

Watershed condition with percentages of land use types:

West Morristown Lake has a watershed of approximately 13,000 acres or 20 square miles which is primarily made up of privately owned agricultural land. Land use in the watershed is 60% cultivated cropland and 40% pasture and hayland. The immediate shoreline is composed of native grasses that are often heavily grazed.

Fishing access:

Shore fishing is the main source of fishing, but can be hindered during the summer months by aquatic vegetation. Lake access is marginal due to no boat ramp.

Condition of all structures (i.e. spillway, boat ramps, level regulators, etc.):

The dam grade and spillway area is in good condition. There is no boat ramp at West Morristown and access is via a gravel road.

Field observations of aquatic vegetation condition:

Emergent vegetation was limited to just a few bulrushes in the mouth of the creek area. There was also very little submergent vegetation found in the lake at the time of the survey.

CHEMICAL DATA

Field observations of water quality and pollution problems:

No pollution problems were evident at the time of this survey. Water clarity was good with a secchi disc reading of 5.5 feet. