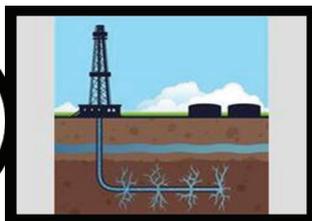


Time Capsule Created by The Kentucky Environmental Quality Commission



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September 24, 2015

Greetings,

The Kentucky Environmental Quality Commission under Kentucky Statute is a seven-member citizen advisory board that works diligently to strengthen the public's role in solving environmental problems. The Commission's mission is to facilitate public discussion and resolution of environmental issues, promote partnerships to protect the environment for future generations, and serve as an advisory board to the Governor and other state officials on environmental matters.

For many years the Commission has developed and supported environmental outreach, research and trends, resolutions and recommendations. With this the Commission is providing the start of an ever moving time capsule that captures highlights of history giving opportunity to inform students, public and educators. We hope a timeline as such will spark interest that catapults personal initiative and awareness of the importance of improving and embracing oversight of our environment for the betterment of generations to come.

It is with these thoughts that we have developed an evergreen document. This is the first for the Commission with updates to follow. We hope this document is informing, enlightening, intriguing and interesting. The Commission has addressed many issues from mountain top removal, flooding, nuclear disposal sites, timber theft, nutrient "rich" water issue and pipeline dispersion, just to name a few. The Commission has had forums with the public, cabinet departments, industry, environmental groups, individuals, etc. discussing matters of concern.

With this document, we present an opportunity for students and others to learn about the environment. For the Commission this is our way of preparing the next generation, a very small step, by planting the seeds for learning, seeds to improve our air, water and soil. For all of us to survive, the environment is our commonality, let us embrace it.

We are excited and proud to present this publication to the public, a creation of the EQC staff: Sujatha Santhanam, Executive Assistant with oversight from the Executive Director, Arnita Gadson.

Sincerely,

Handwritten signature of Stephen A. Coleman in cursive.

Stephen A. Coleman
Chairman



Celebrating 43 Years of Protecting the Environment a Timeline by Year

Prepared by the Kentucky Environmental Quality Commission in celebration of the EQC – 43rd Anniversary 1972 -2015. Do you have an event to add to our timeline? If so please contact us with any additions, corrections, or comments.

Pre 1700

- For thousands of years Native Americans lived and hunted within the present boundaries.

1748

- First recorded United States coal production occurred near Richmond, Virginia.

1750

- Thomas Walker explored Kentucky through Cumberland Gap.
- Coal discovered.



Dr. Thomas Walker on his exploration trip to Kentucky in 1750 where he travelled the Warrior's Path through what would become Clay County.

1774

- First permanent settlement at Fort Harrod.

1775

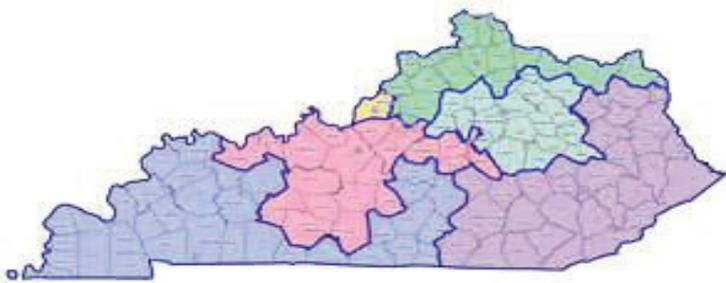
- Daniel Boone blazes the Wilderness Trail.

1790

- First recorded commercial coal production began, with an annual production of 20 tons.

1792

- Kentucky becomes the 15th state.
- State population - 73,677.
- Most of the land in central Kentucky converted to agriculture.



1793

- First paper mill in Georgetown operated by Craig-Parker Company.

1800

- Produced over 100 tons of coal for the first time.

1810

- Lumber production began.
- Reel foot Lake created by the 1811-1812 New Madrid earthquakes.

1813

- Produced over 1,000 tons of coal for the first time.

1816

- Mammoth Cave first promoted, making it the second oldest tourist attraction in the U.S.

1818

- First oil well.
- First major waterway alterations made to navigable rivers.

1819

- First commercial coal mine known as the “McLean drift bank” opened in Muhlenberg County.

1828

- Produced over 10,000 tons of coal for the first time.



Coal miners in Kentucky

1830

- Peak iron ore production from 1830- 1860.
- Two thousand tons of coal mined.

1833

- Cholera outbreak in Lexington - kills 1,500 in less than 10 days.

1834

- First railroad completed - Lexington to Frankfort.

1836

- River Lock and Dam construction begins.
- 150,000 tons of coal mined.
- Kentucky Geological Survey formed.

