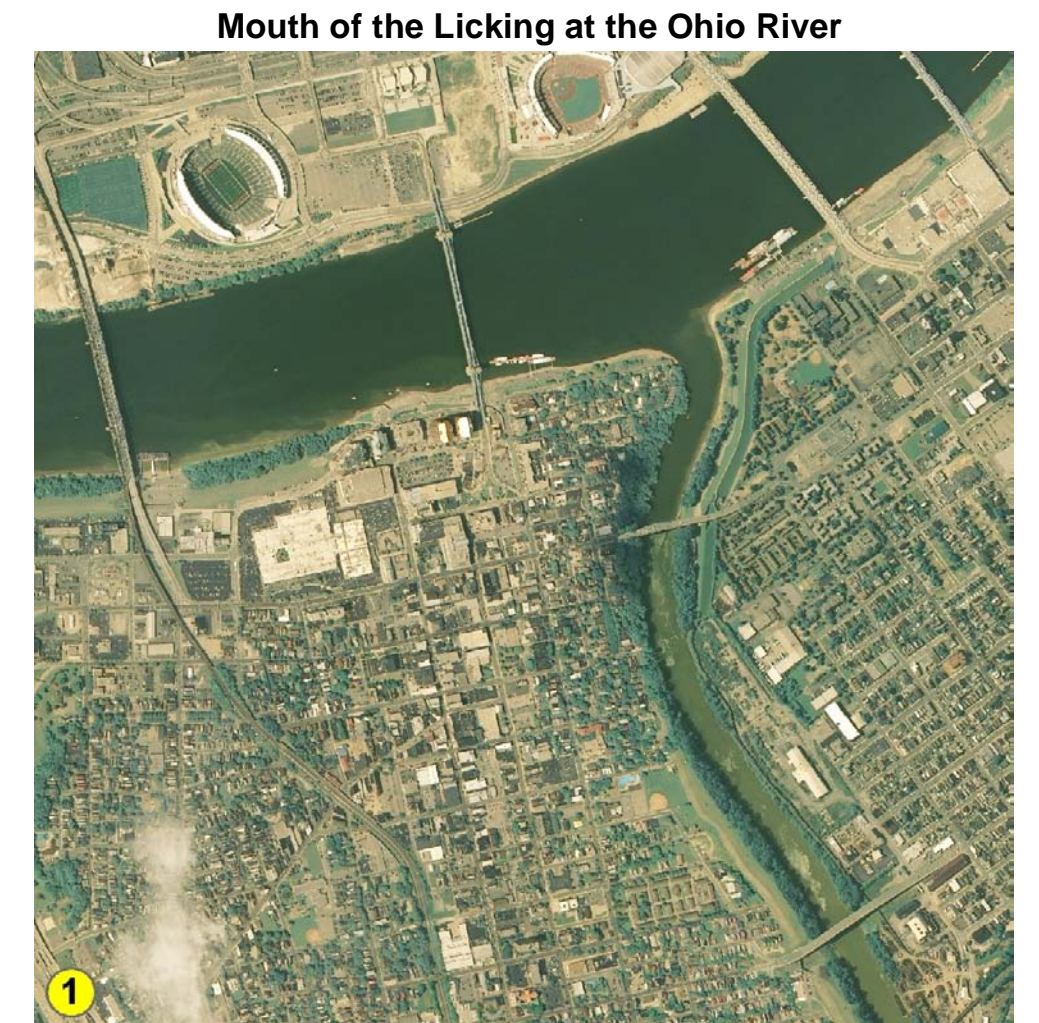


Licking River Basin

Daniel I. Carey



Mouth of the Licking at the Ohio River
If you sit high in the stands at a Cincinnati Reds game, you can look across the Ohio River down the throat of the Licking River Valley. Aerial photo from the U.S. Department of Agriculture, National Agricultural Imagery Program (2006).

Nearly 9,600 miles of streams flow through the Licking River Basin's 3,700 square miles in 22 counties. From a hill in southern Magoffin County 1,600 feet above sea level, the Licking River runs northwest down to the Ohio River at 444 feet above sea level.

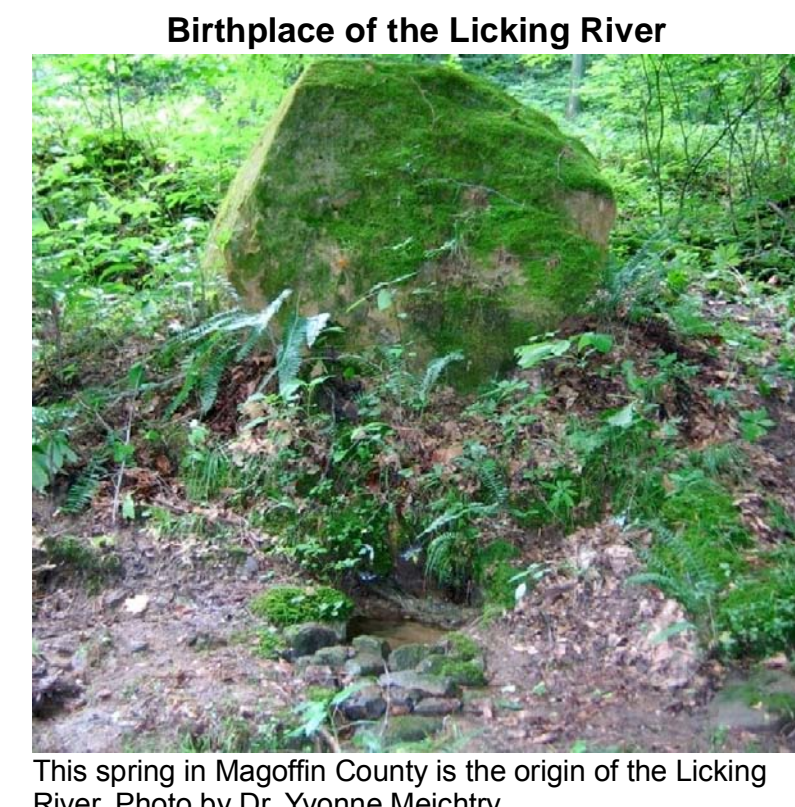
The underlying rocks in the basin are, in general, dominated by shale. This creates a large number of perennial streams in the basin and provides a foundation for ponds and lakes, but also limits the potential for water wells. There are 29,000 acres of wetlands in the basin.

