HOPKINS COUNTY COMPREHENSIVE PLAN

10

Environment

CHAPTER 10

ENVIRONMENT

[INSIDE THIS CHAPTER]

This chapter provides an overview of the features of the natural environment within Hopkins County.

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Hopkins County has a long history with environmental resources. The natural beauty and proximity to streams and rivers makes it an ideal location for many activities. There are rich mining, timber and farming histories as well. Hopkins County is located within the Western Kentucky Coal Field, an important natural region in Kentucky. The county encompasses 554 square miles of intermingled rolling hills and broad sedimentary valleys. Elevations range from 400 feet to 700 feet atop some of the ridges. The county has large areas of land that are within the 100-year floodplain as well as thousands of acres that have been surfaced mined and undermined. In addition to those constraints, the undeveloped land that remains is generally prime farm land and also has opportunities for oil and gas wells.

Figure: Built environment interacting with natural environment

GEOLOGY & GEOLOGIC RESOURCES

The following is a reprint of the Environmental Element Chapter from the "2023 Comprehensive Plan: Bridging Hopkins County." This chapter was prepared by the Hopkins County Joint Planning Commission.

The bedrock layers of Hopkins County consist of Pennsylvanian age limestones, sandstones, shales, and a few sandstone conglomerates which range from middle Lower Pottsville, through Allegheny, up to the upper Conemaugh series. Alluviums, clays and silts from Pleistocene and Recent age, ranging in depth to over 100 feet, fill the valley floors.

A monocline can be found tilting northeast toward the Western Kentucky Geo-syncline's trough, and a number of faults strike across the county in a northeast direction (ENV Map 2). These are part of the Central and Pennyrile Fault Systems. The Central Fault System extends about 50 miles across the county and into neighboring McClean and Caldwell counties. Individual faults in this system rarely extend over a few miles. These faults are high-angle normal faults with maximum displacement of 600 feet.

The Pennyrile Fault System represents the southern boundary of the Western Kentucky Coal Field. The faults of this system are present in the extreme southern portion of the County. Bifurcating (dividing into two branches) is common with mildly southward convexing, intersecting bands. These bow-shaped bands are usually no more than two miles wide.

Major geologic outcroppings include the Caseyville Formation, the Tradewater Formation, the Carbondale Formation, and the McCleansboro Group. The Caseyville Formation shows up as outcrop in the southwestern most edge of the County. According to the Kentucky Geologic Survey, the Caseyville Formation's upper boundary is not clearly defined in Hopkins County due to the absence of Bell and Hawesville coals and the lack of development of a thick, upper Caseyville sandstone. The thickness of the Caseyville Formation is highly variable due to the irregularity of the surface on which it was deposited. It may range from greater than 600 feet to less than 400 feet thick. Its sandstones have been important sources for natural gas, oil, tar sands, and water. This formation contains the following named units: Kyrock sandstone, Nolin coal, Breckinridge coal, Battery Rock sandstone, Battery Rock coal, and Bee Spring and Pound sandstones.

The Tradewater Formation outcrops along the southern and western portion of Hopkins County. Its upper boundary is located at the base of the Davis coal bed and on top of the Yeargins Limestone. While this formation ranges in thickness from less than 400 feet to more than 600 feet, it is less variable than that of the Caseyville Formation. The rocks of the Tradewater Formation are of a transitional nature between the Caseyville and Carbondale Formations. Limestones of the Tradewater are important as aquifers and as sources for the production of hydrocarbons. It is not

uncommon to find limestone beds above coal beds in the Tradewater Formations. The following units are present in the Tradewater Formation: Bell coal, Hawesville coal, Deanfield coal, Finnie and Grindstaff sandstones, Ice House coal, Amos and Foster coal zone, Aberdeen coal and sandstone, Elm Lick coal, Dunbar/Lead Creek coal, Lead Creek Limestone Member, Empire coal, Manning/Mining City/Lewisport coal, Curlew Limestone Member, and Yeargins Limestone Member.

The Carbondale Formation outcrops in Hopkins County in the area just north of the Tradewater Formation. The lower boundary of the Carbondale is at the base of the Davis coal in the Madisonville District and at the top of the Yeargins Limestone where the Davis coal is not present. The upper boundary is at the base of the Providence Limestone and at the top of the Herin coal when the Providence Limestone is not present. The Carbondale formation exceeds 400 feet in a fairly uniform thickness throughout the formation. It contains the following geologic units: Davis coal, Dekoven coal, Sebree sandstone, Colchester coal, Survant coal, Houchin Creek coal, Springfield coal, Briar Hill coal, and Herin coal.

The Sturgis Formation, now referred to as the McCleansboro Group, is found outcropping throughout the majority of the County. The upper boundary is located at the base of the Mauzy Formation. A large amount of the McCleansboro Group has been eroded, but the Kentucky Geological Survey reports that the original thickness was more than 2,650 feet. This group contains four formations: Shelburn Formation, Patoka Formation, Bond Formation, and Mattoon Formation.

The upper boundary of the Patoka formation is the Carthage Limestone and the lower boundary is the West Franklin Limestone. The following geologic units are present in the Patoka Formation: W. Ky. No. 15 coal, W. Ky. No. 16 coal, and W. Ky. No. 17 coal.

The Bond Formation's upper boundary is the base of the Carthage Limestone, and its lower boundary is the top of the Livingston Limestone, which is discontinuous in Kentucky. The Bond Formation contains the following geologic units: Carthage Limestone Member, Mt. Carmel sandstone, Lisman coal and Livingston Limestone.

The location of the upper boundary of the Mattoon Formation is the base of the Mauzy Formation and its lower boundary is the top of the Livingston Limestone. The subsequent geologic features exist in the Mattoon Formation; Geiger Lake coal, Dixon sandstone, Vanderburg sandstone, Mt. Gilead sandstone, and Sulfur Springs coal.

Hopkins County's primary geologic resource is bituminous coal that has been mined extensively. The primary seams of importance are as follows: Nos. 9, 11, 12, and 14. A secondary geologic resource is residual and transported clay suitable for brick making. Other geologic resources such as oil have been found in the northern area of the county while outcrops of low-grade

bituminous coals that may be useful as road surfacing material have been found in southern Hopkins County.