1852

- Lexington to Louisville railroad completed.

1860

- Bear Creek Oil field in Cumberland County discovered.

1870

- First strip mine.

1873

- Cholera epidemic - thousands of people believed dead from the epidemic.

1876

- Kentucky Commission on Fish and Fisheries established.

1879

- Produced over 1 million tons of coal for the first time.

1880

- First coke ovens used in Western Kentucky.

1882

- Link between cholera and contaminated water discovered.

1884

- Kentucky Department of Mines and Minerals established to ensure proper ventilation and safety conditions of mines.

1890

- United Mine Workers of America formed.
- Miners Pay Law enacted.
- Hopkins County, leading coal producer in state.

1892

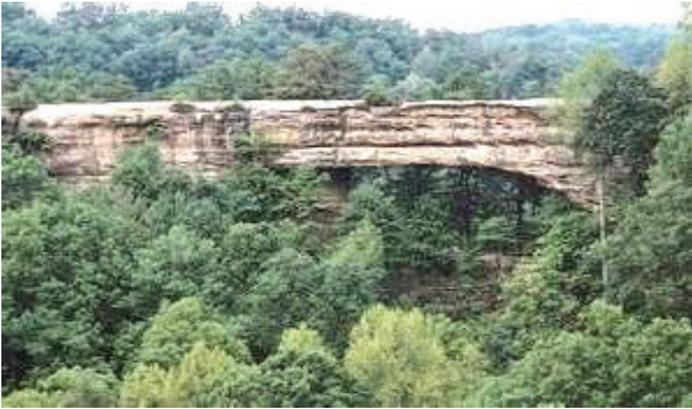
- Shale gas production began with drilling of wells along the Beaver Creek in Floyd County.

1895

- Kentucky population reached 2 million.

1897

- National Forest Management Act passed authorizing commercial use of public forests.



Natural Bridge State Park

1900

- National Geological Survey established.
- Edgewater Coal Company's first production in Pike County.

1904

- Child lead poisoning linked to lead-based paints.

1906

- Kentucky Board of Agriculture, Forestry, and Immigration created.

1907

- Lumber production peaks at 917 million board feet.
- Over 10 million tons of coal produced for the first time.



Timber production in Kentucky in 1900's

1909

- U.S. Bureau of Mines was founded to promote safety and welfare of miners.

1910

- First forest survey completed. Predicted the supply would be exhausted at current culling rates.

1911

- First municipal wastewater treatment plant in Winchester.

1912

- First hunting and fishing license issued.
- Kentucky Board of Forestry created.

1913

- New mining law replaces original mine law of 1884.
- Weeks-McLean Act gives Secretary of Agriculture Power to regulate waterfowl seasons.

1914

- World War I increased demand for Kentucky coal to 20.3 million tons.
- Federal regulation of drinking water began.



Kentucky River

1915

- National Park Service created.

1916

- Child Labor Act passed, prohibiting interstate sales of goods produced by miners under the age of 16.

1917

- Largest mine explosion in history killing 62 miners in Clay, Kentucky, No. 7 mine, Webster County.

1918

- First industrial facility located in what became known as Rubber town in West Jefferson County.

1919

- First state forest created (Kentonia).

1920

- Eastern Kentucky experienced an oil and gas boom.
- 42.1 million tons of coal produced.
- Federal Mineral Leasing Act became a law.



Pine Mountain State Park

1923

- First dragline (large area surface mine machines) was built.

1924

- Kentucky State Park System established.
- Pine Mountain State Park — first state park created.

1926

- Mammoth Cave National Park authorized —was fully established in 1941.



Mammoth Cave National Park

1927

- Coal production reached 69.9 million tons.

1929

- Bernheim Forest was established in Clermont, Kentucky.

1930

- 300 coal company-owned towns in Kentucky — by the 1950s coal mines diminished and the coal camps were abandoned.
- Harlan County Mine Wars begins.
- Worst drought in Kentucky history.

1931

- First state wildlife management area purchased in Caldwell County, later became the 1,604 acre Jones-Keeney Wildlife Management Area.
- Kentucky Oil and Gas Association (KOGA) formed.
- Great Depression reduced the demand for coal. Kentucky produced 40.4 million tons.

1933

- National Soil Erosion Service formed.
- Tennessee Valley Authority (TVA) created.

1934

- Record numbers of farms recorded in Kentucky - 278,298.
- The Kentucky Public Service Commission (PSC) created.

1936

- Federal Flood Control Act ultimately resulted in dams along major rivers.
- Kentucky Division of Forestry recognized through the Reorganization Act of 1936.

