

Community-Focused Exposure and Risk Screening Tool (C-FERST)



Map Layers

Office of Research and Development National Exposure Research Laboratory

C-FERST Map Layers

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- Impaired Waters with TMDLs
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- o Day Care Centers
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- <u>Neighborhoods</u>
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 - o EPA Regions
 - National Parks
 - o Indian Reservations
 - 112th Congressional Districts
 - Federal Lands

Demographic Data

- o Total Population
- Population Density (per square mile)
- Percent Minority
- o Percent below Poverty Level
- o Percent Age Less Than 5 Years Old
- o Percent Age Less Than 18 Years Old
- o Percent Population Age Greater Than 64 Years Old
- Percent Housing Units Built Before 1950
- o Percent 25 Years and Over With Less Than A High School Degree
- o Percent 25 Years and Over With A High School Degree
- Percent Linguistically Isolated Households
- o Population of American Indian and Alaskan Native
- o Population of American Indian and Alaskan Native below Poverty Level

<u>Air Concentrations, Exposures, and Risks</u>

- o Cumulative Cancer Risk (per million)
- o Cumulative Non-Cancer Neurological Risk (Hazard Index)
- o <u>Cumulative Non-Cancer Respiratory Risk (Hazard Index)</u>
- <u>Concentration (ug/m3), Exposure (ug/m3), Cancer and/or Non-Cancer risks for or attributed to each</u> of the following substances or substance classes
 - Acetaldehyde
 - Acrolein
 - Arsenic
 - Benzene
 - 1,3-Butadiene
 - Chromium
 - Diesel PM
 - Formaldehyde
 - Lead
 - Naphthalene
 - PAH
- o <u>PM 2.5</u>
 - Non-Attainment Areas For PM 2.5 (2006 24hr standard)

- 3-year Average Annual Ambient Concentrations Of PM 2.5 (ug/m3) (2004 2006)
- o <u>Ozone</u>
 - Non-Attainment Areas For Ozone (1997 8hr Standard)
 - 3-year Average Number Of Ozone Days With Maximum 8-hr Average Above the National Ambient Air Quality Standard (2004 - 2006)
- AIRNow Air Quality Index
- EPA Smart Location Database
 - People per acre
 - Jobs per acre
 - Activity density (housing + jobs per acre)
 - Jobs per household
 - Workers per job equilibrium index
 - o Land use diversity
 - Total road network density
 - High-speed road network density
 - o Street intersection density
 - Distance to transit (meters)
 - Percentage of jobs within 0.25 miles of fixed-guideway transit
 - Percentage of jobs within 0.5 miles of fixed-guideway transit
 - Transit service frequency
 - o Transit service frequency per square mile
 - Jobs within a 45 min. transit ride (weighted)
 - Jobs within a 45 min. drive (weighted)
 - Working-age population within a 45 min. transit ride (weighted)
 - o Working-age population within a 45 min. drive (weighted)
 - Accessibility index Transit to jobs
 - Accessibility index Auto to jobs
 - Accessibility Index Transit to working-age population
 - Accessibility Index Auto to working-age population
 - o Total employment
 - Low income workers (home location)
 - Low income workers (workplace location)
 - Percent low income workers (home location)
 - Percent low income workers (workplace location)
 - Zero car households
 - Zero car households as a percentage of all households

C-FERST Map Layers

• EPA Registered Facilities

The EPA's Facilities Registry System (FRS) provides location and attribute information on facilities, sites or places subject to environmental regulations or environmental interest. FRS is an integrated source of comprehensive environmental information (air, water, and waste) about facilities, sites or places. 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. Additional Information on FRS is available at www.epa.gov/frs.

Metadata description: <u>http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer</u>

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o ACRES: Assessment, Cleanup and Redevelopment Exchange System Brownfields

This data layer provides location and attribute information for brownfields sites in the Assessment, Cleanup and Redevelopment Exchange System (ACRES). ACRES stores information reported by EPA Brownfields grant recipients on Brownfields properties assessed or cleaned up with grant funding, as well as information on Targeted Brownfields Assessments (TBA) performed by EPA Regions. Additional information about EPA Brownfields activities is available at http://www.epa.gov/brownfields.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/0

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• AIRS_AFS: Air Facility System

This data layer provides location and attribute information for facilities in the Air Facility System (AFS). AFS contains compliance and permit data for stationary sources of air pollution regulated by the EPA, state, and local air pollution agencies. Additional information on AFS is available at http://www.epa.gov/oecaerth/data/systems/air/afssystem.html.

