Environmental Protection Agency
EPA Department Breakdown and Source Categorized
Reconciliation
Dream.org
Heron Bridge Education
Miami Climate Alliance

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Table of Contents

1. Notes

1.1. Data pulled from 5/26/2023-7/13/2023, may be subject to change. The Office designation of some programs may be partially representative of the responsible parties for the resource itself.

1.2. Overview of Categories

    1.2.1. Maps

        1.2.1.1. Maps refers to data primarily displayed in a geographic format/map and may have a data download ability

    1.2.2. Research and Education

        1.2.2.1. These resources are often toolkits, educational resources with a target audience, or informational resources without a clear administrative purpose.

    1.2.3. Open Data Portals

        1.2.3.1. These are "data warehouses" which will have large amounts of data in various formats or methods of display. These datasets may be available for download or accessible in an accompanying display viewer.

    1.2.4. Downloadable Data and Queryable Tools

        1.2.4.1. These tools are tools that are predominantly tools with a user interface that prepares data and/or a data display in accordance with your specification.

    1.2.5. Software and Models

        1.2.5.1. These resources are software (web-hosted or download dependent) and models that tend to have a specific application with technical documentation and system/data input specifications. Additionally, these resources may be a formatted spreadsheet with accompanying instructions.

    1.2.6. Government Tools

        1.2.6.1. Government tools refers to resources that are for a specific use, but do not clearly fit the other tools and data categories. An example of this is a greenhouse gas footprint calculator, or a tool for locating energystar appliances.

    1.2.7. Policy and Administrative

        1.2.7.1. These resources refer to administrative and policy documents. Examples of this include: strategic plans for the agency, legislation look-up, structure of department information, and definitions of technical terms.

2. Maps

    2.1. Office of Air and Radiation

        2.1.1. Airnow.gov

            2.1.1.1. [Airnow Maps and Data](#)

                2.1.1.1.1. [Fire](#)

                    2.1.1.1.1.1. Information on what to do to prepare, during, and after fire as well as a fire map. Additional resources linked as well.

                2.1.1.1.2. [U.S. Embassies and Consulates](#)

                    2.1.1.1.2.1. AirNow DOS collects Air Quality Monitoring data from U.S. embassies and consulates around the world to inform U.S. personnel and citizens overseas. Is your country interested in air quality monitoring? Check out AirNow International, the EPA's information package on how to set up a country-wide air quality monitoring program.

                2.1.1.1.3. [Air Quality Interactive Map](#)

                    2.1.1.1.3.1. This map includes data for air quality monitors in the U.S., Canada, and Mexico. All readings are preliminary, unvalidated, and subject to change. Select a tab for: Current, Forecast, Loops, or Archive.

                2.1.1.1.4. [Air Data: Air Quality Data Collected at Outdoor Monitors Across the US](#)

                    2.1.1.1.4.1. The AirData website gives you access to air quality data collected at outdoor monitors across the United States, Puerto Rico, and the U. S. Virgin Islands. The data comes primarily from the AQS (Air Quality System) database. You can choose from several ways of looking at the data:

                        2.1.1.1.4.1.1. download data into a file (or view it on the screen)

                        2.1.1.1.4.1.2. output the data into one of AirData's standard reports

                        2.1.1.1.4.1.3. create graphical displays using one of the visualization tools

                        2.1.1.1.4.1.4. investigate monitor locations using an interactive map

                    2.1.1.1.4.2. AirData assists a wide range of people, from the concerned citizen who wants to know how many

unhealthy air quality days there were in his county last year to air quality analysts in the regulatory, academic, and health research communities who need raw data.

2.1.1.1.4.3. AirData lets you display and download monitored hourly, daily, and annual concentration data, AQI data, and speciated particle pollution data. For more detailed information on the AQS and the AirData source information, you can refer to the About AQS Data page. If you need data that AirData does not have (such as emissions data) please see Other Sources of Data.

2.1.1.1.4.4. EPA Outdoor Air Quality Data

    2.1.1.1.4.4.1. Use the tools on this site to access recent and historical data. For current air quality, visit AirNow.gov. During fire events, use the Fire and Smoke map.

        2.1.1.1.4.4.1.1. Download Data

        2.1.1.1.4.4.1.2. Data Viz Tools

        2.1.1.1.4.4.1.3. Summary Reports

        2.1.1.1.4.4.1.4. Monitor Locations

        2.1.1.1.4.4.1.5. About Air Data

        2.1.1.1.4.4.1.6. Technical Reports

    2.1.1.1.4.4.2. Interactive Map of Air Quality Monitors

        2.1.1.1.4.4.2.1. The AirData Air Quality Monitors app is a mapping application available on the web and on mobile devices that displays monitor locations and monitor-specific information. It also allows the querying and downloading of data daily and annual summary data.

        2.1.1.1.4.4.2.2. Map layers include:

            2.1.1.1.4.4.2.2.1. Monitors for all criteria pollutants (CO, Pb, NO2, Ozone, PM10, PM2.5, and SO2)

            2.1.1.1.4.4.2.2.2. PM2.5 Chemical Speciation Network monitors

            2.1.1.1.4.4.2.2.3. IMPROVE (Interagency

monitors in the geographic area if "All Sites (Highest Daily AQI)" is selected. The legend tallies the number of days in each AQI category.

2.1.1.1.4.4.6.   Air Data - AQI Plot

2.1.1.1.4.4.6.1.   Compare AQI values for multiple pollutants for a specific location and time period. This tool displays an entire year of AQI values - two pollutants at a time - and is useful for seeing how the number of unhealthy days can vary throughout the year for each pollutant.

2.1.1.1.4.4.7.   Air Data - Concentration Plot

2.1.1.1.4.4.7.1.   This tool displays daily air quality summary statistics for the criteria pollutants by monitor. You can plot all monitors in a city or county, or you can select a specific monitor.

2.1.1.1.4.4.8.   Air Data - Concentration Map

2.1.1.1.4.4.8.1.   Make a map of daily concentrations over several days. The daily air quality can be displayed in terms of the Air Quality Index or in concentration ranges for certain PM species like organic carbon, nitrates, and sulfates. This tool may be useful for tracking an air pollution episode like a wildfire event.

2.1.1.1.4.4.9.   Air Data - Ozone Exceedances

2.1.1.1.4.4.9.1.   How does this year compare with previous years? Compare 8-hour ozone exceedances between two years or multi-year periods for a city or county. The first plot shows the comparisons by MONTH. The second plot shows the comparisons by DAY based on cumulative counts. The third plot shows the

comparisons by YEAR.

2.1.1.2. [P2 EJ Facility Mapping Tool](#)

2.1.1.2.1. The P2 EJ Facility Mapping Tool helps prospective P2 grant applicants, grantees and interested stakeholders geographically target facilities in or adjacent to underserved communities within the framework of the P2 program's five industrial sector-based National Emphasis Areas (NEAs). The tool allows users to identify industrial facilities that may be contributing to pollution levels in a selected area, including communities with environmental justice (EJ) concerns.

2.1.1.2.2. [Pollution Prevention (P2) Environmental Justice (EJ) Facility Mapping Tool](#)

2.2. Office of Environmental Justice and External Civil Rights

2.2.1. [EJScreen](#)

2.2.1.1. EJScreen is a tool that provide a great deal of information, based on data sources and methods that have been fully described in great detail in the EJScreen Technical Documentation, which is the most comprehensive source of information about EJScreen. For those simply wanting to learn how to start using the maps and reports, we have also provided a User Guide that walks through the steps involved. A fact sheet and list of common questions and answers are also available.

2.2.1.2. [Overview of Socioeconomic Indicators in EJScreen](#)

2.2.1.2.1. EJScreen uses socioeconomics factors as very general indicators of a community's potential susceptibility to the types of environmental factors included in this screening tool, as explained further in the EJScreen Technical Documentation) . EJScreen has been designed in the context of EPA's EJ policies, including EPA's Final Guidance on Considering Environmental Justice During the Development of an Action (U.S. EPA, 2010). That guidance document explained EPA's focus on socioeconomics as an indicator of potential susceptibility to environmental pollution.

2.2.1.3. [Overview of Environmental Indicators in EJScreen](#)

2.2.1.3.1. EJScreen provides 12 environmental indicators. It is important to understand what each of these is measuring or indicating, in order to use EJScreen appropriately. There are important caveats and limitations to these

screening-level indicators and anyone using EJScreen is encouraged to read these carefully.

2.2.1.3.2. Read more information about Environmental Indicators, including documentation of data sources, in the EJScreen Technical Documentation .

2.2.1.3.3. Some of these environmental indicators quantify proximity to and the numbers of certain types of potential sources of exposure to environmental pollutants, such as nearby hazardous waste sites or traffic. The lead paint indicator indicates the presence of older housing, which often, but not always, indicates the presence of lead paint, and therefore the possibility of exposure. In some cases, the term "exposure" is used very broadly here to refer to the potential for exposure. Others indicators in EJScreen are estimates of ambient levels of air pollutants, such as PM2.5, ozone and diesel particulate matter. Still others are actual estimates of air toxics-related cancer risk or a hazard index, which summarizes the ratios of ambient air toxics levels to health-based reference concentrations. In other words, these environmental indicators vary widely in what they indicate.

2.3. Office of Land and Emergency Management

2.3.1. Cleanups in My Community

2.3.1.1. Cleanups in My Community (CIMC) enables you to map and list hazardous waste cleanup locations and grant areas, and drill down to details about those cleanups and grants and other, related information.

2.3.1.2. Clean-ups in My Community Mapping Tool

2.3.1.2.1. Cleanups in My Community (CIMC) enables you to map and list hazardous waste cleanup locations and grant areas, and drill down to details about those cleanups and grants and other, related information. This page provides several ways to get started.

2.3.2. Underground Storage Tank (UST) Finder

2.3.2.1. UST Finder allows users to find UST facilities and LUST sites, resulting in better understanding and assessment of vulnerability to human health and the environment. The map and application provide users with geospatial information about UST facilities and LUST sites that may be subject to extreme weather events, such as floods, wildfires, and earthquakes.

available only from several independent and unconnected databases.

2.6.1.2. The data architecture of WATERS integrates information from various EPA water programs by linking it to the national surface water network. For EPA, the surface water network is based on the NHDPlus dataset which incorporates the best features of the [National Hydrography Dataset (NHD)](#), the [National Elevation Dataset (NED)](#), and the [Watershed Boundary Dataset (WBD)](#). The integration of water program data using NHDPlus improves communication and efficiency which empowers EPA to meet its goals under the Clean Water Act.

2.6.1.3. Using WATERS, environmental professionals and interested citizens can access comprehensive information about the quality of the nation's surface water. Available information includes but is not limited to:

2.6.1.3.1. designated use(s) of a waterbody;

2.6.1.3.2. water quality monitoring results;

2.6.1.3.3. assessments of water quality;

2.6.1.3.4. causes and sources of impaired waters;

2.6.1.3.5. public beach closures; and

2.6.1.3.6. location of dischargers.

2.6.1.4. [Tool Link](#)

2.6.1.5. WATERS integrates water-related information by linking it to the NHDPlus stream network. The National Hydrography Dataset Plus (NHDPlus) provides the underlying geospatial hydrologic framework that supports a variety of network-based capabilities including upstream/downstream search and watershed delineation.

2.6.2. [Drinking Water Mapping Application to Protect Source Waters (DWMAPS)](#)

2.6.2.1. DWMAPS is an online mapping tool to help you find information critical to protection drinking water sources.

2.6.2.2. [Drinking Water Mapping Application to Protect Source Waters (DWMAPS)](#)

2.6.3. [Safe Drinking Water Information System (SDWIS) Search](#)

2.6.3.1. The Safe Drinking Water Information System (SDWIS) contains information about public water systems and their violations of EPA's drinking water regulations. These statutes and accompanying regulations establish maximum contaminant levels, treatment techniques, and monitoring and reporting requirements

to ensure that water provided to customers is safe for human consumption.

2.7. Office of The Administrator

    2.7.1. Smart Location Mapping

        2.7.1.1. The Smart Location Database is a nationwide geographic data resource for measuring location efficiency. It includes more than 90 attributes summarizing characteristics such as housing density, diversity of land use, neighborhood design, destination accessibility, transit service, employment, and demographics. Most attributes are available for every census block group in the United States.

            2.7.1.1.1. Access to Jobs and Workers Via Transit

                2.7.1.1.1.1. Several indicators measuring access to jobs and workers within a 45-minute transit ride for census block groups where transit data is available.

            2.7.1.1.2. National Walkability Index

                2.7.1.1.2.1. EPA's National Walkability Index: provides walkability scores based on a simple formula that ranks selected indicators from the Smart Location Database that have been demonstrated to affect the propensity of walk trips. The dataset covers every block group in the nation, providing a basis for comparing walkability from community to community. This dataset's universal coverage at the block group level makes it easy to use as input into scenario planning, modeling, and other community analysis. The National Walkability Index dataset ranks each block group relative to all other block groups in the United States, but individuals can use downloadable data to construct an index for a smaller universe of block groups, like a state, metropolitan area, or city.

            2.7.1.1.3. Smart Location Calculator

                2.7.1.1.3.1. The Smart Location Calculator is a simple tool for exploring how workplace location affects worker commute travel. Indicators include worker commute mode-share, vehicle miles traveled, and workplace accessibility via transit. The data and research behind this tool, as well as a user guide, are available in the Resources section at the bottom of

the page.