1937

- Massive flooding in the Ohio River Valley causes \$250 million in damage. Kills 200 people in Louisville.
- Daniel Boone National Forest created (originally the Cumberland National Forest).



Daniel Boone National Forest

1938

- Kentucky River dam construction began - completed in 1944.

1940

- Deer population reduced to 2,000.
- Blight kills American chestnut.
- Chlorination of public water supplies began.
- Kentucky Soil and Water Conservation law passed.
- Auger surface mining introduced.



Surface Mining in Kentucky

1942

- Kentucky Water Contamination Legislation enacted.

1944

- World War II increased demand for coal. Kentucky produced 72.4 million tons.

1945

- Louisville board of Alderman established the Louisville Smoke Commission which was a precursor to APCD (Air Pollution Control District).

1947

- Kentucky Coal Association formed.
- First federal regulation for mine safety enacted.

1948

- ORSANCO (Ohio River Valley Water Sanitation Commission) created to protect water quality in the Ohio River.
- Water Pollution Control Act passed by the Congress.
- 70 wastewater treatment plants in operation.
- Kentucky Agriculture Equipment Revolving Loan Program established to finance equipment for conservation districts for beneficial conservation projects.

1949

- Coal mines employ 75,707 miners – the highest number ever recorded.

1950

- Deer restocking program initiated by the Kentucky Wildlife Agency.
- Kentucky Water Pollution Control Commission created.

1951

- Lake Cumberland created with the completion of Wolf Creek Dam.



Lake Cumberland

1952

- Paducah Gaseous Diffusion Plant began operations. The most costly contaminated waste site cleanup in the state.
- Jefferson County Air Pollution Control District established.
- Federal Coal Mine Safety Act passed.

1953

- Kentucky Strip Mining and Reclamation Commission formed.

1956

- Federal Water Pollution Control Act Amendments on wastewater treatment loans and grants. Kentucky received \$84.32 million and built 254 projects.
- Fish and Wildlife Coordination Act became law.

1958

- Morris Forman Waste Water Treatment Plant built—largest in the state.
- Green River severely polluted by brines produced during oil production.

1959

- 800 wild turkeys left in Kentucky.
- Petroleum production peaked at 27 million barrels.
- Construction of Barkley Dam began.



Barkley Dam

1960

- Population reached 3 million.
- Fracking first used in Eastern Kentucky.
- Kentucky Surface Mining Legislation enacted.

1961

- Murphy's Pond was purchased by the Nature Conservancy.
- Muhlenberg County replaced Hopkins County as the leading coal – producing county.

1962

- Harry Caudill published **Night Comes to the Cumberland's** raising awareness of the environmental and social conditions in Appalachia.
- Rachel Carson published **Silent Spring** alerting the public to the dangers of pesticides.

1963

- State permits Maxey Flats commercial low-level radioactive waste site in Fleming County. Later became a federal superfund site.
- Land between the Lakes National Recreation Area created.

1964

- The Kentucky Forest Survey of 1964 first intensified inventory of forest resources. Kentucky ranked eighth in hardwood timber volume and fourth in the production of hardwood logs.

1965

- Ollie Combs lies down in front of a bulldozer to prevent strip mining near her home. Her arrest caused statewide and national attention to coal mining in Kentucky.
- Federal Water Pollution Control Administration created — precursor to the U.S. Environmental Protection Agency.
- Three Divisions of Forestry firefighters killed while fighting wildfires in Harlan County.

1966

- Passed revised strip-mining bill with enforcement and reclamation practices.
- Federal Freedom of Information Act passed.
- Kentucky Civil Rights Act passed.
- First Air Pollution Control law created - the Air Pollution Control Commission in the Department of Health.
- National Historic Preservation Act became law.

1967

- State air quality monitoring network began.
- Discovery of Valley of the Drums containing some 17,000 leaking and rusting drums of waste near Brooks in Bullitt County. One of nation's worst waste sites.
- The Board of Waterworks and Waste systems operators created.
- Kentucky produced over 100 million tons of coal for the first time.



Coal fired Paradise Power Plant in Kentucky

1969

- TVA (Tennessee Valley Authority) Paradise coal-fired power plant goes online.
- National Environmental Policy Act passed by Congress.
- Kentucky begins regulating landfills.
- Lilly Cornett Wood's old-growth forest in Letcher County purchased by the state.
- Federal Coal Mine Health and Safety Act passed creating Black Lung Benefits.

1970

- First Earth Day.
- Clean Air Act passed by the Congress setting standards for conventional air pollutants.
- U.S. Environmental Protection Agency established.
- First Zoo opened in Louisville.
- Number of farms dropped to 127,000, average size increased to 128 acres.
- Hyden Mine disaster killed 39 miners in Leslie County.
- 72 percent of monitored waterways impaired by pollution.



