Hudson River Watershed Mapping Application
Layer Guide: Data Dictionary
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Sensor Networks Theme

Sensor networks report information on environmental conditions. The precise factors that any given sensor reports on vary depending on the phenomenon being observed. Types of measurements range from simple parameters such as precipitation, to more complex variables such as fish migration patterns and pollutant discharges.

**REON (Dataset provided by The Beacon Institute)**
This data layer represents the locations of sensors in the Hudson River Watershed operated as part of the Beacon Institute’s Rivers and Estuaries Observation Network (REON). REON is a joint project between the Beacon Institute, IBM, and Clarkson University that will allow for a minute-to-minute monitoring of physical, chemical and biological data from New York's Hudson and St. Lawrence Rivers via an integrated network of sensors, robotics and computational technology distributed throughout both rivers. To date two sensors have been deployed for REON, B1 at Denning’s Point and ADCP at West Point. Points on the map are hyperlinked to real-time REON data provided by the Beacon Institute and hosted at the Shoreline Environmental Research Facility (SERF).

**NOAA NWS Gage (Dataset provided by NOAA)**
This data layer represents the locations of gages in the Hudson River Watershed operated as a part of the National Oceanic and Atmospheric Administration National Weather Service’s (NOAA NWS’s) Advanced Hydrologic Prediction Service (AHPS). The AHPS includes a rich array of information on water conditions and forecasts, with a specific focus on flood prevention and drought preparedness. Points on the map are hyperlinked to corresponding records on the AHPS Web site.

**IFLOWS Rain Gage (Dataset provided by NOAA)**
This data layer represents the locations of rain gages in the Hudson River Watershed that contribute data to the National Weather Service’s Integrated Flood Observing and Warning System (IFLOWS) program. The IFLOWS program aims to reduce the annual loss of life from flash floods, decrease property damage, and lessen the impact of flooding on human activities. Points on the map are hyperlinked to the Automated Flood Warning System Web site, where rain gage records may be accessed.
USGS Stream Gage (Dataset provided by USGS)

This data layer represents the location of stream gages operated by the United States Geological Survey (USGS) within the Hudson River Watershed. It contains both historical data about gages no longer in operation, and data about those gages currently in use. Points on the map are hyperlinked to the Web site of the USGS National Water Information System (NWIS), which contains historical and real-time data on stream conditions.
**Administrative Boundary Theme**

Administrative boundaries are the legally established lines dividing areas controlled by governments or organizations. Administrative boundaries do not necessarily align with geographic features, and may in fact divide mountain ranges and watersheds. Some examples of the types of administrative units these boundaries may divide include countries, states, counties, cities, and towns.

**Canada (Dataset provided by ESRI)**
This data layer represents the country of Canada as it borders the northeastern region of the United States.

**County Boundary (Dataset provided by US Census Bureau)**
This data layer depicts the legally established county boundaries. Counties are the primary legal divisions of 48 of the 50 States within the United States. The exceptions are Louisiana, whose primary divisions are known as parishes, and Alaska, which is divided into boroughs.

**State Boundary (Dataset provided by US Census Bureau)**
This data layer depicts the legally established state boundaries. States are the primary governmental divisions within the United States.

**Town Boundary (Dataset provided by US Census Bureau)**
This data layer represents legally established town boundaries. Towns are the main divisions of counties within the eastern United States. Although the exact definition of town differs from state to state, in most cases towns are the primary level of government charged with providing a variety of services to their inhabitants.
Aquatic Environment Theme

An aquatic environment is composed of many elements. These characteristics include physical conditions, flow paths, catchments, and shorelines. Oceans, rivers, streams, lakes, and marshes can all be considered hydrographic features of an aquatic environment.

Hudson River Characteristics

The following data layers were produced as part of the Benthic Mapping Project. The Benthic Mapping Project made use of remote sensing tools to image the floor of the estuary and sediment sampling tools to determine the relationships among sediment characteristics, animals that live in or on the sediment, and the features imaged by remote sensing. The project is managed jointly by the New York State Department of Environmental Conservation (NYSDEC) Hudson River National Estuarine Research Reserve and the HUDSON RIVER ESTUARY PROGRAM, and funded by NYSDEC with funds from the Environmental Protection Fund through the Hudson River Estuary Program. These datasets are publicly available through the New York State GIS Clearinghouse.