Metadata description: <u>http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/1</u>

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• AIRS_AFS_MAJOR: Air Facility System Major facilities

This data layer provides location and attribute information for the major facilities in the Air Facility System (AFS). AFS contains compliance and permit data for stationary sources of air pollution regulated by the EPA, state, and local air pollution agencies. Additional information on AFS is available at http://www.epa.gov/oecaerth/data/systems/air/afssystem.html.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/2

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• AIRS_AQS: Air Quality System Monitoring stations

This data layer provides location and attribute information for air monitoring stations in the Air Quality System (AQS). AQS contains ambient air pollution data collected by EPA, State, Local, and Tribal air pollution control agencies from thousands of monitoring stations. Additional information on AQS is available at http://www.epa.gov/ttn/airs/airsaqs/.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/3

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• BIA: Bureau of Indian Affairs (BIA) schools

This data layer provides location and attribute information for Bureau of Indian Affairs (BIA) schools on Indian land. The BIA is responsible for the administration and management of 55.7 million acres of land held in trust by the United States for American Indians, Indian Tribes, and Alaska natives and provides education services to approximately 48,000 Indian students.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS INTERESTS/MapServer/4

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• BRAC: Base Realignment and Closure

This data layer provides location and attribute information for facilities in the Base Realignment and Closure (BRAC) program. BRAC is a process used to close excess military installations and realign the total asset inventory in order to save money on operations and maintenance. Additional information is available at http://www.epa.gov/fedfac/program.htm.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/5

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o CAMDBS: Clean Air Markets Division Business System

This data layer provides location and attribute information for facilities regulated under the Clean Air Markets Division Business System (CAMDBS). CAMDBS supports the implementation of market-based air pollution control programs administered by the EPA Clean Air Markets Division, within the Office of Air and Radiation. Programs include the Acid Rain Program and regional programs designed to reduce the transport of ozone. Additional information is available at http://www.epa.gov/airmarkets/.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/6

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CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System/Superfund

This data layer provides location and attribute information for facilities in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). CERCLIS is EPA's inventory of abandoned, inactive, or uncontrolled hazardous waste sites regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund. CERCLIS records information about all aspects of hazardous waste sites from initial discovery to listing on the National Priorities List (NPL). Additional information about Superfund is available at http://www.epa.gov/superfund.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/7

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• CERCLIS_NPL: Comprehensive Environmental Response, Compensation, and Liability Information System/Superfund National Priorities List

This data layer provides location and attribute information for facilities on the *National Priorities List* (NPL). The NPL is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation. It is tracked in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). CERCLIS is EPA's inventory of abandoned, inactive, or uncontrolled hazardous waste sites regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund. Additional information about Superfund is available at <u>http://www.epa.gov/superfund</u>.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/8

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• OIL: Spill Prevention, Control and Countermeasure (SPCC) Rule and Facility Response Plans (FRPs)

This data layer provides location and attribute information on facilities regulated under the Spill Prevention, Control, and Countermeasure (SPCC) Rule and required under the Clean Water Act, as amended by the Oil Pollution Act, to submit Facility Response Plans (FRPs). FRPs are plans for responding to a worst case discharge of oil (to the maximum extent practical). Additional information is available at http://www.epa.gov/oem/content/spcc/index.htm and http://www.epa.gov/oem/content/spcc/index.htm.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/9

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o ICIS: Integrated Compliance Information System (under development)

This data layer provides location and attribute information from the Integrated Compliance Information System (ICIS). ICIS provides a database that, when complete, will contain integrated enforcement and compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain enforcement data with a single repository for that information. **Note:** Currently, ICIS contains all Federal Administrative and Judicial enforcement actions and a subset of the Permit Compliance System (PCS), which supports the National Pollutant Discharge Elimination System (NPDES). This information is maintained in ICIS by EPA in the Regional offices and at Headquarters. A future release of ICIS will completely replace PCS and will integrate that information with Federal actions already in the system. Additional information is available at http://www.epa.gov/compliance/data/systems/icis/.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/10

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NCDB: National Compliance Database for the National Pesticides and Toxic Substances Compliance and Enforcement program

This data layer provides location and attribute information on facilities in the National Compliance Database (NCDB). NCDB supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA) by tracking regional compliance and enforcement activity for the National Pesticides and Toxic Substances Compliance and Enforcement program. Additional information is available at

http://www.epa.gov/oecaerth/data/systems/toxics/ncdbsys.html.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS INTERESTS/MapServer/11

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NCES: National Center for Education Statistics Facilities