2.7.1.1.3.2. The Calculator provides a Smart Location Index (SLI), which ranges in value from 0-100, where 0 indicates the least location efficient site in the region, and 100 indicates the most location efficient site. These scores are relative to the region, and should not be compared across regions.

2.7.2. NEPAssist

2.7.2.1. NEPAssist is a tool that facilitates the environmental review process and project planning in relation to environmental considerations. The web-based application draws environmental data dynamically from EPA's Geographic Information System databases and web services and provides immediate screening of environmental assessment indicators for a user-defined area of interest. These features contribute to a streamlined review process that potentially raises important environmental issues at the earliest stages of project development.

2.8. Multiple Departments/EPA

2.8.1. Geospatial Viewer

2.8.1.1. The functionality of the Geospatial Viewer has been enhanced and incorporated into the more capable FRS Query. A new option, Facility Coordinates, has been added to the list of available Reports displayed for facilities meeting the entered search criteria.

2.8.2. Power Plants

2.8.2.1. Power Plants and Neighboring Communities Mapping Tool

2.8.2.1.1. There are over 3,400 fossil fuel-fired power plants in the United States. For each plant, EPA summarized population percentages of six key demographics and demographic index for the neighboring communities located within three miles of each plant.

2.8.2.1.2. A three-mile radius is consistent with environmental justice literature and studies, including the EJ Screening Report for the Clean Power Plan. These key demographics and information about nearby power plants may help identify a community's potential vulnerability to environmental concerns.

2.8.2.1.3. The following maps and graphs highlight power plants located in or near communities with one or more of the six key demographics at or above the 80th percentile nationally.

2.8.2.1.4.   Power Plant Retirements 2019-2030
       2.8.2.1.4.1.   These interactive maps and graphs shows recent and announced retirements of coal, natural gas, oil, and other fuel combustion power plants. The color of the marker indicates fuel type and the marker size represents nameplate capacity (MW) of the retired power plant or unit.

2.8.2.2.   Power Profiler
      2.8.2.2.1.   In the United States, electricity is generated in many different ways, with a wide variation in environmental impact. Electricity generation from the combustion of fossil fuels contributes toward unhealthy air quality, acid rain, and global climate change. Many electricity customers can choose their provider of electricity or can purchase green power from their utility. In fact, you might now have the option of choosing cleaner, more environmentally-friendly sources of energy. To compare the fuel mix (i.e., resource mix) and air emission rates of the electricity in your region to the national average and to determine the air emissions that result from electricity use in your home or business, either select the appropriate eGRID subregion or enter your ZIP code to determine the appropriate eGRID subregion. Power Profiler does not provide information about the environmental attributes of electric power generated by individual companies. For company-specific information, access EPA's eGRID database.

2.8.3.   Participatory Science for Environmental Protection Map
    2.8.3.1.   Participatory science (PS) engages the public in advancing scientific knowledge by formulating research questions, collecting data, and interpreting results. Other terms include citizen science, community science, or public participation in scientific research. EPA supports these initiatives through a range of resources including funding, technical support, and tools.

2.8.4.   Integrated Climate and Land-Use Scenarios (ICLUS)
    2.8.4.1.   The Integrated Climate and Land-Use Scenarios (ICLUS) project produced spatially explicit projections of population and land-use that are based on Intergovernmental Panel on Climate Change's (IPCC) scenarios and pathways.
    2.8.4.2.   First, social, economic, and demographic storylines were adapted for the United States. These modified storylines were then used to

create population projections that would reflect different assumptions about fertility, mortality, and immigration through the end of this century.

    2.8.4.3.   Next, a spatial interaction model was used to simulate the annual movement of people within the United States. Then the results of these population projections are used to calculate the demand for new residential lands.

3.   Open Data Portals

    3.1.   Office of Mission Support

        3.1.1.   [Environmental Dataset Gateway](#)

            3.1.1.1.   The Environmental Dataset Gateway (EDG) provides a one-stop to discover and access EPA's Open Data resources. The EDG contains metadata records contributed by EPA Regions, Program Offices, and Research Laboratories that links to geospatial and non-geospatial resources (e.g., data, Web services, or applications). Unrestricted information that is contributed to the EDG is shared with Data.gov.

        3.1.2.   [EPA Open Data Portal](#)

            3.1.2.1.   Explore the public data repositories to view or download datasets curated by the EPA.

        3.1.3.   [Envirofacts Data Breakdown](#)

            3.1.3.1.   `Comprehensive data breakdown of Envirofacts.

    3.2.   Multiple Departments/ EPA

        3.2.1.   [EPA Geospatial Applications](#)

            3.2.1.1.   EPA has developed many applications that allow users to explore and interact with geospatial data. This page highlights some of the flagship geospatial web applications but these represent only a fraction of the total. We recommend EPA's Environmental Dataset Gateway and GeoPlatform Gallery as the best tools to help connect you with an application that best meets your needs.

            3.2.1.2.   We recommend [EPA's Environmental Dataset Gateway](#) and [GeoPlatform Gallery](#) as the best tools to help connect you with an application that best meets your needs.

4.   Policy and Administrative

    4.1.   Office of Mission Support

        4.1.1.   [System Of Registries](#)

            4.1.1.1.   The System of Registries (SoR) is a resource for environmental system developers and enterprise architects. It also provides environmental program managers and users of environmental information with automated services to enable better understanding

of environmental terminology and data used by the Agency.

4.1.1.2.   Data standards are an integral part of these services. Information about data standards may be accessed on the separate Data Standards Web Site.

4.1.1.3.   [Terminology Services](#)

    4.1.1.3.1.   Disclaimer: The definitions provided in Terminology Services do not constitute the Agency's official use of terms and phrases for regulatory purposes, and should not be used to alter or supplant those found in any other federal document. Official terminology may be found in the laws and related regulations as published in such sources as the Congressional Record and Federal Register.

    4.1.1.3.2.   Users may search on all approved terms and acronyms stored in Terminology Services. Users may:

        4.1.1.3.2.1.   Enter a term to search for and select a search mode (Contains is the default).

        4.1.1.3.2.2.   Select a Search by Type (Terms and Acronyms is the default).

        4.1.1.3.2.3.   Browse by a numerical range or alphabetical letter.

4.1.1.4.   [Terms & Acronyms used by EPA](#)

    4.1.1.4.1.   The definitions provided in Terminology Services do not constitute the Agency's official use of terms and phrases for regulatory purposes, and should not be used to alter or supplant those found in any other federal document. Official terminology may be found in the laws and related regulations as published in such sources as the Congressional Record and Federal Register.

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        4.1.1.4.2.2.   Select a Search by Type (Terms and Acronyms is the default).

        4.1.1.4.2.3.   Browse by a numerical range or alphabetical letter.

4.1.1.5.   [Laws and Regulations Services](#)

    4.1.1.5.1.   Laws and Regulations Services (LRS) is a catalog of environmental laws and regulations and associated data that is publicly available via web services. LRS is a component of the EPA's System of Registries. LRS associates law and regulation data with keywords, NAICS codes, EPA

programs and offices, and substance lists from the Substance Registry Service (SRS). Laws and regulation data in LRS is extracted from the Code of Federal Regulations (CFR), published by the Government Publishing Office (GPO). LRS provides links to the official U. S. Code (U.S.C.) and CFR publications on the GPO website.

4.1.1.6.   TRIBES Services / Tribal Identifier Data Standard

    4.1.1.6.1.   The Tribal Identifier Data Standard is an EPA data standard that requires Agency systems with tribal information to maintain accurate and current references to the Bureau of Indian Affairs (BIA) recognized American Indian and Alaska Native tribal entities. This includes the tribe's name, state location(s), EPA region, BIA Code, and EPA Internal Identifier. Implementing this data standard increases EPA's ability to exchange and integrate tribal data, helping the agency coordinate and work with our tribal partners.

4.1.1.7.   Registry of EPA Applications, Models and Data Warehouses (READ)

    4.1.1.7.1.   READ is an important tool for improving EPA's ability to manage its information resources. Having an accurate inventory of which information resources exist at EPA, which EPA Program Office or Region owns that resource, and who the contact is for the resource, is a first step in effective management.

    4.1.1.7.2.   READ takes this management a step further by collecting life cycle phase information, how the resource supports environmental statutes, and whether the resource interfaces with other EPA information resources. READ facilitates a more enterprise-wide understanding of how information resources support the EPA mission. In an effort to streamline the reporting process, READ has been integrated into the EPA's governance process. Through this integration, EPA maintains a single resource title, acronym, and other information that is common across various reporting processes.

4.1.2.   Source Classification Codes (SCCs)

    4.1.2.1.   This is a searchable database containing the most updated SCCs list. You can do a keyword search by typing in a search term in the box below. You can also filter your search by clicking on the filter

options to make a selection from the menu. [Learn more about SCCs](#) and how they are structured.

4.1.3. [Consolidated List of Lists](#)

    4.1.3.1. Consolidated List of Lists

        4.1.3.1.1. EPA's [Substance Registry Services (SRS)](#) database can be used to search for a specific chemical name or Chemical Abstract Service (CAS) registry number. It provides the regulations and statutes applicable to the chemical. Regulatory lists include those managed by EPA and other federal agencies and states. SRS can also be searched by a specific regulatory list and shows all the chemicals on that particular list.

    4.1.3.2. Purpose

        4.1.3.2.1. The List of Lists is a consolidated list of chemicals subject to:

        4.1.3.2.2. Emergency Planning and Community Right-to-Know Act (EPCRA);

        4.1.3.2.3. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); and

        4.1.3.2.4. Section 112(r) of the Clean Air Act (CAA).

        4.1.3.2.5. It was prepared to help facilities handling chemicals determine, for a specific chemical, whether they may be subject to certain reporting requirements. These lists should be used as a reference tool, not as a definitive source of compliance information. Please refer to the following requirements in the appropriate part of the Code of Federal Regulations (CFR):

        4.1.3.2.6. Emergency planning notification under EPCRA section 302 (40 CFR Part 355);

        4.1.3.2.7. Emergency release notification under EPCRA section 304 (40 CFR Part 355);

        4.1.3.2.8. Toxic chemical release reporting under EPCRA section 313 (40 CFR Part 372);

        4.1.3.2.9. Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302); and

        4.1.3.2.10. Accidental release prevention requirements under CAA 112(r) (40 CFR Part 68).

    4.1.3.3. Formats

        4.1.3.3.1. The List of Lists is available in in the following formats:

        4.1.3.3.2. [EPCRA/CERCLA/CAA §112(r) Consolidated List of Lists (pdf)](#) (3.09 MB, December 2022)

        4.1.3.3.3. [Changes to EPCRA/CERCLA/CAA §112(r) Consolidated List of Lists (pdf)](#) (177.86 KB, December 2022)

        4.1.3.3.4. [Microsoft Excel version of EPCRA/CERCLA/CAA §112(r) Consolidated List of Lists (xlsx)](#) (218.48 KB, December 2022)

4.1.3.3.4.1. [Free Viewers](#)

4.1.3.4. Please note that the Excel file does not contain:

4.1.3.4.1. Introductory material explaining the lists and codes used in the chemical tables;

4.1.3.4.2. Appendix B: Radionuclides listed under CERCLA;

4.1.3.4.3. Appendix D: Toxics Release Inventory (TRI) chemical categories; or

4.1.3.4.4. Appendix F: CERCLA hazardous substance chemical categories.

4.1.3.4.5. All appendices appear in the PDF version of the List of Lists.

4.2. Office of Research and Development (ORD)

4.2.1. [Risk Assessment](#)

4.2.1.1. While there are many definitions of the word risk, EPA considers risk to be the chance of harmful effects to human health or to ecological systems resulting from exposure to an environmental stressor.

4.2.1.2. A stressor is any physical, chemical, or biological entity that can induce an adverse effect in humans or ecosystems. Stressors may adversely affect specific natural resources or entire ecosystems, including plants and animals, as well as the environment with which they interact.

4.2.2. [Human Health Risk Assessment](#)

4.2.2.1. A human health risk assessment is the process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemicals in contaminated environmental media, now or in the future.

4.2.3. [Ecological Risk Assessment](#)

4.2.3.1. An ecological risk assessment is the process for evaluating how likely it is that the environment might be impacted as a result of exposure to one or more environmental stressors, such as chemicals, land-use change, disease, and invasive species.

4.3.1.2.   [Contact EPA](#)

4.3.1.3.   [EPA Hotlines](#)

4.3.1.4.   [EPA Program and Regional Offices](#)

  4.3.1.4.1.   We have ten Regional offices, each of which is responsible for the execution of our programs within several states and territories. To get information about activities in your Regional office, select the appropriate link.

4.3.1.5.   [RSEI Data Dictionary](#)

  4.3.1.5.1.   This set of tables describes all of the data tables and fields used in EPA's Risk-Screening Environmental Indicators (RSEI) model and results data sets. Each table listed below comes with information about where it can be found (e.g., in EasyRSEI, or in the Geographic Microdata).

5.   Research and Educational

5.1.   Office of Air and Radiation

5.1.1.   [Indoor airPLUS](#)

5.1.1.1.   Indoor airPLUS is a voluntary partnership and labeling program that helps new home builders improve the Indoor Air Quality by requiring construction practices and product specifications that minimize exposure to airborne pollutants and contaminants. Clean air is good for everyone's health, but it can be especially important to those who have chronic respiratory conditions.

