

Data Dictionary

Hudson River Features:

Estuary shoreline

This data layer represents the border of the Hudson River in our study area.

New York State Department of Environmental Conservation. 2009. Hudson River Estuary Projects. Albany, NY. <https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1136>. Accessed 28 January 2014.

Flood scenario

These data layers display the extent of the flooding predicted by the flood model developed by Stevens Institute of Technology. The model includes both sea level rise and return period (storm intensity). Orton, P., MacManus, K., F. Conticello, F. Cioffi, T. Hall, N. Georgas, J. Mills, U. Lall, A. Blumberg. 2015. Hudson River Flood Elevations from Storm Tides and Rainfall. New York.

Emergency Services:

Police stations

This data layer shows the locations of police stations in our study area.

Center for International Earth Science Information Network - CIESIN - Columbia University. 2014. Police Station Locations. Palisades, NY.

Fire stations

This data layer shows the locations of fire stations in our study area.

Center for International Earth Science Information Network - CIESIN - Columbia University. 2014. Fire Station Locations. Palisades, NY.

EMS

This data layer shows the locations of Emergency Medical Services in our study area. These are ambulance services, emergency transportation services, volunteer ambulances, etc.

Center for International Earth Science Information Network - CIESIN - Columbia University. 2014. EMS Locations. Palisades, NY.

Emergency operations centers

This data layer shows the locations of Emergency Operations Centers in our study area. EOCs are run by the Office of Emergency Management, and are locations where officials coordinate and respond to emergencies.

New York State Division of Homeland Security & Emergency Services. Emergency Operations Center. Albany, NY. <https://gis.ny.gov/gisdata/inventories/details.cfm?dsid=420>. Accessed 4 February 2014.

Health Services:

Nursing homes

This data layer shows the locations of nursing homes in our study area.

New York State Office of Cyber Security (OCS). 2005. NYS Landmarks. Albany, NY.

<http://www.nysgis.state.ny.us/gisdata/inventories/details.cfm?DSID=929>. Accessed 23 April 2014.

Hospitals

This data layer shows the locations of hospitals in our study area.

New York State Office of Cyber Security (OCS). 2005. NYS Landmarks. Albany, NY.

<http://www.nysgis.state.ny.us/gisdata/inventories/details.cfm?DSID=929>. Accessed 23 April 2014.

Water and Wastewater:

SPDES Wastewater

This data layer displays the locations of wastewater treatment facilities that are issued permits by the State Pollutant Discharge Elimination System to regulate discharge.

New York State Department of Environmental Conservation. 2011. Albany, NY. State Pollutant Discharge Elimination System. <http://www.nysgis.state.ny.us/gisdata/inventories/details.cfm?DSID=1010>.

Accessed 25 April 2014.

Wells

This data layer represents the locations of water wells in our study area collected by the DEC.

New York State Department of Environmental Conservation. 2015. Water Wells. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1203>. Accessed 28 January 2015.

Water withdrawal locations

This data layer represents the locations of facilities that use water for any purpose and have the capacity to withdraw 100,000 gallons or more per day in our study area.

New York State Department of Environmental Conservation. 2015. Water Withdrawals. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1265>. Accessed 19 March 2015.

Dams

This data layer shows the locations of dams in our study area.

New York State Department of Environmental Conservation. 2014. Dams. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1130>. Accessed 28 April 2014.

Energy Production:

EIA power plants

This data layer displays the locations of power plants within our study area. It includes nuclear, hydroelectric, coal, petroleum, natural gas, and biomass plants with a capacity of 1 MW or more.

U.S. Energy Information Administration. 2014. Power Plants. Washington, DC.

http://www.eia.gov/maps/layer_info-m.cfm. Accessed 11 September 2014.

Transportation Infrastructure:

Airports

This data layer represents the locations of airports within our study area.

New York State Office of Cyber Security (OCS). 2005. NYS Landmarks. Albany, NY.