This data layer provides location and attribute information on education facilities in the National Center for Education Statistics (NCES) database. Compliance information is provided for each educational facility. Note: See below for additional schools layers.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/12

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• NEI: National Emissions Inventory

This data layer provides location and attribute information on facilities in the National Emissions Inventory (NEI). The NEI is a comprehensive inventory of air emissions of both criteria air pollutants (CAPs) and hazardous air pollutants (HAPs) from all air emission sources for the United States. Note: See below for additional layers developed for C-FERST of 2005 National Emissions Inventory facilities that emit select HAPs. Additional information is available at http://www.epa.gov/ttn/chief/eiinformation.html.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS INTERESTS/MapServer/13

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• NEPT: National Environmental Performance Track (2000-2009)

This data layer provides location and attribute information on facilities that participated in the National Environmental Performance Track (NEPT). The NEPT was designed to recognize facilities that had consistently meet their legal requirements and had implemented high-quality environmental management systems. Note: This program was cancelled in 2009. Additional information is available at http://www.epa.gov/performancetrack/.

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• PCS_NPDES: National Pollutant Discharge Elimination System (NPDES) Permit Compliance System Water Dischargers

This data layer provides location and attribute information on facilities in the Permit Compliance System (PCS). PCS tracks National Pollutant Discharge Elimination System (NPDES) surface water permits issued under the Clean Water Act. **Note:** This system is being incrementally replaced by the NPDES module of ICIS. Additional information about PCS is available at

<u>http://www.epa.gov/oecaerth/data/systems/water/pcssys.html</u>. Additional information on NPDES is available at <u>http://cfpub.epa.gov/npdes/</u>.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/15

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PCS_NPDES_MAJOR: National Pollutant Discharge Elimination System (NPDES) Permit Compliance System Major Water Dischargers

This data layer provides location and attribute information on the Major facilities in the Permit Compliance System (PCS). PCS tracks National Pollutant Discharge Elimination System (NPDES) surface water permits issued under the Clean Water Act. **Note:** This system is being incrementally replaced by the NPDES module of ICIS. Additional information about PCS is available at <u>http://www.epa.gov/oecaerth/data/systems/water/pcssys.html</u>. Additional information on NPDES is available at <u>http://cfpub.epa.gov/npdes/</u>.

Metadata description: <u>http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/16</u>

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o RADINFO: Radiation Information System

This data layer provides location and attribute information on facilities in the Radiation Information System (RADINFO). RADInfo contains information about facilities that are regulated by US EPA for radiation and radioactivity. Additional information is available at http://www.epa.gov/enviro/facts/radinfo/.

Metadata description: <u>http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/17</u>

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• RBLC: RACT/BACT/LAER Clearinghouse

This data layer provides location and attribute information on facilities in the RACT/BACT/LAER Clearinghouse (RBLC) database. The RBLC database contains case-specific information on the "best available" air pollution technologies that have been required to reduce the emission of air pollutions from stationary sources. RACT, or Reasonably Available Control Technology, is required on existing sources in areas that are not meeting national ambient air quality standards. BACT, or Best Available Control Technology, is required on major new or modified sources in clean areas. LAER, or Lowest Achievable Emission Rate, is required on major new or modified sources in non-attainment areas. Additional information is available at http://cfpub.epa.gov/rblc/index.cfm?action=Home.Home&lang=en.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/18

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• RCRA: All Resource Conservation and Recovery Act Hazardous Waste facilities

This data layer provides location and attribute information on **ALL active and inactive** hazardous waste facilities regulated under the Resource Conservation and Recovery Act (RCRA) and tracked in the RCRAInfo database. RCRAInfo is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste. Additional information about hazardous waste is available at http://www.epa.gov/epawaste/hazard/. Additional information about RCRA is available at http://www.epa.gov/wastes/laws-regs/.

Metadata description: <u>http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/19</u>

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o RCRA_ACTIVE: Active Resource Conservation and Recovery Act Hazardous Waste facilities

This data layer provides location and attribute information on all **ACTIVE** hazardous waste facilities regulated under the Resource Conservation and Recovery Act (RCRA) and tracked in the RCRAInfo database. RCRAInfo is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste. Additional information about hazardous waste is available at http://www.epa.gov/epawaste/hazard/. Additional information about RCRA is available at http://www.epa.gov/wastes/laws-regs/.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/20

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o RCRA_INACTIVE Inactive Resource Conservation and Recovery Act Hazardous Waste facilities