5.1.2.   [Interstate Air Pollution Transport](#)

5.1.2.1.   The total pollution in any area forms from the combination of local and upwind sources. Air transport refers to pollution from upwind emission sources that impact air quality in a given location downwind. Emissions of sulfur dioxide (SO2) and nitrogen oxides (NOX) can each undergo chemical reactions in the atmosphere to form fine particle (soot) pollution. Similarly, NOX emissions can react in the atmosphere to create ground-level ozone (smog) pollution. These pollutants can travel great distances affecting air quality and public health regionally. The transport of these pollutants across state borders, referred to as interstate air pollution transport, makes it difficult for downwind states to meet health-based air quality standards for PM2.5 and ozone.

5.1.3.   Airnow.gov

5.1.3.1.   [AirCompare](#)

  5.1.3.1.1.   AirCompare provides comparisons of air quality based on factors that have been shown to increase risk from air pollution. These factors can include life stages (children

and older adults), specific health conditions (heart or lung disease), and increased likelihood of exposure from being active outdoors. The Air Quality Index (AQI) is the official index for air quality across the United States. The AQI ranges from 0 to 500. The higher the AQI value, the greater the level of air pollution and the greater the health concern.

5.1.3.1.2. When AQI values are between 101 and 150, or code orange, members of sensitive groups may experience health effects. This is because they are more likely to be affected at lower air quality levels than everyone else. For example, children and older adults, people with lung disease, and people who are active outdoors (outdoor workers) are at greater risk from exposure to ozone. Older adults and children, and people with heart or lung disease are at greater risk from exposure to particle pollution. Everyone is more likely to be affected when the AQI values are above 150, or code red and higher.

5.1.4.   Inventory of U.S. Greenhouse Gas Emissions and Sinks

5.1.4.1.   EPA develops an annual report, called the Inventory of U.S. Greenhouse Gas Emissions and Sinks (Inventory), that tracks U.S. greenhouse gas emissions and sinks by source, economic sector, and greenhouse gas going back to 1990. EPA has prepared the *Inventory of U.S. Greenhouse Gas Emissions and Sinks* since the early 1990s. This annual report provides a comprehensive accounting of total greenhouse gas emissions for all man-made sources in the United States, including carbon dioxide removal from the atmosphere by "sinks," (e.g., through the uptake of carbon and storage in forests, vegetation, and soils) from management of lands in their current use or as lands are converted to other uses. The gases covered by the Inventory include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride.

5.1.4.2.   The national greenhouse gas inventory is submitted to the United Nations in accordance with the Framework Convention on Climate Change. In preparing the annual emissions and sinks inventory report, EPA collaborates with hundreds of experts representing more than a dozen U.S. government agencies, academic institutions, industry associations, consultants and environmental organizations. EPA also collects greenhouse gas emissions data from individual facilities and suppliers of certain fossil fuels and

industrial gases through the [Greenhouse Gas Reporting Program](#).

5.1.5.   [Air Emissions Inventory Training](#)

    5.1.5.1.   Most online training on the National Emissions Inventory can be found on the AirKnowledge website at https://airknowledge.gov/EMIS-SI.html.

    5.1.5.2.   The same information is located on https://epaapti.csod.com, and this parallel website is a Learning Management System (LMS) and keeps track of your record of learning. State, local government, and tribal air agency staff must register at https://epaapti.csod.com to gain access to the LMS.

    5.1.5.3.   Currently Posted:

        5.1.5.3.1.   [Purposes and Types of Emissions Inventories](#)

        5.1.5.3.2.   [What is an Emissions Inventory?](#)

        5.1.5.3.3.   [National Emission Inventory](#)

    5.1.5.4.   Nonpoint Sources

        5.1.5.4.1.   [Data Completeness](#)

        5.1.5.4.2.   [Nonpoint Survey](#)

        5.1.5.4.3.   [EPA Wagon Wheel Tool](#)

        5.1.5.4.4.   [Expected Pollutants](#)

        5.1.5.4.5.   [Oil and Gas 101](#)

        5.1.5.4.6.   [Oil and Gas Estimation Tool](#)

5.1.6.   [Tribal Air and Climate Resources](#)

    5.1.6.1.   Tribes have historically played an important role in environmental issues including air quality and climate change. Tribal citizens are often disproportionately affected by air pollution, while their governments play an increasingly valuable role in controlling and reducing pollution and its adverse health effects. Tribes are also particularly vulnerable to the impacts of climate change and are taking steps to prepare for and become more resilient to these changes.

5.2.   Office of Research and Development (ORD)

5.2.1.   [Climate Change Research Publications in the Science Inventory](#)

    5.2.1.1.   A list of journal articles and reports is organized by the following search terms:

        5.2.1.1.1.   Adaptation

        5.2.1.1.2.   Air Quality

        5.2.1.1.3.   Ecosystem

        5.2.1.1.4.   Energy

        5.2.1.1.5.   Human Health

        5.2.1.1.6.   Mitigation

environmental exposures. Many factors contribute to children's health, including genetic inheritance, nutrition, and exercise, among others. The adverse health consequences of some environmental exposures may occur through interactions with these other risk factors, and it is often difficult to determine the extent to which the environment (or any other factor) contributes to children's health outcomes of concern.

      5.3.2.2. The ACE Health indicators address the following topics:

           5.3.2.2.1. Respiratory Diseases

           5.3.2.2.2. Childhood Cancer

           5.3.2.2.3. Neurodevelopmental Disorders

           5.3.2.2.4. Obesity

           5.3.2.2.5. Adverse Birth Outcomes

5.3.3. [America's Children and the Environment (ACE) Publications](#)

5.3.4. [Air, Climate, & Energy Research Webinar Series](#)

      5.3.4.1. Free webinars typically held on a quarterly basis on the third Tuesday of the month from 3 to 4 p.m. ET, with a Q&A session from 4 to 4:15 p.m. ET. EPA's Office of Research and Development hosts this webinar series to share current research activities and results related to air quality; impacts of air pollution and climate change; environmental justice; and responses to impacts of climate change, transformations of the energy and transportation infrastructure, and other emerging risks to our environment from atmospheric pollution.

5.3.5. [EPA Research Events](#)

      5.3.5.1. These are events that EPA's Office of Research and Development sponsors or in which staff members are participating. Please also see EPA Research Webinar Series for ongoing events.

5.4. Multiple Departments/ EPA

    5.4.1. Toolkits, Educational Materials, and Resources

      5.4.1.1. [Power Sector Modeling](#)

         5.4.1.1.1. Power Sector Modeling provides information and documentation on EPA's power sector modeling resources and regulatory applications. In the last few years, EPA has engaged with state air quality planning officials, power company representatives, regional transmission organizations, federal and research organizations, and others working on power sector modeling who have provided input on the data, assumptions, and structure of EPA's power sector analytical tools.

5.4.1.1.2. EPA uses the Integrated Planning Model (IPM) to analyze the projected impact of environmental policies on the electric power sector. In addition to IPM, EPA uses additional complementary analytical tools and approaches informing power sector projections and regulatory actions.

5.4.1.1.3. EPA's guidance regarding electricity generating unit (EGU) emission inventories, key modeling/projection input assumptions, appropriate data sources, and general methodological criteria is available in Section 5.3.1 of the Air Emissions Inventory Guidance, including references to state-developed resources like ERTAC and NE-MARKAL.

5.4.1.2. [Air Quality and Energy Choice STEM Activities for Educators](#)

5.4.1.2.1. EPA researchers participate in educational outreach to schools, museums, and other locations to teach students about air quality and climate change research that EPA and partners conduct to protect the air we breathe and provide the knowledge and scientific tools to respond to a changing climate. As part of the outreach, researchers have developed several hands-on activities for teachers and others to use in the classroom and other educational settings.

5.4.1.3. [Environmental Protection Agency EPA Pub Central](#)

5.4.1.3.1. PubMed Central (PMC) is a full-text, online archive of journal literature operated by the National Library of Medicine. The EPA is using PMC to permanently preserve and provide easy public access to the peer-reviewed papers resulting from EPA-funded research. For more information about public access and other funders who use PMC, see Funders and PMC.

5.4.1.4. [Community-Port Collaboration](#)

5.4.1.4.1. [Community-Port Collaboration Toolkit](#)

5.4.1.4.1.1. The Community-Port Collaboration Toolkit is designed to help communities and ports develop collaboration skills and to enhance understanding of stakeholders' priorities and challenges associated with port-related activities. The Toolkit includes the Ports Primer for Communities, the Community Action Roadmap, and the Environmental Justice (EJ) Primer for Ports along with associated training materials and worksheets. The tools were developed

through a collaborative process with feedback from port operators, communities, environmental justice organizations and government agencies as recommended by the Ports Initiative Workgroup Report and approved by the Mobile Sources Technical Review Subcommittee of the Clean Air Act Advisory Committee.

5.4.1.5. Smoke-Ready Toolbox for Wildfires

5.4.1.5.1. Smoke from wildfires in the United States is adversely affecting air quality and potentially putting more people at health risk from smoke exposure. EPA, the USDA Forest Service, and other federal, state and community agencies and organizations are working together to identify ways the public can prepare to reduce their health risk before a wildfire. Public health officials and others can use the resources in the Smoke-Ready Toolbox to help educate people about the risks of smoke exposure and actions they can take to protect their health.

5.4.1.5.1.1. Categories of Information Available

5.4.1.5.1.1.1. Smoke & Health

5.4.1.5.1.1.2. Current Fires

5.4.1.5.1.1.3. Other Resources

5.4.1.5.1.1.4. Health Professionals

5.4.2. Climate Change

5.4.2.1. Climate Change Resources for Educators and Student

5.4.2.1.1. EPA's Climate Change Resources

5.4.2.1.1.1. *Climate Change Indicators*

5.4.2.1.1.1.1. This website describes observed changes in the environment, society, and ecosystems. An easy-to-understand, data-rich resource for teaching about causes and effects of climate change.

5.4.2.1.1.2. *Climate Change Science*

5.4.2.1.1.2.1. Learn about the science of climate change with information on climate change basics and causes.

5.4.2.1.1.3. *Climate Change Impacts*

5.4.2.1.1.3.1. Explore information on climate change impacts to communities, ecosystems, and industries in the United States.

about how they are being affected by climate change.

5.4.2.1.2.6. *[Smithsonian National Museum of Natural History: Global Climate Change in Perspective](#)*

    5.4.2.1.2.6.1. Learn about global climate change now and across geologic time, and access related resources, including study guides and videos.

5.4.2.1.2.7. *[Smithsonian National Museum of Natural History: Hot Potato: Climate Change, Food Systems, and You](#)*

    5.4.2.1.2.7.1. This site provides access to a museum-educator-led virtual program examining the relationship between climate and food systems, as well as other videos and resources related to climate change.

5.4.2.1.2.8. *[U.S. Department of Agriculture Forest Service](#)*

    5.4.2.1.2.8.1. Find articles, videos, and resources about forests and climate change, including tips on using Forest Service research in the classroom.

5.4.2.1.2.9. *[U.S. Department of Energy (DOE): Resources for Educators](#)*

    5.4.2.1.2.9.1. A collection of resources in English and Spanish on energy efficiency and renewable energy, including videos, lesson plans, and coloring books.

5.4.2.1.3. Federal Resources for Students

    5.4.2.1.3.1. Elementary to Middle School

        5.4.2.1.3.1.1. *[National Aeronautics and Space Administration (NASA): Climate Kids](#)*

            5.4.2.1.3.1.1.1. Explore this interactive website with activities, articles, videos, and more about climate change, why it is happening, how it is impacting the earth, and how and why NASA studies the planet.

- 5.4.2.1.3.1.2. *U.S. Energy Information Administration: Energy Kids*
    - 5.4.2.1.3.1.2.1. Learn about different energy sources and get tips to save energy in your home. Then test your energy knowledge with fun games and quizzes.
- 5.4.2.1.3.2. Middle to High School
    - 5.4.2.1.3.2.1. *NASA: Eyes on the Earth*
        - 5.4.2.1.3.2.1.1. With this app, monitor the earth's vital signs, such as sea level height, atmospheric carbon dioxide concentration, and Antarctic ozone.
    - 5.4.2.1.3.2.2. *NASA: SciJinks*
        - 5.4.2.1.3.2.2.1. Explore the world of weather through games, videos, downloadable posters, bookmarks, and more.
- 5.4.2.1.4. Other Educational Resources
- 5.4.2.1.5. Content on non-Federal websites is not endorsed by EPA and is not subject to Federal information quality, privacy, security, and related guidelines.
    - 5.4.2.1.5.1. *American Museum of Natural History: OLogy*
        - 5.4.2.1.5.1.1. Check out some of these games, stories, hands-on activities, and videos for learning about climate change.
    - 5.4.2.1.5.2. *Environmental Solutions Initiative at Massachusetts Institute of Technology (ESI at MIT): TILclimate Guides for Educators*
        - 5.4.2.1.5.2.1. These "Today I Learned: Climate" guides comprise flexible, ready-to-use activities for high school teachers, designed to bring concepts from energy to hurricanes to food into the classroom. They are an extension of the TILclimate Podcast series and complement other learning resources on the MIT Climate Portal.
    - 5.4.2.1.5.3. *National Geographic*
        - 5.4.2.1.5.3.1. Find lesson plans, articles, activities, and more for K-12 educators on earth science,

climatology, conservation, and geography. Activities geared directly to students can be found at [National Geographic Kids](#).