Sediment Environment (Dataset provided by NYSDEC)

This data layer represents sediment environments of the Hudson River. The term sediment refers to any type of particle that can be transported in fluid and settled at the bottom of a water profile. Sediment environment refers to the physical conditions of a location in a water body that might influence the type and concentration of sediments in the surrounding area.

Sediment Type (Dataset provided by NYSDEC)

This data layer represents sediment types found in the Hudson River. The term sediment refers to any type of particle that can be transported in fluid and settled at the bottom of a water body. The Hudson River is home to a number of major sediment types including gravel, mud, and sand.

Shoreline (Dataset provided by NYSDEC)

This data layer represents a high-resolution depiction of the Hudson River shoreline. A detailed hydrographic description of shorelines provides researchers and resource managers with information vital to evaluating habitats, choosing navigation paths, and modeling environmental concerns.
**Bathymetry (Dataset provided by NYSDEC)**
This data layer represents a high-resolution depiction of underwater topography of the Hudson River. USGS refers to bathymetry as “water depth relative to sea level”. This particular dataset measures bathymetry in meters from the river’s floor. It was produced from a combination of NOAA and SUNY Stony Brook datasets.

**Major Waters**

**Major Lakes (Dataset provided by ESRI)**
This data layer represents major lakes.

**Major Rivers (Dataset provided by ESRI)**
This data layer represents major rivers.

**Detailed Waterbodies (Dataset provided by ESRI)**
The data layer represents detailed waterbodies in the Hudson River Watershed. The surface waters depicted in this layer include major lakes, reservoirs, rivers, lagoons, swamps, and estuaries.

**Salinity (Dataset provided by NOAA)**
This data layer represents salinity zones along the Northeastern seaboard including the length of the Hudson River. The term salinity refers to the concentration of salt in a water body; in this data set an area of water is categorized according to average annual measurements of its salinity. A seawater zone refers to an area of water where the concentration of salt is equal to or greater than 25 parts out of 1000. A mixing zone has a concentration of salt between 5 and 25 parts out of 1000. A tidal fresh zone has a concentration of salt less than or equal to 5 parts out of 1000. The Hudson River is a tidal estuary with an extensive mixing zone that stretches more than 50 miles inland.
Streams

**Detailed Stream Network (Dataset provided by Horizon Systems)**
This data layer represents a network of rivers and streams in the Hudson River Watershed derived from the National Hydrography Dataset Plus (NHD Plus). Within NHD Plus, streamflow directionality has been primarily determined through the use of high-resolution elevation models. Stream network data is useful for exploring watershed connectivity, drainage patterns, water quality, and for regional decision making.

**Stream Network (Dataset provided by Horizon Systems)**
This data layer represents a generalized version of the Detailed Stream Network Layer. Rivers and streams with Geographic Names Information System (GNIS) were selected to produce this layer of named waterways.

**NYC Watershed (Dataset provided by NYCDEP)**
This data layer represents the administrative extents of the 21 catchments that make up the New York City Watershed. The New York City Watershed is an extraordinary example of successful conservation. Lands within the watershed boundaries are subject to use limitations, and adhere to many best management practices for maintaining water quality. Because of the successful conservation of these areas, New York City has the distinction of receiving nearly all of its water supply fresh and unfiltered from the network of reservoirs making up this astonishing water system.

Hydrologic Units

**Local Basin (Dataset provided by USDA NRCS)**
This data layer represents localized drainage basins in the Hudson River Watershed. Local basins are micro-geographic regions encompassing varied terrains in which precipitation is captured and drained into large water bodies through a common network of streams, or often a single major river. The Hudson River Watershed is made up of more than 300 micro-scale basins.
Sub Basin (Dataset provided by USGS and USDA NRCS)
This data layer represents drainage sub-basins of the Hudson River Watershed. Sub-basins are small geographic regions encompassing varied terrains in which precipitation is captured and drained into large water bodies through a common network of streams, or often a single major river. The Hudson River Watershed is composed of eleven sub-basins: the Bronx, Hackensack-Passaic, Hudson-Hoosic, Hudson-Wappinger, Lower Hudson, Middle Hudson, Mohawk, Rondout, Sacandaga, Schoharie, and Upper Hudson.