Coal Mining in Southeastern Kentucky

1972

- A Water Pollution Control Act amendment passed by the Congress - established a goal of zero discharges by 1985 and fishable/swimmable waters by mid-1983.
- Pesticide DDT (dichlorodiphenyltrichloroethane) banned by U.S. EPA.
- **Kentucky Environmental Quality Commission established.**
- Kentucky becomes the leading coal producing state in the nation.
- Kentucky Wild Rivers Program created - nine rivers have since been designated as wild rivers.
- Coal severance tax established.
- Major coal synfuel development movement.

1973

- Federal Endangered Species Act passed.
- Bald eagle listed as federal endangered species.
- Kentucky Natural Resources and Environmental Protection Cabinet established.
- Phase-out of leaded gasoline.
- OPEC (Oil producing and Exporting Countries) oil embargo resulted in national energy crisis — lead to increase in Kentucky coal production and prices.



Kentucky Wildlife – Majestic Bald Eagle

1974

- Cave Run Lake became operational.
- Federal Safe Drinking Water Act passed.
- Series of tornadoes — worst storm disaster in state history killing 77 persons, injuring 1,377, caused damages estimated at \$110 million.
- Kentucky Water Quality ambient monitoring network established— composed of 30 Division of Water stations, 16 ORSANCO (Ohio River Valley Water Sanitation Commission) stations and 11 U.S. Geological Survey stations.

1975

- Kentucky Chapter of Nature Conservancy organized.
- Unleaded gasoline introduced.
- First Kentucky Report to Congress on Water Quality.

1976

- Resource Conservation and Recovery Act (RCRA) passed by the Congress.
- Kentucky Nature Preserves Commission established.
- National Forest Management Act passed by the Congress.
- Scotia Mine disaster killed 26 miners in Letcher County.

- Red River dam scrapped after environmental community protests and governor withdrew state support.
- Toxic Substances Control Act passed by Congress.
- Clean Air Act Amendments set standards for sulfur dioxide power plant emissions to control acid rain.
- Amendments to Clean Water Act focus on toxic pollutants funding wastewater treatment plants.
- Safe drinking water standards take effect.
- Surface Mining Control and Reclamation Act passed by Congress.
- Kentucky assumed drinking water primacy to implement Federal Drinking Water Act of 1974.
- Maxey Flats Low-Level Radioactive Waste Site closed after contamination detected in groundwater.
- LWD Inc. begins operation — Kentucky's only commercial hazardous waste incinerator.

1977

- Federal Surface Mining Control and Reclamation Act established (SMCRA).

1978

- U.S. EPA banned ozone-destroying fluorocarbon gases in most aerosol products.
- Love Canal toxic waste dumpsite in New York, leads to passage of the federal Superfund law.

1979

- Black acre in Jefferson County became Kentucky's first state nature preserve.
- Partial meltdown of 3-Mile Island nuclear reactor in Pennsylvania raised public concern regarding nuclear energy.
- Emergency state hazardous waste regulations adopted.
- U.S. EPA banned PCB ((Polychlorinated biphenyl) manufacture.



Blackacre in Jefferson County – Kentucky's first State Nature Preserve

1980

- Superfund legislation passed by Congress.
- Kentucky Superfund program established.
- Kentucky water quality standards approved under the Federal Water Pollution Control Act of 1972.
- Strongest earthquake occurred in Maysville, with a magnitude of 5.2, the strongest earthquake in Kentucky history.

1981

- Failure of surface mining impoundment along Agnes Creek in Harlan County killed one. Millions of dollars in cleanup cost and litigation.
- Valley of Drums listed as the first federal superfund site.
- Record year for forest fires in Kentucky - 367,000 acres of woodlands burn.
- Kentucky Hazardous Waste Management Fund created to clean up waste sites.
- Oil shale development state laws and regulations passed.
- Osprey released at Land between the Lakes and other Kentucky sites — later considered on the road to recovery with 20 active nests in 1996.

1982

- Bacterial outbreak of hepatitis-A killed one and sickens 100 in Buttermilk Springs in Meade County. Tests revealed bacterial contamination in water wells.

- Hazardous waste permitting program established.
- Assumed conditional primacy to carry out federal surface mine law.
- Received first federal funds from the Abandoned Mine Land program.
- Kentucky Health Department resumed on-site sewage permit program.
- 5 contaminated sites added to federal Superfund list.
- Kentucky Agricultural District Act passed to protect farmlands.
- Issued first mountaintop mining permit - 395 permits issued since.
- VET (Vehicle Emissions Testing) testing was initiated in Jefferson County to control tailpipe emissions.
- Toxic release at a Union Carbide plant in Bhopal, India killed 3,800 people - leads to National Community Right to Know Act.
- U.S. Army selected incineration as preferred alternative for the destruction of weapons stored at six sites in U.S. including Bluegrass Army Depot in Richmond.