SOILS

The following is a reprint of the Environmental Element Chapter from the "2023 Comprehensive Plan: Bridging Hopkins County." This chapter was prepared by the Hopkins County Joint Planning Commission.

The U.S. Natural Resource Conservation Service divides the soils of Hopkins County into nine major associations by three groups: soils formed in alluvium on flood plains and stream terraces, soils formed in loess on uplands, and soils formed mainly in a loess mantle and in the underlying material from sandstone and shale.

SOILS FORMED IN ALLUVIUM ON FLOOD PLAINS & STREAM TERRACES

This class of soils associations contains nearly level soils located in broad valleys and includes:

Belknap-Waverly, Karnak-McGary-Belknap, Bonnie-Steff-Stendal, and Bonnie-Karnak. These soils are predominantly formed in water deposited material that range from silty clay to silt loam.

The Belknap-Waverly association makes up about 4% of the County. These soils are located on the floodplains of Deer, Drakes, Elk, Flat, Otter, and Weirs Creeks in the mid to southern section of the County. They are deep, medium-textured, and in general, poorly drained. Wetness is the main limitation in farming this area, and most of the poorer drained areas are left wooded. Most of the rest of the association is used for farming, and artificial drainage is used in many areas to alleviate the wetness problem. Corn and soybeans are the main cash crops grown here.

The Karnak-McGary-Belknap association is dominant in about 10% of the County. These soils are deep and poorly drained to somewhat poorly drained and range in texture from fine to medium. This association is located along the eastern edge of the County bordering the Pond River and has a width of approximately one- quarter mile in the southern section and approximately four mile in the northern section. The predominant soils of this association form in loamy alluvium, high in silt content, and in clayey, slack-water. Wetness is the main inhibitor to utilization of the area of this association. Artificial drainage is being used to make land useful for farming. Over half of this association is being used for farming, mainly cash-grain farming with corn and soybeans as the major crops. Wetness and flooding prohibit most nonfarm uses with the exception of a tile and brick factory which uses clay from the subsoil.

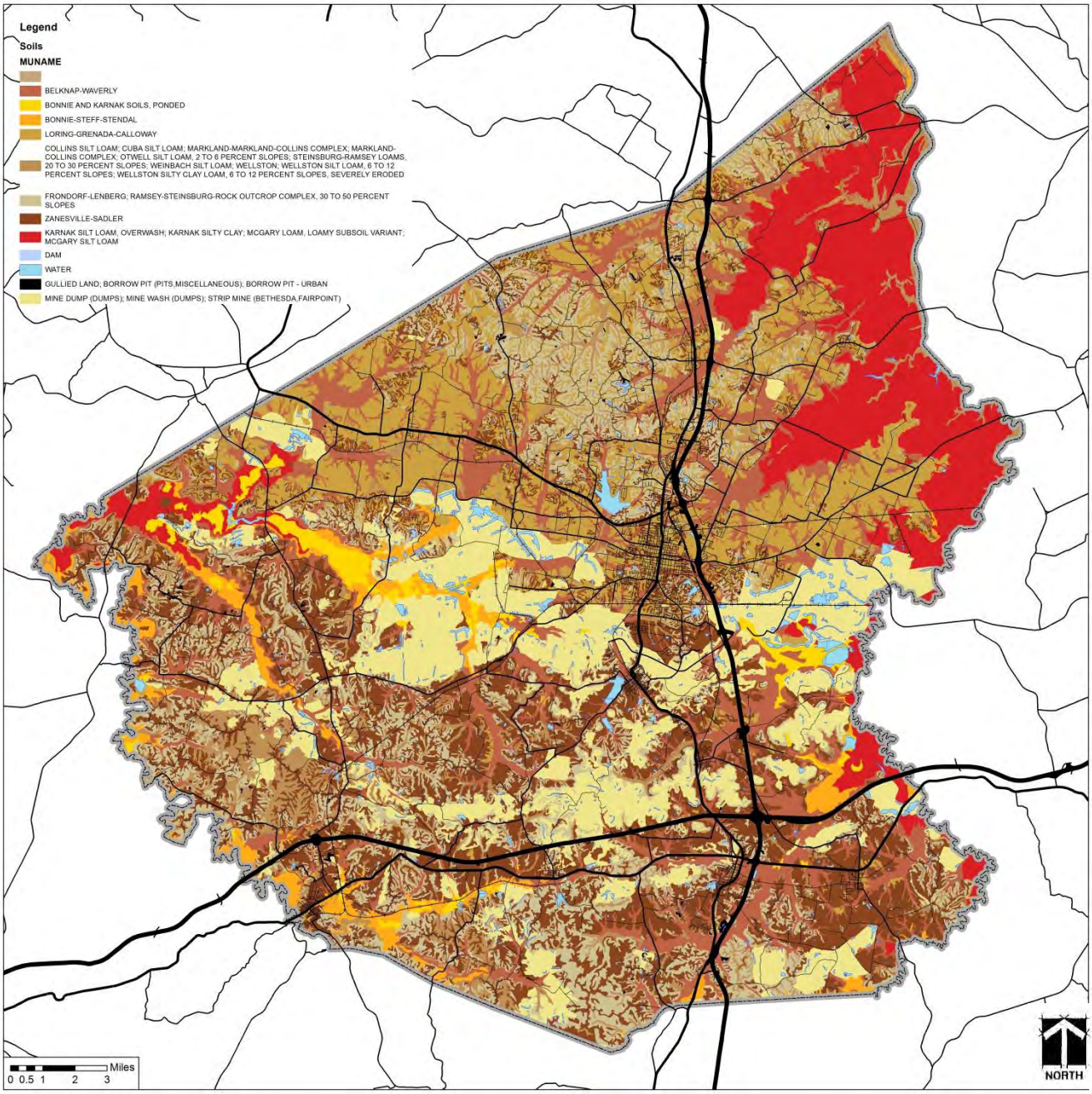

Figure: Soils within Hopkins County

The Bonnie-Steff-Stendal association accounts for about 3% of the County's soils and contains deep, poorly drained to moderately well drained soils and is located along the flood plain of the Tradewater River and the upper reaches of Caney and Clear Lick Creeks in the Midwest and southern part of the County. More than 50% of this association is woodland, some of which is ponded year-round and much of which is flooded during the winder and spring. The wetness of the area is very inhibiting, and little artificial drainage is being done due to a lack of suitable outlets. Due to the severity of the wetness problem, most of the area is suitable only as woodland, or wetland habitat.