<http://www.nysgis.state.ny.us/gisdata/inventories/details.cfm?DSID=929>. Accessed 23 April 2014.

Boat launches

This data layer represents the locations of boat launches within our study area.

New York State Office of Cyber Security (OCS). 2005. NYS Landmarks. Albany, NY.

<http://www.nysgis.state.ny.us/gisdata/inventories/details.cfm?DSID=929>. Accessed 23 April 2014.

Bridges

This data layer shows the locations of bridges in our study area.

New York State Department of Transportation. 2012. NYS Bridges. Albany, NY.

<http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=397>. Accessed 28 April 2014.

Bus stations

This data layer displays the locations of the inter-city bus stations in our study area.

New York State Department of Transportation. 2007. Bus Stations Intercity. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1115>. Accessed 23 April 2014.

Large culverts

This data layer represents the locations of large (5 to 20 feet) culverts within our study area.

New York State Department of Transportation. 2012. NYS Large Culverts. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1255>. Accessed 28 April 2014.

Railroad junctions

This data layer displays the locations of railroad junctions in our study area.

New York State Department of Transportation. 2013. NYS Railroad Junctions and Locations. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1102>. Accessed 22 April 2014.

Railroad passenger stations

This data layer shows the locations of railroad stations in our study area.

New York State Department of Transportation. 2013. NYS Railroad Passenger Stations. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1263>. Accessed 22 April 2014.

Heliports

This data layer represents the locations of heliports within our study area.

New York State Office of Cyber Security (OCS). 2005. NYS Landmarks. Albany, NY.

<http://www.nysgis.state.ny.us/gisdata/inventories/details.cfm?DSID=929>. Accessed 23 April 2014.

Institutions:

Schools

This data layer shows the locations of schools in our study area. It includes public, private, and charter schools with grades ranging from kindergarten to high school and special (ungraded).

New York State Education Department. 2013. The Directory of Public and Non-Public Schools and Administrators for the State of New York. Albany, NY. <http://www.nysed.gov/admin/bedsdata.html>.

Accessed 23 January 2014.

Public libraries

This data layer shows the locations of public libraries in our study area.

New York State Education Department. 2002. Public Libraries in New York State. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=410>. Accessed 4 February 2014.

Prisons

This data layer shows the locations of prisons in our study area.

New York State Department of Corrections and Community Supervision. 2014. Prison Locations. Albany, NY. <http://www.doocs.ny.gov/faclist.html>. Accessed 22 January 2014.

Places of worship

This data layer shows the locations of places of worship in our study area. It includes churches, mosques, and synagogues.

TomTom North America, Inc. 2013. U.S. Institutions. Redlands, CA: Esri. Accessed 24 April 2014.

Social Vulnerability:

Social Vulnerability Index

This data layer displays the vulnerability of block groups in our study area relative to each other. It was developed to map populations at risk from predicted storm events and climate-change-induced sea level changes.

Center for International Earth Science Information Network - CIESIN - Columbia University. 2015. Social Vulnerability Index, 2007-2011, Hudson River Valley, version 1. Palisades, NY.

Municipal SoVI

This data layer displays the vulnerability of municipalities in our study area relative to each other.

Center for International Earth Science Information Network - CIESIN - Columbia University. 2015. Social Vulnerability Index, 2007-2011, Hudson River Valley, version 1. Palisades, NY.

Contextual Information:

Power transmission lines

This data layer depicts the power lines in our study area. The data set includes the different amounts of electric potential difference (voltage measured in kilovolts) for each power station or line.

Platts. 2009. Electric Transmission Lines. Westminster, CO.

http://sedac.ciesin.columbia.edu/geonetwork/srv/en/cu-gis_metadata.show?id=3305&currTab=advanced. Accessed 25 April 2014.

Surface water

This data layer represents hydrographic features (lakes, ponds, reservoirs, major rivers) in the Hudson River Valley.