1985

- First state fish consumption advisories issued for Town Branch/Mud River in Logan/Butler/Muhlenberg counties and West Fork Drakes Creek in Simpson/Warren counties after PCBs (Polychlorinated biphenyl) discovered in fish tissue.
- Lawsuit against asbestos manufacturers filed by the attorney general to recover costs associated with asbestos removal in state buildings.
- Permit program to control chloride water discharges from oil wells was established after brine pollution impairs water quality of several waterways.
- Discovery of ozone hole over Antarctica.
- Kentucky received primacy to carry out the federal hazardous waste program.



Maxey Flats Waste Site

1986

- Maxey Flats radioactive waste site was added to federal Superfund list - estimated cost to contain the site, \$33.5 million.
- Underground storage tank regulations took effect.
- Kentucky River Authority created to address the problem of aging locks, dams and water supply issues along the Kentucky River.
- *Superfund Amendments and Reauthorization Act passed which included Title III - Emergency Planning and Community Right to Know Act and the Toxic Release Inventory to track releases of some 650 toxic chemicals.
- **World's worst nuclear power accident occurred at Chernobyl in the former USSR (now Ukraine) killing 30 people immediately and causing 2,500 deaths.
- *Safe Drinking Water Acts Amendments passed by the Congress.
- Dioxin contamination at Times Beach, Missouri - the U.S. Environmental Protection Agency evacuated residents and bought the whole town.

1987

- 2-acre coal mine exemption repealed by the OSM (Office of Surface Mining) due to mining abuses. Approximately 700, 2-acre sites resulted in bond forfeitures.

- First Lands Unsuitable for Mining Petition approved, designating 2,900 acres in the Cannon Creek Reservoir in Bell County.
- Union Carbide Corporation pays \$470 million in claims arising from the Bhopal tragedy.
- Settlement of surface mining lawsuit filed by the National Wildlife Federation and the Kentucky Resources Council, resulted in \$13.5 million to fund enforcement activities in Kentucky.
- U.S. EPA radon gas random surveys in Kentucky revealed 17 percent of homes have unsafe levels.

1988

- Broad Form Deed outlawed giving corporate mineral rights precedence over individual owner's surface rights.
- Kentucky Wastewater Revolving Loan Fund created.
- Kentucky facilities report toxic releases - 139 million pounds reported released to the environment.
- Wyoming replaced Kentucky as the leading coal producing state.
- Governor created Commission on Family Farms to focus on rural economy.

1989

- Ohio River fish consumption advisory issued due to unsafe levels of PCB (Polychlorinated biphenyl and chlordane) found in fish tissue.
- 50 percent of monitored waterways impaired by pollution.
- 5,453 complaints received regarding proposal to build Russell County sewage treatment plant pipeline to Lake Cumberland.
- ******Exxon Valdez spill led to one billion dollars in civil damages and criminal restitution - the largest single amount ever paid as a result of environmental violations.
- Vinyl chloride in 13 wells in Dayhoit, Harlan County – site declared a federal superfund site.



Land between the Lakes

1990

- Kentucky Heritage Land Conservation Act passed.
- Fee on new tires imposed to help cleanup tire dumps and address the disposal of 6.5 million waste tires generated each year.
- 5 contaminated sites added to the federal superfund list.
- Tobacco number one cash crop.
- Duck populations dropped by 50 percent due to loss of wetlands.
- State coal production at 173 million tons.
- Citizens fight proposed incinerators in Lawrence and Simpson counties.
- Governor issued moratorium on solid and medical waste incinerators.
- Department of Defense ordered to destroy chemical weapon stockpile by 2007 - incineration chosen as preferred alternative for all storage sites including Bluegrass Army Depot in Richmond.
- *Forest Stewardship Act created by Congress as part of the 1990 Farm Bill to fund forest conservation practices.
- Kentucky Environmental Education Council created.

1991

- Exotic zebra mussels found in Kentucky.

- Land between the Lakes located in Kentucky and Tennessee between Lake Barkley and Kentucky Lake - designated as a United Nations Biosphere Reserve.
- Robinson Forest declared unsuitable for mining.
- Water well drillers certification program established.
- Closed substandard landfills setting more stringent requirements for solid waste landfills.
- Bald eagles made comeback.
- River oiler restoration program initiated.
- No “net loss” wetland nationwide policy adopted - an estimated 80 percent of wetlands drained or converted to other uses.



