

# Appendix A: Geographic Information Systems Metadata



**GIS data sources.**

The following geographic information systems (GIS) data sources were used to create one or more of the maps in the Deer Creek-Sugar Creek Watershed Management Plan as listed below:

(IGS, 1998) LANDSURVEY\_COUNTY\_POLY\_IN: County boundaries in polygon format. Derived from the U.S. Geological Survey's 1:24,000 digital raster graphic (DRG) series. (no scale) Polygon shapefile.

(INDOT, 2001). INCORPORATED\_AREAS\_INDOT\_IN: Incorporated Boundaries in Indiana, INDOT, Graphics and Engineering. (no scale) Polygon Shapefile.

(USCB, 2005) ROADS\_2005\_INDOT\_IN: Indiana Roads from INDOT and TIGER Files, 2005. (1:100,000) Line Shapefile.

(USGS, 1991) WATERSHEDS\_HUC08\_CATALOG\_UNITS\_USGS\_IN: 8-digit hydrologic accounting units. Derived from the 14-digit hydrologic units in Indiana created by U.S. Geological Survey and National Resources Conservation Service. (1:24,000) Polygon shapefile.

(USGS, 2008a) HYDROGRAPHY\_HIGHRES\_FLOWLINE\_NHD\_USGS: Streams, Rivers, Canals, Ditches, Artificial Paths, Coastlines, Connectors, and Pipelines. Derived from National Hydrography Dataset which was originally developed at 1:100,000 scale to be developed at 1:24,000-1:12,000 scale. (1:24,000) Linear shapefile.

(IDEM, 2002) NPDES\_FACILITY\_IDEM\_IN: Facilities in the National Pollutant Discharge Elimination System with assigned UTM Coordinates in Indiana. IDEM, Office of Water Quality, Data Management Section. (no scale) Point Shapefile.

(IDEM, 2003) RECREATIONAL\_FACILITIES\_IDNR\_IN: Outdoor recreational facilities in Indiana. IDNR, Department of Outdoor Recreation (1:24,000) Point shapefile.

(IDNR, 2004) FLOODPLAINS\_DFIRM\_IDNR\_IN: Floodplain locations. Derived from FEMA Flood Rate Insurance Maps (FIRM), Digital Flood Insurance Rate Map (DFIRM), and Flood Insurance Studies (FIS). (1:12,000) Polygon shapefile.

(IDEM, 2012) IMPAIRED\_STREAMS\_IDEM\_IN: Impaired Streams in Indiana on the 303(d) List of 2006. Indiana Department of Environmental Management, Office of Water Quality. Line Shapefile.

(IDEM, 2007a). CONFINED\_FEEDING\_OPERATIONS\_IDEM\_IN: Confined Feeding Operation Facilities in Indiana, IDEM, Office of Land Quality, Compliance and Response Branch, Solid Waste Compliance Section. (no scale) Point Shapefile.

2010 CONFINED\_FEEDING\_OPERATIONS\_IDEM\_IN: Confined Feeding Operation Facilities in Indiana (Indiana Department of Environmental Management, Point Shapefile)

(IDEM, 2007b) OPEN\_DUMPS\_IDEM\_IN: Open Dump Sites in Indiana, IDEM, Office of Land Quality, Compliance and Response Branch, Solid Waste Compliance Section. (no scale) Point Shapefile.

(IDEM, 2007c) WASTE\_INDUSTRIAL\_IDEM\_IN: Industrial Waste Sites in Indiana, IDEM, Office of Land Quality, Compliance and Response Branch, Industrial Waste Section. (no scale) Point Shapefile.

(IDEM, 2009a) BROWNFIELDS\_IDEM\_IN: Defined as a parcel of real estate that is abandoned or inactive, or may not be operated at its appropriate use, and on which expansion, redevelopment, or reuse is complicated because of the presence or potential presence of a hazardous substance, a contaminant, petroleum, or a petroleum product that poses a risk to human health and the environment. IDEM, Office of Land Quality. (unknown scale) Point shapefile.

