Data Name	Definition	Data included/Source
	Overlay Data	
Focal Geography for Restoration - May 2020 Update	Focal geographies were created by locating regions where there was potential to provide high quality habitat for the species of interest, proximity to known population of the species of interest and the opportunity to simultaneously address multiple threats.	National Fish and Wildlife Foundation
Focal Geography Parcels	Parcels within focus areas attributed with information to inform potential projects for restoration.	Parcel Point
Named Rivers and Streams	USGS National Hydrography Dataset Rivers and Streams that had a name associated with them included for context. Those with no name are not included in this contextual layer.	USGS National Hydrography Dataset
PA DEP Non-Attaining Streams	This layer shows only non-attaining segments of the Integrated List. The Streams Integrated List represents stream assessments in an integrated format for the Clean Water Act Section 305(b) reporting and Section 303(d) listing. Streams are bodies of flowing surface water that collectively form a network that drains a catchment or basin. PA DEP protects 4 stream water uses: aquatic life, fish consumption, potable water supply, and recreation. The 305(b) layers represents stream segments that have been evaluated for attainment of those uses. If a stream segment is not attaining any one of its 4 uses, it is considered impaired. · Aquatic Life use attainment - The integrity reflected in any component of the biological community. (i.e. fish or fish food organisms) · Fish Consumption use attainment - The risk posed to people by the consumption of aquatic organisms (ex. fish, shellfish, frogs, turtles, crayfish, etc.) · Recreational use attainment - The risk associated with human recreation activities in or on a water body. (i.e. exposure to bacteria and other disease causing organisms through water contact recreation like swimming or water skiing) · Potable Water Supply use attainment - The risk posed to people by the ingestion of drinking water Segments that have appeared on an approved Category 5 Integrated Listing are the entries labeled as approved. Integrated Lists are submitted for approval every other year. Segments entered subsequent to the latest approved Category 5 listing are labeled tentative. After appearing on an approved listing, the tentative entries move to approved. The Stream Integrated List is provided as two separate layers determined if the stream is attaining or not attaining its designated uses. DEP Streams Integrated List layer is maintained by the PADEP Office of Water Management, Bureau of Water Supply & Wastewater Management, Water Quality Assessment and Standards Division. The layer is based on the High Resolution National Hydrography Dataset (NHD). Additional update information is provided by Bureau of Watershed Management, Water Use Planning Division.	Pennsylvania Department of Environmental Protection - 2018 version
PA DEP Designated Use Streams	National Hydrography Dataset NHDFlowline layer with a spatial representation of designated water uses defined in Title 25 Environmental Protection, Department of Environmental Protection, Chapter 93, Water Quality Standards. The Pennsylvania Code just cited provides a list of all streams or watersheds (basins) in the state along with their associated designated water uses. This GIS layer displays these uses spatially on an interactive stream map. Public users can drill down to locations on the map to view and map the designated uses of the water bodies of interest. The layer can also be used in conjunction with other spatially referenced data for spatial analyses.	Pennsylvania Department of Environmental Protection - 2017 version
PA DEP MS4 Municipalities	Pennsylvania municipalities with NPDES MS4 permits or waivers, have been identified by the Pennsylvania Department of Environmental Protection. Attribute data indicates whether the municipality holds a general or individual NPDES MS4 permit (PAG-13), or whether the municipality qualified for a waiver from the permitting requirement.	Pennsylvania Department of Environmental Protection
PA DEP Environmental Justice Areas 2015	This layer identifies 2015 Pennsylvania Census Tracts which meet the PADEP definition for Environmental Justice Areas by having a poverty rate of 20% or greater or a non-white population of 30% or greated. Percentages were rounded up based on a decimal value of .5 or greater for purposes of creating this layer. Census tracts are small, relatively permanent statistical subdivisions of a county delineated by local participants as part of the U.S. Census Bureau's Participant Statistical Areas Program. The U.S. Census Bureau delineated census tracts in situations where no local participant existed or where local or tribal governments declined to participate. The primary purpose of census tracts is to provide a stable set of geographic units for the presentation of decennial census data. This layer was developed to assist DEP in identifying Environmental Justice Areas for Pennsylvania in order to develop decisions base on ethnic populations and poverty areas in Census Bureau tracts.	Pennsylvania Department of Environmental Protection
