

Multi-Hazard Mitigation Plan

2.0 Community Profile

GEOGRAPHY – LOCATION AND AREA

Evansville and Vanderburgh County are positioned in southwestern Indiana along the banks of the Ohio River, located less than 200 miles away from four major U.S. cities.

- 176 miles southwest of Indianapolis, IN;
- 156 miles north of Nashville, TN;
- 126 miles west of Louisville, KY; and
- 174 miles east of St. Louis, MO

Evansville is a recognized trade center for a three-state area and is located very near to both the Illinois and Kentucky state lines (See Figure 1). It is the center of both an Economic Area and a Metropolitan Statistical Area (MSA). The MSA title corresponds to the name of the largest central city in the area. The Economic Area encompasses approximately a 60-mile radius including 27 counties within Indiana, Illinois, and Kentucky.

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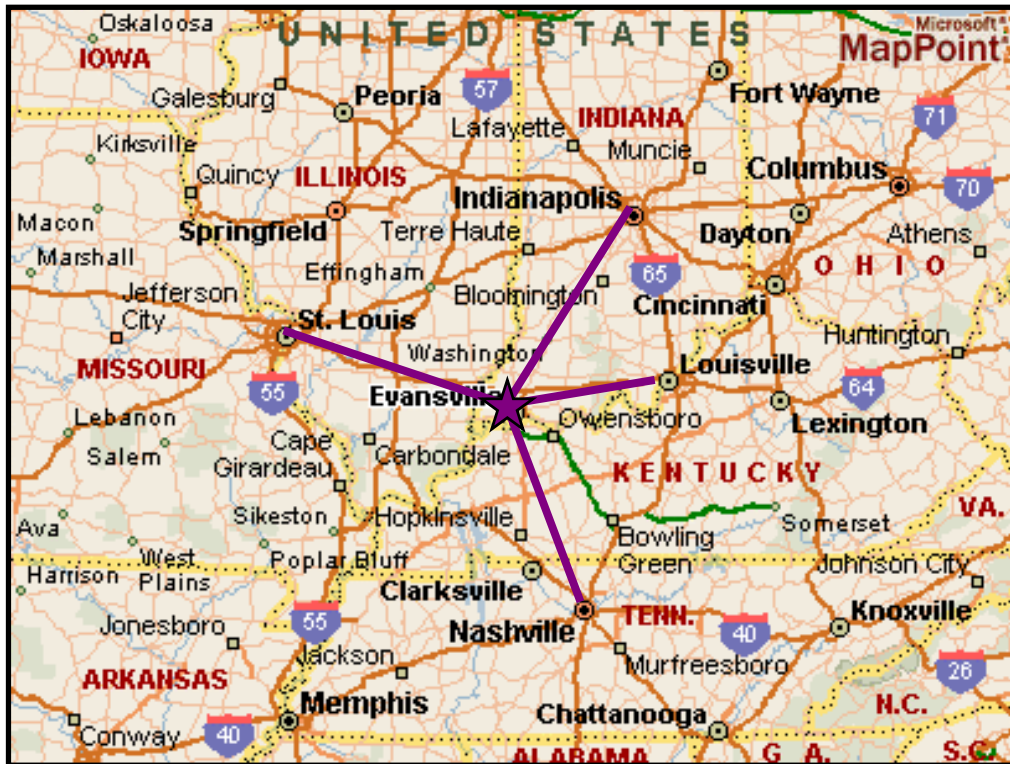


Figure 1. Location of Evansville in relation to Major Cities



Vanderburgh County is bordered by three other Indiana counties (Gibson, Posey, and Warrick) and one Kentucky county (Henderson). Vanderburgh County encompasses approximately 154,200 acres. The terrain ranges from rolling hills to level, well-watered farmlands. In addition to the Ohio River, major topographical features include Pigeon Creek. The elevation of Vanderburgh County ranges slightly, from the lowest point of 357 feet above sea level, where Bayou Creek joins the Ohio River, to the highest point of 600 feet above sea level, at a location in the west-central part of the county near St. Joseph.



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Figure 2. Evansville and Vanderburgh County Location Map

CLIMATE

Evansville has a moderate climate and four distinct seasons. Average temperatures range from 31 to 79 degrees Fahrenheit. Annual rainfall averages 46 inches and annual snowfall averages 13 inches.

The prevailing winds in the Evansville area are from the south. Although the southwestern portion of the State of Indiana is 550 miles from the Gulf of Mexico, the weather is influenced by the warm moist air masses from the south. This pattern prevails most of the year although it is occasionally interrupted by cold fronts that slide south during the winter.



Despite these cold periods, the climate overall is more southern than northern. This is frequently seen in the temperature variations between Evansville and Chicago where it is not unusual to have more than a ten-degree difference in the winter. Snowfall varies a great deal from year to year and significant accumulation (6 inches or more) is rare. Average annual climate statistics include:

- Zero-degree days – 3
- Freezing days – 103
- 90 degree days – 39
- Sunshine days – 203
- Wind speed - 8.3 mph
- Relative humidity - 70%
- Rainfall- 42 inches
- Snowfall - 13 inches

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PHYSICAL FEATURES AND LAND USE

Vanderburgh County is located within the Wabash Lowlands physiographic province of Indiana. The Wabash Lowlands are broad lowlands approximately 500 feet above sea level with sand dunes along larger river valleys. Agricultural crops within this area primarily include corn, soybeans, feed grains, strawberries, melons, and orchards.