Residents draw about 24 million gallons of water per day (mgd) from streams and reservoirs in the basin. On average, about 2,770 mgd flow into the Ohio, but about once every 10 years, only 2 mgd will flow at the mouth for a week. This variability in flow affects water users and stream life.

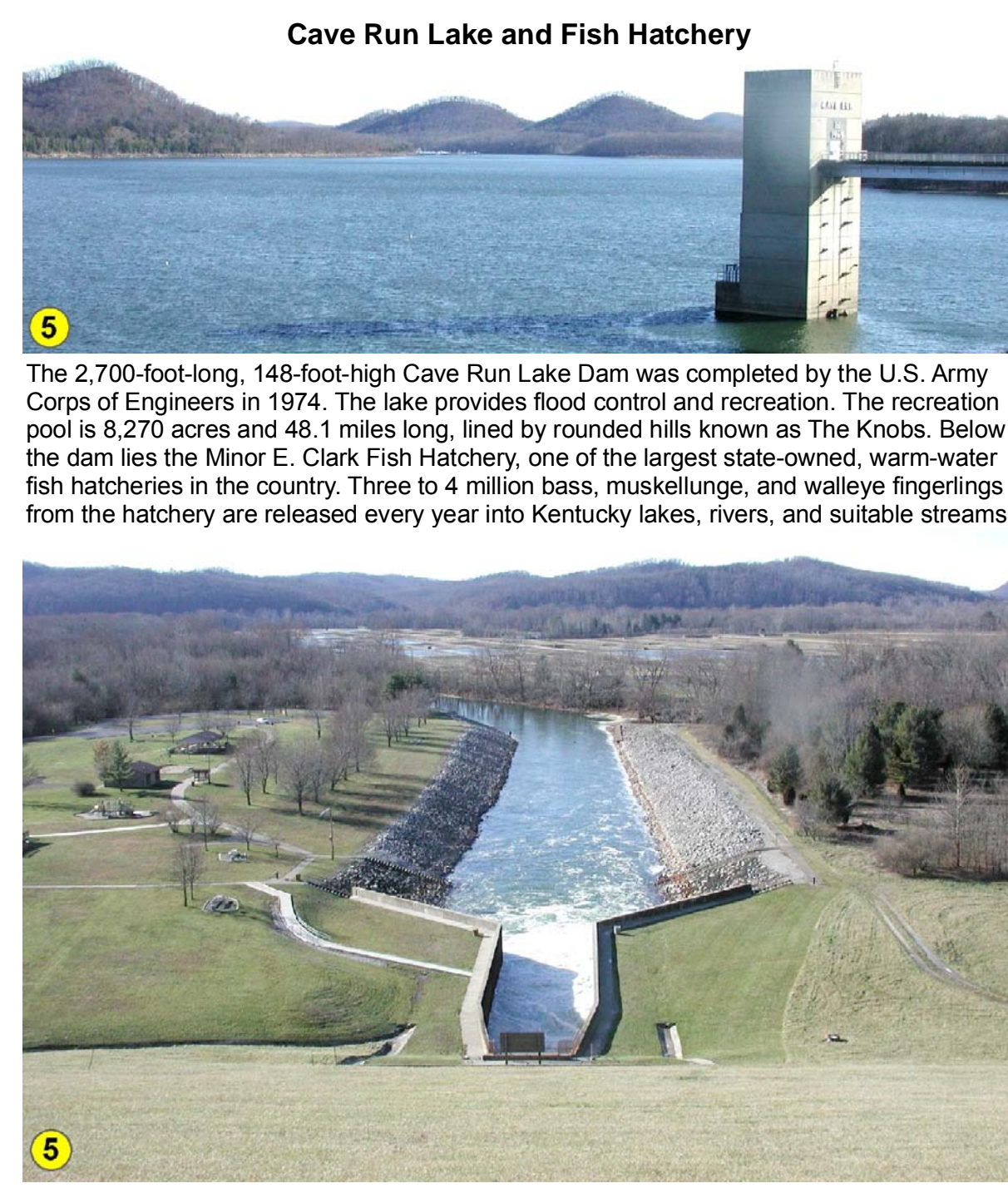
More than 850 miles of assessed streams in the basin do not support designated uses for warm-water aquatic habitat or primary contact recreation. Not all streams have been assessed. The percentage of assessed streams not supporting uses: warm-water aquatic habitat (45%), primary contact recreation (65%). Nearly 100 miles of streams are designated special use waters: either, cold water aquatic habitat, exceptional waters, reference reach waters, or outstanding state resource waters.

There are five remediation priority watersheds including 430 square miles: primary impacts are pathogens, nutrients, and salination.

There are many communities just outside the perimeter of the Basin that discharge treated wastewater into the basin, and may impact the Basin in other ways. For this reason, they are shown on the map.