IRS Qualified Opportunity Zones	Opportunity Zones are an economic development tool that allows people to invest in distressed areas in the United States. Their purpose is to spur economic growth and job creation in low-income communities while providing tax benefits to investors. Opportunity Zones were created under the Tax Cuts and Jobs Act of 2017 (Public Law No. 115-97). Thousands of low-income communities in all 50 states, the District of Columbia and five U.S. territories are designated as Qualified Opportunity Zones.	Internal Revenue Service
Counties within Study Area	Contextual layer showing the County boundaries within the project study area.	U.S. Census

Conserved Lands	The conserved lands displayed include lands owned by federal, state, and county agencies as well as private organizations such as The Nature Conservancy and Western Pennsylvania Conservancy. This dataset was compiled from multiple sources including The Nature Conservancy northesastern office, the state of Pennsylvania Spatial Data Access clearinghouse and USGS National Prorected Areas Database. Last updated May 2020.	www.conservationgateway.org http://www.pasda.psu.edu/ http://gapanalysis.usgs.gov/padus/data/
	Watersheds	
HUC 12 Watershed Boundaries	The Watershed Boundary Dataset (WBD) defines the areal extent of surface water drainage to a point, accounting for all land and surface areas. Watershed Boundaries are determined solely upon science-based hydrologic principles, not favoring any administrative boundaries or special projects, nor particular program or agency. The intent of defining Hydrologic Units (HU) for the Watershed Boundary Dataset is to establish a base-line drainage boundary framework, accounting for all land and surface areas. At a minimum, the WBD is being delineated and georeferenced to the USGS 1:24,000 scale topographic base map meeting National Map Accuracy Standards (NMAS). Hydrologic units are given a Hydrologic Unit Code (HUC). For example, a hydrologic region has a 2-digit HUC. A HUC describes where the unit is in the country and the level of the unit. The HUC 12's represent the smallest, local scale of watersheds.	USGS
HUC 10 Watershed Boundaries	The Watershed Boundary Dataset (WBD) defines the areal extent of surface water drainage to a point, accounting for all land and surface areas. Watershed Boundaries are determined solely upon science-based hydrologic principles, not favoring any administrative boundaries or special projects, nor particular program or agency. The intent of defining Hydrologic Units (HU) for the Watershed Boundary Dataset is to establish a base-line drainage boundary framework, accounting for all land and surface areas. At a minimum, the WBD is being delineated and georeferenced to the USGS 1:24,000 scale topographic base map meeting National Map Accuracy Standards (NMAS). Hydrologic units are given a Hydrologic Unit Code (HUC). For example, a hydrologic region has a 2-digit HUC. A HUC describes where the unit is in the country and the level of the unit. The HUC 10's represent a moderate, regional scale of watersheds.	USGS
HUC 6 Watershed Boundaries	The Watershed Boundary Dataset (WBD) defines the areal extent of surface water drainage to a point, accounting for all land and surface areas. Watershed Boundaries are determined solely upon science-based hydrologic principles, not favoring any administrative boundaries or special projects, nor particular program or agency. The intent of defining Hydrologic Units (HU) for the Watershed Boundary Dataset is to establish a base-line drainage boundary framework, accounting for all land and surface areas. At a minimum, the WBD is being delineated and georeferenced to the USGS 1:24,000 scale topographic base map meeting National Map Accuracy Standards (NMAS). Hydrologic units are given a Hydrologic Unit Code (HUC). For example, a hydrologic region has a 2-digit HUC. A HUC describes where the unit is in the country and the level of the unit. The HUC 6's represent a large national scale of watersheds.	USGS
	Dynamic Forest Restoration Block	
Established Dynamic Forest Restoration Block	Location of known areas under management to maintain a dynamic forest Restoration block, whereby a mixed forest composition is maintained, with trees at different stages of development, such as earlu successional, late successional and mature forest habitat that can support a diverse set of forestland bird species.	Indiana University of Pennsylvania American Bird Conservancy Ruffed Grouse Society Sustainable Forest Initiative
Potential Forest Block >5000 acres	Forest blocks greater than 5000 acres throughout the study area	Appalachian Landscape Conservation Cooperative core forest blocks The Nature Conservancy's Core Forest Areas for Western Pennsylvania
	Partner Plan Overlays	