The Bonnie-Karnak association makes up about 1% of Hopkins County and are fine to medium textured soils. It is located mainly on flood plains in alluvium and clayey slack-water deposits in the westernmost portion of Hopkins County. This association is dominantly marshy, ponded, and wooded and is characterized by late winter and spring flooding. Most of this area is not favorable to artificial drainage, thus only a small portion has been cleared for crops and pasture.

SOILS FORMED IN LOESS ON UPLANDS

This class of soil association contains nearly level to sloping soils which are located on uplands and are predominantly formed in wind-deposited material which is high in silt content. The Loring-Grendada-Calloway association is dominant in about 19% of Hopkins County in a broad, inconsistent band across the lower northern half of the County. These soils are located in gently rolling areas characterized by broad ridgetops, short sideslopes, and nearly level valleys and are more than four feet thick. These deep soils are moderately well drained to somewhat poorly drained with most having a layer that restricts water and air movement. These nearly level to sloping soils are well suited for most of the crops grown locally, such as corn, soybeans, hay, and tobacco. This is the most densely populated and industrialized area of the County.

SOILS FORMED MAINLY IN LOESS MANTLE & IN THE UNDERLYING MATERIAL FROM SANDSTONE AND SHALE

This group of soil associations includes: Loring- Frondorf-Zanesville, the strip mine-Frondorf, the Zonesville-Sadler, and the Zanesville-Frondorf- Belknap associations. The soils of these upland associations range from nearly level to steep. Although most of these soils are formed in the thin areas indicated by the title given to this group of associations, some of the soils are formed in a deep loess layer more than four feet thick.

The Loring-Frondorf-Zanesville association is composed of moderately deep to deep soils that range from moderately well drained to well drained. These gently sloping to steep soils are located mainly in the northern portion of the County along wooded hills that are characterized by narrow ridges and

valleys. This association covers approximately 20 percent of Hopkins County with medium-textured and moderately fine textured soils.

The Loring-Frondorf-Zanesville is mostly wooded with a few ridges and valleys being utilized for crops, such as corn, soybeans, hay, and pasture. The main limitation to agriculture is erosion due to the steep slopes. Nevertheless, these areas can be utilized for limited homesites, wooded parks, picnic areas, and other recreational uses, as well as for timber production.

The Strip Mine-Frondorf associations make up about 9% of the County. This association contains moderately deep to deep soils that are well drained and moderately steep to steep and is characterized by knolls of spoil material from strip mine sprawling across the landscape intermingled with narrow wooded bands. These soils are formed by weathering acid sandstone and shale material. This association is mainly used for coal mining with a few farms that are mostly used as part-time general farms. The majority of this association is wooded or spoil slopes that support timber production and woodland wildlife habitat.

The Zanesville-Sadler association contains deep, medium textured soils. These soils are gently sloping to moderately steep and are moderately well drained to well drained. This association covers approximately 8% of Hopkins County and is located in gently rolling areas such as broad ridgetops, short sideslopes, and nearly level valleys. A major use for this association is farming with corn, soybeans, tobacco, hay, and pasture being the main crops. Limitations in this association include the hazard of erosion and wetness. Artificial drainage may be utilized to curtail these limiting effects. Many of these areas are adequate for homesites; however, much of this association is utilized for strip mining and deep mining.

The Zanesville-Frondorf-Belknap association covers about 26% of the County and is composed of moderately deep to deep soils of medium texture. These soils are located on long narrow ridges, on moderately steep to steep wooded hills, and in narrow valleys. This association is mostly wooded, but some ridges and valleys have been cleared for cultivation of crops such as corn, soybeans, hay, and pasture. A large portion of the association is owned by coal companies, and coal is mined here. The sloping to gently sloping soils are suitable for homesites and industry. The area also has potential for timber production, wildlife habitat, and recreational purposes-the western Kentucky 4-H Camp is located at Dawson Springs.

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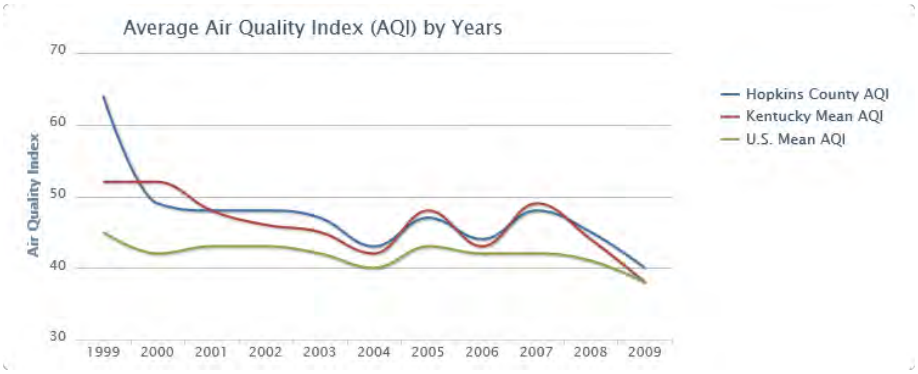
PRIME FARMLAND

Approximately 25% to 49% of Hopkins County is classified as prime farmland, making it one of thirty-six counties in this classification. Prime farmland is becoming increasingly rare in Kentucky. In an effort to protect prime and other farmland in Kentucky the state has passed the Agricultural District Act in 1982.

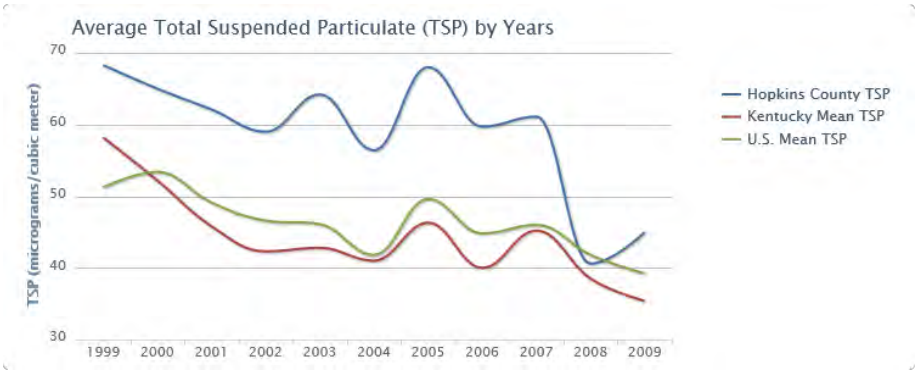
According to the Department of Agriculture, prime farmland has “the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods, including water management. These lands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content, and few to no rocks. They are permeable to water and air, are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.”