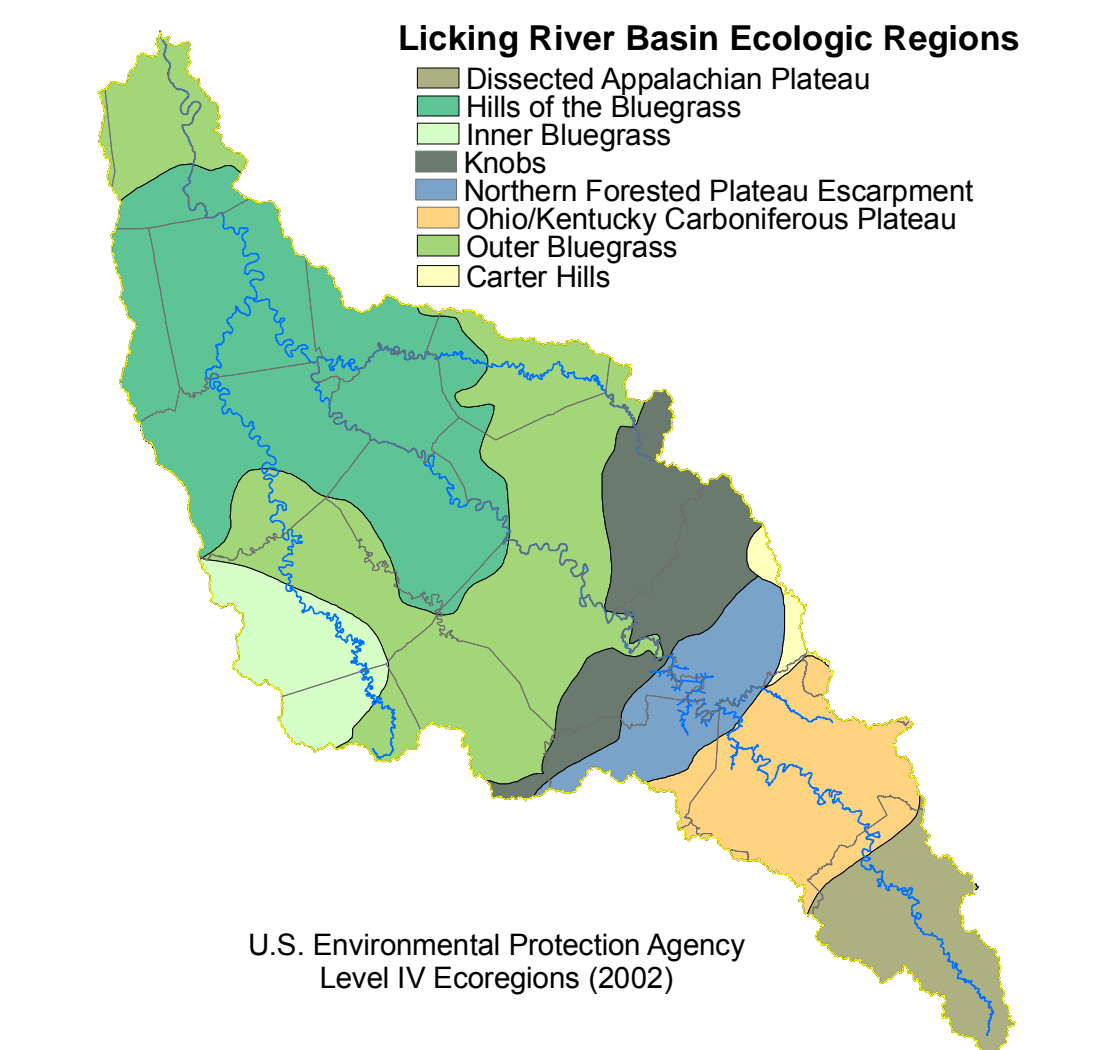
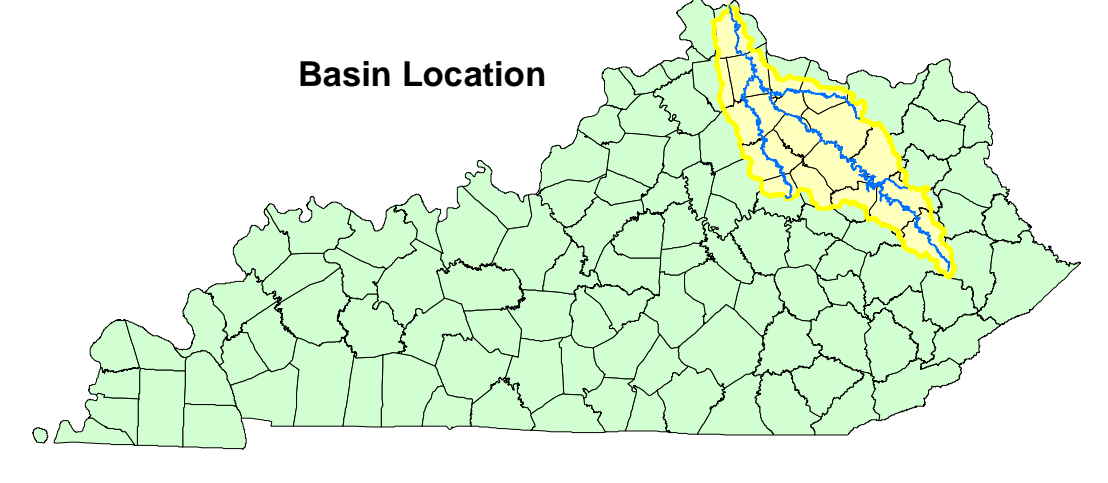


Birthplace of the Licking River
This spring in Magoffin County is the origin of the Licking River. Photo by Dr. Yvonne Meichtry.