(IDEM, 2009b) CONFINED\_FEEDING\_OPERATIONS\_IDEM\_IN: Shows swine, chicken, turkey, beef or dairy agribusinesses that have large enough numbers of animals that IDEM regulates for environmental concerns, as defined by IC 13-18-10 of the Indiana Code. IDEM, Office of Land Quality. (unknown scale) Point shapefile.

(IDEM, 2009c) LUST\_IDEM\_IN: Leaking Underground Storage Tanks in Indiana, IDEM, Office of Land Quality, Remediation Service Branch, Leaking Underground Storage Tank Section. (no scale) Point Shapefile.

(IDEM, 2009d) OPEN\_DUMPS\_IDEM\_IN: unregulated, illegal dump sites of solid waste as defined by IAC 10-2-28 329 and IAC 10-2-128 of the Indiana Administrative Code. IDEM, Office of Land Quality. (unknown scale) Point shapefile.

(IDNR, 2009b) RECREATIONAL\_FACILITIES\_IDNR\_IN: Outdoor recreation facilities, including facilities managed by federal, state, and local governments, as well as non-government organizations, private and commercial entities, and schools. It does not include sites that are private and not open to the public. (1:24,000) Point shapefile.

(IGS, 2001a). IS2001USGS\_IN: Estimated Percentages of Impervious Surfaces in Indiana in 2001. Derived from the National Land Cover Database (NLCD 2001, United States Geological Survey, 30-Meter Grid), digital representation by Chris Dintaman, 2007.

2011IMPERVIOUS\_SURFACE\_2006\_USGS\_IN: Estimated Percentage of Impervious Surface in Indiana in 2006, Derived from the 2006 National Land Cover Database (United States Geological Survey, 30-Meter TIFF Image)

(IGS, 2001b) LC2001USGS\_IN: 2001 Land Cover in Indiana, Derived from the National Land Cover Database (NLCD 2001, United States Geological Survey, 30-Meter Grid), digital representation by Chris Dintaman.

2011LAND\_COVER\_2006\_USGS\_IN: Land Cover in Indiana, Derived from the 2006 National Land Cover Database (United States Geological Survey, 30-Meter TIFF Image)

(IGS, 2003) ECOREGIONS\_USGS\_IN: Ecoregions, Levels III and IV, Indiana. Derived from U.S. Geological Survey. (1:250,000) Polygon Shapefile.

(IGS, 2004) CENSUS\_MCD\_POPCHANGE\_IN: Population Densities and Changes of Densities of Minor Civil Divisions in Indiana from 1890 to 2000. Derived from United States Census Bureau. (1:500,000) Polygon Shapefile, digital representation by Denver Harper, 2004.

(IGS, 2007) TC2001USGS\_IN: Estimated Percentage of Tree Canopy in Indiana in 2001, Derived from the National Land Cover Database (NLCD 2001, United States Geological Survey, 30-Meter Grid), digital representation by Chris Dintaman.

(INDOT, 2004) HIGHWAYS\_INDOTMODEL\_IN: Highways in Indiana, INDOT, Graphics and Engineering. (1:24,000) Line Shapefile.

(NRC, 1997) RIVERS\_OUTSTANDING\_NRC\_IN: Outstanding Rivers in Indiana, as listed by the Natural Resource Commission which identifies rivers and streams which have particular environmental or aesthetic interest. (1:100,000) Linear shapefile.

(NRCS, 2009) WBDHU\_12\_L\_IN: 12-digit and 10-digit hydrologic accounting units. (1:24,000) Polygon shapefile.

(TCPWQ, 2005) MS4\_BOUNDARY: Boundary for the municipal separate storm sewer system for the Tippecanoe Partnership for Water Quality. (unknown scale) Linear shapefile.