Paducah Gaseous Diffusion Plant

1992

- 45 of state’s 76 solid waste landfills were closed under new solid waste rules passed in 1991.
- Gained primacy to carry out federal solid waste permitting program.
- Paducah, Gaseous Diffusion Plant listed as a superfund site — the most costly cleanup of a Kentucky Site estimated at \$1 to \$4 billion.
- Blanton Forest old-growth forest discovered in Harlan County.
- **Environmental Quality Commission (EQC) published the first “State of Kentucky’s Environment” trends report.**
- ******United Nations held earth summit on sustainable development.
- 101 acres a day converted to urban areas and roads.

- *United States Energy Policy Act passed.

1993

- Violations of the drinking water rules found in 50 percent of 840 systems.
- Secondhand smoke designated as human carcinogen, state ranked highest in nation in percentage of adults that smoke.
- Waterborne disease outbreak in Milwaukee kills 100, hospitalizes 4,000 from Cryptosporidium parasite in public drinking water in eastern Kentucky.
- Radioactive contamination of Martha oil fields located in Lawrence and Johnson Counties received state attention.
- A 19-mile section of Red River declared a National Wild and Scenic River located in Daniel Boone National Forest.

1994

- Kentucky Agriculture Water Quality Act passed.
- Kentucky Rare Plant Recognition Act passed.
- Kentucky ranked 2nd in nation in release of ozone depleting chemicals.
- Governor created the Kentucky Biodiversity Task Force.
- *Natural Resources Conservation Service created by the Congress.
- Kentucky Heritage Land Conservation Fund established.
- Kentucky Soil and Water Quality Cost Share Fund established to fund farmland practices to conserve soil and protect water resources.
- PACE (Private Agricultural Conservation Easements) program created to protect Kentucky farmlands and purchase easements.
- Kentucky Pollution Prevention Center established (KPPC).
- **West Virginia replaces Kentucky as the second highest coal producer in the United States.**
- Workers Comp Reform Laws passed in Kentucky.

1995

- 18,408 domestic drinking water wells drilled in Kentucky during past decade.

- Bald eagles down-listed from federally endangered to threatened.
- Power plants reduced statewide SO₂, emissions by 41 percent.
- Kentucky Groundwater Ambient Monitoring Network established.
- The Kentucky Fish and Wildlife Foundation established.
- The Biodiversity Council created to promote efforts to conserve natural resources.

1996

- *Federal Safe Drinking Water Act Amendments passed.
- 42.6 million pounds of toxic chemicals reported released to Kentucky's environment.
- Kentucky hazardous waste program granted final federal authorization for waste cleanup program - implemented the corrective action (RCRA cleanup) program.
- Bald eagle nests produce 17 fledglings in Kentucky.
- Coal Production in Pike County was 36 million tons in a single year.



Elk in Kentucky

1997

- Elk was reintroduced to Kentucky at the Cyprus Amax Wildlife Management Area.
- State Concentrated Animal Feeding Operation(CAFO) regulations filed after 3 mega-hog operations was proposed —regulations expire in 2000 after they were vetoed by the Legislature.
- 33 percent of monitored waterways impaired by pollution.

- 7 percent of 730 drinking water systems had violations of Safe Drinking Water rules.
- PRIDE (Personal Responsibility In a Desirable Environment) initiative introduced to cleanup eastern Kentucky.
- Massive flooding in 101 Kentucky counties.
- Incineration of nerve gas weapons at Bluegrass Army Depot put on hold until disposal alternatives were fully explored.
- Kentucky Watershed Management Framework signed by 20 cooperating agencies.
- Kentucky Drinking Water Revolving Loan Fund established to finance projects with several grants.
- Coal companies file lawsuit to seek compensation regarding state permit denial to mine Lily Comet Woods -one of Kentucky's few remaining tracts of old growth forest.

1998

- Kentucky Forest Conservation Act passed requiring Best Management Plans to protect water quality.
- Onsite sewage law passed specifying approved onsite sewage plan prior to hookup.
- Mountaintop mining rules challenged.

1999

- 22,000 onsite sewage permits issued - double that of 5 years prior.
- 234 miles of waterways declared unsafe for swimming due to high bacteria levels—all urban waterways were declared unsafe.
- 55 percent of homes connected to public sewers.
- Broiler production increased from 22 million in 1992 to 188 million in 1999.
- Timber production reached record levels at 1.1 billion board feet.

2000

- Martin County Coal slurry spill resulted in the largest coal slurry impoundment failure in southeastern U.S. history.

