



# ANDERSON LAKE

## FISHERIES STATUS SUMMARY

**Location:** Anderson Lake is located 12.5 road miles southwest of Havana in west-central Illinois.

**Description:** Anderson Lake is a natural bottomland impoundment adjoining the Illinois River in the southeast corner of Fulton County. It is situated on the west floodplain of the river and the Anderson Lake Conservation Area encompasses 2,133 acres and is maintained as a public fishing and hunting site. A levee was constructed in 1980 to facilitate waterfowl management. It separates Anderson Lake which is 1,132 surface acres from Carlson Lake which is 231 surface acres. Anderson Lake is a typical Illinois River backwater lake that is connected annually to the main stem of the river. The 9.1 mile gently sloping shoreline is bordered by button bush and bottomland forest. It is shallow, with a maximum depth of 5 feet at the spillway crest. The bottom substrate is a flocculent mud and the water clarity is usually turbid. The submerged rooted aquatic plants have been very limited since the late 1950's.

**Management Activities:** Due to the annual inundation of Anderson Lake by the Illinois River, fish species management on this small scale is a difficult objective. The associated sedimentation, loss of lake water volume and loss of aquatic plants have all negatively impacted the sportfish habitat present in Anderson Lake. However annual documentation of the sportfish populations are very important in our understanding of how these backwater lakes function with the Illinois river. Anderson Lake is annually sampled in the fall utilizing D.C. boat electrofishing.

**Status of the Sport Fishery:** The current fishery was maintaining a cyclic pulse of sportfish with positive impacts from the flood years of 1993- 95 and then high water in 1998 and 1999 and then high spring through summer levels in 2008-2011. In 2012, the very low water levels with the drought had negative impacts on the fishery in Anderson Lake. Multiple low oxygen fish kills occurred in late August through September. The majority of the biomass of fish killed were the Asian carp species. The recent improved sportfishery of the Illinois river is due to water quality improvements, and now habitat improvements in the backwater lakes could assist the aquatic life. However, the very recent introductions of the silver and bighead carp have added more negative nonnative species to the river ecosystem. These new nonnatives will need to be monitored for their impact on the fish community of the backwater lakes.

Overall the sportfishery present in Anderson Lake in 2014 returned to the low levels found in 2007 to 2011. The timing and duration of the typical high water level entry from the Illinois river into Anderson Lake may influence the sport fish density each year and the anglers success. However, the current lack of depth and the high load of loose sediment in Anderson Lake appears to have made the habitat inhospitable for sport fish survival.

**Largemouth Bass:** Largemouth bass population was present at a very low density of fish over 12 inches in length.

**Bluegill:** Bluegill population was present in a low density of fish up to 7 inches in length.

**Crappie:** Black and white crappie populations were present in very low densities of fish up to 12 inches in length.

**Channel Catfish:** Channel catfish population was present at a low density of fish up to 20 inches in length.

**Bullhead Catfish:** Brown, Black and Yellow Bullhead populations were present in low densities of fish up to 14 inches long.

**Other Fish Species:** In 2014, a total of 20 fish species were collected by fall electrofishing.

Commercial Fish Harvest - commercial species are annually harvested under the contract system by individual fishermen. Activity periods are set by the site supervisor and district resource managers and are scheduled so as not to conflict with sport fishing or waterfowl hunting. During the fall 2013 commercial harvest, 49631 total pounds were removed. The Asian carp population has dramatically increased in the Illinois River and their full impact on the system is not known, but it is anticipated to be very negative on native species. The increase in competition for space and food at the bottom of the food chain will not help the sport fish populations in the backwater lakes of the Illinois river.

**Fishing Regulations:** Sport fishing seasons and limits are uniform with statewide rules. However, during the waterfowl hunting season, boat fishing (electric motors only) is only allowed in a designated area near the boat ramp and fish attractors. Effective 4/1/2000, Largemouth and Smallmouth Bass have a 12 inch minimum size limit on the Illinois river and all backwaters.

#### **CONTACT INFORMATION –**

Anderson Lake Conservation Area: (309) 759-4484.

