



GREEN RIVER COA

The Green River Conservation Opportunity Area (COA) includes 1,285,983 acres in southcentral Kentucky. The boundary was delineated utilizing most of the Upper Green River and Middle Green River watersheds. The Green River COA is mostly situated within the Interior Plateau physiographic region, although a portion of the Interior River Valley and Hills physiographic region resides within its boundary. The Big Barrens COA (to the west) and Muldraugh Prairies COA (to the north) reside immediately adjacent to the Green River COA. Much of the COA contains karst topography and subterranean habitats vital to many SGCN. The largest contiguous forest blocks are found within Mammoth Cave National Park (MCNP) and around Green River Lake Wildlife Management Area. Natural prairies and barrens occur in upland areas around MCNP as do some of the largest concentrations of intact upland depression ponds in the state. Both are vital habitats for many SGCN. Much of the COA has been converted to agricultural use while development continues to increase around incorporated cities and along major transportation corridors.

The Green River is a 384 mile long tributary of the Ohio River. It flows westward from Lincoln County in south central Kentucky along a slightly northwesterly path before emptying into the Ohio River in Henderson County. The most significant impoundment occurs at Green River Lake. Major tributaries to the Green River include the Little Barren, Nolin, and Barren rivers. The



Removal of Green River Lock and Dam #5.
Photo: Mike Wilkinson, The Nature Conservancy



The endangered Mammoth Cave Shrimp is endemic to just a few caves in Kentucky. Photo: Michael Durham

middle Green River flows through MCNP where it is a state designated Wild River. In the early 1900's, a series of dams were built along the Green River to allow barge traffic easier access to the Ohio River. Dams create pooled conditions that resulted in lower oxygen

Green River SGCN Priority by Taxa

Taxa	Moderate Priority	High Priority	Highest Priority	Data Deficient	Plant	Grand Total
Amphibians	1	2	1	2		6
Birds	77	12	1	1		91
Crustaceans		4	1	7		12
Fishes	2	10	4	6		22
Freshwater Mussels and Snails	4	21	7	3		35
Insects	2	6	6			14
Mammals	2	8		9		19
Plants					11	11
Reptiles	2			10		12
Grand Total	90	63	20	38	11	222

levels, more sediment deposition, higher temperatures, and present significant movement barriers to aquatic fish and wildlife species. Dams also flood and alter important riparian habitats that are important to many terrestrial plants.

A major conservation focus for this region has been to restore the river’s natural systems by removing defunct and failing locks and dams. In 2021, removal of Lock and Dam #5 began. The effort was conducted as a partnership between The Nature Conservancy, U. S. Fish and Wildlife Service, U. S. Army Corps of Engineers, Kentucky Department of Fish and Wildlife Resources, and Kentucky Waterways Alliance. This project represents the largest dam removal in Kentucky’s history. Along with the removal of Lock and Dam #6, 197 miles of the Green River have been restored to free-flowing conditions.