This data layer provides location and attribute information on **INACTVE** hazardous waste facilities regulated under the Resource Conservation and Recovery Act (RCRA) and tracked in the RCRAInfo database. RCRAInfo is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste. Additional information about hazardous waste is available at http://www.epa.gov/epawaste/hazard/. Additional information about RCRA is available at http://www.epa.gov/wastes/laws-regs/.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/21

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o RCRA_LQG: Resource Conservation and Recovery Act Hazardous Waste Large Quantity Generators

This data layer provides location and attribute information on all Large Quantity Generator (LQG) hazardous waste facilities regulated under the Resource Conservation and Recovery Act (RCRA) and tracked in the RCRAInfo database. RCRAInfo is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste. Additional information about hazardous waste is available at http://www.epa.gov/epawaste/hazard/. Additional information about RCRA is available at http://www.epa.gov/wastes/laws-regs/.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/22_

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o RCRA_TRANS: Resource Conservation and Recovery Act Hazardous Waste Transmitters

This data layer provides location and attribute information on all **Transporters** of hazardous waste regulated under the Resource Conservation and Recovery Act (RCRA) and tracked in the RCRAInfo database. RCRAInfo is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste. Additional information about hazardous waste is available at http://www.epa.gov/epawaste/hazard/. Additional information about RCRA is available at http://www.epa.gov/wastes/laws-regs/.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/23

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RCRA_TSD: Resource Conservation and Recovery Act Hazardous Waste Treatment, Storage and Disposal (TSD) facilities

This data layer provides location and attribute information on all Hazardous Waste **Treatment, Storage and Disposal (TSD)** facilities regulated under the Resource Conservation and Recovery Act (RCRA) and tracked in the RCRAInfo database. RCRAInfo is EPA's comprehensive information system in support of the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. It tracks many types of information about generators, transporters, treaters, storers, and disposers of hazardous waste. Additional information about hazardous waste is available at <u>http://www.epa.gov/epawaste/hazard/</u>. Additional information about RCRA is available at <u>http://www.epa.gov/wastes/laws-regs/</u>.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/24

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SDWIS: Safe Drinking Water Information System

This data layer provides location and attribute information on facilities regulated under the Safe Drinking Water Information System (SDWIS). SDWIS contains information about public water systems and their violations of EPA's drinking water regulations. Additional information is available at http://water.epa.gov/scitech/datait/databases/drink/sdwisfed/basicinformation.cfm.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/25

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• TRI: Toxics Release Inventory

This data layer provides location and attribute information on facilities regulated under the Toxics Release Inventory System (TRIS). The Toxic Release Inventory System (TRIS) is a publicly available EPA database of information reported annually by certain covered industry groups, as well as federal facilities. It contains information about more than 650 toxic chemicals that are being used, manufactured, treated, transported, or released into the environment, and includes information about waste management and pollution prevention activities. Additional information is available at http://www.epa.gov/tri/.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/26

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o All Sites

This data layer provides location and attribute information about all facilities, sites, or places subject to environmental regulation or of environmental interest through EPA's national program systems. **Note:** The data layer omits facilities without latitude/longitude coordinates.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/FRS_INTERESTS/MapServer/27

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• National Emissions Inventory (2005) by Pollutant

This data layer provides location and attribute information for National Emissions Inventory (NEI) facilities that emit select NEI pollutants: Acetaldehyde, Acrolein, Arsenic, Benzene, 1,3-Butadiene, Chromium, Formaldehyde, Lead, Naphthalene, and PAH. The NEI is a comprehensive inventory of air emissions of both criteria air pollutants (CAPs) and hazardous air pollutants (HAPs) from all air emission sources for the United States. This map service displays 2005 USEPA National Emissions Inventory (NEI) point facility information. The NEI is prepared every three years by the USEPA based primarily on emission estimates and emission model inputs provided by state, local, and tribal air agencies for sources in their jurisdictions and supplemented by data developed by the USEPA. Additional information about 2005 NEI data is available at <u>http://www.epa.gov/ttn/chief/net/2005inventory.html</u>. Additional information about NEI is available at <u>http://www.epa.gov/ttn/chief/eiinformation.html</u>.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OAR/USEPA_NEI_2005/MapServer

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Water Quality Inventory Report (305(b))

This data layer provides location and attribute information for the National Water Quality Inventory Report to Congress (305(b) report). The 305(b) Report is the primary vehicle for informing Congress and the public about general water quality conditions in the United States. The report characterizes our water quality, identifies widespread water quality problems of national significance, and describes various programs implemented to restore and protect our waters. This map service displays Assessed Waters as points, lines and areas. More information on 305(b) Assessed Waters is available at

http://water.epa.gov/lawsregs/guidance/cwa/305b/index.cfm.