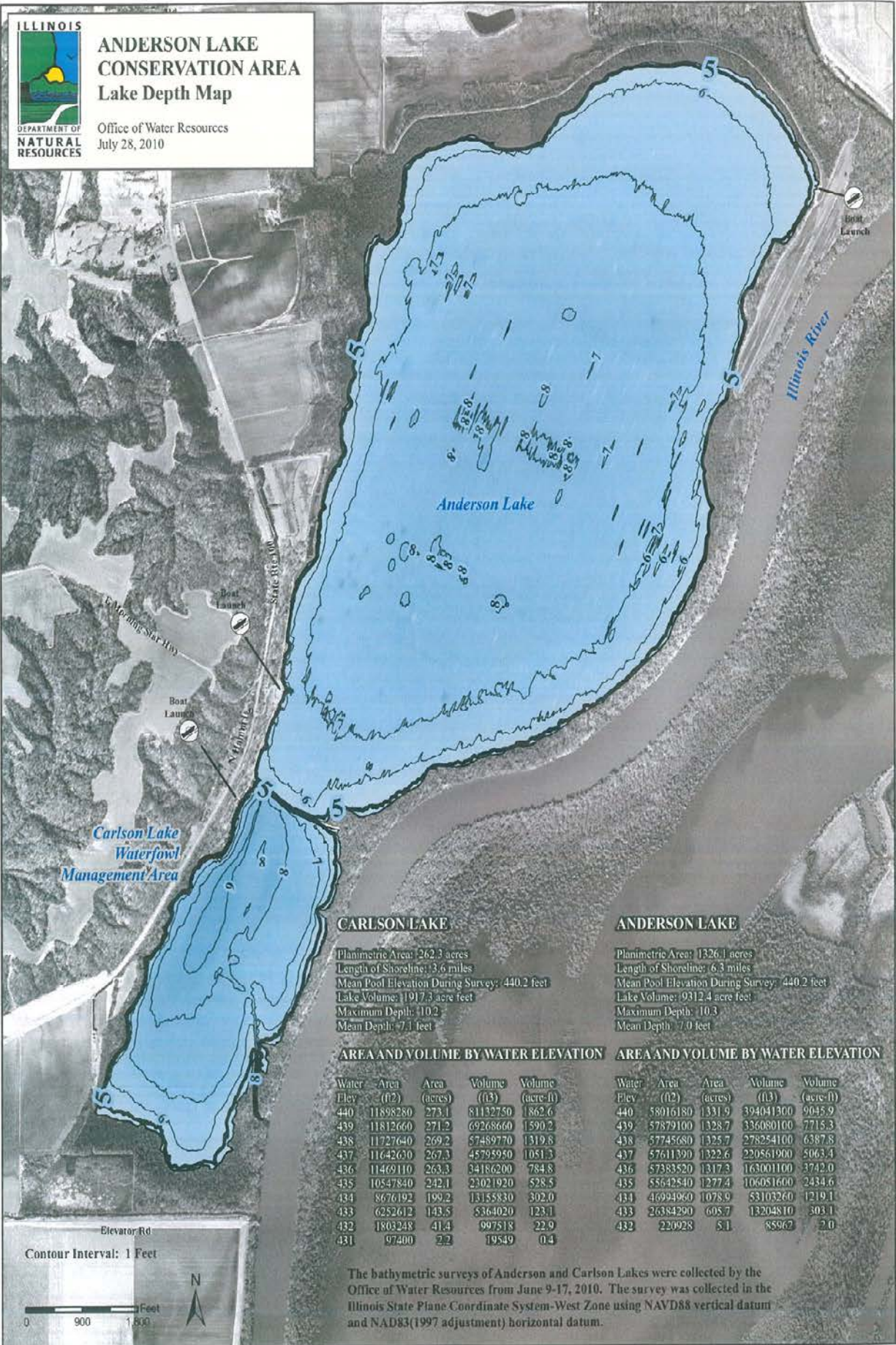
IDNR Fisheries County Fish Biologist: (309) 446-9143.

Illinois Fishing Information booklet and IFISHILLINOIS website <http://www.ifishillinois.org/>



# ANDERSON LAKE CONSERVATION AREA Lake Depth Map

Office of Water Resources  
July 28, 2010



### CARLSON LAKE

Planimetric Area: 262.3 acres  
Length of Shoreline: 13.6 miles  
Mean Pool Elevation During Survey: 440.2 feet  
Lake Volume: 1917.3 acre feet  
Maximum Depth: 10.2  
Mean Depth: 7.1 feet

### ANDERSON LAKE

Planimetric Area: 1326.1 acres  
Length of Shoreline: 6.3 miles  
Mean Pool Elevation During Survey: 440.2 feet  
Lake Volume: 9312.4 acre feet  
Maximum Depth: 10.3  
Mean Depth: 7.0 feet

### AREA AND VOLUME BY WATER ELEVATION

Water Elev.	Area (ft2)	Area (acres)	Volume (ft3)	Volume (acre-ft)
440	11898280	273.1	81132750	1862.6
439	11812660	271.2	69268660	1590.2
438	11727640	269.2	57489770	1319.8
437	11642620	267.3	45795950	1051.3
436	11469110	263.3	34186200	784.8
435	10547840	242.1	23021920	528.5
434	8676192	199.2	13155830	302.0
433	6252612	143.5	8364020	123.1
432	1803248	41.4	997518	22.9
431	97400	2.2	19549	0.4

### AREA AND VOLUME BY WATER ELEVATION

Water Elev.	Area (ft2)	Area (acres)	Volume (ft3)	Volume (acre-ft)
440	58016180	1331.9	394041300	9045.9
439	57879100	1328.7	336080100	7715.3
438	57745680	1325.7	278254100	6387.8
437	57611390	1322.6	220861900	5063.4
436	57383520	1317.3	163001100	3742.0
435	55642540	1277.4	106051600	2434.6
434	46994960	1078.9	53103260	1219.1
433	26384290	605.7	13204810	303.1
432	220928	5.1	85962	2.0

The bathymetric surveys of Anderson and Carlson Lakes were collected by the Office of Water Resources from June 9-17, 2010. The survey was collected in the Illinois State Plane Coordinate System-West Zone using NAVD88 vertical datum and NAD83(1997 adjustment) horizontal datum.