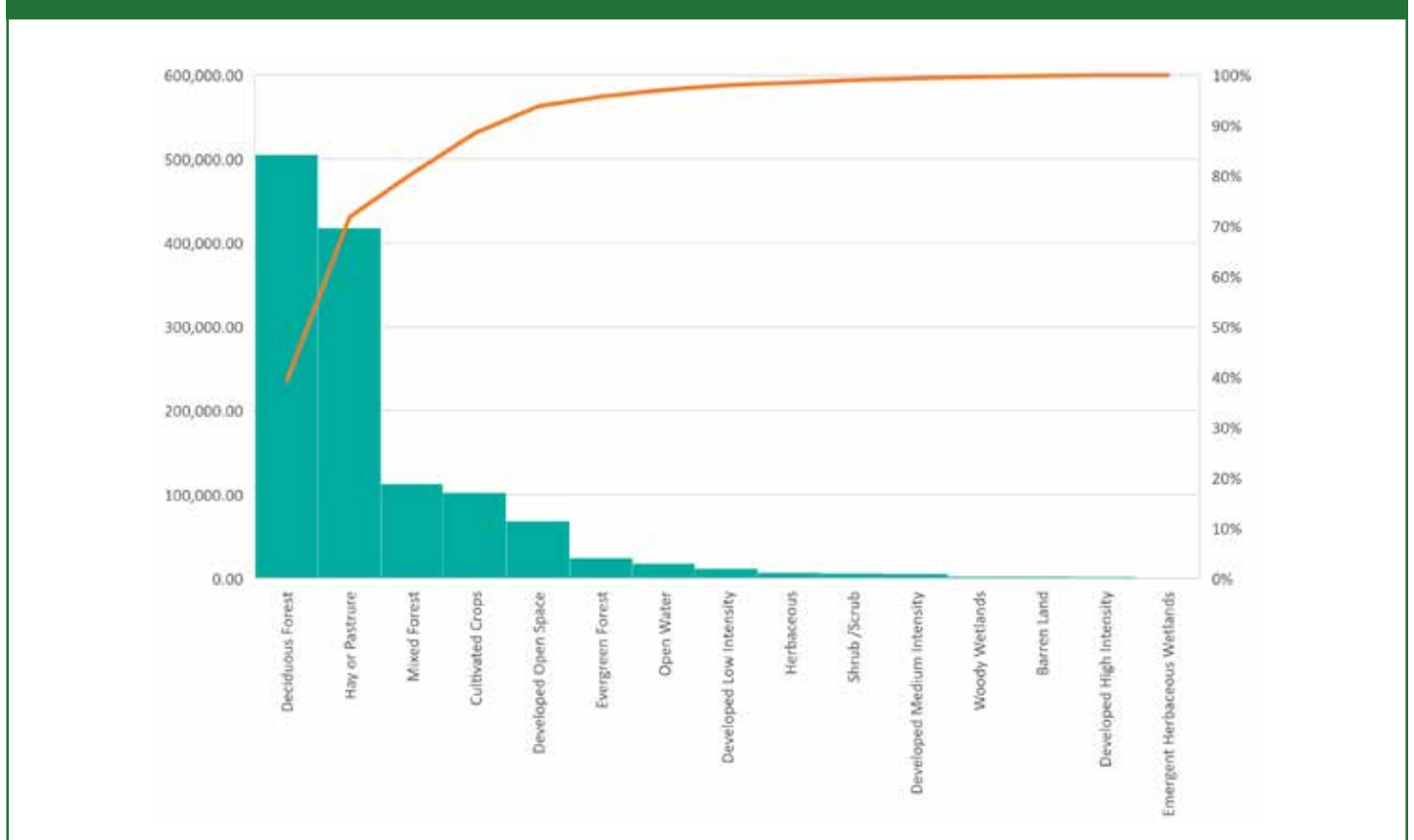
Considered one of the most biodiverse rivers in the world, the Green River is home to more than 150 fish species and 70 species of freshwater mussels. Several species, like the Mammoth Cave Shrimp, are found nowhere else in the world. The Green River COA has records for 213 SGCN, including 18 in the highest prioritization category. There are also 11 SGCN plants occurring in the remnant grasslands, wetlands, outcrops and riparian communities in this COA. The majority of SGCN are aquatic species, evidenced by the top threats noted for this COA: Natural System Modification, Pollution, and Agriculture/Aquaculture.

Collaborative partnerships to reduce or eliminate threats to aquatic habitats are of highest priority in this COA, primarily through public outreach and continued dam removal projects. External capacity building will be essential to implement these and related projects. Potential partnerships identified include collaboration with the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, USDA-Farm Services Agency, USDA-Natural Resources Conservation Service, U.S. Geological Survey, National Park Service, Kentucky Division of Conservation, Kentucky Division of Forestry, Kentucky Division of Water, Office of Kentucky Nature Preserves, and Western Kentucky University.