New York State Office of Cyber Security (OCS). 2008. NYS Hydrography. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=928>. Accessed 28 April 2014.

Rivers and streams

This data layer represents the rivers and streams in the Hudson River Valley.

New York State Office of Cyber Security (OCS). 2008. NYS Hydrography. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=928>. Accessed 28 April 2014.

Railroads

This data set displays the locations of all railroad lines in our study area.

New York State Department of Transportation. 2013. NYS Railroad Lines. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=904>. Accessed 22 April 2014.

Bus routes

This data set displays the locations of bus routes in our study area and includes the names of companies that use them.

New York State Department of Transportation. 2007. Bus Routes Intercity. Albany, NY.

<https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1116>. Accessed 23 April 2014.

Ecology:

Forest Patches 2010

This data set displays the locations of forest patches in our study area. It was created from satellite land cover data and may help identify large forest patches of contiguous forest to inform local conservation priorities.

Cornell University and the NYSDEC Hudson River Estuary Program. 2015. Hudson Valley Forest Patches. Received 23 March 2015.

Important Animal Areas

This data set represents areas in our study area that support the continued presence and quality of known populations of rare animals.

New York Natural Heritage Program, NYS Department of Environmental Conservation. March 2013. Important Areas Digital Data Set. Received 6 February 2015.

Important Plant Areas

This data set represents areas in our study area that support the continued presence and quality of known populations of rare plants.

New York Natural Heritage Program, NYS Department of Environmental Conservation. March 2013. Important Areas Digital Data Set. Received 6 February 2015.

Natural Estuarine Communities

This data layer displays locations of rare or high-quality habitats, ecosystems, and ecological areas. The estuarine system consists of deepwater habitats and adjacent tidal wetlands.

New York Natural Heritage Program, NYS Department of Environmental Conservation. March 2013. Important Areas Digital Data Set. Received 6 February 2015.

Natural Riverine Communities

This data layer displays locations of rare or high-quality habitats, ecosystems, and ecological areas. The riverine system consists of aquatic communities of flowing non-tidal waters.

New York Natural Heritage Program, NYS Department of Environmental Conservation. March 2013. Important Areas Digital Data Set. Received 6 February 2015.

Natural Palustrine Communities

This data layer displays locations of rare or high-quality habitats, ecosystems, and ecological areas. The palustrine system consists of non-tidal perennial wetlands.

New York Natural Heritage Program, NYS Department of Environmental Conservation. March 2013. Important Areas Digital Data Set. Received 6 February 2015.

Natural Terrestrial Communities

This data layer displays locations of rare or high-quality habitats, ecosystems, and ecological areas. The terrestrial system consists of upland habitats.

New York Natural Heritage Program, NYS Department of Environmental Conservation. March 2013. Important Areas Digital Data Set. Received 6 February 2015.

NWI Wetlands

This data layer displays the extent and type of wetlands and deepwater habitats in our study area.

U.S. Fish and Wildlife Service. 2014. Wetlands and Deepwater Habitats of the United States.

Washington, DC. <http://www.fws.gov/wetlands/data/State-Downloads.html>. Accessed 28 January 2014.

Administrative:

Full study area

This data layer represents the full extent of our study area, the lower Hudson River Valley. NYS GIS Program Office. 2014. NYS Civil Boundaries. Albany, NY.
<http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=927>. Accessed 7 February 2014.

County

This data layer depicts the ten counties bordering the lower Hudson River that make up our study area (Albany, Columbia, Dutchess, Greene, Orange, Putnam, Rensselaer, Rockland, Ulster, and Westchester counties). NYS GIS Program Office. 2014. NYS Civil Boundaries. Albany, NY.
<http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=927>. Accessed 7 February 2014.

Municipality

This data layer depicts the 164 municipalities contained in our study area. Results will be summarized and displayed according to municipality. NYS GIS Program Office. 2014. NYS Civil Boundaries. Albany, NY.
<http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=927>. Accessed 7 February 2014.