Metadata description: http://watersgeo.epa.gov/arcgis/rest/services/OWRAD_NP21/305B_NP21/MapServer

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BEACH Environmental Assessment and Coastal Health

This data layer provides location and attribute information for the Beaches Environmental Assessment and Coastal Health (BEACH) Program. The BEACH Program focuses on the following five areas to meet the goals of improving public health and environmental protection for beach goers and providing the public with information about the quality of their beach water: strengthening beach standards and testing, providing faster laboratory test methods-predicting pollution, investing in health and methods research, informing the public. Under the BEACH Act Grant Program states (including tribes and territories) are required to submit their beach monitoring (water quality), notification (advisory and closing), and beach location data to EPA. This map service displays beaches as lines on the map. Additional information is available at http://www2.epa.gov/beach-tech.

Metadata description: http://watersgeo.epa.gov/arcgis/rest/services/OWRAD_NP21/BEACH_NP21/MapServer

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• Permitted Water Discharge Sites (NPDES)

This data layer provides location and attribute information on facilities regulated under the National Pollutant Discharge Elimination System (NPDES), a mandated provision of the Clean Water Act. This information is tracked using an information management system called the Integrated Compliance Information System (ICIS-NPDES). Additional information on NPDES is available at http://cfpub.epa.gov/npdes/.

Metadata description: <u>http://watersgeo.epa.gov/arcgis/rest/services/OWRAD_NP21/NPDES_NP21/MapServer</u>

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• STORET Water Monitoring Sites

This data layer provides location and attribute information for STORET (STOrage and RETrieval) monitoring sites. STORET is a repository for water quality, biological, and physical data pertaining to rivers and streams at a stream site level. Additional information is available at <u>http://www.epa.gov/storet/</u>.

Metadata description: <u>http://watersgeo.epa.gov/arcgis/rest/services/OWRAD_NP21/STORET_NP21/MapServer</u>

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• Impaired Waters with Total Maximum Daily Load (TMDLs)

This data layer provides location and attribute information for assessed waters that are listed by the states as impaired under Section 303(d) of the Clean Water Act. These waters are designated as Not Supporting their designated uses and tracked in the Total Maximum Daily Load (TMDL) Tracking System. A Total Maximum Daily Load, or TMDL, is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. This map service displays impaired water bodies with TMDLs as points, lines and areas. Additional information is available at

http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/index.cfm.

Metadata description: http://watersgeo.epa.gov/arcgis/rest/services/OWRAD_NP21/TMDL_NP21/MapServer

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• Schools

This data layer provides location and attribute information for a database of Public and Private Schools, Colleges and Universities and Day Care Center developed by Oak Ridge National Laboratories. The data cover all 50 states, as well as Puerto Rico and other U.S. territories.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/ORNL Education/MapServer

• Colleges and Universities

This data layer provides location and attribute information for all post secondary education facilities as defined by the Integrated Post Secondary Education System (IPEDS), National Center for Education Statistics, US Department of Education. Included are doctoral/research universities, masters colleges and universities, baccalaureate colleges, associates Colleges, theological seminaries, medical Schools and other health care professions, schools of engineering and technology, business and management, art, music, design, law schools, teachers colleges, tribal colleges, and other specialized institutions. In a significant number of instances, IPEDS contains only one record for an institution when there exists one or more branch campuses for the institution. The Multiple Campus College layer is intended as a supplement to account for additional public post secondary education campuses of colleges and universities.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/ORNL_Education/MapServer/6

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• Multiple Campus College Institutions

This data layer represents a supplement to the of the Colleges and Universities layer. The Colleges and Universities layer is sourced to the Integrated Post Secondary Education System (IPEDS), National Center for Education Statistics, US Department of Education. In a significant number of instances, IPEDS contains only one record for an institution when there exists one or more branch campuses for the institution. The MultiCampus layer attempts to capture these additional public post secondary education campuses of colleges and universities associated with a single campus listed in the Integrated Post Secondary Education System (IPEDS). NCES provides enrollment and other information for one college or university (IPEDSID) and the data, in many cases, actually represents more than one campus. **Note:** for important information regarding limitations of this data please see the <u>metadata description</u>.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/ORNL_Education/MapServer/7

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• Private Schools

This data layer provides location and attribute information for all private elementary and secondary education in the United States as defined by the Private School Survey, National Center for Education Statistics, US Department of Education. This includes all Kindergarten through 12th grade schools as tracked by the Private School Survey. Overall, there is full private school data coverage for all 50 states, but not for Puerto Rico or other U.S. territories.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/ORNL_Education/MapServer/8