AIR QUALITY

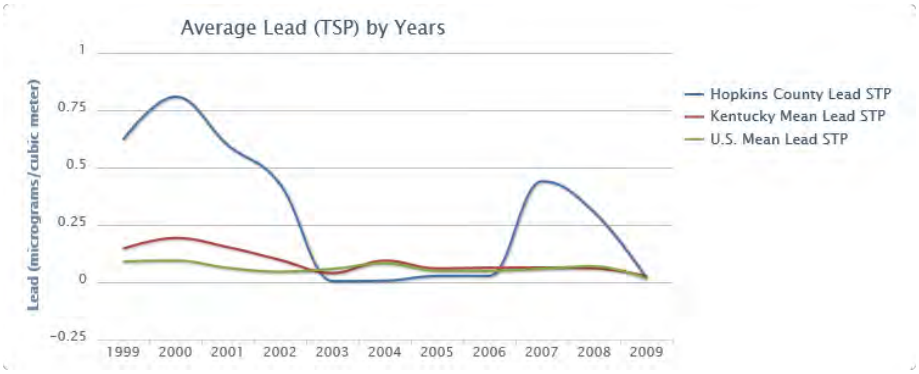
Air quality indices (AQI) are numbers used by government agencies to characterize the quality of the air at a given location. As the AQI increases, an increasingly large percentage of the population is likely to experience increasingly severe adverse health effects. Air quality index values are divided into ranges, and each range is assigned a descriptor and a color code. Standardized public health advisories are associated with each AQI range.



Another measure of air quality is based on tiny airborne particles or aerosols that are less than 100 micrometers are collectively referred to as total suspended particulate matter (TSP). Data sets and graphs are from www.usa.com.



Lead or Pb (TSP) is a measurement of the amount of elemental lead in total suspended particulate (TSP).



EARTHQUAKE POTENTIAL

The following is a reprint of the Environmental Element Chapter from the "2023 Comprehensive Plan: Bridging Hopkins County." This chapter was prepared by the Hopkins County Joint Planning Commission.

The earthquake history of the Central United States is dominated by a series of earthquakes that ruptured the New Madrid fault in the winter of 1811-1812. On December 16, 1811, there were three very large earthquakes on the southern branch of the fault in eastern Arkansas, extending from a point 25 miles northeast of Memphis to Reelfoot Lake in northwest Tennessee. Together these three earthquakes ruptured the entire southern segment of the fault, a length of about 90 miles. The largest of the earthquakes, with an estimated magnitude of about 8.8 Richter (some scientists claim a Richter of 8.3) occurred on February 7, 1812 near the town of New Madrid, Missouri. Over 189 earthquakes above 5.0 on the Richter Scale occurred in the New Madrid fault zone during 1811 and 1812. (Crawford 1989). There is a thirty percent probability of a 7.6 Richter earthquake at the New Madrid site sometime within the next fifty years.

Seismologists express magnitudes of earthquakes using the Richter Scale. Each step on the scale represents an increase in amplitude by a factor of ten. The vibrations of an earthquake with a magnitude of two are ten times greater than those put out by a quake of one, and a quake with the magnitude of eight are one million times greater in amplitude than those of an earthquake with a magnitude of two (Hamblin 1982). With a 7.6 event at the New Madrid Fault site, Hopkins County falls within the VIII destructive zone of the Modified Mercalli Intensity Scale (MMS) which measures damage intensity to man-made structures. The damage intensity of the earthquake zone within which Hopkins County falls from the Modified Mercalli Intensity Scale (1931) is VIII. This is described as, "General fright, alarm approaches panic: strong shaking of trees; temporary to permanent changes in flow and temperature of springs; dry wells renewed; considerable damage to structures not built to withstand earthquake; falling of walls; twisting, falling of chimneys, columns, monuments, smoke stacks, towers, etc."

LAND COVER

Hopkins County's land cover can be characterized as transitional. This is in response in part to the economic challenges of the past decade. As Hopkins County better defines is position in the marketplace these transitions will level out and become more stable. The following sections describe current conditions and species found across the county.