Cave Run Lake and Fish Hatchery

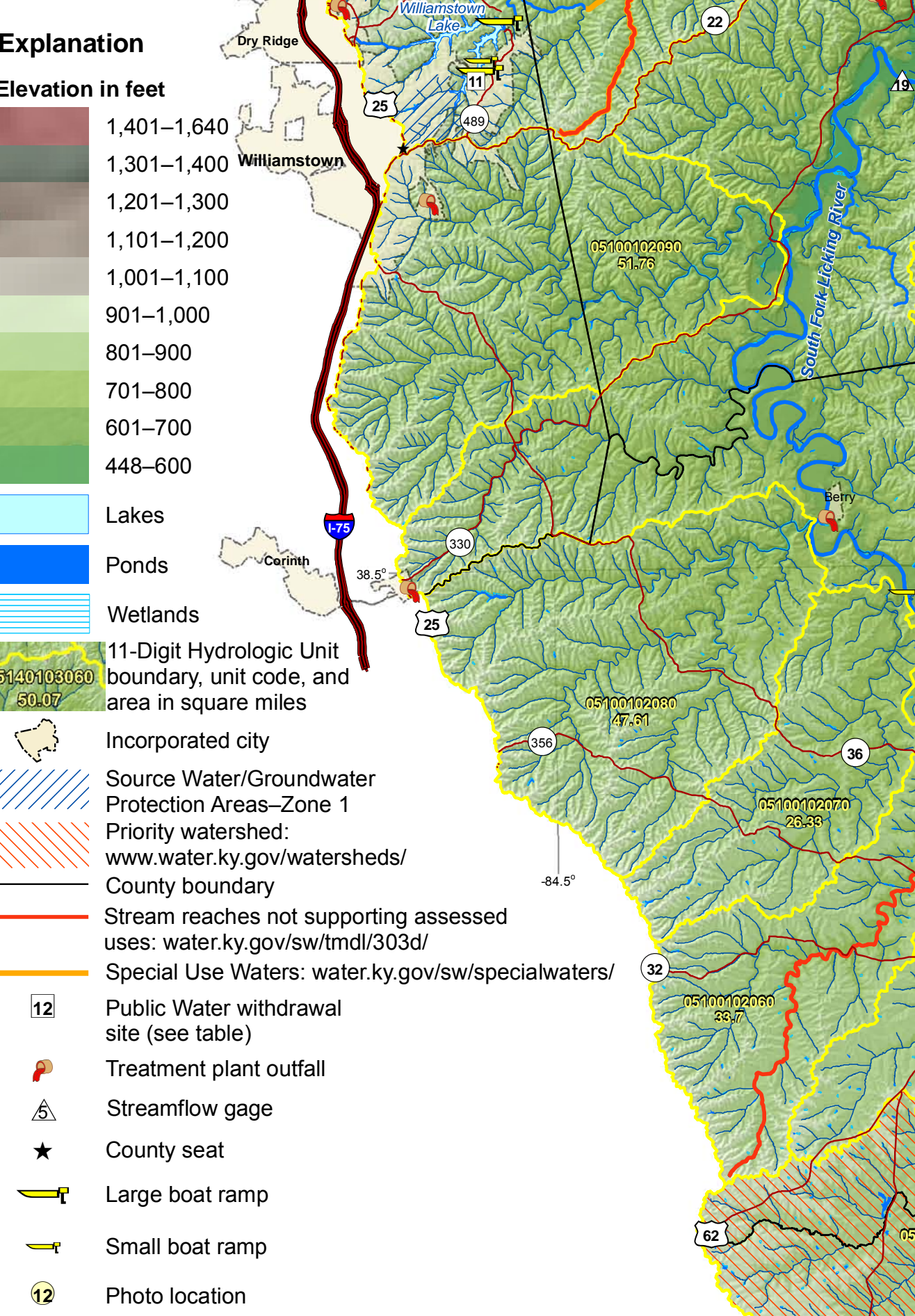
The 2,700-foot-long, 148-foot-high Cave Run Lake Dam was completed by the U.S. Army Corps of Engineers in 1974. The lake provides flood control and recreation. The recreation pool is 8,270 acres and 48.1 miles long, lined by rounded hills known as The Knobs. Below the dam lies the Minor E. Clark Fish Hatchery, one of the largest state-owned, warm-water fish hatcheries in the country. Three to 4 million bass, muskellunge, and walleye fingerlings from the hatchery are released every year into Kentucky lakes, rivers, and suitable streams.



Licking River Basin Ecologic Regions
Dissected Appalachian Plateau
Hills of the Bluegrass
Inner Bluegrass
Knobs
Northern Forested Plateau Escarpment
Ohio/Kentucky Carboniferous Plateau
Outer Bluegrass
Carter Hills



Slope
Level to gently rolling
Gently rolling to hilly
Hilly to steep



Explanation

Elevation in feet

- 1,401-1,640
- 1,301-1,400
- 1,201-1,300
- 1,101-1,200
- 1,001-1,100
- 901-1,000
- 801-900
- 701-800
- 601-700
- 448-600

Lakes

Ponds

Wetlands

11-Digit Hydrologic Unit boundary, unit code, and area in square miles

Incorporated city

Source Water/Groundwater Protection Areas—Zone 1

Priority watershed

www.water.ky.gov/watersheds/

County boundary

Stream reaches not supporting assessed uses: water.ky.gov/sw/tmdl/303d/

Special Use Waters: water.ky.gov/sw/specialwaters/

Public Water withdrawal site (see table)