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• Public Schools

This data layer provides location and attribute information for all public elementary and secondary education in the United States as defined by the Common Core of Data, National Center for Education Statistics, US Department of Education. This includes all kindergarten through 12th grade schools as tracked by the Common Core of Data. Included in this dataset are the military schools abroad and referenced in the city field with an APO or FPO address and referenced in the state field with the abbreviation AE.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/ORNL Education/MapServer/9

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• Day Care Centers

This data layer provides location and attribute information for all day care centers for 50 states and Washington D.C. and Puerto Rico. **Note:** The dataset only includes center based day care locations (including schools and religious institutes) and does not include home and family based day cares. All the data was acquired from respective states' departments or their open source websites and then geocoded and converted into a spatial database.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/ORNL Education/MapServer/10

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• Federal Highway Administration Highway Performance Management System (HPMS) Traffic Counts

This data layer provides Annual Average Daily Traffic (AADT) Counts for road segments from the Federal Highway Administration's Highway Performance Monitoring System (HPMS). The HPMS is a national level highway information system that includes data on the extent, condition, performance, use, and operating characteristics of the nation's highways. This data was downloaded from the <u>National Transportation Atlas</u> <u>Database for 2012</u>.

Metadata description: http://gis.rita.dot.gov/ArcGIS/rest/services/NTAD/hpms/MapServer/0

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• Neighborhoods

This data layer provides neighborhood boundaries, labels, centroids, and areas in 393 U.S. cities. Neighborhoods are defined based on information collected from official city websites, maps and background imagery, city officials, residents and real estate agents. Neighborhood delineation is based on three different methodologies: Neighborhood Descriptive Boundaries Method, Deduction Method and Scatter Plot Method. Additional information regarding the development of this dataset can be found at: http://dret.net/netdret/docs/wilde-tipugg2008-neighborhoods.pdf or http://dret.net/netdocs/wilde-t

Metadata description: <u>http://geodata.epa.gov/arcgis/rest/services/OEI/Factle_Neighborhoods/MapServer</u>

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• Federal and Tribal Boundaries

This data provides Federal/EPA Regions, National Parks, Indian Reservations, Federally Owned Lands, and Congressional Districts.

Metadata description: <u>http://igeo.epa.gov/ArcGIS/rest/services/OEI_IGD/Federal_Boundaries/MapServer</u>

o EPA Regions

This data layer provides EPA Regional Boundaries, generated from Navteq state boundaries.

Metadata description:

http://igeo.epa.gov/arcgis/rest/services/OEL_IGD/Federal_Boundaries/MapServer/1

• National Parks

This data layer provides National Parks boundaries, generated from data from the National Park Service (NPS).

Metadata description: http://igeo.epa.gov/arcgis/rest/services/OEI_IGD/Federal_Boundaries/MapServer/2_

o Indian Reservations

This data layer provides feature location, selected demographics and other associated data for the 562 Federally Recognized Tribal entities in the contiguous U.S. and Alaska. This layer was generated with data from the Bureau of Indian Affairs, U.S. Geological Survey and U.S. Census Bureau. Categories included are: American Indian Reservations (AIR), Federally Recognized Tribal Entities (FRTE) and Alaska Native Villages (ANV).

Metadata description:

http://igeo.epa.gov/arcgis/rest/services/OEI IGD/Federal Boundaries/MapServer/3

• 112th Congressional Districts

This map layer portrays the Congressional Districts of the United States for the 112th Congress. This layer was generated with data from the National Atlas of the United States (NationalAtlas.gov). It is an update of the June 2010 map layer.

Metadata description: http://igeo.epa.gov/arcgis/rest/services/OEL_IGD/Federal_Boundaries/MapServer/4

• Federal Lands

This data layer provides boundary and feature information for federally owned or administered lands of the United States, Puerto Rico, and the U.S. Virgin Islands. Only areas of 640 acres or more are included. There may be private inholdings within the boundaries of Federal lands in this map layer. This layer was generated with data from the National Atlas of the United States (NationalAtlas.gov). It is a revised version of the December 2005 map layer.