- Kentucky population reached 4 million.
- Black Mountain lands unsuitable for mining. Petition dismissed after state agreed to purchase timber and mineral rights.
- \$2.8 billion to upgrade drinking water infrastructure over the next 20 years.
- Number of farms dropped to 91,000 - average size 151 acres.
- Wild Turkey fire and bourbon spill into Kentucky River set record fish kill in the state.
- Fish consumption advisory issued for all Kentucky waterways after mercury discovered in fish tissue.
- Energy crisis hits Kentucky - natural gas prices spiked over 40 percent.
- Emergency state CAFO (Concentrated Animal Feeding Operations) regulations re-issued - challenged by Kentucky Farm Bureau -expired in 2001.
- Kentucky Forest Conservation Act - regulated practices for water pollution control and logger training.



Martin County Coal Slurry Spill

2001

- Outbreak of southern pine beetle destroyed thousands of acres of pine trees in Kentucky and led the U.S. Forest Service to relocate last known endangered red cockaded woodpeckers out of state.
- Government issued power plant moratorium.
- Mandatory garbage collection and bottle bill failed in the 2001 legislative session.
- Blanton Forest -opened to the public.

- Bio-terrorism threatened the nation and Kentucky after Sept. 11 terrorist attack. Numerous anthrax emergency calls made, but biological agent not found in Kentucky.
- Area surrounding Pine Mountain Settlement School declared unsuitable for mining.
- Sandy River named as one of the nations most endangered rivers by American Rivers.
- Kentucky Voluntary Environmental Remediation Act passed to encourage cleanup and redevelopment of brownfields.
- The Mine Safety Review Commission created.

2002

- Franklin County Circuit court upholds Concentrated Animal Feeding Operation (CAFO) regulations.
- Solid Waste advanced disposal fee and tipping fee to raise \$30 million to clean up old landfills. Landfill tipping fees increased to clean for landfills.
- Widespread hail resulted \$40 million in property damages and \$4 million of crop damages.



Bluegrass Ice Storm – 2003

2003

- Kentucky emitted 143 million metric tons of carbon dioxide emissions, ranking 13th in the nation.

- Bluegrass Ice Storm – Frankfort & Lexington hardest hit cities - 80,000 people lost power, 3,000 power poles were destroyed, 800 transformers replaced. The total cost \$47 million.

2004

- Kentucky produced over 114 million short tons of coal worth approximately \$3.74 billion dollars, which ranked it 3rd in the nation in coal production.
- The state consumed over 39 million short tons of coal for electrical power in 2004, producing approximately 92 percent of the electricity generated in Kentucky.
- The state's average retail price of electricity was 5.43 cents per kilowatt hour, the 3rd lowest rate in the nation.
- **The Environmental Quality Commission made five recommendations to the Governor regarding mercury exposure in Kentucky.**
- Derecho – widespread wind damage in central Kentucky caused power loss to more than 100,000 homes.
- Earthquake with a magnitude of 3.7 was felt in eastern Kentucky.
- State government reorganization created the Kentucky Cabinet for Environmental and Public Protection, Department for Natural Resources and Division of Oil and Gas.

2005

- Major flash flooding in Henderson County, estimated damage \$17.4 million dollars.
- Energy Policy Act passed.
- The STAR (Strategic Toxic Air Regulation) project enacted by the Air Pollution Control District in Jefferson County. A framework for toxic air emissions assessments for stationary industrial sources. Monitoring spearheaded by the West Jefferson County Community Task Force, funded by the Kentucky Division of Air Quality.

2006

- Explosion in the Darby mine, Harlan County in eastern Kentucky killed 5 miners.
- Executive order signed by Governor Ernie Fletcher prohibited smoking in state government offices and common areas occupied by the Executive branch.
- Kentucky ranked 3rd in the nation for coal production of over 125.96 million tons of coal.
- Worst flooding in the state since the flood of March 1997, killing several people in Louisville.
- The Kentucky Green and Healthy Schools Pilot Program launched.
- Kentucky Energy Security National Leadership Act passed - strategy for producing fuels from coal.
- Kentucky Coal Academy founded to train new coal miners.
- Kentucky became the first state to adopt a drug-testing program for certification of coal miners.
- *Congress passed the Mine Improvements & New Emergency Response Act.



Darby Coal Mine

2007

- A major disaster declared by President George W. Bush in eastern Kentucky, estimated \$5 million in damage.
- Hail, tornadoes and Easter freeze caused damages of over \$ 130,000,000 to crops.
- The freeze in spring and the drought in summer and fall, made 2007 the most devastating years in Kentucky agriculture history.

- “Incentives for Energy Independence Act” established for renewal energy development.
- Steve Beshear was elected as the Governor of Kentucky and the **Energy and Environment Cabinet created.**
- The Kentucky Green and Healthy School Program established.