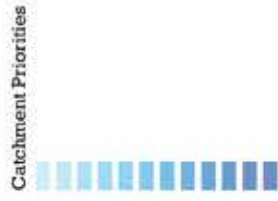
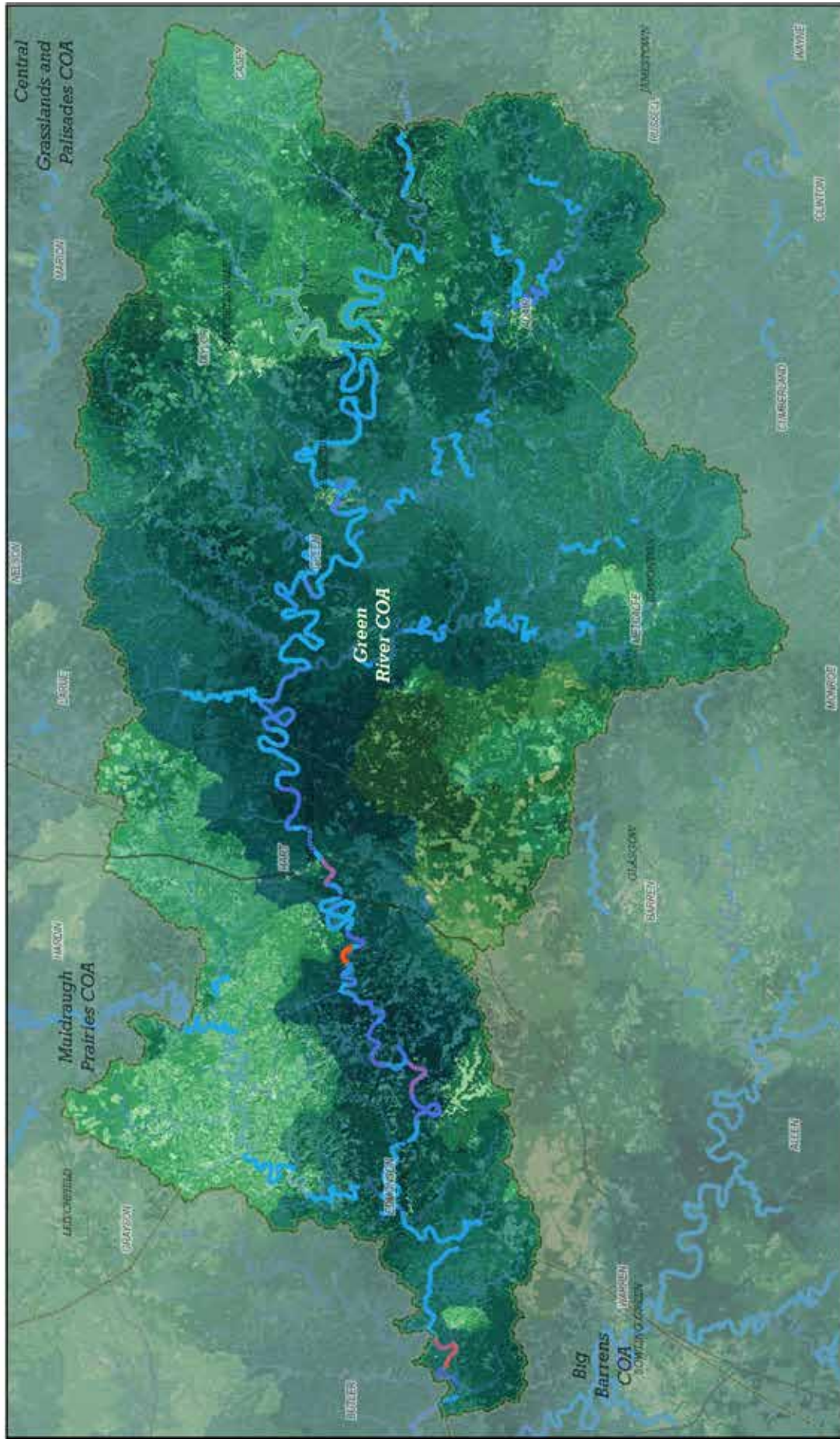


Green River freshwater mussel assemblage.
Photo: Monte McGregor

Green River Land Use by Acres



Green River COA



TEAM KENTUCKY
ENERGY AND ENVIRONMENT PARTNER
OFFICE OF SUSTAINABLE PUBLIC POLICY

The Nature Conservancy

KENTUCKY DEPARTMENT OF FISH AND GAME RESOURCES

Maps prepared by GIS staff at EDFWR in partnership with ORNP and TNC. Service Layers courtesy of Esri, CGIAR, USGS, DGI, KYFromAbove Partners, Esri, HERE, Garmin, SafeGraph, FHO, MELT/NASA, USGS, EPA, NPS.