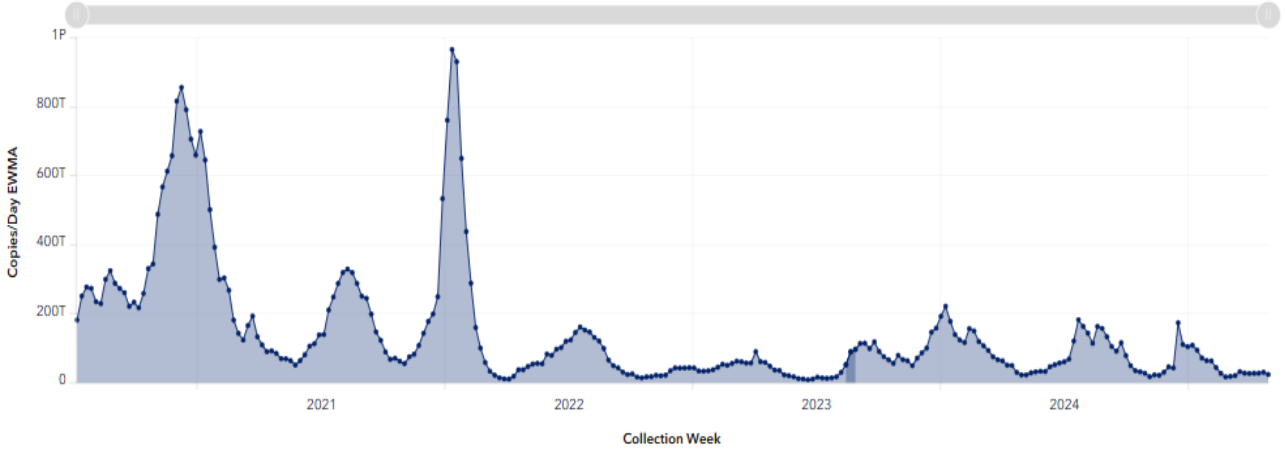
Reset

Viral Load For Selected Location

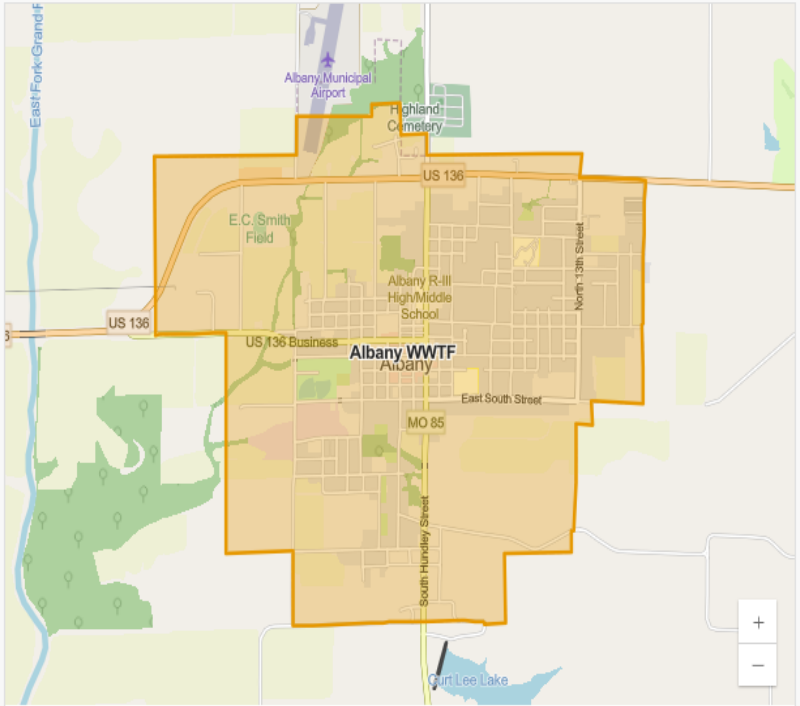
Select a location in the sidebar on the left.



Total Viral Load For All Locations



Current Viral Load Trends



Increased:	No Change:	Decreased:	Below Detection:	No Report:
10	36	13	9	18
Locations	Locations	Locations	Locations	Locations

Future of Wastewater Surveillance

- Current targets for Missouri wastewater
  - SARS-CoV-2 (COVID-19)
  - Influenza
  - RSV
  - (as needed) mpox, *C. auris,* and measles
- Possible additional targets for Missouri
  - Emerging infectious diseases of concern
- 2026 FIFA WORLD CUP-Kansas City,
- Metagenomics

Contact information: Leslie McCracken
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DHSS.WastewaterSurveillanceProgram@health.mo.gov