Basin (Dataset provided by USGS and USDA NRCS)
This data layer represents the drainage basins of the Hudson River Watershed. Basins are large geographic regions encompassing varied terrains in which precipitation is captured and drained into large water bodies through a common network of streams, or often a single major river. The Hudson River Watershed is divided into two drainage basins: the upper Hudson, and the lower Hudson.

Watershed (Dataset provided by USGS and USDA NRCS)
This data layer represents the whole of the Hudson River Watershed.
Landcover Theme

The term landcover refers to the physical features of any given geographic area. Some examples of major landcover categories include: open water, developed land, deciduous forest, evergreen forest, shrub, grassland, cultivated crop land, and wetland. The exact classifications of landcover types vary, and are dependent upon the scale of the data and the research question at hand. For instance, data sets covering large regions are likely to be made up of general classes such as pervious and impervious surfaces, or urban and non-urban. Data sets covering smaller regions might break a developed class into more finely detailed categories such as developed industrial, and developed residential. In 1976 the United States Geological Survey (USGS) created a system for categorizing land cover types that is still heavily relied upon in modern research. The vast majority of landcover studies derive their classifications from remotely-sensed satellite imagery and ground verification.

NLCD 2001 (Dataset provided by MRLC Consortium)

This data layer represents landcover classifications from the National Landcover Database 2001 (NLCD 2001) in the Hudson River Watershed Counties of Dutchess, Orange, Putnam, and Ulster. The data set consists of 15 landcover categories whose definitions follow:

**Open Water** — All areas of open water, generally with less than 25% cover of vegetation or soil.

**Developed, Open Space** — Includes areas with a mixture of some constructed materials, but mostly vegetation in the form of lawn grasses. These areas most commonly include large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes. Impervious surfaces account for less than 20% of total cover.

**Developed, Low Intensity** — Includes areas with a mixture of constructed materials and vegetation. These areas most commonly include single-family housing units. Impervious surfaces account for 20–49% of total cover.

**Developed, Medium Intensity** — Includes areas with a mixture of constructed materials and vegetation. These areas most commonly include single-family housing units. Impervious surfaces account for 50–79% of the total cover.

**Developed, High Intensity** — Includes highly developed areas where people reside or work in high numbers. Examples include apartment complexes, row houses, and commercial/industrial. Impervious surfaces account for 80–100% of the total cover.
Barren Land (Rock/Sand/Clay)— Barren areas of bedrock, desert pavement, scarps, talus, slides, volcanic material, glacial debris, sand dunes, strip mines, gravel pits, and other accumulations of earthen material. Generally, vegetation accounts for less than 15% of total cover.

Deciduous Forest — Areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. More than 75% of the tree species simultaneously shed foliage in response to seasonal change.

Evergreen Forest — Areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. More than 75% of the tree species maintain their leaves all year. Forest canopy (the uppermost spreading branchy layer of a forest) is never without green foliage.

Mixed Forest — Areas dominated by trees generally greater than 5 meters tall, and greater than 20% of total vegetation cover. Neither deciduous nor evergreen species are greater than 75% of total tree cover.

Shrub/Scrub — Areas dominated by shrubs; less than 5 meters tall with shrub canopy (the uppermost spreading branchy layer of a series of shrubs) typically greater than 20% of total vegetation. This class includes true shrubs, young trees, or trees stunted from environmental conditions.

Grassland/Herbaceous — Areas dominated by characteristically herbaceous vegetation, generally greater than 80% of total vegetation. These areas are not subject to intensive management such as tilling, but can be utilized for grazing.

Pasture/Hay — Areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20% of total vegetation.