Chesapeake Conservancy Precision Conservation Data: Flow path mosaic	For more information, visit: https://chesapeakeconservancy.org/wp-content/uploads/2018/07/CIC_Enhanced_Flowpath_Methods_20180703.pdf	Chesapeake Conservancy Conservation Innovation Center
Chesapeake Conservancy Precision Conservation Data: Buffer Restoration Opportunity areas	For more information, visit: https://chesapeakeconservancy.org/wp-content/uploads/2018/11/CIC_PC_Prioritization_Methods_20181130.pdf	Chesapeake Conservancy Conservation Innovation Center
Chesapeake Conservancy Precision Conservation Data: Drainage areas	For more information, visit: https://chesapeakeconservancy.org/wp-content/uploads/2018/11/CIC_PC_Prioritization_Methods_20181130.pdf	Chesapeake Conservancy Conservation Innovation Center
American Rivers: Combined Weight Scenario Prioritization of Watersheds	American Rivers assigned scores to HUC 12 boundaries throughout western Pennsylvania for factors related to ecological quality, previous conservation investment, and funding opportunities specific to species or geographies.	American Rivers

American Bird Conservancy Birdscapes	A BirdScape typically covers 150,000 to 2.5 million acres. Each one is unique, shaped by local and regional conditions. But some elements are common to nearly all BirdScapes. For example, natural habitats that provide for the needs of priority birds, areas in need of restoration, working lands for people, and protected areas. Regardless of composition, BirdScapes are places where smart land-use leads to successful bird conservation, creating win-win results for both people and birds.	American Bird Conservancy https://abcbirds.org/birds/birdscapes/
American Forest Foundation Northeast Priority Watersheds	Priority watersheds identified by AFF through a spatial analysis on a watershed basis across the region. It identified lands with distinct natural qualities that will ensure stewardship investments have the greatest long-term impact. This led to the identification of 30 target watersheds – 10 in each of three priority habitat types – with the highest level of family-owned acreage. View the report at the following website: https://www.forestfoundation.org/northeastern-landowners-improve-habitats-release	American Forest Foundation https://www.forestfoundation.org/aff-partnerships-northeast
Ducks Unlimited: Lower Great Lakes Priority Area	The Lower Great Lakes Priority Area is one of nine Ducks Unlimited Waterfowl Conservation Regions in the Great Lakes/Atlantic Region. The habitat objectives for the Lower Great Lakes Priority Area are outlined in DU's Great Lakes/Atlantic Region Conservation Strategy (link to attached PDF) under Completing the Cycle Initiative (pg. 10). Completing the Cycle Initiative is primarily focused on meeting the needs of migrating and wintering waterfowl with a secondary emphasis on breeding waterfowl. Priority habitats within the initiative include coastal marshes, nearshore habitats, bays, river mouths, grasslands, and inland forested, shrub-scrub, and emergent wetlands. DU is currently refining their conservation goals for the Northwest Pennsylvania Focus Area within the Lower Great Lakes Priority Area. This planning document will be available by spring 2017. For more detailed information on this layer, the full report is available here: GLAR Conservation Plan 2015	Ducks Unlimited
NFWF Central Appalachia Focal Geographies	Focal geographies within the Central Appalchian Program area designated by the National Fish and Wildlife Foundation. These areas offer the best opportunities for projects to improve habitat for forest bird and eastern brook trout populations. Areas were designated by identifying HUC 8 watershed boundaries where there were overlapping priority habitat areas for Golden-winged Warbler, Cerulean Warbler, Wood Thrush and Eastern Brook Trout. HUC 8 watershd's that had a high score for containing important habitat areas for all 4 species were selected and used to create these focal geographies.	National Fish and Wildlife Foundation
PA Game Commission Ruffed Grouse Priority Areas	Designated priority areas for Ruffed Grouse conservation. Priorities identified using several critical variables relating to landscape, population connectivity and disease risk. For more information, visiti the project website at: https://www.pgc.pa.gov/Wildlife/WildlifeSpecies/Pages/RuffedGrouse.aspx	Pennsylvania Game Commission
Western Pennsylvania Conservancy Conservation Blueprint: Aquatics; Global Heritage Areas; Priority Forest Patches and Landscape Blocks	For a detailed description on the Western Pennsylvania Conservancy Conservation Blueprint analysis, a detailed summary is available here: Summary of Blueprint Analysis	Western Pennsylvania Conservancy
Western Pennsylvania Conservancy Watershed Conservation Program: WPC Priority Conservation and Restoration Priority Watersheds	For a detailed description of the Western Pennsylvania Conservancy Watershed Conservation Program, a detailed summary is available here: Summary	Western Pennsylvania Conservancy