Treatment plant outfall

Streamflow gage

County seat

Large boat ramp

Small boat ramp

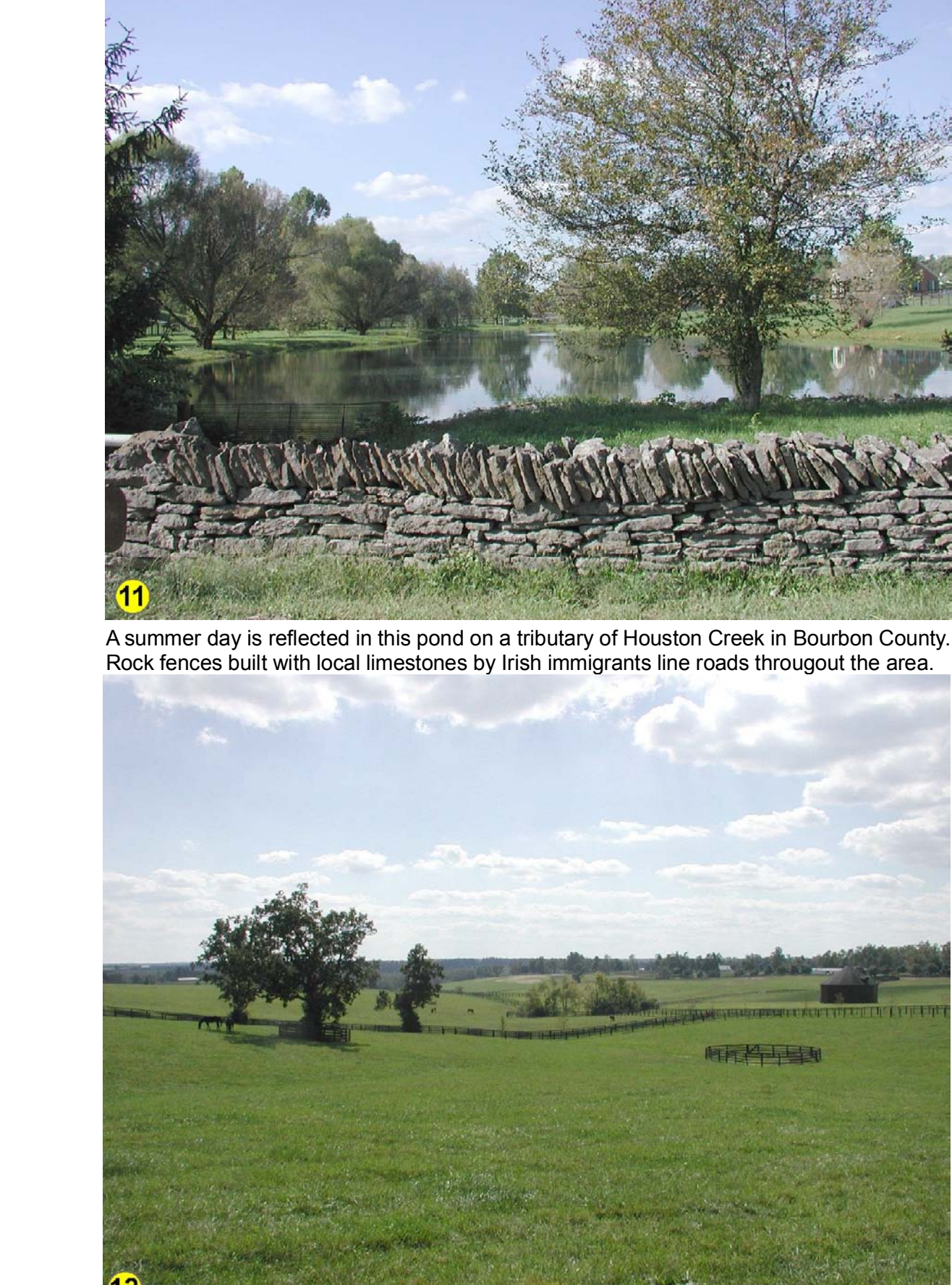
Photo location

U.S.G.S. STREAM GAGES¹

ID NUMBER	LOCATION	PERIOD
0	LICKING RIVER AT YALE, KY	1938-1942
1	LICKING RIVER AT FARMERS, KY	1925-1925
2	LICKING RIVER AT U.S. 60 N FARMERS, KY	2003-2005
3	TRIPLETT CREEK AT MOREHEAD, KY	1941-1992
4	NORTH FORK TRIPLETT CREEK NEAR MOREHEAD, KY	1987-1994
5	INDIAN CREEK NEAR OWINGSVILLE, KY	1975-1982
6	SLATE CREEK AT KY 713 NEAR MT. STERLING, KY	2001-2004
7	LICKING RIVER BELOW MORGAN FARM NEAR SALERSVILLE, KY	2001-2004
8	LICKING RIVER NEAR SALERSVILLE, KY	1938-1997
9	ROCK LICK CREEK ABOVE UNMANNED TRIBUTARY NEAR SHARKEY, KY	1991
10	ROCK LICK CREEK NEAR SHARKEY, KY	1973-1983
11	ROCK LICK CREEK AT KY 158 NEAR SHARKEY, KY	1996
12	LICKING RIVER AT BLUE LICK SPRINGS, KY	1988
13	NORTH FORK LICKING RIVER NEAR LEWISBURG, KY	1946-1991
14	NORTH FORK LICKING RIVER NEAR MT. OLIVET, KY	1991
15	LICKING RIVER AT MORGANSBURG, KY	1924
16	STONER CREEK AT PARIS, KY	1953-1991
17	HINSTEON CREEK NEAR CARLSLE, KY	1991
18	SOUTH FORK LICKING RIVER AT CYNTHIANA, KY	1928-1931
19	SOUTH FORK LICKING RIVER AT REVELS, KY	1916
20	LICKING RIVER AT CATARVA, KY	1938-1942
21	LICKING RIVER AT CATARVA, KY	1967-1983
22	NORTH FORK GRASSY CREEK NEAR PINEY, KY	2003
23	GRASSY CREEK AT KY 17 NEAR PINEY, KY	1915-1916
24	LICKING RIVER AT MORNING VIEW, KY	1996
25	BANWICK CREEK AT KY 1829 NEAR EARLENGER, KY	

¹From U.S. Geological Survey, Kentucky Water Science Center: ky.water.usgs.gov/hyd_data/

Bluegrass Region of the Basin



The upper valley of the South Fork Licking River lies in the Inner and Outer Bluegrass Regions, where limestone dominates in the bedrock, providing land for agriculture and presenting many such beautiful scenes. An example of the Inner Bluegrass terrain in the South Fork Valley is seen above.

Public Water Withdrawals

LOC.	PWSID ¹	OWNER	SOURCE
1	0870298	Mount Sterling Water & Sewer System	Slate Creek Reservoir
2	1030292	Morehead Utility Plant Board	Licking River
3	0880452	West Liberty Water District	Cave Run Lake
4	0960126	Falmouth Water Department	Licking River
5	0960051	Butler Water Works	Licking River
6	0490066	Cynthiana Municipal Water Works	Licking River intake
7	0490096	Cynthiana Municipal Water Works	South Fork Licking River intake
8	0770556	Salersville Water Works	Old Water Plant/Gardner Farm
9	0870298	Mount Sterling Water & Sewer System	Triplet Creek Reservoir
10	1030480	Morehead State University	Williamstown Lake
11	0410472	Morehead State University Water Department	Licking River
12	0960220	Northern Kentucky Water District	Stoner Creek
13	0090343	Paris Water Works	Hinkston Creek
14	0902087	Middlesboro Municipal Water Works	Licking River
15	0880452	West Liberty Water Works	Licking River
16	1030480	Morehead State University	Evans Branch Reservoir
17	0831010	Cave Run Water Commission	Licking River
18	0910675	Western Fleming Water District	Licking River
19	0350134	Flemingsburg Utility System	Flemingsburg Lake
20	0910065	Carlsle Water Department	City Lake intake
21	0910065	Carlsle Water Department	Licking River intake

Data from the Kentucky Infrastructure Authority (2008)
¹Public Water System Identification Number



Bluegrass Hills Terrain
Steeply rolling knobby hills and cedar trees, seen here in Pendleton County, characterize the Bluegrass Hills Region underlain by the shale and limestone rocks in the Kope Formation.