5.4.2.2. [Climate Change Science](#)

5.4.2.2.1. The earth's climate is changing. Multiple lines of evidence show changes in our weather, oceans, ecosystems, and more. EPA is committed to providing the most up-to-date and accurate climate-science information, including basics, causes, indicators, and impacts of climate change.

5.4.2.2.2.   Categories on page:
    5.4.2.2.2.1.   *Basics*
    5.4.2.2.2.2.   *Causes*
    5.4.2.2.2.3.   *Impacts*
    5.4.2.2.2.4.   *Climate Change Indicators*
    5.4.2.2.2.5.   *Climate Change Impacts and Risk Analysis*
    5.4.2.2.2.6.   *FAQs About Climate Change*
5.4.2.2.3.   Related Links
    5.4.2.2.3.1.   *[Climate Change Home](#)*
    5.4.2.2.3.2.   *[What EPA is Doing](#)*
    5.4.2.2.3.3.   *[Climate Change Research](#)*
5.4.2.2.4.   The following links not hosted on EPA site:
    5.4.2.2.4.1.   *[Intergovernmental Panel on Climate Change (IPCC)](#)*
    5.4.2.2.4.2.   *[Sixth Assessment Report](#)*
    5.4.2.2.4.3.   *[Fifth Assessment Report](#)*
    5.4.2.2.4.4.   *[Global Warming of 1.5°C](#)*
    5.4.2.2.4.5.   *[The National Academies of Sciences, Engineering, and Medicine](#)*
    5.4.2.2.4.6.   *[Climate Change: Evidence and Causes: Update 2020](#)*
    5.4.2.2.4.7.   *[Centers for Disease Control and Prevention: Climate and Health](#)*
    5.4.2.2.4.8.   *[Climate Change and Extreme Heat: What You Can Do to Prepare](#)*
    5.4.2.2.4.9.   *[American Meteorological Society](#)*
    5.4.2.2.4.10.   *[State of the Climate](#)*
    5.4.2.2.4.11.   *[National Aeronautics and Space Administration (NASA)](#)*
    5.4.2.2.4.12.   *[National Oceanic and Atmospheric Administration (NOAA)](#)*
    5.4.2.2.4.13.   *[U.S. Global Change Research Program](#)*
    5.4.2.2.4.14.   *[Climate Science Special Report](#)*
    5.4.2.2.4.15.   *[Fourth National Climate Assessment](#)*
    5.4.2.2.4.16.   *[The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment](#)*
5.4.2.3.   [The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment](#)
    5.4.2.3.1.   Climate change is a significant threat to the health of the American people. This scientific assessment examines how

climate change is already affecting human health and the changes that may occur in the future.

    5.4.2.4. [globalchange.gov Reports & Resources](#)

        5.4.2.4.1. This page provides access to select relevant resources generated or sponsored by the U.S. Government and other authoritative scientific bodies, and thereby fulfills the requirement for a Global Change Research Information Office as mandated by the Global Change Research Act of 1990.

        5.4.2.4.2. Categories:

           5.4.2.4.2.1. Key Federal Resources

           5.4.2.4.2.2. Reports Library

           5.4.2.4.2.3. Indicators

    5.4.2.5. [Global Change Assessments and Research](#)

6. Software and Models

    6.1. Office of Air and Radiation

        6.1.1. [UV Index Search](#)

           6.1.1.1. The ozone layer shields the Earth from harmful ultraviolet (UV) radiation. Ozone depletion, as well as seasonal and weather variations, cause different amounts of UV radiation to reach the Earth at any given time. The UV Index predicts the ultraviolet radiation levels on a 0-10+ scale, helping people determine appropriate sun-protective behaviors.

        6.1.2. [EPA's Portfolio Manager (PM) – Water Module](#)

           6.1.2.1. [Getting Started: Portfolio Manager – Water Module](#)

           6.1.2.2. EPA's ENERGY STAR Portfolio Manager (PM)is a publicly available tool you can use to measure and track energy and water consumption, as well as greenhouse gas emissions, with an ENERGY STAR score generated for wastewater facilities larger than 0.6 million gallons per day. You can compare three publicly available energy data tools in the Data Tool Comparison Matrix, included in DOE's Wastewater Energy Management Toolkit. If you have elected to use ENERGY STAR PM for your energy data management, this reference sheet helps you set a baseline, create a record, and find user help fromEPA.

        6.1.3. [MOVES and Other Mobile Source Emissions Models](#)

           6.1.3.1. EPA's MOtor Vehicle Emission Simulator (MOVES) is a state-of-the-science emission modeling system that estimates emissions for mobile sources at the national, county, and project level for criteria air pollutants, greenhouse gases, and air toxics.

6.1.4.   AVoided Emissions and geneRation Tool (AVERT)

 6.1.4.1.   AVERT is a free tool with a simple user interface designed to meet the needs of state air quality planners and other interested stakeholders. Anyone can use AVERT to evaluate county, state, and regional changes in emissions from electric power plants and displaced fuel-burning vehicles resulting from energy policies and programs such as energy efficiency, renewable energy, and electric vehicles. AVERT is designed to use public data that are accessible and auditable.

 6.1.4.2.   Who Should Use AVERT

  6.1.4.2.1.   Analysts who wish to improve their understanding of the emission benefits of statewide or multi-state energy policies and programs.

  6.1.4.2.2.   Environmental agency staff and state air quality planners interested in assessing emission benefits being incorporated into Clean Air Act plans to meet the National Ambient Air Quality Standards or other clean air goals.

  6.1.4.2.3.   Energy office or public utility commission staff who want to estimate and promote the air quality benefits of their energy efficiency, renewable energy, or electric vehicle policies.

6.1.5.   Air Pollutant Emissions Trends Data

 6.1.5.1.   Current emission trends data (including "readme" files included in the spreadsheets) and the documentation of estimation methods are available via the links below. The latest version of the 1970 - 2022 data show the trends for Tier 1 categories which distinguish pollutant emission contributions among major source types. Improvements to the methods used to estimate emissions for the years 2002-2019 are included in these data. These updated procedures will minimize the effects of method changes on emissions over this time frame. In addition, 2020 is represented by the 2020 NEI data, and 2021 and 2022 are based on the 2020 NEI with some year specific embellishments for point sources, fires, and mobile sources. Another addition to the suite of trends products includes EIS sector specific national and state trends for the time frame 2002-2022, and the addition of black carbon and organic carbon as pollutants to all the files. The trends shown are for criteria air pollutants (CAPs) and precursors covered by the National Ambient Air Quality Standards (NAAQS), excluding

lead. Lead emissions sharply declined after it was eliminated from gasoline and have remained low.

6.1.6. Emissions & Generation Resource Integrated Database (eGRID)

   6.1.6.1. The Emissions & Generation Resource Integrated Database (eGRID) is a comprehensive source of data from EPA's Clean Air Markets Division on the environmental characteristics of almost all electric power generated in the United States.

   6.1.6.2. The data includes emissions, emission rates, generation, heat input, resource mix, and many other attributes. eGRID is typically used for greenhouse gas registries and inventories, carbon footprints, consumer information disclosure, emission inventories and standards, power market changes, and avoided emission estimates.

6.1.7. EIS Bridge Tools

   6.1.7.1. The Bridge Tools (Facility/Point, Nonpoint/Onroad/Nonroad, and Event) are available to State/Local/Tribal agencies for reporting NEI datasets to the Emissions Inventory System. The bridge tools create XML datasets from Access database templates. Data can also be imported from the XML format into these Access templates.

6.1.8. EIS Reporting Code Tables

   6.1.8.1. WARNING: Prompts File Download. EIS Reporting Code Tables (zip) is a zip file containing the different point source reporting codes used to report facility and emissions data in both xls and csv formats. A readme file is also included.

6.1.9. Webfire

   6.1.9.1. WebFIRE is EPA's online emissions factor repository, retrieval, and development tool. The WebFIRE database contains EPA's recommended emissions factors for criteria and hazardous air pollutants (HAP) for industrial and non-industrial processes. In addition, WebFIRE contains the individual data values used to develop the recommended factors and other data submitted to EPA by federal, state, tribal, and local agencies; consultants; and industries. For each recommended emissions factor and individual data value, WebFIRE contains descriptive information such as industry and source category type, control device information, the pollutants emitted, and supporting documentation.

   6.1.9.2. WebFIRE includes data submitted to EPA from the Electronic Reporting Tool (ERT). Beginning January 1, 2012, industries are required to submit their source test data to EPA using the ERT application. This information is shared with WebFIRE and is

available to the public. More information about the ERT data is available on the Search WebFIRE page.

6.1.10. [Support Center for Regulatory Atmospheric Modeling (SCRAM)](#)

6.1.10.1. This website provides access to air quality models and other mathematical simulation techniques used in assessing control strategies and source impacts.

6.2. Office of Water

6.2.1. [The Wastewater Information System Tool (TWIST)](#)

6.2.1.1. The Wastewater Information System Tool (TWIST) is downloadable, user-friendly management tool that will allow state and local health departments to effectively inventory and manage small wastewater treatment systems in their jurisdictions. It is designed to track information related to homes and facilities served, permits, site evaluations, types of systems, inspections and complaints. TWIST will help answer key questions for public health and water resource program managers, such as:

6.2.1.1.1. How many systems near drinking water sources have not been maintained?

6.2.1.1.2. Are there systems older than 35 years sited closer than 50 feet from the lake shore?

6.2.1.1.3. Which systems require inspection within the next year?

6.2.1.1.4. How many systems of similar types have malfunctioned over the last three years?

6.2.2. [Information Collection Rule (ICR)](#)

6.2.2.1. ICR required water systems serving 100,000 people or more to collect samples and report on microbial (source water) and disinfection byproduct (treated water) levels for 18 months (July 1997-December 1998), as part of a national research project to support development of national drinking water standards.

6.2.3. [EPA's Energy Use Assessment Tool](#)

6.2.3.1. EPA's Energy Use Assessment Tool: An Excel-based tool that small- to medium-sized systems can use to conduct a utility bill and equipment analysis to assess individual baseline energy use and costs.

7.   Downloadable Data and Queryable Tools

   7.1.   Office of Air and Radiation

      7.1.1.   GHG Query Builder Envirofacts

         7.1.1.1.   Greenhouse Gas

            7.1.1.1.1.   The purpose of the Greenhouse Gas Reporting Program (GHGRP) is to provide accurate and timely GHG data to inform the public, policy makers and other interested parties. The data will help the public better understand emissions from specific industries, emissions from individual facilities, factors that influence greenhouse gas emission rates, and actions that facilities could take to reduce emissions. More information on Greenhouse Gas.

         7.1.1.2.   Greenhouse Gas Customized Search

            7.1.1.2.1.   GHG Customized Search allows you to create a report on multiple subject areas using the most comprehensive set of GHG data elements. More information on Greenhouse Gas.

      7.1.2.   Greenhouse Gas Inventory Data Explorer

         7.1.2.1.   The Data Explorer is an interactive tool that provides access to data from the EPA's annual *Inventory of U.S. Greenhouse Gas Emissions and Sinks* and the new *Inventory of U.S. Greenhouse Gas Emissions and Sinks by State*. You can use the tool to create customized graphs, examine trends over time, and download data. Visit other EPA pages to learn more about the EPA's national Inventory and how it relates to EPA's Greenhouse Gas Reporting Program and the EPA's state-level greenhouse gas (GHG) data. The EPA recognizes that there will be differences between the EPA's state-level GHG estimates and some inventory estimates developed independently by individual state governments. Inventory data presented here should not be viewed as official data of any state government. Additional information is available on official state GHG data, where it exists, including information on potential areas of difference between EPA's data and official state data.

      7.1.3.   Find and Use GHGRP Data

         7.1.3.1.   The Greenhouse Gas Reporting Program (GHGRP) releases reported greenhouse gas emissions data annually. The most recent reporting year that is publicly available is 2021 data. GHGRP also produces resources like tools, profiles, fact sheets, and more on specific topics of interest to help the public use and derive value

from the greenhouse gas reporting data.

7.2.   Office of Chemical Safety and Pollution Prevention (OCSPP)

    7.2.1.   [EasyRSEI Dashboard](#)

        7.2.1.1.   RSEI Scores add context to chemical release data reported by facilities to the Toxics Release Inventory (TRI) by considering the size of the chemical release, the fate and transport of the chemical through the environment, the size and location of the exposed population, and the chemical's toxicity. RSEI Scores are available for modeled releases and transfers (air releases, water releases, and transfers to POTWs and off-site incineration). RSEI Scores combine toxicity information for both cancer and noncancer effects. RSEI Score-Cancer and RSEI Score-Noncancer are also provided so users can examine those effects separately.

        7.2.1.2.   Hazard values consider the size of the release and the chemical toxicity. RSEI Modeled Hazard can be calculated for modeled releases and transfers, and RSEI Hazard is calculated for all releases and transfers reported to TRI, including those not modeled by RSEI, such as land releases and off-site transfers to disposal or recycling.

        7.2.1.3.   RSEI Modeled Pounds includes pounds reported to modeled media only (air releases, water releases, and transfers to POTWs and off-site incineration). TRI Pounds includes pounds reported to all media, whether or not they are modeled by RSEI.