Pennsylvania Natural Heritage Program: County Natural Heritage Inventory Core Areas	This shapefile contains the Core Habitat of Biological Diversity Areas identified through the County Natural Heritage Inventory program of the Pennsylvania Natural Heritage Program. County Natural Heritage Inventories focus on areas that are the best examples of ecological resources in a county. Although agricultural lands and open space may be included as part of inventory areas, the emphasis for the designation and delineation of the areas are the ecological values present. Important selection criteria for Natural Heritage Areas are the existence of habitat for plants and animals of special concern, the existence of uncommon or especially important natural communities, and the size and landscape context of a site containing good quality natural features. Large areas and areas that are minimally disturbed by development provide the backbone that links habitats and allows plants and animals to shift and move across sizable portions of the landscape. Core Habitat areas are intended to identify the essential habitat of the species of concern or natural community that can absorb very little activity or disturbance without substantial impact to the natural features. Polygons are based on aerial photo interpretation, field surveys, and existing PNDI data and were delineated by the ecologists on-screen using ArcView (ESRI, Inc., Version 3.3, 8x, and 9x) with the 1:24,000 scale USGS Digital Raster Graphics and/or Digital Aerial Photography images as a background. For each core habitat polygon, the attribute table contains fields indicating the Site Name and Significance. See individual CNHI reports for further information on methodology, site descriptions, and species or communities found at each site.	Western Pennsylvania Conservancy (WPC) Pennsylvania Natural Heritage Program

Pennsylvania Natural Heritage Program: County Natural Heritage Inventory Supporting Areas	This shapefile contains the Core Habitat of Biological Diversity Areas identified through the County Natural Heritage Inventory program of the Pennsylvania Natural Heritage Program. County Natural Heritage Inventories focus on areas that are the best examples of ecological resources in a county. Although agricultural lands and open space may be included as part of inventory areas, the emphasis for the designation and delineation of the areas are the ecological values present. Important selection criteria for Natural Heritage Areas are the existence of habitat for plants and animals of special concern, the existence of uncommon or especially important natural communities, and the size and landscape context of a site containing good quality natural features. Large areas and areas that are minimally disturbed by development provide the backbone that links habitats and allows plants and animals to shift and move across sizable portions of the landscape. Core Habitat areas are intended to identify the essential habitat of the species of concern or natural community that can absorb very little activity or disturbance without substantial impact to the natural features. Polygons are based on aerial photo interpretation, field surveys, and existing PNDI data and were delineated by the ecologists on-screen using ArcView (ESRI, Inc., Version 3.3, 8x, and 9x) with the 1:24,000 scale USGS Digital Raster Graphics and/or Digital Aerial Photography images as a background. For each core habitat polygon, the attribute table contains fields indicating the Site Name and Significance. See individual CNHI reports for further information on methodology, site descriptions, and species or communities found at each site.	Western Pennsylvania Conservancy (WPC) Pennsylvania Natural Heritage Program
TNC Hemlock Priority Areas	This dataset was created by the High Allegheny Hemlock Conservation Partnership in 2013-2014 to delineate highly important eastern hemlock forests in the High Allegheny Unglaciated Plateau subecoregion that are under threat from hemlock woolly adelgid. These priority Hemlock Conservation Areas contain a significant component of hemlock that has been designated high priority for the ecological and social values that the hemlocks provide, such as water quality protection, old growth forest characteristics and other rare habitat, recreation opportunities, and aesthetic beauty. Metadata for this layer can be found here.	
TNC Hemlock Priority Areas (Additional description)	On the website listed in the cell above, there is a link at the bottom titled "Allegheny National Forest" to a reprint of an article written by Ben Moyer for the Pittsburgh Post-Gazette about our High Allegheny effort with the Forest Service that produced the priority hemlock areas shapefile. http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/pennsylvania/our-work/saving-hemlocks-feature-collection.xml Click here to view: S. Johnson, S. Bearer, A. Hille, S. Stout, R. Turcotte. 2016. Eastern Hemlock Conservation: A Collaborative Approach to Prioritization through a Diverse Partnership. Environmental Practice 18:94-105.	