Metadata description: http://igeo.epa.gov/arcgis/rest/services/OEL_IGD/Federal_Boundaries/MapServer/5

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• Demographic Data

This map service displays demographic data at the Census Tract Level derived from the US Census Bureau's 2006-2010 American Community Survey (ACS). Includes the following map layers:

- Total Population
- Population Density (per square mile)
- Percent Minority
- Percent below Poverty Level
- Percent Age Less Than 5 Years Old
- Percent Age Less Than 18 Years Old
- Percent Population Age Greater Than 64 Years Old
- Percent Housing Units Built Before 1950
- Percent 25 Years and Over With Less Than A High School Degree
- Percent 25 Years and Over With A High School Degree
- Percent Linguistically Isolated Households
- Population of American Indian and Alaskan Native
- Population of American Indian and Alaskan Native below Poverty Level

Metadata description:

http://geodata.epa.gov/arcgis/rest/services/OEI/ACS Demographics by Tract 2006 2010/MapServer

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• Air Concentrations, Exposures, and Risks

This map service was created for the US EPA's C-FERST application. It should not be distributed and is intended for use only with the C-FERST application. The following layers included in this service are developed from the most recent (2005) National Air Toxics Assessment (NATA), unless otherwise noted (See <u>PM 2.5</u> and <u>Ozone</u> layers). Additional information on NATA is available at <u>http://www.epa.gov/nata/</u>. The original Access tables were downloaded from EPA's Office of Air and Radiation (OAR)

(<u>http://www.epa.gov/ttn/atw/nata2005/tables.html</u>). The data classification (defined interval) for this map service was developed for US EPA's Office of Research and Development's (ORD) Community-Focused Exposure

and Risk Screening Tool (C-FERST) per guidance provided by US EPA's Office of Air and Radiation. For additional information on the methods used to derive these estimates go to http://www.epa.gov/ttn/atw/nata2005/05pdf/nata_tmd.pdf or contact Ted Palma, US EPA

(palma.ted@epa.gov).

NATA data disclaimer: US EPA strongly cautions that these modeling results are most meaningful when viewed at the state or national level, and should not be used to draw conclusions about local exposures or risks (e.g., to compare local areas, to identify the exact location of "hot spots", or to revise or design emission reduction programs). Substantial uncertainties with the input data for these models may cause the results to misrepresent actual risks, especially at the census tract level. However, we believe the census tract data and maps can provide a useful approximation of geographic patterns of variation in risk within counties. For example, a cluster of census tracts with higher estimated risks may suggest the existence of a "hot spot," although the specific tracts affected will be uncertain. More refined assessments based on additional data and analysis would be needed to better characterize such risks at the tract level. Note that these modeled estimates are derived from outdoor sources only; indoor sources are not included in these examples, but may be significant in some cases. The modeled exposure estimates are for a median individual in the geographic area shown. Note that in some cases the estimated relationship between human exposure and health effect may be calculated as a high end estimate, and thus may be more likely to overestimate than underestimate actual health effects for the median individual in the geographic area shown. Other limitations to consider when looking at the results are detailed on the EPA 2005 NATA website. For these reasons, the NATA maps included in C-FERST are provided for screening purposes only. See the 2005 National Air Toxic Assessment website for recommended usage and limitations on the estimated cancer and noncancer data provided above.

Metadata Description: <u>http://geodata.epa.gov/arcgis/rest/services/OEI/USEPA_AIR/MapServer</u>

• Cumulative Cancer Risk (per million)

This map shows Cumulative Cancer risks from 139 airborne toxics at the census tract level (2000 census tract boundaries, US Census Bureau).

o Cumulative Non-Cancer Neurological Risk (Hazard Index)

This map shows Non-Cancer Neurological risks from 139 airborne toxics at the census tract level (2000 census tract boundaries, US Census Bureau).

• Cumulative Non-Cancer Respiratory Risk (Hazard Index)

This map shows Non-Cancer Respiratory risks from 139 airborne toxics at the census tract level (2000 census tract boundaries, US Census Bureau).

• Concentration (ug/m³), Exposure (ug/m³), Cancer and/or Non-Cancer risks for or attributed to each of the following substances or substance classes

- Acetaldehyde
- Acrolein
- Arsenic
- Benzene
- 1,3-Butadiene
- Chromium

- Diesel PM
- Formaldehyde
- Lead
- Naphthalene
- PAH

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o PM 2.5

Non-Attainment Areas For PM 2.5 (2006 24hr standard)

This map service displays areas designated as in non-attainment status for the 2006 24-hour PM 2.5 National Ambient Air Quality Standard (NAAQS) of 35 ug/m³. These are areas of the country where air pollution levels consistently exceed the national ambient air quality standards. Details about the US EPA's Non-Attainment data are available at

<u>http://www.epa.gov/airquality/greenbook/index.html</u>. NAAQS are air quality standards set by the US EPA to protect health and the environment. Additional information on NAAQS is available at <u>http://www.epa.gov/air/criteria.html</u>.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/USEPA_AIR/MapServer/53