        7.2.1.4.   [RSEI Results Map](#)

            7.2.1.4.1.   Explore RSEI Results by State

7.3.   Office of Enforcement and Compliance Assurance (OECA)

    7.3.1.   [Enforcement and Compliance History Online (ECHO)](#)

        7.3.1.1.   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:

            7.3.1.1.1.   Search for Facilities

            7.3.1.1.2.   Investigate Pollution Sources

            7.3.1.1.3.   Search for EPA Enforcement Cases

            7.3.1.1.4.   Examine and Create Enforcement-Related Maps

            7.3.1.1.5.   Analyze Trends in Compliance & Enforcement Data

        7.3.1.2.   [Water Pollution Search](#)

            7.3.1.2.1.   The Water Pollutant Loading Tool (Loading Tool) is a web-based tool that calculates and reports facility pollutant discharges in pounds per year or by monitoring period based on NPDES permit limit and DMR data. The Water Pollution Search allows users to search for DMR or TRI

pollutant discharges and the results provide top-ten lists of the largest surface water discharges. It prioritizes discharges based on total mass and toxicity to help identify discharges that may have the greatest impact on the environment or human health.

7.3.1.2.2. The Loading Tool uses discharge monitoring and permit data from Integrated Compliance Information System - National Pollutant Discharge Elimination System (ICIS-NPDES). ICIS-NPDES is a database that automates entering, updating, and retrieving discharge monitoring and permit data.

7.3.1.2.3. Dischargers submit discharge monitoring data to their permitting authority using discharge monitoring report (DMR) forms. The permitting authority then enters these data into ICIS-NPDES and checks whether the discharger is in compliance with the NPDES permit requirements. Facilities report pollutant discharge monitoring data in their DMR as mass-based quantities (e.g., pounds per day) and/or concentrations (e.g., mg/L); however, discharges are reported using a wide variety of units.

7.3.1.2.4. Permit data include NPDES permit limits for water quality parameters (e.g., dissolved oxygen and temperature), specific chemicals (e.g., phenol), bulk parameters (e.g., biochemical oxygen demand), and flow. The permitting authority enters these data into ICIS-NPDES. ICIS-NPDES also include information on the facility's permit requirements, such as monitoring frequency. The ICIS-NPDES database:

7.3.1.2.4.1. Is national in scope, including data from all 50 states and 21 U.S. territories and tribes;

7.3.1.2.4.2. Contains discharge data that facilities determine through effluent chemical analyses and metered flow; and

7.3.1.2.4.3. Include information for facilities in all point source categories that discharge directly to receiving streams.

7.3.1.2.5. The tool also includes wastewater pollutant discharge data from EPA's Toxics Release Inventory (TRI). Data are available for the years since 2007. Users can search TRI data to find the facilities with the largest pollutant discharges to surface waters or sewage treatment plants (a.k.a. Publicly-Owned Treatment Works or POTWs). Users can also compare the DMR data search results against TRI data search. The tool clearly labels the source of data when displaying search results but does not mix

TRI or DMR data when calculating pollutant discharges. See the Basics of TRI Reporting and Factors to Consider When Using TRI Data for more information.

7.3.1.2.6. Other data sources used by the Loading Tool include:

7.3.1.2.6.1. Watershed Assessment Tracking and Environmental ResultS (WATERS) database for retrieving information about receiving water bodies. WATERS derives some of its data from EPA's Assessment, TMDL Tracking and ImplementatioN System (ATTAINS) database, USGS Geographic Names Information System (GNIS), and the USGS Watershed Boundary Dataset (WBD).

7.3.1.2.6.2. Clean Watersheds Needs Survey (CWNS) - providing information about treatment technologies in place at municipal wastewater treatment plants (a.k.a. Publicly-Owned Treatment Plants or POTWs).

7.3.1.2.6.3. Facility Registry Service (FRS) - providing facility location information and linking ICIS-NPDES facilities to other EPA programs, such as TRI.

7.3.1.2.6.4. Substance Registry Services (SRS) - the Agency's central system for information about substances that are tracked or regulated by EPA or other sources. It is the authoritative resource for basic information about chemicals, biological organisms, and other substances of interest to EPA and its state and tribal partners.

7.3.1.2.6.5. STORET (STOrage and RETrieval) Data Warehouse - a repository for water quality, biological, and physical data.

7.3.1.2.7. Watershed Statistics

7.3.1.2.8. Tools and Resources

7.4. Office of Mission Support

7.4.1. Facility Registry Services

7.4.1.1. FRS Query

7.4.1.1.1. The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, data collected from EPA's Central Data Exchange registrations and data management personnel.

7.4.1.2.　　FRS EZ Query

    7.4.1.2.1.　　The FRS EZ Search search allows you select key data elements from EPA's Facility Registry Service and Locational Reference Database to build a tabular report or a Comma Separated Value (CSV) file for downloading.

7.4.1.3.　　FRS Organization Search

    7.4.1.3.1.　　The Organization Search allows a user to retrieve a list of selected organizations from regulatory program systems found at EPA. An organization refers to an individual or group that acts in some capacity or performs some function in association with a facility. Terms used to describe how an organization is associated or connected with a facility include owner, operator, permittee, responsible party, establishment, parent company, parent corporation, or ultimate parent.The Original FRS Search Form can be used to directly search FRS facilities.

    7.4.1.3.2.　　FRS More info

7.5.　　Office of Water

  7.5.1.　　Monitoring Surface Water Chemistry (Acid Rain)

    7.5.1.1.　　Surface water chemistry is a direct indicator of the effects of acid rain on water bodies. Networks that monitor surface water chemistry over long time periods provide valuable information on aquatic ecosystem health and how water bodies respond to changes in acid-causing emissions. EPA oversees the Long-Term Monitoring (LTM) program, which tracks changes in surface water chemistry in response to changing air pollution and acid deposition.

    7.5.1.2.　　The goal of this long-term program is to track whether the Clean Air Act Amendments (CAAA) (Plain English Guide to the Clean Air Act) have been effective in reducing the acidity of surface waters in New England, the Northern Adirondack Mountains, Appalachian Plateau, and the Central Appalachians and advance the science of air pollution impacts on water resources

    7.5.1.3.　　EPA Long-Term Monitoring of Acidified Surface Waters Data

      7.5.1.3.1.　　This dataset compiles surface water chemistry data for 172 sites (lakes and streams) from 1980 to 2018 and will be updated annually with an approximate lag time of one year. Data are currently collected from 158 sites in four regions sensitive to acid rain in the eastern United States: Central Appalachians (Virginia), Adirondack Mountains (New

York), Catskills (New York), New England (Maine, New Hampshire, Vermont). The fifth region/state (Pennsylvania) is no longer sampled but is still included in the dataset. Fourteen sites in the four regions are no longer sampled, but are also included in the dataset. These data are used to calculate trends in surface water chemistry to assess aquatic ecosystem response to changes in sulfur and nitrogen deposition. Water chemistry in this data can be influenced by the ambient flow conditions, such as spring snowmelt or intense rainfall. To be included in the dataset, sites needed to have regular sampling (at least once per year for 20 years).

7.6. Office of Land and Emergency Managements

    7.6.1. [RE-Powering's Electronic Decision Tree](#):

        7.6.1.1. Assesses contaminated lands for solar and wind energy development potential. The Wind Energy Decision Tree, developed by the National Renewable Energy Laboratory and the U.S. Environmental Protection Agency's RE-Powering America Land Initiative, is a useful tool not only for projects on contaminated lands but also for general siting.

    7.6.2. [Waste Reduction Model (WARM)](#)

        7.6.2.1. EPA created the Waste Reduction Model (WARM) to provide high-level estimates of potential greenhouse gas (GHG) emissions reductions, energy savings, and economic impacts from several different waste management practices. WARM estimates these impacts from baseline and alternative waste management practices—source reduction, recycling, anaerobic digestion, combustion, composting and landfilling. WARM version 15 was originally released in May 2019 and was updated in November 2020 and September 2022. WARM is now available as a tool based on a database developed in openLCA software, with versions available for both Windows and Macintosh users.

7.7. Office of Research and Development

    7.7.1. [CMAQ: The Community Multiscale Air Quality Modeling System](#)

        7.7.1.1. CMAQ (see-mak): an active open-source development project of the U.S. EPA that consists of a suite of programs for conducting air quality model simulations. CMAQ combines current knowledge in atmospheric science and air quality modeling, multi-processor computing techniques, and an open-source framework to deliver

fast, technically sound estimates of ozone, particulates, toxics and acid deposition.

7.8.   Multiple Departments/ EPA

    7.8.1.   Air Pollution and Air Quality Monitoring

        7.8.1.1.   CO-Benefits Risk Assessment Health Impacts Screening and Mapping Tool (COBRA)

            7.8.1.1.1.   EPA's CO–Benefits Risk Assessment (COBRA) screening model is a free tool that helps state and local governments:

                7.8.1.1.1.1.   Explore how changes in air pollution from clean energy policies and programs, including energy efficiency and renewable energy, can affect human health at the county, state, regional, or national levels.

                7.8.1.1.1.2.   Estimate the economic value of the health benefits associated with clean energy policies and programs to compare against program costs.

                7.8.1.1.1.3.   Map and visually represent the air quality, human health, and health-related economic benefits from reductions in emissions of particulate matter ($PM2.5$), sulfur dioxide (SO_2), nitrogen oxides (NOX), ammonia (NH_3), and volatile organic compounds (VOCs) that result from clean energy policies and programs.

        7.8.1.2.   BENMap CE

            7.8.1.2.1.   BenMAP-CE is an open-source computer program that calculates the number and economic value of air pollution-related deaths and illnesses. The software incorporates a database that includes many of the concentration-response relationships, population files, and health and economic data needed to quantify these impacts.

        7.8.1.3.   Field Audit Checklist Tool (FACT)

            7.8.1.3.1.   The Field Audit Checklist Tool (FACT) is a Windows desktop application developed by EPA's Clean Air Markets Division (CAMD). FACT is intended to help auditors perform field audits of facilities that report data under 40 CFR Part 75. FACT allows users to easily view monitoring plan, quality assurance and emissions data. FACT also provides access to data collected under the Mercury and Air Toxics Standards (MATS).

7.8.1.4.   Compliance and Emissions Data Reporting Interface (CEDRI)

       7.8.1.4.1.   EPA regulations codified in 40 CFR Part 60, 62, and 63 require affected sources to electronically submit performance test reports, notification reports, and periodic reports to EPA. As a result, the EPA has developed the Compliance and Emissions Data Reporting Interface (CEDRI), which is located on EPA's Central Data Exchange (CDX). The CDX Web is the application used by EPA programs and various stakeholders to manage environmental data transmitted to EPA in order to meet EPA's electronic reporting requirements.

7.8.2.   Wastewater Models and Software

    7.8.2.1.   Financing Alternatives Comparison Tool

       7.8.2.1.1.   The Financing Alternatives Comparison Tool (FACT) is a financial analysis tool that helps municipalities, utilities, and environmental organizations identify the most cost-effective method to fund a wastewater or drinking water management project. FACT produces a comprehensive analysis that compares financing options for these projects by incorporating financing, regulatory, and other important costs.

       7.8.2.1.2.   FACT creates several reports showing the results of the analysis. A summary report compares various financing options using key financial figures. Graphical presentations compare annual and total costs of financing options over time.

       7.8.2.1.3.   FACT version 3.1 includes a streamlined analysis option called FACT-Lite. FACT-Lite reduces the amount of information users must enter to compare financing options.

7.8.3.   Electric Energy and Emissions Models

    7.8.3.1.   National Electric Energy Data System (NEEDS)

       7.8.3.1.1.   The National Electric Energy Data System or "NEEDS" database contains the generation unit records used to construct the "model" plants that represent existing and planned/committed units in EPA modeling applications of IPM. NEEDS includes basic geographic, operating, air emissions, and other data on these generating units. For a description of the sources used in preparing NEEDS, see Documentation, Chapter 4: Generating Resources (pdf) (1.83 MB, April, 2023) . [For versions of NEEDS prior to

the rev 6-21-22, see [Documentation]] For how to send us feedback on NEEDS, see the [User Guides].

7.8.3.2.   [Integrated Planning Model (IPM) Results Viewer]

    7.8.3.2.1.   The IPM Results Viewer is an Excel spreadsheet tool designed to allow a user to easily explore IPM run results via data visualizations. The viewer is pre-populated with data from the RPE files of IPM runs. This data includes details of IPM model plants, including the capacity, generation, heat input, emissions, pollution controls, retrofits, retirements, and new builds. The viewer does not contain cost data, including fuel prices, unit O&M costs, and system costs (these data can still be found in each run's output files).

    7.8.3.2.2.   Please note the IPM Results Viewer is in a beta-testing state. It may have bugs or features that may need clarification or changes. Particular caution should be used when interpreting the historic data. If you find any errors or have any comments or questions, please contact CAMD using the online form.

7.8.3.3.   [Electronic Reporting Tool (ERT)]

    7.8.3.3.1.   The ERT is used to electronically create stationary source sampling test plans and reports. The ERT will calculate the test results from data imported or hand-entered and includes supporting documentation to create a complete electronic report for submittal to the regulatory agency.

    7.8.3.3.2.   Affected industrial facilities are required to submit emissions test results electronically. This can be accomplished by using the Electronic Reporting Tool (ERT) or, depending on the regulation, an electronic file consistent with the ERT full xml schema.   Facilities should review the applicable regulations to determine the exact requirements for their source. The facilities will submit these files to CDX using CEDRI. The submission files are stored in the CDX CROMERR archive and become available to submitters and authorized reviewers immediately upon submission. After 60 days, the files will be available to the public in WebFIRE.