TNC: Pennsylvania Energy Assessment Likely Habitat Impacts Energy Development Risks To Watersheds	In collaboration with the Western Pennsylvania Conservancy and Audubon Pennsylvania, The Nature Conservancy's Pennsylvania Energy Impacts Assessment forecast likely habitat impacts if current energy development trends continued over the next two decades. With funding from the Richard King Mellon Foundation, the Colcom Foundation, and the William Penn Foundation, this pioneering study helped raise awareness about the surface footprint of Marcellus Shale and wind energy development. This Energy Risks to Watersheds results summarize the potential cumulative risk of energy development within 12-digit hydrologic units of the Appalachian Landscape Conservation Cooperative. The numerical score for each watershed provides an estimate of the cumulative risk to each HUC-12 watershed from all forms of energy development assessed (wind, shale gas, and surface coal mining). Click here for more detailed information on this project.	Johnson, N., T. Gagnolet, R. Ralls, E. Zimmerman, B. Eichelberger, C. Tracey, G. Kreitler, S. Orndorff, J. Tomlinson, S. Bearer, and S. Sargent. 2010. Pennsylvania Energy Impacts Assessment – Report 1: Marcellus Shale Natural Gas and Wind. The Nature Conservancy, Harrisburg, PA. http://www.nature.org/media/pa/pa_energy_assessment_report.pdf Johnson, N., T. Gagnolet, R. Ralls, J. Stevens. 2011. Pennsylvania Energy Impacts Assessment – Report 2: Natural Gas Pipelines. The Nature Conservancy, Harrisburg, PA. http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/pennsylvania/ng-pipelines.pdf

TNC: Pennsylvania Energy Assessment Likely Habitat Impacts Energy Development Risks To Forest Cores	In collaboration with the Western Pennsylvania Conservancy and Audubon Pennsylvania, The Nature Conservancy's Pennsylvania Energy Impacts Assessment forecast likely habitat impacts if current energy development trends continued over the next two decades. With funding from the Richard King Mellon Foundation, the Colcom Foundation, and the William Penn Foundation, this pioneering study helped raise awareness about the surface footprint of Marcellus Shale and wind energy development.
	  This Energy Development risks to Forest Cores summarizes the potential cumulative risk of energy development within interior forest patches (forest cores) greater than 500 acres within the Appalachian Landscape Conservation Cooperative. The numerical score provides an estimate of the cumulative risk to each forest core from all forms of energy development assessed (wind, shale gas, and surface coal mining).
	  Forest cores were derived by applying an inverse buffer (-100m) to forest patches to represent the area of contiguous interior forest habitat. Forest patches are defined as areas of contiguous natural cover bound by non-natural edge or linear fragmenting features (roads, railroads, transmission lines, natural gas pipelines). The following land cover types were selected from the 2006 National Land Cover Database (NLCD) to define "natural cover": deciduous forest, coniferous forest, mixed [deciduous-coniferous] forest, scrub-shrub, woody wetland, and emergent wetland. Forest patches were delineated based on non-forest edge (from the NLCD) and the following linear fragmenting features: electric transmission lines, natural gas pipelines, railroads and roads.
		Johnson, N., T. Gagnolet, R. Ralls, E. Zimmerman, B. Eichelberger, C. Tracey, G. Kreitler, S. Orndorff, J. Tomlinson, S. Bearer, and S. Sargent. 2010. Pennsylvania Energy Impacts Assessment – Report 1: Marcellus Shale Natural Gas and Wind. The Nature Conservancy, Harrisburg, PA. http://www.nature.org/media/pa/pa_energy_assessment_report.pdf
		
		Johnson, N., T. Gagnolet, R. Ralls, J. Stevens. 2011. Pennsylvania Energy Impacts Assessment – Report 2: Natural Gas Pipelines. The Nature Conservancy, Harrisburg, PA. http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/pennsylvania/ng-pipelines.pdf

TNC: Appalachian Energy Impact Assessment Projected Wind Energy Development High Probaaility of Wind Energy Development	This dataset displays the areas that have a greater than 90 percent or higher risk of wind energy development and areas with less than a 90 percent risk of shale gas energy development. Click here for more detailed information on this project.	o Full citation: Dunscomb, J. K., J. S. Evans, M. P. Strager, and J. M. Kiesecker. 2014. Assessing Future Energy Development across the Appalachian Landscape Conservation Cooperative. The Nature Conservancy, Charlottesville, VA. Appalachian Landscape Conservation Cooperative Grant #2012-02.2. o Additional resources: ⯈ TNC's Cool Green Science Blog introducing the study ⯈ Products and Tools including access to full suite of downloadable data