Cultivated Crops — Areas used for the production of annual crops such as corn, soybeans, vegetables, tobacco, and cotton; also perennial woody crops such as orchards and vineyards. Crop vegetation accounts for greater than 20% of total vegetation. This class also includes all land being actively tilled.

Woody Wetlands — Areas where forest or shrubland vegetation accounts for greater than 20% of vegetative cover and the soil or substrate (surface on which an organism grows) is periodically saturated with or covered with water.

Emergent Herbaceous Wetlands — Areas where perennial herbaceous vegetation accounts for greater than 80% of vegetative cover and the soil or substrate (surface on which an organism grows) is periodically saturated with or covered with water.
**Impervious Surface (Dataset provided by MRLC Consortium)**

This data layer represents impervious surface cover in the Hudson River Watershed as derived from the National Landcover Database 2001 (NLCD 2001). The term impervious surface refers to those surfaces that cannot be penetrated by water. Impervious surfaces can be naturally occurring (rock) or man-made (buildings, roads, sidewalks) structures. The impervious surfaces represented in this layer were derived from landcover classifications in the NLCD 2001 data set.

**Urban Areas 2000 (Dataset provided by US Census Bureau)**

This data layer represents Urban Areas in the Hudson River Watershed as defined by the United States Census Bureau in Census 2000. The Census Bureau defines urban areas as those densely settled territories that contain 50,000 or more people.
Pollution can be defined as the introduction of harmful substances into the environment from natural or man-made sources (USGS). Atmospheric pollution may be caused by manufacturers, power plants, cars, or even volcanoes. Soil contamination can result from the overuse of pesticides or fertilizers, the leaching of harmful wastes from landfills, or oil and gas spills. Water contamination is often the result of industrial discharges of waste and municipal discharges of sewage, but might also occur due to stormwater runoff, or naturally in an algal bloom.

No matter what the source of the pollution, the impacts of a polluted environment on human life are negative. In order to control the amount of pollution released into our atmosphere, the United States government passed the Clean Air Act of 1963 and a series of later revisions and updates. This groundbreaking act established a federal standard for air pollution control (National Ambient Air Quality Standard). The standard placed a limit on the amount of air pollution that any given source could emit. The act also called for the establishment of state standards and methods of monitoring. The Clean Water Act of 1972 and its later revisions established a means of controlling water pollution. Limits on pollution were established, and direct sources (known in the Act as point sources) were required to apply for permits that would ensure they were both accounted for and monitored.

Air Pollution

**Non Attainment Area CO (Dataset provided by RITA BTS)**
This data layer represents areas in and around the Hudson River Watershed that failed to meet the Clean Air Act requirements for carbon monoxide pollution.

Carbon monoxide (CO) is a colorless, odorless, and poisonous gas produced by the incomplete burning of carbon in a variety of fuels including wood, coal, and gasoline. When CO enters the bloodstream, it reduces the ability of oxygen to get to the body's organs and tissues. Health threats are most serious for those who suffer from heart disease. Exposure to high levels of CO can cause vision problems, clumsiness, reduced learning ability, and inability to perform complex tasks.

77% of CO pollution in the United States comes from transportation sources, with the most from highway motor vehicles. Therefore, the focus of CO monitoring has been on
high-traffic sites in urban areas where the main source of CO is motor vehicle exhaust. Other major CO sources are wood-burning stoves, incinerators, and industrial sources.

**Non Attainment Area Ozone (Dataset provided by RITA BTS)**

This data layer represents areas in and around the Hudson River Watershed that failed to meet the Clean Air Act requirements for ozone pollution.

Ozone (O\textsubscript{3}) is the major component of smog. In the upper atmosphere, O\textsubscript{3} is beneficial to life because it shields the Earth from harmful ultraviolet radiation from the Sun. At ground level, high concentrations of O\textsubscript{3} are a major health and environmental concern. O\textsubscript{3} is not emitted directly into the air, but is formed through complex chemical reactions between volatile organic compounds (VOCs) and nitrogen oxides (NO\textsubscript{X}) in the presence of sunlight. Both VOCs and NO\textsubscript{X} are produced by transportation and industrial sources. VOCs are emitted from sources as diverse as cars, chemical manufacturers, dry cleaners, paint shops, and other sources using solvents. NO\textsubscript{X} is produced primarily by cars.