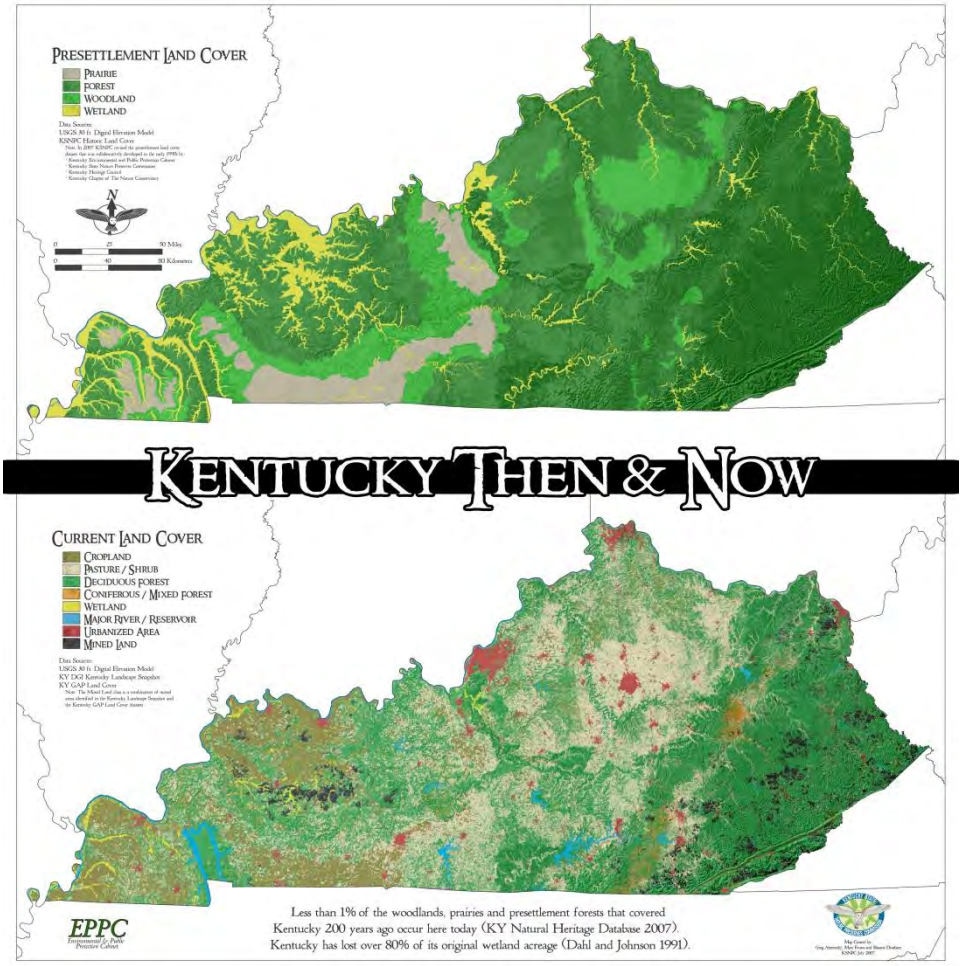


Figure: Land Cover of Kentucky
Source: Environmental & Public Protection Cabinet (EPPC) & Kentucky State Nature Preserves Commission (KSNPC) 2007

VEGETATION

The following is a reprint of the Environmental Element Chapter from the "2023 Comprehensive Plan: Bridging Hopkins County." This chapter was prepared by the Hopkins County Joint Planning Commission.

The USDA NRCS has divided the vegetation of Hopkins County into six major groups: grains and seed crops, domestic grasses and legumes, wild herbaceous plants, hardwoods, coniferous plants, and wetland plants. The major crops of the grain and seed category include corn, sorghum, wheat, popcorn, and soybeans.

Domestic grasses and legumes present in the County consist of perennial grasses and herbaceous legumes which are established by planting and which provide food and shelter to wildlife. Some examples are fescue, timothy, orchard grass, clover, and lespedeza.

Wild herbaceous plants are native or introduced perennial grasses and weeds. Indiangrass, little bluestem, big bluestem, quackgrass, goldenrod, wild carrot, nightshade, and dandelion are the major types of wild herbaceous plants found in Hopkins County.

Hardwood trees are nonconiferous trees, shrubs, and wood vines which bear fruit, nuts, buds, catkins, twigs, or foliage that is edible by wildlife and are

usually naturally established. Hardwoods present in Hopkins County are oak, cherry, maple, poplar, apple, dogwood, hawthorn, sweetgum, hickory, sassafras, persimmon, black walnut, and sumac.

Coniferous plants are cone-bearing evergreens, including both trees and shrubs, which provide cover and some nourishment for wildlife. Among the species in this category are Norway spruce, Virginia pine, loblolly pine, shortleaf pine, white pine, Scotch pine, and red cedar.

The wetland plants category consists of wild, herbaceous, annual, and perennial plants which grow in moist areas but are not submerged or aquatic. Among the wetland plants in Hopkins County are smartweed, wild millet, pondweed, duckweed, duckmillet, sedges, barnyard grass, bulrush, arrow-arum, pickerelweed, phragmites or common reed, water willow wetland grasses, wildrice, cattails, water lilies, and sweet flags.

WILDLIFE

The USDA NRCS classifies three types of wildlife in Hopkins County: openland wildlife, woodland wildlife, and wetland wildlife. Openland wildlife in Hopkins County includes the following: quail, meadowlark, field sparrow, dove, cottontail rabbit, red fox, and woodchuck. Croplands, pastures, meadows, lawns, and areas overgrown with shrubs and grasses are the preferred homes of these birds and mammals.

Woodland wildlife includes birds and mammals such as thrush, woodcock, scarlet tanager, vireo, gray squirrel, red squirrel, white-tailed deer, gray fox, raccoon, and wild turkey. The woodlands provide these creatures with food and shelter.

Wetlands such as ponds, marshes, and swamps provide a habitat for several types of wildlife as well. Birds, amphibians, vertebrates, and mammals that usually make their home in the wetlands of Hopkins County include ducks, geese, rails, and herons, as well as shore birds and muskrat.

HYDROLOGY

Hydrology has always had an impact on those calling Hopkins County home. This region was originally mostly a wetland when the first settlers arrived, but long since drained for farming and logging. Today, hydrology still plays a major role in shaping the landscape and the economy of Hopkins County.

WATER FEATURES (RIVERS, STREAMS, WATERSHEDS)

The following is a reprint of the Environmental Element Chapter from the "2023 Comprehensive Plan: Bridging Hopkins County." This chapter was prepared by the Hopkins County Joint Planning Commission.

The eastern part of the County is drained by Pond River and its tributaries-East Fork Deer Creek, Otter Creek, Narge Creek, Elk Creek, Earle Creek, Flat Creek, and Drakes Creek. The western portion of the county is drained by the Tradewater River and its tributaries-Caney Creek, Lick Creek, and Clear Creek. The water from Pond River flows into the Green River, and the water from Tradewater River flows into the Ohio River. Major lakes within the County are Loch Mary, Grapevine Lake and Lake Pewee.

REGULATED DAMS

Below is a list of the regulated dams within Hopkins County:

DAM ID	HAZARD CLASS	NAME
0141	B	Slaughters Lake Dam
0142	C	Madisonville Reservoir Dam No. 1 (North)
0143	B	Madisonville Reservoir Dam No. 2
0144	A	Madisonville Reservoir Dam No. 3 (South)
0145	C	Lake Pewee Dam
0146	A	Spring Lake Dam
0148	C	Loch Mary Reservoir Dam
0149	B	Browns Lake Dam
0156	B	Mortons Gap Reservoir Dam
0157	C	Nortonville Lake Dam
0170	A	Peabody Coal
0185	A	University of Kentucky Youth Camp Dam
0187	C	Homestead Lake Dam
0190	A	Coiltown Station Lake Dam
0191	B	Lambs Creek Impoundment Dam
0453	C	Kington Lake
0858	A	Otter Lake Dam
0883	B	Swan Lake Dam
0907	A	Price Martin Lake Dam
0981	A	Ronnie Abbott Lake Dam
0998	A	Otter Lake Dam No. 2
1041	C	Stewart Creek FRS No. 1
1047	C	Stewart Creek FRS No. 2

TOTAL MAXIMUM DAILY LIMITS

There are five streams that have Total Maximum Daily Limits (TMDL) placed on them from the Kentucky Division of Water for having too low of pH. These conditions are related to acid mine drainage from surface and strip mining activities.

