



## Lehigh and Northampton Counties Digital Geographic Data

### Lehigh Valley Planning Commission

Release 4.4, February 2011

**\*Recommend using ArcView or ArcGIS software (not included).**

### Overview of LVPC Digital Geographic Data Disc - Release 4.4

This data disc was prepared by the Lehigh Valley Planning Commission and is an update from the prior Data Disc Release version 4.3.

New layers added to the disc include trails and trail features. Trails include hiking, biking, and other multi-use trails open or proposed for public use. Trails within larger regional parks are included (e.g. Jacobsburg Park in Bushkill Township Northampton County). The trail features layer identifies features such as parking lots and restrooms near trails and river access points. Major layer updates added to this disc include hydrography, LANTA bus stops, bridges and zoning. The hydrography layer includes more accurate base mapping than the previous USGS National Hydrography Dataset (NHD). This layer includes Northampton County hydrography features developed in early 2000 based on the county's 2000 digital orthophotography and Lehigh County hydrography features originally developed by the USGS, but realigned to be more accurate based on the county's 2005 digital orthophotography. The LANTA bus stop layer was acquired from LANTA and includes all stops with stop sign locations; not just the locations published on LANTA's official route maps. These stops were located using GPS and include various attributes such as existence of shelters and nearby sidewalks and crosswalks. The bridges layer is an update of bridge data from PennDOT that includes items such as the bridge sufficiency rating, structural deficiency (if any) and status (i.e. closed, open or open with posted weight limit). The zoning layer includes municipal zoning mapping updates acquired as available from the municipalities in the Lehigh Valley region. There are 23 layers that were updated to be more current than on the prior disc, and most are updated through January 2011. In total 63 layers are contained in this release in the ESRI shapefile format. The layers are in the same coordinate system as layers available from Lehigh and Northampton counties, so the information can be overlaid with the county's for easy viewing and mapping in the GIS.

A list of GIS layers provided on this disc is on the back cover of the CD insert. The GIS layers can be accessed using ESRI ArcView, ArcGIS or other GIS software that reads the ESRI shape file format. The user of this disc should have enough of an understanding of the ESRI GIS software to load the layers into a view. In addition, this disc contains a data dictionary that describes information about each data layer and that can be viewed using any standard Internet browser software.

The data included on this disc are from thirteen sources: Lehigh Valley Planning Commission (LVPC), Pennsylvania Department of Transportation (PennDOT), Northampton County Department of Fiscal Affairs (GIS Division), Lehigh County Tax Assessment Department, Natural Resources Conservation Service (NRCS), Pennsylvania Department of Conservation and Natural Resources (PA DCNR), Federal Emergency Management Agency (FEMA), The Pennsylvania Natural Heritage Program (PNHP), United States Fish & Wildlife Service (USFWS), U.S. Census Bureau, Pennsylvania Department of Environmental Protection (PA DEP), United States Geological Survey (USGS) and the Heritage Conservancy in Bucks County, PA. All the data are in the State Plane Pennsylvania-South geographic coordinate system and the horizontal control is on the North American Datum of 1983. Data from these different sources will not be fully compatible due to differences in original mapping scale, mapping source, method of digital construction or other reasons. The NRCS, PNHP, USFWS, PA DEP, PA DCNR and USGS data are compiled from 1" = 2,000' quadrangle mapping provided by USGS. Lehigh and Northampton County data are compiled from 1" = 400' and 1" = 200' aerial photography depending on the scale of the county's tax map sheets. The U.S. Census, FEMA and PennDOT data were re-compiled to the same mapping scale as both counties. Data created at the county's mapping scale is more accurate than some other data since it was compiled at a larger scale. When you overlay data compiled from the county with some other source data you will see instances of this. For example, at various locations traffic analysis zone features do not stay within the right-of-way of the County's parcel data. It is the responsibility of the user to refer to the data dictionary for the accuracy of any particular spatial data layer and its associated attributes.

Digital Raster Graphic (DRG) images are available on a separate disc from the LVPC. A DRG is a raster image of a scanned USGS 7.5 minute topographic map excluding the collar information. The DRG images will be in the same geographic coordinate system as the data on the data disc. No changes have been made to the DRGs since the prior release.