The reactivity of O\textsubscript{3} causes health problems: It damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O\textsubscript{3} (the amount of O\textsubscript{3} existing around us) not only affect people with impaired respiratory systems, such as asthmatics, but also healthy adults and children. Exposure to O\textsubscript{3} for several hours at relatively low concentrations (for example, in concentrations produced by ionizing air filters) has been found to significantly reduce lung function and may lead to respiratory inflammation in normal, healthy people during exercise.

**Non Attainment Area PM10 (Dataset provided by RITA BTS)**

This data layer represents areas in and around the Hudson River Watershed that failed to meet the Clean Air Act requirements for particulate matter pollution involving particles smaller than 10 micrometers.

Air pollutants called particulate matter include dust, dirt, soot, smoke, and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires, and natural windblown dust. Particles formed in the atmosphere by condensation or the transformation of emitted gases such as sulfur dioxide (SO\textsubscript{2}) and volatile organic compounds (VOCs) are also considered particulate matter.

Studies of human populations exposed to high concentrations of particulate matter, and laboratory studies of animals and humans, have found major effects to human health. These effects include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against
foreign materials, damage to lung tissue, cancer, and premature death. The subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary disease, cardiovascular disease, or influenza. Asthmatics, the elderly, and children are also especially affected.

**Non Attainment Area PM2.5 (Dataset provided by RITA BTS)**

This data layer represents areas in and around the Hudson River Watershed that failed to meet the Clean Air Act requirements for particulate matter pollution involving particles smaller than 2.5 micrometers. These fine particles are believed to pose the largest health risks among various-sized particulates.

Air pollutants called particulate matter include dust, dirt, soot, smoke, and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires, and natural windblown dust. Particles formed in the atmosphere by condensation or the transformation of emitted gases such as sulfur dioxide (SO₂) and volatile organic compounds (VOCs) are also considered particulate matter.

Studies of human populations exposed to high concentrations of particulate matter, and laboratory studies of animals and humans, have found major effects to human health. These effects include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, cancer and premature death. The subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary disease, cardiovascular disease, or influenza. Asthmatics, the elderly, and children are also especially affected.

**Remediation Sites (Dataset provided by NYSDEC)**

This data layer represents the locations of sites in the Hudson River Watershed currently included in an environmental remediation program administered by the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation. The term environmental remediation refers to the process of correcting (remediating) an environmental problem such as the removal of hazardous substances from soils or waters. Depending on the site specific situation, or program sponsoring the action, differing levels of remediation might be required. Most often, hazardous sites can be considered remediated when the risk they pose to human health and the environment is minimized to some legally established level.

The remediation sites depicted in this data set are administered by several programs: the Brownfield Cleanup Program, the Environmental Restoration Program, the State Superfund Program, and the Voluntary Cleanup Program.
Water Pollution

**NPDES Facility (Dataset provided by EPA)**
This data layer depicts the location of National Pollutant Discharge Elimination System (NPDES) permit holders in and around the Hudson River Watershed. The US Clean Water Act established the federal requirement that facilities discharging waste into waterways (direct, or point, sources) must apply for NPDES permits in order to operate. Points on the map are hyperlinked to facility reports conducted by the Environmental Protection Agency (EPA).

**No Discharge Zone (Dataset provided by EPA)**
This data layer represents New York and New Jersey areas in and around the Hudson River Watershed designated as “No Discharge Zones” for waste products produced from sea vessels. The rules prohibiting discharge were established in the Federal Register in the year 2000 for New Jersey, and in 2003 for New York.
Social Geography Theme

The social geography of any given area is made up of a great number of elements. The places where we work, learn, play, create art, and do business are both shaped by, and serve an important purpose in shaping, society. But society itself is more than just places. Perhaps most importantly, society is people. The distribution of people across lands, and the proportion of different populations in distinct locations can serve to illustrate a social landscape. Such demographic measures are relied upon by researchers, site developers, politicians, and other decision-makers to make sense of diverse communities. The US Census Bureau performs a survey once every 10 years to develop a national Census of demographic information; and numerous demographers frequently conduct studies on a local scale.