Licking River at Blue Licks
Licking River at Blue Licks State Park in Robertson County. Here it cuts into the outer bank, undermining large trees.



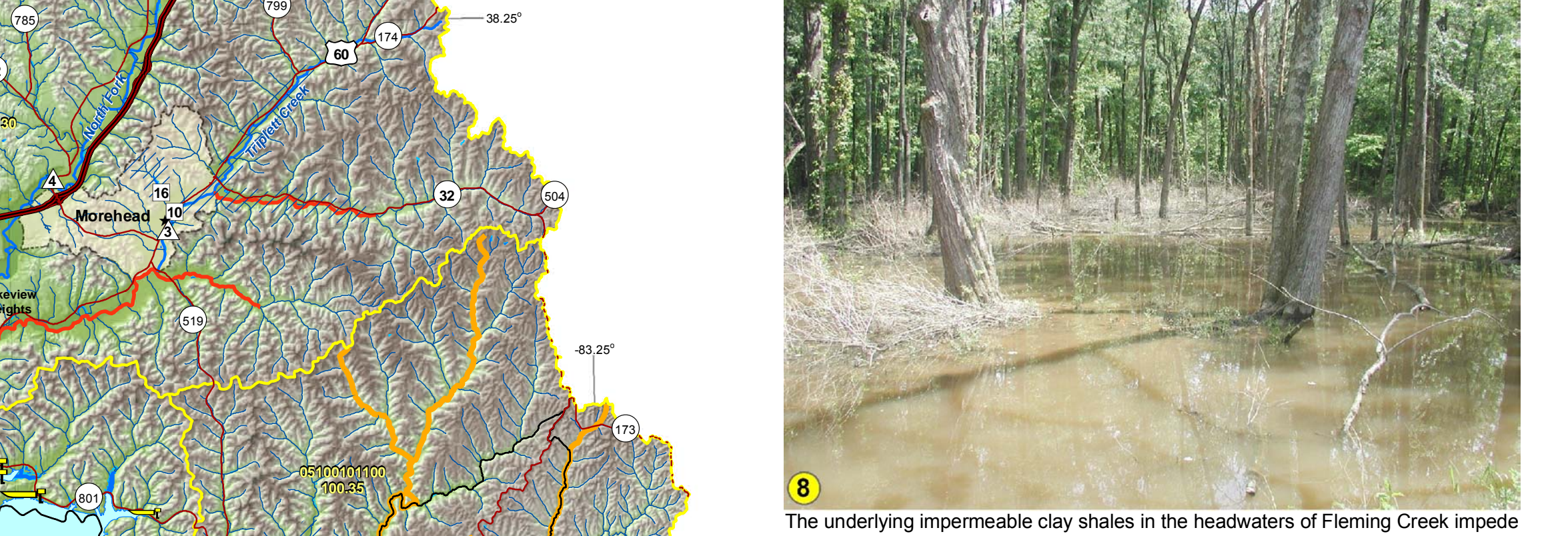
Slate Creek Valley
Clay, silt, sand, and gravel that form alluvial valleys, providing level land for homes and agriculture, may be subject to poor drainage or flooding. The wide valleys of Beaver Creek and Slate Creek are typical for streams cutting through shales. Silstone cliffs and sandstone-capped hills (knobs) bound the valley, seen here in Menifee County.



Knobs Region
Knobs formed by sandstone and limestone rise over agricultural activities in the Fox Creek alluvial valley in Fleming County.



Wildlife
The Fleming Wildlife Management Area, underlain by Silurian and Devonian shales, is 2,070 acres of primarily oak and hickory woods with some croplands and woodland openings. Squirrels, deer, grouse, doves, raccoons, quail, and rabbits live in the woodlands and fields. Recreation includes fishing, hiking, and primitive camping.



Shale Swamp
The underlying impermeable clay shales in the headwaters of Fleming Creek impede drainage and create habitat for swamp-loving creatures.



Broke Leg Falls, Menifee County
The basin is blessed with an abundance of natural beauty. The resistant Corbin Sandstone Member of the Lee Formation created Broke Leg Falls, frozen here by a cold spell.

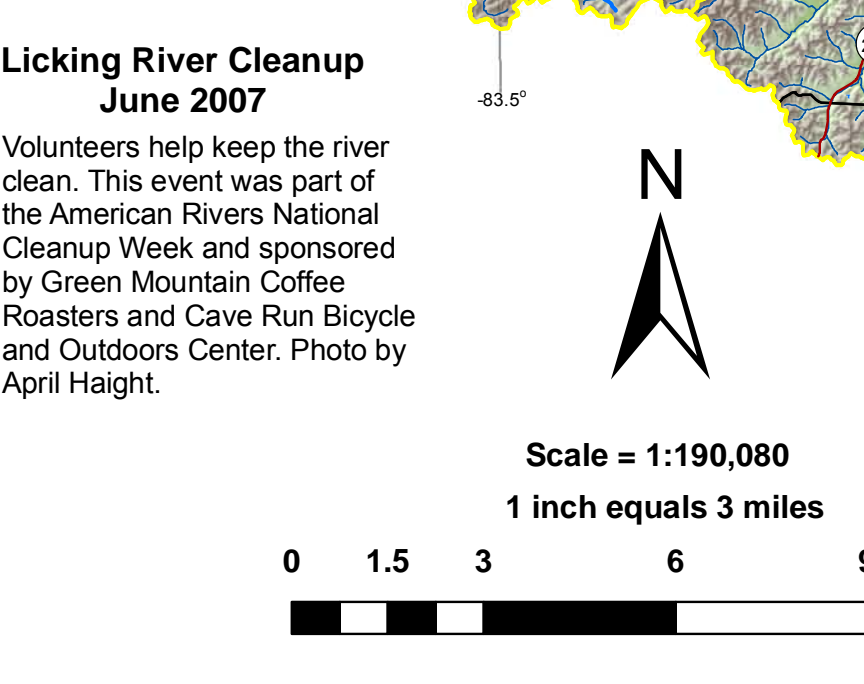


Licking River Cleanup June 2007
Volunteers help keep the river clean. This event was part of the American Rivers National Cleanup Week and sponsored by Green Mountain Coffee Roasters and Cave Run Bicycle and Outdoors Center. Photo by April Haight.