2008

- Governor Steve Beshear declared a state of emergency for price gouging on gasoline.
- Super Tuesday, the second largest outbreak in the number of tornadoes recorded with 18 twisters. President Barack Obama declared disaster for 9 counties.
- Remnants of hurricane Ike caused power outages for 301,000 people in the Louisville area.
- Governor Steve Beshear released “Intelligent Energy choices for Kentucky’s future” a comprehensive energy plan for the state.

2009

- Record rainfall in Jefferson County, Kentucky caused major flooding closing down interstate 65 and 264. It costs millions in damage.
- 18,850 Kentuckians directly employed in the coal industry, less than one percent of the total workforce.
- Historic Ice Storm in Kentucky – 700,000 homes and businesses without power, 55 people reported dead.
- Governor Steve Beshear launched the Green Bank of Kentucky.

2010

- New Kentucky River Dam completed.
- Pikeville flooding worst in 75 years.
- **Kentucky Environmental Quality Commission submitted a recommendation for Pikeville Study.**
- Green bank of Kentucky program nationally recognized for innovative uses of American Recovery and Reinvestment Act to finance energy - efficient improvements in State buildings.

- Elevated levels of mercury and Polychlorinated Biphenyls (PCBs) found in fish from six lakes and creeks in Kentucky.
- Paradise and Ghent electric power plants included in the list of the largest 100 U.S power plants by net summer capacity.

2011

- Kentucky produced 2,152,739 barrels of oil.
- Dozens of dead birds found in Gilbertsville, Murray State University and in Paducah.
- House Bill 433 established the Waste Tire Working Group (WTWG). Its purpose - to review the Kentucky Waste Tire program.
- Kentucky produced 2,152,977 MCF (thousand cubic feet) of gas.
- Coal mining jobs fallen from 50,000 in 1979 to 18,000.
- Cylindrical Papershell Mussels recorded in Elkhorn Creek.



Richardsville Elementary School – First Net Zero Elementary School in USA

2012

- 60 Counties reported oil activity, 34 Counties reported Natural Gas activity.
- The 3rd largest coal producing state, with 90 million plus tons, accounting for less than 9 percent of total U.S coal production.
- Richardsville Elementary school, Warren County - First Net Zero School in the Nation.
- 6 trillion cubic feet of natural gas produced.

- Kentucky's Brownfield Redevelopment Program passed.
- Union County replaces Pike County as Kentucky's leading coal – producing county.



Bluegrass Pipeline in Kentucky

2013

- Bluegrass pipelines expected to run through 18 Kentucky counties.
- The only American owned plant for enriching Uranium, near Paducah shut down.
- Flu outbreak the worst in a decade according to the CDC (Center for disease control).
- Highest elk population east of the Mississippi river. Estimated population of 10,000.
- Governor Steve Beshear signed the Biomass Power Bill into Law.
- 27 species of mussels listed as federally endangered or threatened.
- 2 oil refineries with a combined operating capacity of about 245,000 barrels per day.
- 93 percent of Kentucky's net electricity generated from coal.
- Coal production in western Kentucky exceeds eastern Kentucky for the first time since 1911.
- Obtained 7,000 acres for wildlife along the Ohio and Trade Water Rivers in Union and Crittenden counties.
- Kentucky's coal production decreased by more than 11.8 percent to its lowest level since 1963.



Fracking in Kentucky

2014

- Employment at the regions mines averaged 7,288 jobs and production totaled just 37.5 million tons.
- Export value of Kentucky's wood products estimated to reach more than \$273 million, an increase of over thirty percent.
- Paper and paper converters forestry sub-sectors accounted for 9,824 jobs together.
- Employment in forest and wood industry estimated to be 28,202 jobs in 109 Counties.
- 200,000 rural Kentuckians have no access to public water systems.
- Patriot Coal Corporation closed the Dodge Hill Mining complex near Sturgis and the Highland mine near Henderson cutting a total of 670 jobs.
- Public Service Commission approved the construction of the State's first major solar powered electric generating facility costing \$36 million.
- Toxic Algae returns to lakes.
- Governor Steve Beshear signed an executive order which would ban tobacco products from more than 3,400 state offices.
- Toyota manufacturing in Princeton, Kentucky converted methane gas from landfills into renewable energy. Enough power annually for the production of 10,000 vehicles.
- A record deer year in Kentucky with a total of 144,409 deer.

2015

- Population of the monarch butterflies fell to 35 million from 1 billion.
- The Transit Authority of River City (TARC) in Louisville, launched ten one-hundred percent of battery electric buses by Proterra.
- 138,892 deer – second highest record year.



Battery Electric Buses by Proterra – Louisville, KY

* Federal Events

**International Events

For more information visit our

Website: <http://www.eqc.ky.gov>

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