8. Government Tool
    8.1. Office of Air and Radiation
        8.1.1. Energystar
            8.1.1.1. ENERGY STAR® is the government-backed symbol for energy efficiency. The blue ENERGY STAR label provides simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions.
            8.1.1.2. A Public-Private Partnership
                8.1.1.2.1. ENERGY STAR is administered by the U.S. Environmental Protection Agency. Thousands of organizations—including nearly 40% of the Fortune 500®—partner with ENERGY STAR. Together with EPA, they deliver cost-saving energy efficiency solutions that protect the climate, improve air quality, and protect public health.
            8.1.1.3. ENERGY STAR Product Finder
                8.1.1.3.1. Find all the information you need to start shopping for ENERGY STAR certified products, including product details, rebates, and retailers near you. Products that earn the ENERGY STAR label meet strict energy-efficiency specifications set by the U.S. EPA helping you save energy and money while protecting the environment.
            8.1.1.4. ENERGY STAR Rebate Finder
                8.1.1.4.1. Find rebates and special offers near you on ENERGY STAR certified products. Products that earn the ENERGY STAR label meet strict energy-efficiency specifications set by the U.S. EPA helping you save energy and money while protecting the environment.
            8.1.1.5. Energy Savings at Home
                8.1.1.5.1. There are many ways to save energy in your home so you will not only enjoy lower energy bills but also increased comfort with fewer drafts and a good feeling that you are making energy choices that count for the environment, your family and future generations.
                8.1.1.5.2. ENERGY STAR is your resource for information on projects and products to help make your home energy efficient. Learn how you can upgrade to energy efficient products and make other home improvements that can deliver significant energy and cost savings, and help you transition from fossil fuels for a cleaner, healthier and more

comfortable home. Also, learn how to take advantage of tax credits.

8.1.1.6. Expert Home Improvements

    8.1.1.6.1. Home Performance with ENERGY STAR is a national program administered by the U.S. Department of Energy in conjunction with the U.S. Environmental Protection Agency.

    8.1.1.6.2. The program is designed to deliver trusted home energy upgrades that make American homes safer, healthier, and more energy efficient. Home Performance with ENERGY STAR offers a trusted approach to home upgrades that includes a comprehensive evaluation of the home based on building science principles, and home upgrades installed by trained and qualified networks of contractors, with rigorous quality assurance requirements. In addition to lowering energy costs, many homeowners that participate in Home Performance with ENERGY STAR find that their living spaces are more comfortable and healthier places for their families to live in as well. Since 2001, Home Performance with ENERGY STAR's network of Sponsors and participating contractors have completed hundreds of thousands of home upgrades.

8.1.1.7. ENERGY STAR Best Value Finder

    8.1.1.7.1.   Welcome to the ENERGY STAR Best Value Finder. Your resource for smart savings all in one place. In addition to the energy-cost savings, we'll also show you where you can find the lowest prices on ENERGY STAR certified room air conditioners, refrigerators, and light bulbs plus utility rebates and other special offers that are now available.

8.1.1.8. Energy Star Publications Catalog

8.1.1.9. ELECTRIC VEHICLE CHARGERS

    8.1.1.9.1. Product Finder

    8.1.1.9.2. Locate EV Stations

    8.1.1.9.3. Find Electric Vehicles

    8.1.1.9.4. Find Incentives

8.1.2. Greenhouse Gas Reporting Program (GHGRP)

    8.1.2.1. The GHGRP requires reporting of greenhouse gas (GHG) data and other relevant information from large GHG emission sources, fuel and industrial gas suppliers, and CO_2 injection sites in the United States. Approximately 8,000 facilities are required to report their

emissions annually, and the reported data are made available to the public in October of each year.

8.1.2.2. [Clean Air Power Sector Programs Data & Tools](#)

    8.1.2.2.1. EPA's Clean Air Markets Division (CAMD) has monitored and collected emissions and operating data from power plants since 1990. CAMD has also gathered ambient data to track changes in the environment since the mid-1980s. Click on the images below to view information on the major data tools and resources available from the Clean Air Markets

8.1.2.3. [electronic Greenhouse Gas Reporting Tool](#)

    8.1.2.3.1. In response to the FY2008 [Consolidated Appropriations Act (PDF)](#) (614 pp, 1.5MB, [About PDF](#)) (H.R. 2764; Public Law 110-161), EPA issued the Greenhouse Gas Reporting Rule (74 FR 56260) which requires reporting of greenhouse gas (GHG) data and other relevant information from large sources and suppliers in the United States. The For GHG Reporters section provides information and resources for businesses and institutions that are or may be subject to reporting under the Greenhouse Gas Reporting Program (GHGRP). The pages in this section provide more detailed GHGRP information.

8.1.2.4. [Facility Level Information on GreenHouse gases Tool FLIGHT](#)

    8.1.2.4.1. FLIGHT provides information about greenhouse gas (GHG) emissions from large facilities in the U.S. These facilities are required to report annual data about GHG emissions to EPA as part of the Greenhouse Gas Reporting Program (GHGRP).

8.1.2.5. [Greenhouse Gas Equivalencies Calculator](#)

    8.1.2.5.1. The Greenhouse Gas Equivalencies calculator allows you to convert emissions or energy data to the equivalent amount of carbon dioxide (CO_2) emissions from using that amount. The calculator helps you translate abstract measurements into concrete terms you can understand, such as the annual emissions from cars, households, or power plants. This calculator may be useful in communicating your greenhouse gas reduction strategy, reduction targets, or other initiatives aimed at reducing greenhouse gas emissions.

8.1.2.6.   [Tribal Greenhouse Gas Inventory Tool](#)

8.1.2.6.1.   EPA's Tribal Greenhouse Gas Inventory Tool was developed to help tribes across the United States to evaluate their greenhouse gas emissions. Use this tool to compile a greenhouse gas (GHG) inventory for your entire tribe or for tribal government operations in particular.

8.1.3.   Ozone

8.1.3.1.   [Clean Air Status and Trends Network (CASTNET)](#)

8.1.3.1.1.   CASTNET is a national monitoring network established to assess trends in pollutant concentrations, atmospheric deposition, and ecological effects due to changes in air pollutant emissions. See the [CASTNET overview fact sheet](#) and the [CASTNET Ozone Monitoring](#) page for more information.

8.1.4.   [Clean Air Markets Program Data](#)

8.1.4.1.   EPA's power plant programs reduce air pollution from power plants to help protect human health and the environment. EPA collects comprehensive CO_2, NO_x, SO_2, and mercury emissions data, and makes it publicly available, along with compliance and allowance data, and individual power plant details. You can explore the data here in CAMPD. Learn more about our programs, additional data and tools at [Clean Air Markets](#)

8.1.5.   [ICIS-AIR Search](#)

8.1.5.1.   Information on air releases is contained in ICIS-AIR, a computer-based repository for information about air pollution in the United States. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce.

8.1.6.   [The National Emissions Inventory (NEI) Search](#)

8.1.6.1.   The National Emissions Inventory (NEI) is a comprehensive and detailed estimate of air emissions of criteria pollutants, criteria precursors, and hazardous air pollutants from air emissions sources. The NEI is released every three years based primarily upon data provided by State, Local, and Tribal air agencies for sources in their jurisdictions and supplemented by data developed by the US EPA. The NEI is built using the Emissions Inventory System (EIS) first to collect the data from State, Local, and Tribal air agencies and then to blend that data with other data sources.

8.1.6.2.   Emissions Inventory System (EIS) Gateway

    8.1.6.2.1.   ONLY EPA staff, State, local and Tribal agency staff will be provided access to the EIS Gateway.

    8.1.6.2.2.   The EIS Gateway, the first component of the Emissions Inventory System (EIS), was developed to provide registered EPA, State, local and Tribal users with access to emissions inventory data. Registered EPA, State, local and Tribal users can access facility inventory and emissions data for sources in their jurisdiction.

    8.1.6.2.3.   The EIS Gateway allows users to manage their profile information to:

        8.1.6.2.3.1.   add, view and edit facility inventory information for their agency;

        8.1.6.2.3.2.   extract data by running reports;

        8.1.6.2.3.3.   access reporting codes and;

        8.1.6.2.3.4.   request support from the EPA through a central message center.

    8.1.6.2.4.   For EPA, State, Local, and Tribal users who want access to the EIS Gateway, follow the steps outlined in the EIS Users Manual found at How Do I Request Access to the EIS Gateway.

8.1.7.   National Air Toxics Assessment

    8.1.7.1.   On August 22, 2018, EPA released an update to the National Air Toxics Assessment (NATA). This national screening assessment used emissions and weather data from 2014 to estimate health risks from toxic air pollutants.

    8.1.7.2.   EPA has succeeded NATA with the Air Toxics Screening Assessment, or AirToxScreen, starting with the 2017 data analysis. EPA updates AirToxScreen annually; the latest assessment uses 2019 data.

8.1.8.   Air Toxics Screening Assessment

    8.1.8.1.   The Air Toxics Screening Assessment (AirToxScreen) is EPA's screening tool to provide communities with information about health risks from air toxics. AirToxScreen is part of EPA's new approach to air toxics that provides updated data and risk analyses on an annual basis, helping state, local and tribal air agencies, EPA, and the public more easily identify existing and emerging air toxics issues.

8.1.9.   National Emissions Inventory

    8.1.9.1.   The National Emissions Inventory (NEI) is a comprehensive and

detailed estimate of air emissions of criteria pollutants, criteria precursors, and hazardous air pollutants from air emissions sources. The NEI is released every three years based primarily upon data provided by State, Local, and Tribal air agencies for sources in their jurisdictions and supplemented by data developed by the US EPA. The NEI is built using the [Emissions Inventory System](#) (EIS) first to collect the data from State, Local, and Tribal air agencies and then to blend that data with other data sources.

8.1.10.   RadNet

8.1.10.1.   RadNet

8.1.10.1.1.   [RADNET - Advanced Mode Query Builder](#)

8.1.10.1.1.1.   This tool allows users to report on any data element, and is primarily geared toward the experienced user. The Customized Search consists of four main steps, as well as other features. Columns with a "code" value have a corresponding description column, a Comma Separated Value (CSV) option is available, and users can specify sort order and column display order.

8.1.10.1.2.   [RADNET Search](#)

8.1.10.1.2.1.   The RadNet (formerly the Environmental Radiation Ambient Monitoring System (ERAMS)) is a national network of monitoring stations that regularly collect air, precipitation, and drinking water samples for analysis of radioactivity. The RadNet network has been used to track environmental releases resulting from nuclear emergencies and to provide baseline data during routine conditions. Data generated from RadNet provides the information base for making decisions necessary to ensure the protection of public health.

8.2.   Office of Chemical Safety and Pollution Prevention (OCSPP)

8.2.1.   [Toxics Release Inventory (TRI) Program](#)

8.2.1.1.   [Toxic Release Inventory (TRI) Toxics Tracker](#)

8.2.1.1.1.   Use the TRI Toxics Tracker to identify industrial facilities in your community that release chemicals into the air, water, and land. Learn what chemicals these facilities release, how these facilities are reducing releases, and potential health impacts of these releases.

8.2.1.1.2.   [TRI Toxics Tracker](#)

8.2.1.1.2.1. The Toxics Release Inventory (TRI) Program tracks the industrial management of toxic chemicals that may cause harm to human health and the environment.

8.2.1.1.2.2. TRI data are reported by certain industrial and federal facilities. EPA makes these data available through multiple online tools, many of which add context to help make the reported data more understandable.

8.2.1.1.2.3. Data and Tools

8.2.1.2. TRI Explorer

8.2.1.2.1. The TRI Explorer allows you to generate reports on releases, transfers, and waste managed that can be displayed by facility, chemical, geographic area, industry (NAICS code), reporting years, or mapped. Users may also generate State Reports.

8.2.1.3. TRI Search

8.2.1.3.1. The Toxics Release Inventory (TRI) Search retrieves data from the TRI database in Envirofacts.

8.2.1.3.2. Use TRI Search to access a variety of reports for every facility that has reported to EPA since 1987. You may narrow your search based on facility name/ID, geographic location, tribal identifier, industry classification, or chemical names/CAS numbers.

8.2.1.3.3. For each facility listed in the search results, you can go directly to a report containing:

8.2.1.3.3.1. Names of reported chemicals and the most recent year of TRI reporting (TRI Facility Report)

8.2.1.3.3.2. Indications of any newly implemented source reduction activities and text descriptions other pollution prevention practices (TRI Facility Report)

8.2.1.3.3.3. Waste management methods and trends (TRI Facility Report)

8.2.1.3.3.4. Trends in environmental releases of reported chemicals (TRI Facility Report)

8.2.1.3.3.5. Information about transfers of waste containing TRI chemicals (TRI Facility Report)

8.2.1.3.3.6. Basic environmental permit and compliance information (TRI Facility Report)

8.2.1.3.3.7. Details about pollution prevention and source reduction activities implemented at the facility (P2 Report)

8.2.1.3.3.8. Estimates of potential relative risks posed by the facility and its industry sector (Risk Screening Report)

8.2.1.3.3.9. Access to individual Form Rs or Form As

8.3. Office of Land and Emergency Management

8.3.1. Risk Management Plan (RMP)

8.3.1.1. [Vulnerable Zone Indicator System](#)

8.3.1.1.1. Use this site to access the Vulnerable Zone Indicator System (VZIS). VZIS can help you determine if your area could be affected by a chemical accident at a facility that submitted a Risk Management Plan (RMP).