TNC: Appalachian Energy Impact Assessment Projected Wind Energy Development Overall Probaaility of Wind Energy Development	This dataset represents a probability surface (or risk across a gradient) for wind energy development in the Appalachian Landscape Conservation Cooperative. The values range from 0-1, with larger values representing a higher probability of development. For information go to: http://applcc.org/plan-design/gis-planning/gis-tools-resources/assessing-future-energy-development-1/assessing-future-energy-development	o Full citation: Dunscomb, J. K., J. S. Evans, M. P. Strager, and J. M. Kiesecker. 2014. Assessing Future Energy Development across the Appalachian Landscape Conservation Cooperative. The Nature Conservancy, Charlottesville, VA. Appalachian Landscape Conservation Cooperative Grant #2012-02.2. o Additional resources: ⯈ TNC's Cool Green Science Blog introducing the study ⯈ Products and Tools including access to full suite of downloadable data
National Audubon IBA's: Important Bird Areas	Audubon designated over 80 Important Bird Areas (IBAs) in Pennsylvania that include migratory staging areas, winter roost sites and prime breeding areas for song birds, wading birds and other species. By focusing attention on the most essential and vulnerable areas, the IBA program helps to promote proactive habitat conservation, benefiting birds and biodiversity. Audubon Pennsylvania works with a multitude of partners across the Commonwealth to advance the conservation of IBAs. Please go to the following links for more information: http://www.audubon.org/important-bird-areas/state/pennsylvania AND http://web4.audubon.org/bird/iba/criteria.html#P36_3207	National Audubon Society
PABS Mammal Tech. Committee: Important Mammal Areas	The Pennsylvania Important Mammal Areas Project was initiated in 2001 to promote the conservation of mammals by identifying sites or regions that include habitats critical to their survival, and to educate the public about mammals and their needs. Click here for more information: Link: http://www.pgc.pa.gov/Wildlife/HabitatManagement/Pages/ImportantMammalAreas.aspx	Natural Lands Trust
NRCS GWWA priority areas	The golden-winged warbler is a nationally identified target species of the Working Lands for Wildlife (WLFW) partnership, a collaborative approach to conserve habitat on working lands. Since 2012, WLFW enabled producers to conserve or create more than 13,000 acres of early successional habitat through the implementation of science-based habitat guidelines developed especially for the golden-winged warbler. WLFW provides technical and financial assistance through the Environmental Quality Incentives Program (EQIP), which is funded through the Farm Bill. https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/?&cid=stelprdb1046990	NRCS
NRCS CEWA Priority Areas	NRCS's Cerulean Warbler Appalachian Forestland Enhancement Project will fund private landowners to enhance approximately 7,000 acres of forest habitat on private lands for cerulean warblers in Pennsylvania. EQIP funding is available for conservation practices include herbaceous weed control, tree/shrub establishment and forest stand improvement. Projects located in Cerulean Warbler Focal Area will receive additional points during the NRCS project ranking process for EQIP funding.	NRCS
Trout Unlimited Central Apps Conservation Portfolio	The Conservation Portfolio borrows its approach from financial planning theory by recognizing diverse portfolios can minimize investment losses and maximize returns. The Conservation Portfolio takes inventory of the elements of diversity within a species' range and identifies essential and missing elements, which, if conserved, can help ensure a species' persistence. A diverse Conservation Portfolio for native trout spreads the risk of loss across a variety of habitats and populations by including at least some proportion of the life history, habitat, and genetic diversity that has allowed these fishes to succeed and persist over time despite disturbances and changes to their environment. Trout Unlimited applied the Conservation Portfolio approach to help identify strategic conservation opportunities and evaluate potential projects within the range of Eastern brook trout. For more information, visit the project website: https://www.tu.org/science/conservation-planning-and-assessment/conservation-portfolio/	Trout Unlimited Watershed Patch portfoilio assessment
	Threats Data Group	
Dam Locations	Locations of dams. Data provided courtesy of the The Nature Conservancy's Aquatic Connectivity Project. For the full Aquatic Connectivity report, click here	Martin, E.H. and C.D. Apse. 2011. Northeast Aquatic Connectivity: An assessment of dams on northeastern rivers. The Nature Conservancy, Eastern Freshwater Program.

