WOLF CREEK DAM INFORMATION: ***Frequently Asked Q & A's***

**For more information concerning daily lake/dam information, please dial the powerhouse automated info line: 800-238-2264 or http://www.lrn.usace.army.mil/WolfCreek/

Q: When was the dam built and why?

A: Wolf Creek Dam was authorized by the Flood Control Act of 1938 and the Rivers and Harbor Act of 1946. Construction of the project, designed and supervised by the U.S. Army Corps of Engineers, began in August 1941. After a three-year delay caused by World War II, the project was completed for full beneficial use in August 1952.

The dam was completed for flood control operation in 1950. Three of the six hydroelectric generating units were placed in operation in 1951 and the remaining three in 1952. Operation of the lake is for the primary purposes of flood control and the production of hydroelectric power. The cost of the project was approximately $80.4 million.

Q: Who supervises the dam and powerhouse?

A: The dam, powerhouse, and lake are operated and supervised by the U.S. Army Corps of Engineers, Nashville District. (http://www.lrn.usace.army.mil)

Q: Where is the dam and lake located?

A: Lake Cumberland is located in Wayne, Russell, Pulaski, Clinton, McCreary, Laurel and Whitley counties in Southeastern Kentucky on the Cumberland River. The dam site is at river mile 460.9 (460.9 miles above its confluence with the Ohio River) or about 10 miles southwest of Jamestown, Kentucky.

Q: How big is Lake Cumberland? And what happens with all the water?

A: The lake is 101 miles long in length and has 1,255 miles of shoreline, providing a total storage capacity of 6,089,000 acre-feet (1 acre-foot = 1 acre, 1 foot deep or 325,850 gallons).

The upper portion of the lake containing 2,094,000 acre-feet of area, is used to

hold floodwaters which would otherwise cause flooding downstream. Such impounded water is utilized to the maximum extent possible for power production with the surplus water being released through the spillway gates after any flood danger has passed.

Q: ***What is the average elevation and temperature of Lake Cumberland?***

A: The normal pool elevation (summer pool) is 723 feet above mean sea level. This elevation is near the tree line around the lake. Throughout late summer and fall, the water levels drop due to summer weather patterns, hydro-power generation and normal evaporation. The opposite occurs during the winter and spring seasons. The maximum recorded elevation was 751.42 in the spring of 1994. The surface water temperature during the summer months range from 78 to 83 degrees and 40 to 45 degrees during the winter.

Q: ***What is the deepest part of the lake?***

A: The deepest part of Lake Cumberland is 200 feet at 723' pool elevation and is located in the original river channel near the dam.

Wolf Creek Dam Statistical Information

DAM	
Type	Concrete-gravity and earth fill
Quantities:	
Concrete, cubic yards	1,380,000
Earth fill, cubic yards	10,016,500
Dimensions:	
Maximum height, feet	258
Length, feet (concrete, 1796; earth, 3940)	5,736
Elevations (above mean sea level):	
Top of dam	773
Top of gates	760
Spillway crest	723
Spillway crest gates:	
Number and type	10, Radial
Size (width and height), feet	50 X 37
Discharge capacity, c.f.s.	553,000
Sluices	
Number of conduits	6
Size (width and height), feet	4 X 6
Total discharge capacity, c.f.s.	9,800
HYDROPOWER	

Installation	270,000 kw in 6 units
Rating, each generator, kilowatts	45,000
Estimated energy output, average yearly, kilowatt-hours	800,000,000