8.3.1.2. [RMP Information Center](#)

8.3.1.2.1. If I have additional questions regarding the RMP regulations, who can I contact via telephone for further assistance?

8.3.1.2.2. You may contact the TRI, EPCRA, RMP & Oil Information Center, a publicly accessible service that provides up-to-date information on the regulatory requirements of the RMP program, including the applicability, program levels, off-site consequence analysis, and plan preparation and submission requirements. The Information Center does not provide regulatory interpretations; however, it does maintain up-to-date information on the availability of guidance and other resources pertaining to its program areas.

8.3.1.3. [Risk Management Program (RMP) Rule Overview](#)

8.3.1.3.1. Section 112(r) of the Clean Air Act Amendments requires EPA to publish regulations and guidance for chemical accident prevention at facilities that use certain hazardous substances. These regulations and guidance are contained in the Risk Management Program (RMP) rule. The RMP rule requires facilities that use extremely hazardous substances to develop a Risk Management Plan which:

8.3.1.3.1.1. identifies the potential effects of a chemical accident,

8.3.1.3.1.2. identifies steps the facility is taking to prevent an accident, and

8.3.1.3.1.3.   spells out emergency response procedures should an accident occur.

8.3.1.3.2.   These plans provide valuable information to local fire, police, and emergency response personnel to prepare for and respond to chemical emergencies in their community. Making RMPs available to the public also fosters communication and awareness to improve accident prevention and emergency response practices at the local level.

8.3.1.3.3.   The RMP rule was built upon existing industry codes and standards. It requires facilities that use listed regulated Toxic or Flammable Substances for Accidental Release Prevention to develop an RMP and submit that plan to EPA.

8.3.1.4.   [More RMP Resources](#)

8.3.1.5.   [Accessing RMP Data](#)

8.3.2.   [RCRAINFO Search](#)

8.3.2.1.   [RCRAInfo Additional Resources](#)

8.3.2.1.1.   RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The RCRAInfo system enables cradle-to-grave waste tracking of many types of information regarding the regulated universe of RCRA hazardous waste handlers. RCRAInfo characterizes facility status, regulated activities, and compliance histories in addition to capturing detailed data on the generation of hazardous waste from large quantity generators and on waste management practices from treatment, storage, and disposal facilities.

8.3.2.1.2.   It is the responsibility of the US EPA and State agencies, of which many have been delegated the authority to implement RCRA within their respective State, to input and manage specific RCRA handler identification and program activity data into RCRAInfo. Usually, the agency responsible for the work owns the data that tracks the work. Mandatory data elements must be entered into RCRAInfo within 30 days of the occurrence of an activity (or within 60 days for States that have their own State data systems and must translate the information to RCRAInfo).

RCRAInfo data are increasingly being relied on by many stakeholders for a wide variety of purposes. As a national program, we must ensure that data collected, stored, and reported are of the utmost quality in order to support sound analyses and decisions.

8.4. Office of Mission Support

    8.4.1. [Substance Registry Services](#)

        8.4.1.1. The Substance Registry Services (SRS) is EPA's authoritative resource for information about chemicals, biological organisms, and other substances tracked or regulated by EPA.

        8.4.1.2. Substance Registry Services (SRS) is the EPA's central system for information about substances that are tracked or regulated by EPA or other sources. It is the authoritative resource for basic information about chemicals, biological organisms, and other substances of interest to EPA and its state and tribal partners.

    8.4.2. [Substance Registry Services (SRS) Search and Retrieve](#)

        8.4.2.1. Substance Registry Services (SRS) is the Environmental Protection Agency's (EPA) central system for information about substances that are tracked or regulated by EPA or other sources. It is the authoritative resource for basic information about chemicals, biological organisms, and other substances of interest to EPA and its state and tribal partners.

        8.4.2.2. The SRS makes it possible to identify which EPA data systems, environmental statutes, or other sources have information about a substance and which synonym is used by that system or statute. It becomes possible therefore to map substance data across EPA programs regardless of synonym.

        8.4.2.3. The system provides a common basis for identification of, and information about:

            8.4.2.3.1. Chemicals

            8.4.2.3.2. Biological organisms

            8.4.2.3.3. Physical properties

            8.4.2.3.4. Miscellaneous objects

        8.4.2.4. Search by List

            8.4.2.4.1. To search, you must select a list name. Choose additional search criteria to narrow your selection. Then press the Search button.

    8.4.3. Envirofacts

        8.4.3.1. [Envirofacts Multisystem Search](#)

            8.4.3.1.1. The Envirofacts Multisystem Search integrates information from a variety of databases and includes latitude and longitude information. Each of these databases contains information about facilities that are required to report

activity to a state or federal system. Using this form, you can retrieve information about hazardous waste (including the Biennial Report), toxic and air releases, Superfund sites, and water discharge permits. Facility information and a map of its location is provided.

8.4.3.1.2. The Multisystem Search Form allows you to search multiple environmental databases for facility information, including toxic chemical releases, water discharge permit compliance, hazardous waste handling processes, Superfund status, and air emission estimates. Search the Envirofacts database using any combination of the following criteria: facility name, geography, facility industrial classification, or pollutant. A search returns a list of facilities that match the criteria entered.

8.4.3.2. Envirofacts BR Search

8.4.3.2.1. Detailed hazardous waste information is collected on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage, and disposal facilities. This information is compiled into a Biennial Report and is useful for trend analysis.

8.4.3.3. Next Generation Grants System (NGGS) Search

8.4.3.3.1. EPA's management information system for grants programs is the NGGS, which awards, administers, and monitors grants. Grants are regularly awarded to Federal, State, or local government agencies, universities, and other institutions that support EPA's environmental programs.

8.5. Office of Research and Development (ORD)

8.5.1. Science Models and Research Tools (SMaRT) Search

8.5.1.1. EPA Science Models and Research Tools (SMaRT) Search is a searchable inventory of freely available models, tools, and databases from EPA's Office of Research and Development (ORD). We welcome your feedback. Search below to find EPA's Research Tools, Models and Software Applications. If you cannot find what you are looking for try modifying the advanced search options.

8.5.2. GLIMPSE

8.5.2.1. GLIMPSE is a decision support modeling tool being developed by EPA that will assist states with energy and environmental planning through the year 2050. Users of GLIMPSE can explore the impacts

of energy technologies and policies on the environment. GLIMPSE is a decision support modeling tool being developed by EPA that will assist states with energy and environmental planning through the year 2050. An exciting feature is that users can specify energy, air quality, and water use goals within GLIMPSE, which then identifies cost-effective strategies for meeting those goals. For example, states could use GLIMPSE to develop air quality management strategies that also meet renewable electricity targets, energy security objectives, and factor in how droughts could affect power plant operations.

8.6.   Office of Water

8.6.1.   My Waterway Tool

8.6.1.1.   Contents

8.6.1.1.1.   Assessment, Total Maximum Daily Load Tracking and Implementation System (ATTAINS)

8.6.1.1.1.1.   The Assessment, Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINS) is an online system for accessing information about the conditions in the Nation's surface waters.

8.6.1.1.2.   Cyanobacteria Assessment Network (CyAN)

8.6.1.1.2.1.   EPA's Cyanobacteria Assessment Network mobile application (CyAN app) is an easy-to-use and customizable app that provides access to cyanobacterial bloom satellite data for over 2,000 of the largest lakes and reservoirs across the United States. EPA scientists developed the app to help local and state water quality managers make faster and better-informed management decisions related to cyanobacterial blooms.

8.6.1.1.3.   Enforcement and Compliance History Online (ECHO)

8.6.1.1.3.1.   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:

8.6.1.1.3.2.   Search for Facilities

8.6.1.1.3.2.1.   Investigate Pollution Sources

8.6.1.1.3.2.2.   Search for EPA Enforcement Cases

8.6.1.1.3.2.3.   Examine and Create Enforcement-Related Maps

8.6.1.1.3.2.4. Analyze Trends in Compliance & Enforcement Data

8.6.1.1.4. Grants Reporting and Tracking System (GRTS)

8.6.1.1.4.1. GRTS is the primary tool for management and oversight of the EPA's Nonpoint Source (NPS) Pollution Control Program. Under Clean Water Act Section 319(h), EPA awards grants for implementation of state NPS management programs.

8.6.1.1.5. Protected Areas

8.6.1.1.5.1. PAD-US is America's official national inventory of U.S. terrestrial and marine protected areas that are dedicated to the preservation of biological diversity and to other natural, recreation and cultural uses, managed for these purposes through legal or other effective means.

8.6.1.1.6. Safe Drinking Water Information System (SDWIS)

8.6.1.1.6.1. The Safe Drinking Water Information System (SDWIS) contains information on public water systems, including monitoring, enforcement, and violation data related to requirements established by the Safe Drinking Water Act (SDWA).

8.6.1.1.7. USGS Sensors (USGS Stream Gages)

8.6.1.1.7.1. USGS Current Water Data for the Nation

8.6.1.1.7.1.1. Select a state from the map to access real-time data

8.6.1.1.7.1.2. Current data typically are recorded at 15- to 60-minute intervals, stored onsite, and then transmitted to USGS offices every 1 to 4 hours, depending on the data relay technique used. Recording and transmission times may be more frequent during critical events. Data from current sites are relayed to USGS offices via satellite, telephone, and/or radio telemetry and are available for viewing within minutes of arrival.

8.6.1.1.8. Water Quality Portal (WQP)

8.6.1.1.8.1. The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection

Agency (EPA) and the National Water Quality Monitoring Council (NWQMC) that integrates publicly available water quality monitoring data.

8.6.1.1.9. Watershed Assessment, Tracking & Environmental Results System (WATERS)

8.6.1.1.9.1. A suite of web services that provide comprehensive information about the quality of the nation's surface water.

8.6.1.1.10. Watershed Index Online (WSIO)

8.6.1.1.10.1. The Watershed Index Online (WSIO) is a free, publicly available data library of watershed indicators and a decision-support tool, developed by EPA, to assist resource managers, citizens, and other users with evaluating, comparing, and prioritizing watersheds for a user-defined purpose.

8.6.1.1.11. Wild and Scenic Rivers

8.6.1.1.11.1. Data and GIS files on wild and scenic rivers can be found on the National Wild and Scenic Rivers System website.

8.6.2. Creating Resilient Water Utilities (CRWU)

8.6.2.1. EPA's CRWU initiative provides drinking water, wastewater, and stormwater (water sector) utilities with practical tools, training, and technical assistance needed to increase resilience to climate change. CRWU assists water sector utilities and stakeholders by promoting a clear understanding of climate change and helps to identify potential long-term adaptation options for decision-making related to implementation and infrastructure financing.

8.6.2.1.1. Resilience Strategies Guide

8.6.2.1.1.1. The Resilient Strategies Guide introduces drinking water, wastewater, and stormwater utilities to the adaptation planning process. Utilities can use the Guide to identify their planning priorities, vulnerable assets, potential adaptation strategies and available funding sources. Information in the Guide is based on the experiences of other utilities adapting to climate change and the resources available to support them in pursuing similar strategies. The information you provide here about your utility will help the Guide identify the most

relevant priorities, assets, strategies, and funding sources.

8.6.2.1.2. [Climate Resilience Evaluation and Awareness Tool (CREAT) Risk Assessment Application for Water Utilities](#)

8.6.2.1.2.1. CREAT is a tool that assists water sector utilities in assessing climate-related risks to utility assets and operations. Throughout CREAT's five modules, users consider climate impacts and identify adaptation options to increase resilience. The modules are:

8.6.2.1.2.1.1. Climate Awareness: Provide basic utility information; increase awareness of climate impacts;

8.6.2.1.2.1.2. Scenario Development: Understand utility risk; design scenarios of threats based on climate data;

8.6.2.1.2.1.3. Consequences and Assets: Outline potential consequences; catalog critical assets;

8.6.2.1.2.1.4. Adaptation Planning: Inventory current actions that provide resilience; design adaptation plans; and

8.6.2.1.2.1.5. Risk Assessment: Assess risk from a changing climate; compare risk reduction of adaptation plans.

8.6.3. [National Aquatic Resource Surveys](#)

8.6.3.1. The National Aquatic Resource Surveys (NARS) are collaborative programs between EPA, states, and tribes designed to assess the quality of the nation's coastal waters, lakes and reservoirs, rivers and streams, and wetlands using a statistical survey design. The NARS provide critical, groundbreaking, and nationally-consistent data on the nation's waters.

8.6.3.2. [NARS Data Download Tool](#)

8.6.3.2.1. Learn More about NARS Assessments

8.6.3.2.1.1. [National Lakes Assessment](#)

8.6.3.2.1.2. [National Rivers and Streams Assessment](#)

8.6.3.2.1.3. [National Coastal Condition Assessment](#)

8.6.3.2.1.4. [National Wetland Condition Assessment](#)

8.6.3.3.   [National Lakes Assessment 2017 Web Report](#)
    8.6.3.3.1.   This report summarizes the National Lakes Assessment's key findings on U.S. lake condition. EPA and its state and tribal partners conducted the survey in 2017.