- Cane Run of Caney Creek, 2004
- Craborchard Creek of Drakes Creek, 2004
- Drakes Creek of Pond River, 2006
- Pleasant Run of Drakes Creek, 2004 & 2011
- Sugar Creek Watershed of Clear Creek, 2004

WETLANDS

The following is a reprint of the Environmental Element Chapter from the "2023 Comprehensive Plan: Bridging Hopkins County." This chapter was prepared by the Hopkins County Joint Planning Commission.

Wetlands are areas which contain a predominance of hydric soils and are inundated or saturated for a sufficient time to allow the development of a predominantly hydrophytic community. These wetlands are seasonally flooded or ponded and frequently provide water to the Green River and Tradewater River stream flows. Wetlands play a critical role in flood control by slowly releasing water to the rivers after a rain event. During droughts, wetlands help maintain flow levels for fisheries and drinking water supplies, as well as providing critical habitat for wildlife, filtering out pollutants and helping to sustain watershed health.

All applicants for federal permits for an activity which may result in the discharge of a pollutant into any regulated state wetland must obtain a Section 401 water quality certification from the Division of Water and 404 permit from the U.S. Army Corps of Engineers. The state must certify that the materials to be discharged comply with all effluent limitations, water quality standards, and other applicable laws and regulations. Types of discharges included under this requirement are dredged spoil, solid waste, garbage rock, and soil but is not limited to those listed. General 404 permits can be issued to allow nationwide, state, or regional blanket authorization in instances where the adverse impacts would be minimal. Under a general permit, individual permits are not required unless the project exceeds the conditions set by the general permit, except in Kentucky where a Section 401 water quality permit is required if the activity involves discharging into an acre or more of wetland.

FLOODPLAIN

The following is a reprint of the Environmental Element Chapter from the "2023 Comprehensive Plan: Bridging Hopkins County." This chapter was prepared by the Hopkins County Joint Planning Commission.

Hopkins County contains several low-lying areas subject to flooding. The eastern portion of the County contains a significant number of floodplains along Pond River and its tributaries, including Elk Creek and Otter Creek. In the western half of the County the floodplains are located along Clear Creek and its major tributaries. In the southwestern portion of the County the floodplains are located along Tradewater River's tributaries, mainly along Caney Creek up to the eastern and western city limits of Dawson Springs. Surface drainage is a significant problem in Hopkins County which contributes to the problem of flooding during and after storm events.

The map below shows wetland and floodplains in Hopkins County.