Soils

Soils in Vanderburgh County have been classified with limitations for non-farm development due to soil associations, drainage features, slope of the land and production of an agricultural commodity. Soils that have slight to moderate limitations are generally located in the northeastern corner of the County, the western half of the County, and the southeastern portion of the City. Inappropriate development or development on soils with these or stronger limitations could suffer problems such as erosion; increased stormwater runoff and associated flooding or drainage problems; and/or septic systems that do not function properly.

Approximately half of the soils in Vanderburgh County are primarily used for agricultural production. Most of these soils are located on the outskirts of the incorporated area of Evansville, along the county's boundaries.

Trees and Forests

Since 1811 when Evansville was settled, land has continually been cleared for development and agricultural use. Today, only pockets of wooded areas are left. According to the Vanderburgh County Area Planning Commission 1998 Land Use Inventory and the 1990 aerial photos of the City and County, approximately 12.6% of the County land area is covered by forested parcels of one acre or more. Due to the prevalent pattern of growth for Vanderburgh County, this number is expected to continue to decrease.



The types of forests that are found in Vanderburgh County are Oak-Hickory and Maple-Beech hardwoods. The southwestern portion of the County and the northeastern German Township still have substantial wooded lands and are primarily undeveloped but contain some scattered residential uses.

Wetlands

Due to Vanderburgh County's location in the Ohio River Valley, there is an array of wetland areas such as bottomland swamps, oxbow lakes, and sloughs. Estimates of remaining wetland habitat in the County range up to 5,000 acres. The Vanderburgh Area Planning Commission 1998 Land Use Inventory indicates a total of approximately 2,700 acres of land covered by water in Vanderburgh County.

Floodplains and Levees

Vanderburgh County contains portions of three watersheds, the Ohio River and two of its tributaries, Big Creek and Pigeon Creek. Flooding occurs on the banks of these rivers due to prolonged rainfall or backwater flooding. In fact, the entire "hook" at the southern portion of Vanderburgh County along the Ohio River is located within the 100-year floodplain.

After the flood of 1937, Evansville's most extensive flood, the U.S. Army Corps of Engineers built an extensive levee system that protects portions of Evansville's floodprone areas from reoccurrence of the damage and disruption experienced in 1937. The project includes 18 miles of earth levee, concrete walls, roadway levees and 20 pumping stations. The levee project was completed in 1992 and is considered to be the most extensive levee project in Indiana. It extends from the Vanderburgh-Warrick County line along Interstate 164 and Veterans Memorial Parkway to the riverfront and on along Pigeon Creek to U.S. 41.

Seismic Zones

Southwestern Indiana is relatively close to two seismic zones: The New Madrid and the Lower Wabash Valley seismic zones. The New Madrid Seismic Zone extends from west-central Mississippi northward past Cape Girardeau, Missouri. Evansville is approximately 160 miles northeast of New Madrid, Missouri, the center of this seismic zone. The Lower Wabash Valley Seismic Zone generally follows the Wabash River from the Ohio River north to Terre Haute, Indiana. The proximity of southwestern Indiana to these known zones of seismicity makes the region especially vulnerable to earthquakes.

Much of the concern about earthquake damage in the Evansville area is based on two seismic hazards: liquefaction and ground motion amplification. The area adjacent to the Ohio River floodway is particularly susceptible to liquefaction, and the downtown and incorporated areas of Evansville are particularly susceptible to ground motion amplification. These areas were classified based on subsurface records including: water wells, engineering borings and holes, and differing geologic materials.

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POPULATION

Since its incorporation as a city in Vanderburgh County in 1847, Evansville has grown to become the Indiana’s third largest city, covering 41 square miles and containing a population of 121,582, based on the 2000 U.S. Census (see Table 1).

Because a large portion of the population of the area surrounding Evansville is dependent on Evansville as a place to work or live, Evansville is considered the center of the Evansville, Indiana-Kentucky MSA (metropolitan statistical area). A new delineation of MSAs was conducted in 2003. The Evansville IN-KY MSA now includes Gibson, Posey, Vanderburgh, and Warrick counties in Indiana and Henderson and Webster counties in Kentucky. With this new delineation, the Evansville MSA population based upon the 2000 census is 342,815, covering an area of 2,291 square miles.

The 2000 U.S. Census data show the Median Center of U. S. Population has moved to a point in northeast Daviess County, approximately 75 miles north of Evansville. The population within a 30-mile radius from the center of Evansville is over 430,000. There are also more than 676,000 people living within 50 miles of Evansville.

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Table 1. Area Populations 2000 U.S. Census

PLACE	POPULATION (persons)	SIZE (square mile)
City of Evansville	121,582	41
Gibson County	32,500	489
Posey County	27,061	408
Vanderburgh County	171,922	235
Warrick County	52,383	384
Total Indiana Counties	283,866	1,516
Henderson County, KY	44,829	440
Webster County, KY	14,120	335
Evansville MSA	342,815	2,291
Daviess County, KY	91,545	462
Bi-State Region	434,360	30 Mile Radius of Evansville



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