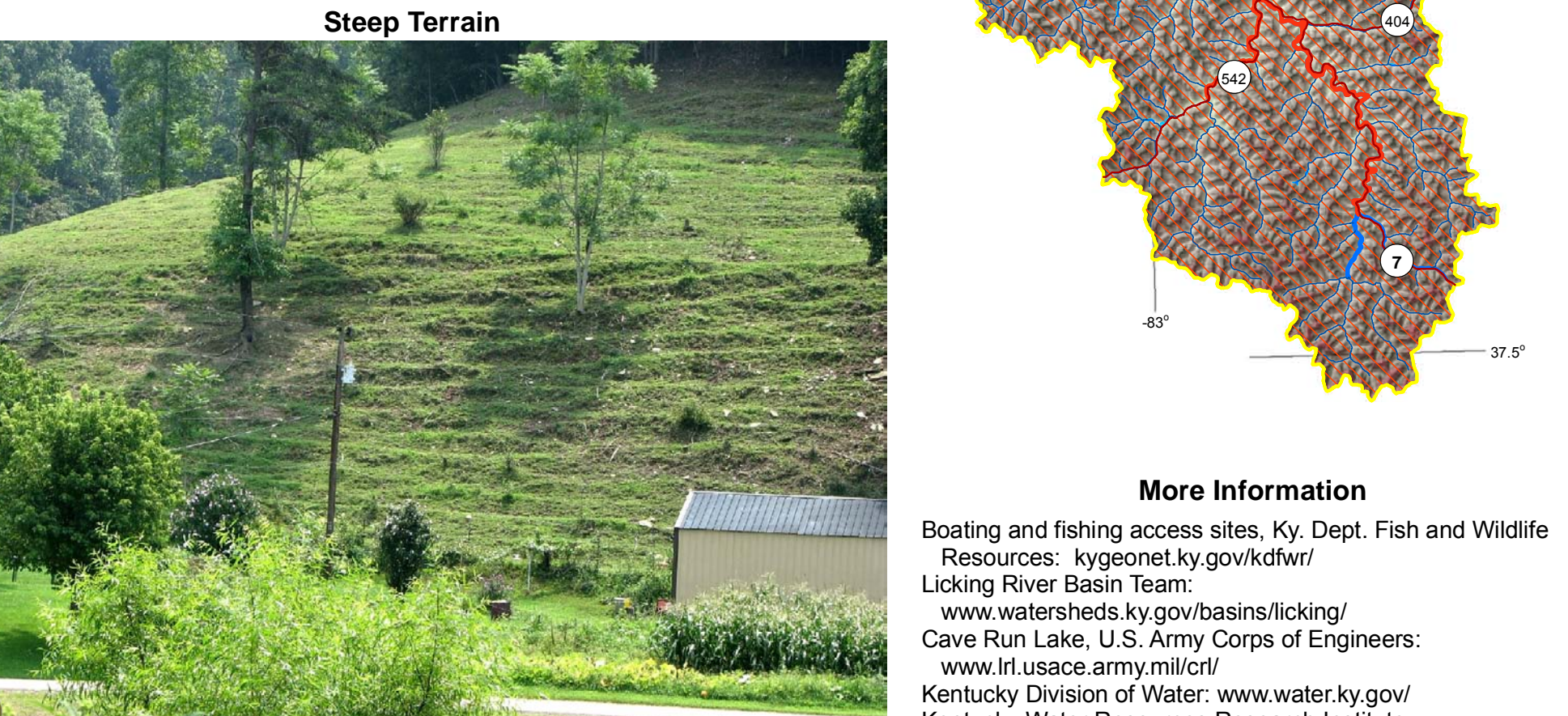
Boat Ramp Information

Water Body	Name	Type	Directions
Cave Run Lake	Alfrey boat ramp	Any boat	I-64 west of Morehead; Ky 801 south (exit 133); right at Twin Knobs Campground; first blacktop on left
Cave Run Lake	Beaver Creek ramp	Any boat	Ky 36 east of Frenchburg; Ky 1274 east; ramp on right side between Scranon and Longbow Marina
Williamstown Lake	Ruby's boat dock	Any boat	U.S. 25 north of Williamstown; right on Ky 467 (Knoxville Road); right on Day Road; ramp located at end of road
Williamstown Lake	Williamstown Marina	Any boat	Ky 22 east of Williamstown; left on Ky 489 (Fairview Road)
Cave Run Lake	Longbow ramp	Any boat	Ky 36 northeast of Frenchburg; Ky 1274 east; ramp on left
Cave Run Lake	ramp 26	Any boat	Ky 7 north of West Liberty; left on Ky 519; left on Ky 772; right after crossing bridge over lake
Cave Run Lake	Scotts Creek ramp	Any boat	I-64 west of Morehead; Ky 801 south (exit 133)
Cave Run Lake	Twin Knobs ramp	Any boat	Ky 36 northeast of Frenchburg; right on Ky 1211; right on Clear Creek Road to ramp
Licking River	Clines on the River	Any boat	AA Highway north of Alexandria; Ky 9 south (1/2 mile)
Kincaid Lake	State park ramp	Any boat	Ky 22 east of Owsingville; left on Ky 159; right at Kincaid Lake State Park entrance
Rebel Trace Lake	Rebel Trace lake access	Any boat	Ky 862 south of Cynthiana; turn onto Intimacy Lane; left after crossing railroad tracks
Licking River	Fredericks Landing	Any boat	U.S. 27 north of Alexandria; AA Highway west near Wilder
A.J. Jolly Park	A.J. Jolly Park	Small boat only	I-64 west of Morehead; Ky 824 east to park entrance
Cave Run Lake	Banger boat ramp	Small boat only	I-64 east of Owsingville; U.S. 60 east (exit 123); Ky 211 southeast; left on New Hope Road at Bangor
Cave Run Lake	Blackwater ramp	Small boat only	Ky 7 north of West Liberty; left on Ky 519; left on Ky 976
Cave Run Lake	Clay Lick ramp	Small boat only	I-64 west of Morehead; Ky 801 south (exit 133); Ky 1274 south; Ky 3138 west
Clear Creek Lake	Clear Creek lake access	Small boat only	I-64 east of Owsingville; U.S. 60 east (exit 123); Ky 211 south; left on Clear Creek Road
Doe Run Lake	Doe Run ramp	Small boat only	Ky 17 north of Independence (2.3 miles); left on Bullock Pen Road to lake
Lake Carnico	Lake Carnico ramp	Small boat only	Ky 32 northeast of Carlsle (0.1 miles); left on Ky 1455; cross dam; turn right; first right to boat ramp
South Fork Licking River	Cynthiana	Small boat only	U.S. 27 in Cynthiana; left on R. Moore; follow signs to Kentucky Department of Fish and Wildlife Resources ramp
South Fork Licking River	Robinson Dam	Small boat only	Ky 36 southwest of Cynthiana; right on Ky 489 (Fairview Road); left on Robinson Dam Road
Cave Run Lake	Terry Dam	Small boat only	Ky 992 south of Cynthiana; turn onto Intimacy Lane; left after crossing railroad tracks
Cave Run Lake	Sand Lick (Fox Valley Lake)	Small boat only	Ky 32 southeast of Flemingsburg; left on James Road; follow signs
Greenbrier Reservoir	Greenbrier Reservoir ramp	Small boat only	Ky 713 southeast of Mount Sterling; west on McCormick Road; right on gravel road
City Lake intake	City Lake intake	Small boat only	U.S. 480 east of Paris to Spicers Mill Road
Stoner Creek	Ike's boat dock	Small boat only	U.S. 68/460 east from courthouse in Paris; right at first stoplight on Pleasant Street; first street on left (Stoner Avenue) is end of street
Williamstown Lake	Williamstown Lake	Small boat only	Ky 22 east of Williamstown; left on Ky 489 (Fairview Road); left on Summer Drive