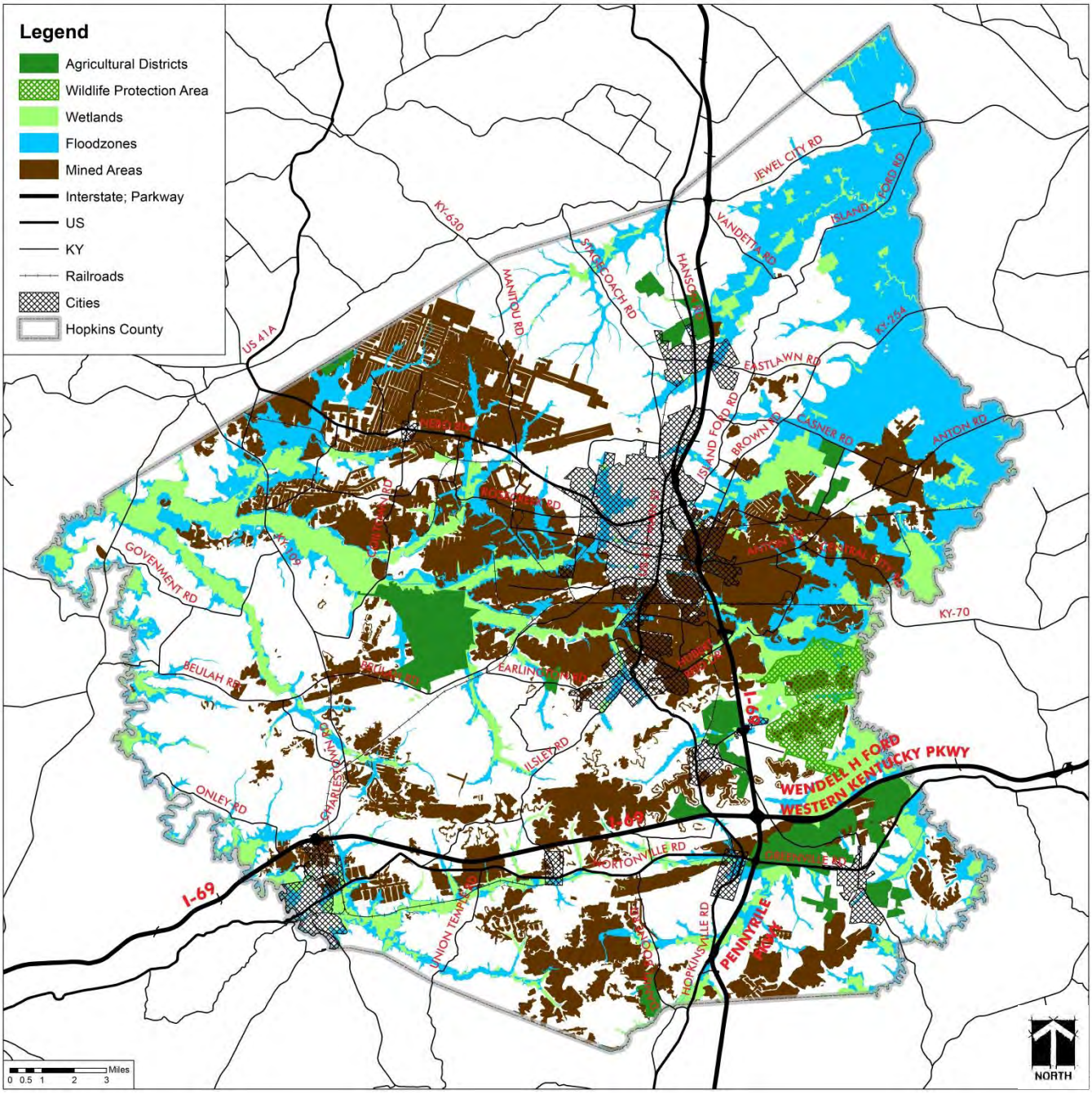


Figure: Wetlands & floodplains within Hopkins County

ABANDONED & ACTIVE MINES

The county has large areas through the middle and southern portions that have been mined in the past and now are abandoned. The mining activities in these regions consist of both surface mining and underground mining. Active mine permits still cover large areas along the western edge of the county and just east of Madisonville.

The Kentucky Geographic Alliance prepared the graphic and summary about the relationship of coal and Kentucky. Hopkins County is still a major producer of coal with a 1.8% increase between 2011 and 2012.[1] Kentucky experienced a decline of 16.7% in coal production from 2011 to 2012.

> "Coal is a major resource in Kentucky and has been used for over 250 years. Coal mining production (see map below) has decreased in parts of both the eastern and western coal fields of Kentucky over the past year. This geographic issue highlights economic, historic, political, environmental, and cultural variability over space and time.
>
> Kentucky is in a state of transition with regards to energy. Coal is still an important resource for Kentucky and will be for years to come, but other energy sources are becoming more viable. Natural gas as an energy source is currently booming in Eastern Kentucky."

On the following page is a map of mining activities in Hopkins County.

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1 Kentucky Coal Facts, 13th Edition, 2013, page 6.