Cities (Dataset provided by ESRI)
This data layer represents the locations of major and minor cities in the Hudson River Watershed. The cities are drawn according to population size and range from less than 10,000 people to more than 1,000,000.

Demographics (Datasets provided by ESRI)
In simple terms, demographics can be defined as: characteristics of human populations. These characteristics include population features such as age, gender, race, and income. Demographic data can be constructed and analyzed across large and small geographic scales.

County Demographics: Population 2005
This data layer represents the dispersion of population across counties in the Hudson River Watershed in the year 2005. A county was considered in the watershed if any part of it crossed the basin boundary. The data was derived from an extrapolation of surveys collected by the US Census Bureau in Census 2000.

Census Tract Demographics: Population 2005 per Square Mile
This data layer represents the density of population per square mile for Census tracts in the Hudson River Watershed in the year 2005. The data was derived from an extrapolation of surveys collected by the US Census Bureau in Census 2000 divided by the square mileage of a given tract.
**Census Block Group Demographics: Population Ages 5-17**
This data layer represents the distribution of populations age 5 to 17 at the Census block group level in the Hudson River Watershed in the year 2000. The data was derived from surveys collected by the US Census Bureau in Census 2000.

**Census Block Group Demographics: Gender Proportions**
This data layer represents the distribution of gender proportions at the Census block group level in the Hudson River Watershed in the year 2000. The data was derived by finding the difference between female and male populations as reported in surveys collected by the US Census Bureau in Census 2000.

**Environmental Consortium Member (Dataset provided by CIESIN)**
The Environmental Consortium of Hudson Valley Colleges and Universities is a not for profit organization dedicated to “helping shape the future of the regional and global environment through collaboration, education, and research”. The consortium is composed of 50 education institutions in the Hudson Valley, and more than 300 individual members. Hyperlinked points on the map connect to the websites of member institutions.

**Hudson River School Paintings (Dataset provided by CIESIN)**
The Hudson River School was a 19th century American Art movement that portrayed landscapes of the Hudson River Valley through painting. The Hudson River School was not an institution of education, but rather a school of thought in which common artistic elements emerged. This data layer depicts the locations where 58 landscape paintings were produced by several artists.

**Landmark (Dataset provided by ESRI)**
This data layer represents common landmark areas within Hudson River Watershed including military areas, prisons, educational institutions, amusement centers, government centers, sport centers, golf courses, and cemeteries.

**Parks (Dataset provided by ESRI)**
This data layer represents the legally established boundaries of National, State, and Local parks and forests for the States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. The United States Geological Survey (USGS) defines parks as places or areas developed for public use or recreation. The term park often refers to undeveloped natural areas, but might also include sporting areas or similar managed place.
The United States Geological Survey (USGS) defines transportation as the “Movement of people or materials from one place to another for economic, political, or recreational purposes.” Approximately 68 million dollars of the 2009 Federal Budget was apportioned to the Department of Transportation (USDOT). State, county, and municipal governments also allocate significant resources for transportation.

**Airport (Dataset provided by ESRI)**
This data layer represents airport boundaries and airport runways within the United States. All airports have a boundary and most have at least one runway.

**Interstate (Dataset provided by ESRI)**
This data layer represents rural and urban interstate highways derived from the U.S. National Transportation Atlas.

**Major Road (Dataset provided by ESRI)**
This data layer represents the major and minor roadways in the Hudson River Watershed. These include highways, secondary roads, and limited-access roads.

**Railroad (Dataset provided by ESRI)**
This data layer represents railroads in the Hudson River Watershed as derived from the U.S. National Transportation Atlas.

**Seaport (Dataset provided by RITA BTS)**
This data layer contains physical information on commercial seaport facilities at the principal U.S. Coastal, Great Lakes, and Inland Ports. The data consists of listings of a port area's waterfront facilities, including information on berthing, cranes, transit sheds, grain elevators, marine repair plants, fleeting areas, and docking and storage facilities.