Different versions of aerial photography are available on separate discs from the LVPC that cover the entirety of Lehigh and Northampton Counties. This data is in the same geographic coordinate system as the data on the data disc. One ver-

sion is natural color orthophotos captured in April 2010 at 1"=200' design scale and 1' pixel resolution. Another version with the same specifications as 2010 was captured in April 2005. The final version is black/white Digital Orthophoto Quarter Quad (DOQQ) photography captured in 1992/1993 at 1-meter pixel resolution. Each DOQQ file covers one quarter of a standard USGS quadrangle sheet (see quadrangle boundary index shape file included within this disc). Orthophoto refers to a process of correcting the photography for topographic distortion to create photography where features are located in their true ground position.

This CD case contains two discs. The first disc has three directories that include:

**Shapes** — This directory includes all the GIS layers in ESRI shape file format and the associated legend and projection files for the shape files. The legend files contain a predefined graphic representation of the shape file features. The legend files have the same name (e.g. floodplains, bridges) as the shape files. The legend files with an ".avl" extension are created for the ArcView 3.x software, and the ones with a ".lyr" extension are for the ArcGIS 9.x software. This directory also includes ArcCatalog Extended Markup Language (XML) documents for each layer that contains thumbnail images of the layers and other layer elements. These documents can be viewed in ArcCatalog.

**Data Dictionary** — This directory includes information describing each spatial layer and its associated attributes, including the date the layer was last updated. The table of contents for the data dictionary is accessed using the "index.htm" file, which provides links to all the other data dictionary information. Internet browser software such as Microsoft Internet Explorer can be used to view this data.

**Layerfiles9.3** - This directory includes layer files with a ".lyr" extension for GIS users with ArcGIS 9.3 software. ArcGIS 10.0 layer files do not work with the ArcGIS 9.3 software release.

The second disc has one directory that includes:

**Shapes** — This directory includes the topographic contours layer. This layer was too large to fit on the first disc.

Note that the user may access and use the data on this disc directly from the CD drive. However, copying the data to the computer hard drive will improve the speed of loading and using the data in ArcView or ArcGIS software.

The LVPC will be offering new and updated GIS layers in later disc releases. Please contact Alice Lipe at 610-264-4544 or e-mail (lvpc@lvpc.org) to purchase this CD, or if you have any data-related questions please refer to the layer contact information in the data dictionary, or contact Lynette Romig at 610-264-4544 or e-mail at (ler@lvpc.org).

**The layers on the disc include:**

**Lehigh and Northampton Counties**

Adult Communities	Historic Districts, Structures and Railroad Lines (Eligible)	Schools & School Districts*
Agricultural Easements*	Hydrography - Rivers/Major Streams, Other Streams, Lakes/Ponds*	Sewer System Service Areas (Existing)
Agricultural Security Areas*	Karsts	Soils
Bridges*	LANTA Bus Routes*	Street Centerlines*
Cemeteries	LANTA Bus Stops*	Subdivisions*
Census 2000 Block Groups	Major Government Buildings*	Topographic Contours
Census 2000 Blocks	Major Hotels/Motels*	Traffic Analysis Zones
Census 2000 Tracts	Major Industrial Parks*	Traffic Counts
Census 2004 Second Edition TIGER	Major Office Buildings*	Traffic Signals
Street Centerlines	Major Shopping Areas*	Trail Features**
County Boundaries*	Mining Areas (Active)	Trails**
Dams	Municipal Boundaries*	Water System Service Areas (Existing)
Floodplains & Floodpanels, Floodplain Elevations & Cross Sections	Natural Areas	Watersheds & Watershed Subareas*
General Land Use Plan	Natural Resources Plan	Wetlands
Geology	Parcel Boundaries*	Woodlands
Historic Districts, Structures and Canals (Listed)*	Parks*	Zip Code Boundaries*
	Quadrangle Boundaries	Zoning*
	Railroads (Active & Inactive)	Zoning Overlay*
	Riparian Buffers	

\* updated layers  
 \*\* new layers

**Cost:**

New: \$200.00 + \$12.00 PA sales tax + postage (please call for total with postage)  
 Upgrade: \$100.00 + \$6.00 PA sales tax + postage (please call for total with postage)  
 Prepayment required (cash or check) — no credit cards accepted

DOQQs may be purchased separately.