NAACC Fish Passage Barriers	The NAACC will support planning and decision making by providing information about where restoration projects are likely to bring the greatest improvements in aquatic connectivity https://www.streamcontinuity.org/. The NAACC has created a subwatershed prioritization map to help focus survey efforts in the project area, as well as a customizable prioritization tool for use with ArcGIS Desktop.	North Atlantic Aquatic Connectivity Collaborative
Acid Drainage Mines	From the PA DEP Mine land inventory , selected all those designated as impacting water resources.	PA Depertment of Environmental Protection data on Mine locations
Coal and Industrial Mine Locations	Used available data on coal and industrial mining activity locations. Selected those with status of active, inactive and abandoned. Did not select data showing locations where no activity ended up occurring, or where restoration was listed as "Complete". The data that were points were buffered by 30 meters.	PA Depertment of Environmental Protection data on Abandoned Mine Land Problem Areas Coal Mine Operations Coal Pillar Locations (Mining) Industrial Mineral Mining Operations Exisitng Clean up efforts - coal refuse, deep mine, drainage Active Underground Permit Areas Anthracite Coal Mine permit boundary Anthracite Coal Mine refuse area Bituminous Coal Mine permit boundary Bituminous Coal Mine refuse area
Projected Shale Gas Energy Development Area for Conservation	Used PA Natural Heritage Program shale gas predictive model to identify areas where land conservation can best be used to protect critical habitat from the disturbances associated with shale gas extraction. The data layer does not cover the whole study area, with all of Fulton and Huntingdon county not included in the analysis. As well as portions of Bedord, Blair, Centre and Clinton. To identify the priority areas for conservation in key habitat areas where shale gas work is predicted to take place, selected the top 1/3 highest scoring values using a natural breaks on 3 classes.	PA NaturalHeritage Program Shale Gas Predictive Model
Existing Energy Development Area for Restoration	Identified existing disturbances from energy development by combining available data on locations where energy development infrastructure exists. The most comprehensive data available are for oil and natural gas development. From non-attaining streams, selected those related to Petroleum Industry Activies as the cause. All road segments within 30 m of any of these existing energy development locations selected and buffered by 30 m.	PA DEP data on unplugged conservation wells (underground storage of solutions); encroachments; - bridges, culverts, intake pipelines; Oil and Gas pad locations; Coal Pillar locations supporting surface oil and gas; Petroleum Storage Tank locations Abandoned Oil and Gas Mine Recycling Project location; Water Withdrawl point for fracture of marcellus shale; PA Bureau of Forestry Shale Gas monitoring report; USGS - Gas producing wells Marcellus; USGS - Gas producing wells Utica; USGS - Gas producing wells Appalachian Devonian; PA DEP Integrated List Non Attaining Streams; Penn State Unpaved Roads; PA DOT Roads
Existing Development (All Types)	Selected all developed landcover types.	TNC Landcover
Predicted Future Urban Development by 2060 (All Types)	The Nature Conservancy used used future development predictions created by the Land Transformation Model (LTM) Version 3 developed by the Human-Environment Modeling and Analysis Laboratory at Purdue (Tayyebi et al 2013) to help inform the Condition of Northeast and Terrestrial and Aquatic Habitats: A Geospatial Analysis and Tool Set by The Nature Conservancy (TNC) . In the development predictions model the quantity of urban growth at county and place (i.e. city) scales is simulated using population, urban density, and nearest neighbor dependent attributes. Future urban landcover is meant to serve as an example of one possible scenario of urban expansion. Future land use predictions were created in five year increments from 2010 to 2060 and used NLCD 2001 version 2 as the basis for projections. More information on the Land Transformation Model can be found here: http://ltm.agriculture.purdue.edu/usgs.htm	Tayyebi, Amin, Burak K. Pekin, Bryan C. Pijanowski, James D. Plourde, Jarrod S. Doucette, and David Braun. 2012. Hierarchical modeling of urban growth across the conterminous USA: developing meso-scale quantity drivers for the Land Transformation Model, Journal of Land Use Science. TNC Condition of the Northeast Terrestrial and Aquatic Habitats: • Anderson, M.G., M. Clark, C.E. Ferree, A. Jospe, and A. Olivero Sheldon. 2013. Condition of the Northeast Terrestrial and Aquatic Habitats: a geospatial analysis and tool set. The Nature Conservancy, Eastern Conservation Science, Eastern Regional Office. Boston, MA. http://nature.ly/GeoCondition
Incompatible Agriculture near Polluted Streams	Used TNC Landcover data to identify agricultural areas within 100 ft of a stream that has a Total Maximum Daily Load issue with nutrient levels or is listed as a Non Attaining stream with a cause being listed as agriculture.	TNC NE Habitat Classification data for ag fields; USGS Streams TMDL rating below ag fields; PA DEP Integrated List Non Attaining Streams
Non Forested Stream Bank	Identified non forested landcover types within 30 meters of streams.	TNC Landcover; TNC Aquatic Connectivity project flowlines
Polluted Stream	All PA Department of Environmental Protection non-attaining streams and USGS streams that exceed Total Maximum Daily Load for minerals and pollutants.	USGS TMDL PA DEP non attaining streams
Point Pollution Source near Stream	Used PA Department of Environmental Protection Point source pollution areas	Commercial Hazardous Waste Captive Hazardous Waste Operations Illigeal Dumps Land Recycling Cleanup Locations Hazardous Liquids Storage Tanks Wastewater Treatment plant - discharge point into stream Chemical Production Sites
Road Segment Too Close To Stream	Identified road segments within 300 feet of streams.	Penn State unpaved roads, PA DOT roads; TNC Aquatic Connecivity Project flowlines.