8.6.3.4.   [National Lakes Context Tool](#)
    8.6.3.4.1.   This tool was produced by the National Aquatic Resource Surveys (NARS) program of the U.S. Environmental Protection Agency (EPA). The NARS program conducts large-scale studies of the quality of the nation's waters. One such study is the National Lakes Assessment (NLA).
    8.6.3.4.2.   What Can the Tool Do? This tool allows you to input water quality data for a lake you care about, then see it compared to statistically representative data collected by the NLA. You'll view comparisons to the national, regional and state level. This is currently possible using 2012 and 2017 NLA data for any of four important and common indicators of water quality:
        8.6.3.4.2.1.   Secchi Depth (a measure of water clarity)
        8.6.3.4.2.2.   Total Phosphorus (a nutrient that can trigger problematic algal blooms)
        8.6.3.4.2.3.   Total Nitrogen (another such nutrient)
        8.6.3.4.2.4.   Chlorophyll a (a measure of algal population)

8.6.3.5.   [NRSA Field Methods Application](#)
    8.6.3.5.1.   EPA and its partners visit over 2000 sites to assess U.S. river and stream quality for each survey. Field crews begin each site visit by marking out the stretch of river or stream to be sampled (the sample reach). They then collect data on a variety of indicators at specified points along the reach. To learn how crews sample when they can wade along the sample reach, click on any of the three methods they use, below.*

8.6.3.6.   [NARS Population Estimate Calculation Tool](#)
    8.6.3.6.1.   This Shiny app allows for calculation of population estimates as performed for the National Aquatic Resource Surveys (NARS) and the plotting of results. Estimates based on categorical and continuous variables are possible. This app does not include all possible options but does allow typical settings used by NARS for creating population estimates.

8.6.3.7.   Survey Design Tool

8.6.3.7.1.   This R Shiny app allows for the calculation of spatially balanced survey designs of point, linear, or areal resources using the Generalized Random-Tessellation Stratified (GRTS) algorithm, Stevens and Olsen (2004). The Survey Design Tool utilizes functions found within the R package spsurvey: Spatial Sampling Design and Analysis and presents an easy-to-use user interface for many sampling design features including stratification, unequal and proportional inclusion probabilities, replacement (oversample) sites, and legacy (historical) sites. The output of the Survey Design Tool contains sites designed and balanced by user specified inputs and allows the user to export sampling locations as a point shapefile or a flat file. The output also provides design weights which can be used in categorical and continuous variable analyses (i.e., population estimates). The tool also gives the user the ability to adjust initial survey design weights when implementation results in the use of replacement sites or when it is desired to have final weights sum to a known frame size.

8.6.3.7.2.   This app does not include all possible design options and tools found in the spsurvey package. Please review the package Documentation and Vignettes for more options and details. For further survey discussion and use cases, visit the website for EPAs National Aquatic Resource Surveys (NARS) which are designed to assess the quality of the nation's coastal waters, lakes and reservoirs, rivers and streams, and wetlands using GRTS survey designs. We encourage users to consult with a statistician about your design to prevent design issues and errors.

8.6.4.   Sea-Level Affecting Marshes Model (SLAMM)

8.6.4.1.   Sea Level Affecting Marshes Model (SLAMM) simulates the dominant processes involved in wetland conversions and shoreline modifications during long-term sea level rise. Map distributions of wetlands are predicted under conditions of accelerated sea level rise, and results are summarized in tabular and graphical form.

8.6.5.   The 20 Watersheds Tool

8.6.5.1.   The 20 Watersheds Tool contains summaries of watershed simulation results as a supplement to the EPA report "Watershed

[Modeling to Assess the Sensitivity of Streamflow, Nutrient, and Sediment Loads to Potential Climate Change and Urban Development in 20 U.S. Watersheds](#)" (EPA/600/R-12/058F). Future warming temperatures and changes in precipitation will have direct and cascading effects on water quality. Effects will vary in different regional and watershed settings, and in some locations are anticipated to lead to an increased risk of water quality impairment.

8.7. Multiple Departments/ EPA

    8.7.1. Superfund

        8.7.1.1. [CERCLIS](#)

            8.7.1.1.1. The Superfund program was created as a result of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA was enacted on 12/11/80, and amended by the Superfund Amendments and Reauthorization Act of 1986. These acts established broad authority for the government to respond to problems posed by the release, or threat of release, of hazardous substances, pollutants, or contaminants. CERCLA also imposed liability on those responsible for releases and provided the authority for the government to undertake enforcement and abatement action against responsible parties.

            8.7.1.1.2. CERCLIS is the Comprehensive Environmental Response, Compensation, and Liability Information System. CERCLIS contains information on hazardous waste sites, site inspections, preliminary assessments and remedial status. Customers have several ways of obtaining access to CERCLIS information.

        8.7.1.2. [Search for Superfund Sites Where You Live](#)

            8.7.1.2.1. Search for sites proposed to, currently on, and deleted from Superfund's National Priorities List (NPL) as well as sites being addressed under the Superfund Alternative Approach (SAA).

        8.7.1.3. [Search Superfund Site Information](#)

            8.7.1.3.1. This page allows users to search active and archived sites in EPA's Superfund Enterprise Management System database. Clicking on a site's name in search results will enable you to view more information about it. National Priorities List and Superfund Alternative Approach sites have web profiles with extensive detail about EPA's activities. Sites

that do not fall under the NPL or SAA have profile pages that provide basic information.

8.7.1.4.   SEMS Search

8.7.1.4.1.   The SEMS Search allows you to retrieve Superfund data from the Superfund Enterprise Management System (SEMS) database in Envirofacts. Specify a facility by using any combination of facility name and geographic location. Additional Superfund Site information may be obtained through EPA's Superfund search page.

8.7.1.5.   Contaminants at Superfund Sites

8.7.1.5.1.   This page contains links to Superfund contaminant-specific websites and information on common contaminants found at Superfund sites.

8.7.2.   Climate Change and Environmental Resilience

8.7.2.1.   Climate Change Adaptation Resource Center (ARC-X)

8.7.2.1.1.   EPA's Adaptation Resource Center (ARC-X) is an interactive resource to help local governments effectively deliver services to their communities even as the climate changes. Decision makers can create an integrated package of information tailored specifically to their needs. Once users select areas of interest, they will find information about: the risks posed by climate change to the issues of concern; relevant adaptation strategies; case studies illustrating how other communities have successfully adapted to those risks and tools to replicate their successes; and EPA funding opportunities.

8.7.2.2.   Global Change Explorer

8.7.2.2.1.   Global Change Explorer (GCX) offers a collection of web tools that visualize, compare, and provide access to spatial data and describe potential future environmental change. These data can serve as a starting point when assessing the vulnerability of air, water, ecosystems, and human health to climate change, land use change, and other large-scale environmental stressors.

8.7.2.3.   GCX-LASSO (Locating and Selecting Scenarios Online)

8.7.2.3.1.   LASSO guides users step-by-step through the process of identifying and downloading climate change scenarios—or projections—that are relevant to their interest or research question. At each step you will define criteria that will subset climate change information from a much larger

archive, with LASSO providing helpful information and suggestions along the way. At the end of the process you will have the option to download maps, figures and GIS-ready spatial data, or use an interactive scatterplot widget to customize or change your choices.

8.7.2.4. Climate Change Adaptation Resource Center

8.7.2.4.1. Adaptation Resource Center (ARC-X) offers local government officials and community leaders with resources to anticipate, prepare for and adapt to the impacts of climate change. After users select areas of interest, they will find information about: the risks posed by climate change to the issues of concern; relevant adaptation strategies; case studies illustrating how other communities have successfully adapted to those risks and tools to replicate their successes; and EPA funding opportunities.

8.7.2.5. Sustainable Materials Management Prioritization Tools

8.7.2.5.1. The Sustainable Materials Management Prioritization Tools (SMM Prioritization Tools) are life cycle-based tools to help users identify potential opportunities for environmental improvement in the production and consumption of goods and services. These tools can serve as a starting place to help prioritize actions, focus limited human and financial resources to achieve greater overall environmental benefit and consider key industries for collaboration.

8.7.2.5.2. SMM Prioritization Tools

8.7.2.5.2.1. Life cycle-based tools that give users a starting place to:

8.7.2.5.2.1.1. Establish priorities for environmental improvement.

8.7.2.5.2.1.2. Focus resources and action for greater holistic benefit.

8.7.2.5.2.1.3. Consider key industries for collaboration.

8.7.2.6. Fuel Economy

8.7.2.6.1. The official U.S. Government Sources for fuel economy information with information on cars, MPG, fuel savings, and information about hybrids.

8.7.2.6.2. Beyond Tailpipe Emissions Calculator

8.7.2.6.2.1. Use this calculator to estimate the total greenhouse gas (GHG) emissions associated with driving an

electric vehicle (EV) or plug-in hybrid electric vehicle (PHEV), including GHG emissions from the production of electricity used to power the vehicle. Enter your ZIP Code, model year, and vehicle to calculate the tailpipe and upstream emissions.

8.7.2.7.   Carbon Footprint Calculator

      8.7.2.7.1.   The calculator estimates your footprint in three areas: home energy, transportation and waste. Everyone's carbon footprint is different depending on their location, habits, and personal choices.

8.7.2.8.   Tool Finder for Local Government Clean Energy Initiatives

      8.7.2.8.1.   This tool is intended to help local government officials screen tools and resources designed to measure the emissions, energy, and economic impacts of current and prospective initiatives at both the government operations and community-wide scales.

8.7.2.9.   Environmental Resilience Tools Wizard

      8.7.2.9.1.   The Environmental Resilience Tools Wizard (ERTW) contains tools produced by EPA that address environmental concerns in disaster mitigation, preparedness, response, and recovery. It is an online wizard that helps you find the right resource to meet your needs.

      8.7.2.9.2.   The ERTW is designed for use by state, local, and Tribal emergency managers who need to address environmental concerns and by state, local, and Tribal environmental or health agencies who need to address disaster resilience in their work. It may also be of interest to cities, counties, or Tribes implementing resilience or hazard mitigation plans, researchers, drinking water and wastewater utilities, and community or environmental organizations.

8.7.2.10.   Multisector Evaluation Tool for Identifying Resilience Opportunities (METRO)

      8.7.2.10.1.   Multisector Evaluation Tool for identifying Resilience Opportunities (METRO) is a tool that measures an urban communities' resilience to climate change. The tool incorporates both indicator data and input from local sector managers to assess urban resilience for eight municipal management sectors: (1) water, (2) energy, (3) transportation, (4) people (public health and emergency response), (5) economy, (6) land use/land cover, (7) the

natural environment, and (8) telecommunications. The tool is intended to provide local-level managers with a way to prioritize threats to resilience using locally available data across multiple sectors to inform adaptation planning.

8.7.2.11.　　Adaptation Design Tool (ADT)

8.7.2.11.1.　　Adaptation Design Tool (ADT) supports better management to protect ecosystems from the impacts of climate change by advancing the practice of assessment and decision making science and informing higher level strategic planning. Natural resource managers have communicated a need for improved methods and tools for effective adaptation of ecosystem-based management activities in the context of extreme events and rapid environmental change. In response, an inter-agency team led by the EPA developed ADT that uses a structured approach to break down the complex adaptation process into tractable steps.

8.7.2.12.　　COMET

8.7.2.12.1.　　City-based Optimization Model for Energy Technologies (COMET) is an energy-environment-economic optimization model designed to capture the whole energy system at the city level for a user-defined analyses timeline--from the introduction of the energy sources to conversion into useful energy to meet end-use energy service demands. COMET allows users to examine the next 40-50 years of energy technology evolution. The model provides long-term prospects for practical and applicable energy policy solutions, especially for cities that aim to achieve emissions reduction targets.

8.7.3.　　Pollutants and Toxics

8.7.3.1.　　Risk-Screening Environmental Indicators (RSEI) Model

8.7.3.1.1.　　EPA's Risk-Screening Environmental Indicators (RSEI) model helps policy makers, researchers, and communities explore data on releases of toxic substances from industrial and federal facilities. RSEI incorporates information from the Toxics Release Inventory (TRI) on the amount of toxic chemicals released, together with factors such as the chemical's fate and transport through the environment, each chemical's relative toxicity, and potential human exposure. RSEI model results can be used to help establish priorities

for further investigation and to look at changes in potential human health impacts over time.

8.7.3.1.2. [Risk-Screening Environmental Indicators (RSEI) Model](#)

    8.7.3.1.2.1. [https://www.epa.gov/rsei/risk-screening-environmental-indicators-rsei-methodology-0](#)

8.7.3.2. [PCS-ICIS Search](#)

    8.7.3.2.1. This search allows you to retrieve selected data from the Permit Compliance System (PCS) and Integrated Compliance Information System (ICIS) databases in Envirofacts regarding facilities registered with the federal enforcement and compliance (FE&C) and holding National Pollutant Discharge Elimination System (NPDES) permits. Specify the facilities by using any combination of facility name,National Pollutant Discharge Elimination System (NPDES) permit number, geographic location, facility industrial classification, and chemicals.

8.7.4. Air Pollution and Emissions

8.7.4.1. [CHIEF Archive Search](#)

    8.7.4.1.1. The CHIEF Archive is a collection of references cited in the [Compilation of Air Pollutant Emissions Factors, AP-42, Volume I: Stationary Point & Area Sources](#) and the supporting background documentation. If you need older AP-42 emission factors for comparison or historical purposes, the earlier editions and supplements are available on the [Older Editions of AP 42, Compilation of Air Pollutant Emissions Factors](#) webpage. This information is provided for reference purposes only. This is an archive of older and often superseded documentation related to stationary source emissions factors.