(USCB, 2000b) URBAN\_AREAS\_TIGER00\_IN: major urban areas identified by the U.S. Bureau of the Census. Derived from U.S. Department of Commerce, U.S. Census Bureau, Census 2000 Tiger Line Files. (1:100,000) Polygon Shapefile.

(USDA, 1994) SOILS\_STATSGO\_IN: Soil Associations in Indiana. U. S. Department of Agriculture, Natural Resources Conservation Service. 1994. (1:250,000) Polygon Shapefile.

2002SOILS\_STATSGO\_IN: Soil Associations in Indiana (U.S. Dept. of Agriculture, 1:250,000, Polygon Shapefile)

(USDA, 2004) CULTIVATED\_AREAS\_USDA\_IN: Percentage of cultivated land in homogeneous land-use areas. Derived from the National Agricultural Statistics Survey, U.S. Department of Agriculture. Ground resolution is approximately 56 meters by 56 meters. (1:100,000) Grid file.

(USDA, 2008) CROPS\_2008\_USDA\_IN: Shows categorized land-cover data produced using satellite imagery for the purpose of providing supplemental acreage estimates for the state's major commodities. The imagery was collected between the dates of April 1, 2008 and September 30, 2008. Derived from National Agricultural Statistics Service, U.S. Department of Agriculture. Ground resolution is approximately 56 meters by 56 meters. (1:100,000) Grid file.

(USFWS, 2009) ALL\_IN\_NWI\_CURRENT\_DRAFT\_09212009: Updated National Wetland Inventory dataset which was originally developed in 1979. Latest version updates 1979 dataset through the use of aerial photographs. (1:24,000) Polygon shapefile.

(USGS, 1996) PLACES\_POINTS\_USGS\_IN: Shows the locations of populated places, extracted from the Geographic Names Information System (GNIS) developed by the U.S. Geological Survey. Elevations (feet above sea level) are also provided. (1:24,000) Point shapefile.

(USGS, 1987) BEDROCK\_GEOL\_MM48\_IN: Bedrock Geology of Indiana (Indiana Geological Survey, 1:500,000, Polygon Shapefile)

CROPS\_2008\_USDA\_IN: Crops in Indiana for 2008, Derived from National Agricultural Statistics Service (United States Department of Agriculture, 1:100,000, 56-Meter TIFF Image)

2008 RECREATIONAL\_FACILITIES\_IDNR\_IN: Outdoor Recreational Facilities in Indiana (Indiana Department of Natural Resources, 1:24,000, Point Shapefile)

(USGS, 2008a) HYDROGRAPHY\_HIGHRES\_FLOWLINE\_NHD\_USGS: Streams, Rivers, Canals, Ditches, Artificial Paths, Coastlines, Connectors, and Pipelines. Derived from National Hydrography Dataset which was originally developed at 1:100,000 scale to be developed at 1:24,000-1:12,000 scale. (1:24,000) Linear shapefile.

(USGS, 2008b) HYDROGRAPHY\_HIGHRES\_WATERBODYLINEAR\_NHD\_USGS: Rivers, Inundation Areas, Canals, Submerged Streams, and Other Linear Waterbodies. Derived from National Hydrography Dataset which was originally developed at 1:100,000 scale to be developed at 1:24,000-1:12,000 scale. (1:24,000) Linear shapefile.

(WREC, 2009a) CURRENT\_SAMPLE\_SITES: Locations of stream-road crossings where water quality samples are being collected as digitized by WREC staff based on latitude/longitude collected from field locations. (no scale) Point shapefile.

(WREC, 2009b) HISTORIC\_SAMPLE\_SITES: Locations of stream-road crossings where water quality samples have been previously collected as digitized by WREC staff based on stream name and road crossing name and/or latitude/longitude as provided. (no scale) Point shapefile.

2010 CROPS\_2008\_USDA\_IN: Crops in Indiana for 2008, Derived from National Agricultural Statistics Service (United States Department of Agriculture, 1:100,000, 56-Meter TIFF Image)