Cave Run Lake	Poppon Rock ramp	Small boat only	Ky 519 south of Morehead near Morgan County line
Cave Run Lake	Warin ramp	Small boat only	I-64 west of Morehead; Ky 801 south (exit 133); follow signs
Licking River	Zippo	Small boat only	I-64 east of Owsingville; U.S. 60 east (exit 123); Ky 211 south; left on Clear Creek Road; left on Tater Knob Tower/Zippo Road
Cave Run Lake tailwater	Cave Run Lake tailwater	Small boat only	I-64 east of Owsingville; Ky 801 south (exit 133); right on Ky 826; first road to right after crossing dam
Licking River	Blue Licks Battlefield ramp	Small boat only	Ky 32 west of Carlsle to U.S. 68; north 7.5 miles to Blue Licks Battlefield State Park
Licking River	Clay Wildlife Management Area	Small boat only	Ky 32 northeast of Carlsle (0.1 miles); right on Cassel's Creek Road to Clay Wildlife Management Area
Licking River	Falmouth ramp	Small boat only	U.S. 62 west of Mount Olivet to Licking River; road to left across from Ky 19 junction; follow to ramp
Licking River	Falmouth ramp	Small boat only	Ky 22 in Falmouth
Kincaid Lake	Dam ramp	Small boat only	Ky 22 east of Falmouth; left on Ky 159; right at park entrance
Licking River	Johnson Ford-Bath	Small boat only	U.S. 60 east of Owsingville; left on Ky 1269; left on Riddles Road; right on Adams Road; right on Johnson Ford Road
Licking River	Kenton County Park ramp (Locust Pike Park)	Small boat only	Ky 17 north of Independence (10 miles); right on Ky 16 (1/2 mile); left on Ky 177 to DeCoursey
Licking River	Moore's Ferry	Small boat only	I-64 east of Owsingville; U.S. 60 east (exit 123); left on Ky 211

Data from the Kentucky Department of Fish and Wildlife Resources: kygonet.ky.gov/kdwr/viewer.htm



Fee	Latitude	Longitude
Yes	38.09143	-83.49686
No	37.98897	-83.51430
Yes	38.67874	-84.51997
Yes	38.66272	-84.52836
Yes	37.99699	-83.49891
Yes	37.95499	-83.34111
Yes	38.10207	-83.51306
No	38.09922	-83.51326
Yes	37.99346	-83.69833
Yes	39.05051	-84.45044
No	38.72301	-84.28500
No	38.04375	-83.42819
No	37.97471	-83.39538
No	38.05926	-82.49891
No	38.05561	-83.59443
No	38.96880	-84.55157
Yes	38.09926	-82.29189
No	38.39954	-84.29628
Yes	38.46123	-84.36487
Yes	38.67871	-84.32893
Yes	38.38778	-83.61324
Yes	38.01909	-83.84738
Yes	38.16842	-84.16330
Yes	38.21034	-84.23993
Yes	38.66613	-84.52777
Yes	38.05425	-83.44477
Yes	38.04025	-83.40227
Yes	38.08453	-83.44477
No	38.11759	-83.53884
No	38.42945	-83.99137
No	38.36467	-83.89539
No	38.51602	-84.18112
No	38.67871	-84.32893
No	38.72304	-84.29050
No	38.20799	-83.68058
No	39.00886	-84.47994
No	38.17580	-83.61855



Steep Terrain
A steep hillside in Magoffin County is stripped of trees and the soils ripple slowly downhill—eventually to the river—under the forces of cattle, moisture, freezing, and thawing.

Acknowledgments
Thanks to Terry Hounshell and Meg Smith, Kentucky Geological Survey, for cartographic and editorial improvements. Thanks to Kim and Kent Anness, Kentucky Division of Geographic Information, for base-map data.

More Information
Boating and fishing access sites. Ky. Dept. Fish and Wildlife Resources: kygonet.ky.gov/kdwr/
Licking River Basin Team: www.watersheds.ky.gov/basins/licking/
Cave Run Lake, U.S. Army Corps of Engineers: www.it.usace.army.mil/
Kentucky Division of Water: www.water.ky.gov/
Kentucky Water Resources Research Institute: www.uky.edu/WaterResources/
Kentucky Geological Survey: www.uky.edu/kgswater/br/br/
Water Watch Data: kgmap.uky.edu/website/krrw/