	Individual Species Habitat Priority Areas Data Group	
Wood Thrush Priority Habitat	The Wood Thrush (Hylocichla mustelina) is a small, migratory songbird famed for its ethereal song. It has been chosen to represent the habitat needs of other species of wildlife that also use moist hardwood forests across the northeastern U.S. This dataset depicts the potential capability of the landscape throughout the Northeastern United States to provide habitat for Wood Thrush, during the breeding season, based on environmental conditions existing in approximately 2010. Landscape capability integrates factors influencing climate suitability, habitat capability, and other biogeographic factors affecting the species' prevalence in the area. All locations are scored on a scale from 0 to 1, with a value of 0 indicating no capacity to support the species and 1 indicating optimal conditions for the species (not all species values reach 1). (NOTE - Due to size limitations, the data are integers displayed 0 - 100. The data provided for download are the original 0 - 1 scale.) Priority classification created by using a statistical Natural Breaks on 5 classes, with those scoring closer to 1 receiving Very High priority (5) Values. Those that score in the top 3 classes, moderate (3), high (4) or very high (5) priority represent the best habitat suitability conditions for Wood Thrush.	Habitat Suitability model for Wood thrush - Designing Sustainable Landscapes project led by Professor Kevin McGarigal of UMass Amherst. North Atlantic Landscape Conservation Cooperative - Wood Thrush Habitat Suitabiity Model version 3; 2017 More information and detailed documentation for Wood Thrush can be found at: http://jamba.provost.ads.umass.edu/web/lcc/DS L_documentation_woth_abstract.pdf
Cerulean Warbler Priority Habitat	This dataset depicts the potential capability of the landscape throughout the Northeastern United States to provide habitat for Cerulean Warbler, during the breeding season, based on environmental conditions existing in approximately 2010. Landscape capability integrates factors influencing climate suitability, habitat capability, and other biogeographic factors affecting the species' prevalence in the area. All locations are scored on a scale from 0 to 1, with a value of 0 indicating no capacity to support the species and 1 indicating optimal conditions for the species (not all species values reach 1). This species dataset developed by the Designing Sustainable Landscapes project led by Professor Kevin McGarigal of UMass Amherst. Priority classification created by using a statistical Natural Breaks on 5 classes, with those scoring closer to 1 receiving High priotiy (5) Values. More information and detailed documentation for the Designing Sustainable Landscapes project, is available at: http://www.umass.edu/landeco/research/dsl/dsl.html. A detailed abstract of the methods is available here	North Atlantic Landscape Conservation Cooperative - Designing Sustainable Landscapes Project

Golden-winged Warbler Priority Habitat	Based on discussion with Jeff Larkin, Ron Rohrbaugh and Scott Hall for Delaware Watershed Business Plan using methodology where boundaries prepared for the Natural Resources Conservation Services' Working Lands for Wildlife Program showing Golden-winged Warbler Priority Areas for Conservation, identified all Woody Wetlands, and Dry Mesic Oak Forest types within these priority areas and classified as a Very High Priority (5) and shown in red.
	    All other forest types within these Priority Areas for Conservation are classified as a High Priority (4) and shown in dark orange. All Woody Wetlands, and Dry Mesic Oak Forest outside these Priority Areas for Conservation, but still within the larger Golden-winged Warbler Conservation region are also classified as High Priority (4).
	    All other forests found inside the Golden-winged Warblers' Conservation focus area region but outside the Priority Areas for Conservation boundaries are classified as Moderate priority (3) and shown in orange.
	Areas that score in the 3 classes of priority, moderate (3), high (4) or very high (5) priority represent the best habitat suitability conditions for Golden-winged Warbler.
		USFWS - Jeff Larkin - GWWA Focus Areas and Priority Areas for Conservation
		
		TNC - Northeastern Terrestrial Habitat Landcover
		
		US Forest Service - Forest Type
		
		US Geological Survey - National Landcover Database

Eastern Brook Trout	Compile Trout Unlimited Central Appalachian Trout Conservation Strategies patch analysis to prioritize TNC NAHCS stream buffers (100m) within Allopatric Stronghold and Sympatric Stronghold populations as Very High priority (5). Stream buffers (100m) within Allopatric Persistent and Sympatric Persistent populations as High priority (4).The upland areas outside the stream buffers for all patches classified as Allopatric Stronghold, Allopatric Persistent, Symaptric Stronghold and Sympatric Persistent are moderate priority (3).	Trout Unlimited - Central Appalachian Trout Conservation Strategies For more information, visit the project website: https://www.tu.org/science/conservation-planning-and-assessment/conservation-portfolio/