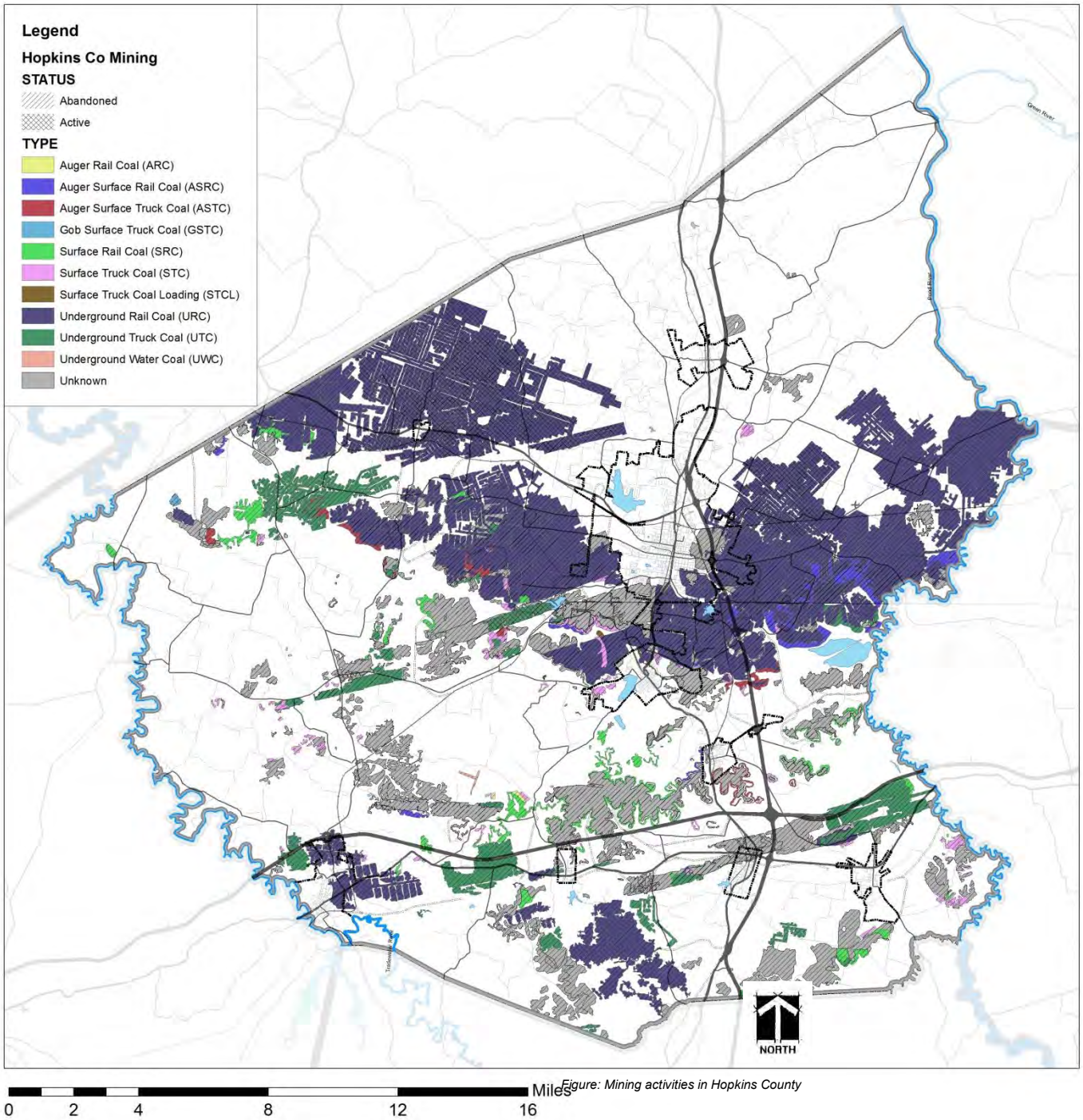

Figure: Mining activities in Hopkins County

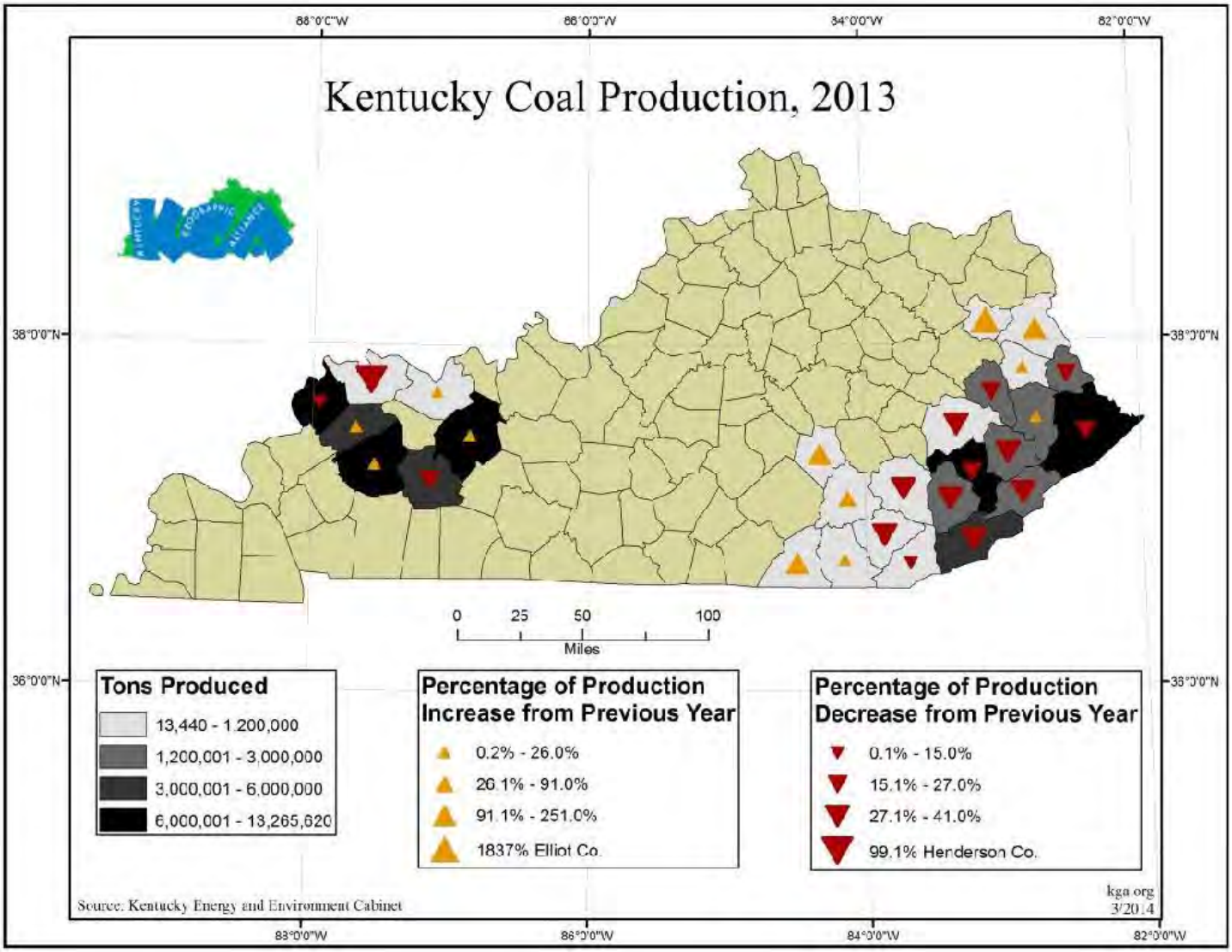

Figure: Kentucky coal production, 2013
Source: Kentucky Geographic Alliance & Kentucky Energy and Environment Cabinet

ENVIRONMENTAL STRATEGIES

ABANDONED MINING LANDS

Hopkins County has vast acres of abandoned mines and some have started to be restored such as the Hopkins County Coal, LLC property just south of Madisonville which won the 2012 Excellence in Reclamation Award from the Kentucky Division of Mine Reclamation and Enforcement. The site was nominated by Division of Mine Reclamation and Enforcement (DMRE) Madisonville Regional Office inspection personnel and selected because of the company's outstanding reclamation work and its continued commitment to environmental stewardship. "As a result of your dedicated efforts, this site is an outstanding example of the exceptional reclamation that can be achieved by today's mining industry," said Commissioner Hohmann. This is an excellent example of how future reclamation projects should occur in Hopkins County.

Photo: Mining reclamation
Source: Hopkins County Coal - 2012 Excellence in Reclamation Award; KY Division of Mine Reclamation and Enforcement; 2012

FLOODPLAINS & WETLANDS

Due to the large amount of floodplains throughout the county (95,360 acres or nearly 27.0% of total acreage), provisions should be made to limit or prohibit certain types of development from occurring in these zones if needed precautions and development standards are not implemented. This will limit the potential loss or damage of property during flood events. The process for obtaining a permit begins with the submittal of a completed application with a location map, plans of the proposed construction, and the addressing of public notice. If there is existing flood data on the proposed site (i.e., National Flood Insurance Program flood maps, Corps of Engineers flood studies, or previous permit data), then a permit review may begin. If there is no existing data, the submittal of survey information is required in order to perform an in-house flood study of the area. As more and more development occurs, land becomes a premium. Unfortunately, land for farming and development is often located in the floodplain. If development occurs in wetlands, reclamation should be considered.

LAND COVER

The goal to protect and preserve natural features, scenic areas, woodland habitat, wetlands and wildlife can serve several benefits including economic development through tourism as well as providing environmental enhancements.

Many of the floodplains overlap with wetland areas in Hopkins County, furthering the precautionary measures that should be taken to ensure safety

of and also consider the environmental impact of development. Leaving wetland areas intact would allow the areas to absorb floodwaters efficiently and limit potential property losses and damage. There are 33,533 acres of wetland in Hopkins County, accounting for approximately 9.5% of total acreage.

In addition, efforts should be made to preserve prime agricultural lands for this and future generations when possible. There are 18 Agricultural Districts totaling 12,606 acres or roughly 3.6% of total acreage in Hopkins County. These lands can be considered prime farmland with a high level of food and fiber output. Land enrolled in Kentucky's Agricultural District Program cannot be annexed, cannot be condemned without mitigation, and is taxed at the agricultural rate. However, participation is voluntary, and a landowner may withdraw land at any time without penalty or without jeopardizing the status of the existing agricultural district.