3-year Average Annual Ambient Concentrations Of PM 2.5 (ug/m3) (2004 - 2006)

This map service displays 3-year average annual PM 2.5 concentration (ug/m3) by county (2004 - 2006, monitor and modeled). The US EPA's Office of Research and Development calculated a three-year average (2004 - 2006) using the PM 2.5 (annual ambient concentration) values. These data were extracted by the Centers for Disease Control (CDC) from the US EPA's ambient air monitors and are displayed at the county level. US EPA received the monitor and modeled data from the CDC and calculated the three year average displayed in the web service. For more details about the CDC Environmental Public Health Tracking data, go to http://ephtracking.cdc.gov/showHome.action.

Metadata description:

http://geodata.epa.gov/arcgis/rest/services/OEI/USEPA_AIR/MapServer/54

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o Ozone

Non-Attainment Areas For Ozone (1997 8hr Standard)

This data layer displays areas designated as in non-attainment status for the 1997 8-hour ozone National Ambient Air Quality Standard (NAAQS) of 0.08ppm. These are areas of the country where air pollution levels consistently exceed the national ambient air quality standards. Details about the US EPA's Non-Attainment data are available at <u>http://www.epa.gov/airquality/greenbook/index.html</u>. NAAQS are air quality standards set by

the US EPA to protect health and the environment. Additional information on NAAQS is available at http://www.epa.gov/air/criteria.html.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/USEPA_AIR/MapServer/56

3-year Average Number of Ozone Days with Maximum 8-hr Average Above the National Ambient Air Quality Standard (2004 - 2006)

This map service displays 3-year average annual ozone days above regulatory standard by county (2004 - 2006, monitor and modeled). The US EPA's ORD calculated a three-year average (2004 - 2006) using the number of days with the maximum 8-hour average ozone concentration above the National Ambient Air Quality Standards (NAAQS). These data were extracted by the CDC from the US EPA's ambient air monitors and are displayed at the county level. US EPA received the monitor and modeled data from the CDC and calculated the three year average displayed in the web service. For more details about the CDC EPHT data, go to http://ephtracking.cdc.gov/showHome.action.

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OEI/USEPA_AIR/MapServer/57

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• AIRNow Air Quality Index

This map service displays the Air Quality Index (AQI) information for yesterday's observed conditions, current observed conditions, today's forecast and tomorrow's forecast. The AQI is an index for reporting daily air quality. It reports air quality and associated short-term health effects you may experience within a few hours or days after breathing polluted air. AIRNow is a website developed by the U.S. EPA, National Oceanic and Atmospheric Administration, U.S. National Park Service, tribal, state, and local agencies to provide the public with easy access to national air quality information. AIRNow offers daily AQI forecasts as well as real-time AQI conditions for over 300 cities across the US, and provides links to more detailed State and local air quality Web sites. Additional information is available at <u>www.airnow.gov</u>.

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• EPA Smart Location Database

The Smart Location Database (SLD) characterizes the built environment within every U.S. Census block group using several variables that are demonstrated in the transportation research literature to have an effect on residential travel behavior. These variables are all related to factors known as the five D's: Density (of population, housing, or jobs), land use Diversity, urban Design (intersection density), Destination accessibility, and Distance to transit. See <u>SLD website</u> for background information, technical report, data dictionary and other details. Includes the following map layers:

- People per acre
- Jobs per acre
- Activity density (housing + jobs per acre)
- o Jobs per household
- Workers per job equilibrium index
- Land use diversity

- o Total road network density
- High-speed road network density
- o Street intersection density
- Distance to transit (meters)
- Percentage of jobs within 0.25 miles of fixed-guideway transit
- o Percentage of jobs within 0.5 miles of fixed-guideway transit
- Transit service frequency
- o Transit service frequency per square mile
- Jobs within a 45 min. transit ride (weighted)
- Jobs within a 45 min. drive (weighted)
- Working-age population within a 45 min. transit ride (weighted)
- Working-age population within a 45 min. drive (weighted)
- Accessibility index Transit to jobs
- Accessibility index Auto to jobs
- Accessibility Index Transit to working-age population
- o Accessibility Index Auto to working-age population
- Total employment
- Low income workers (home location)
- Low income workers (workplace location)
- Percent low income workers (home location)
- Percent low income workers (workplace location)
- o Zero car households
- o Zero car households as a percentage of all households

Metadata description: http://geodata.epa.gov/arcgis/rest/services/OA/SmartLocationDatabase/MapServer

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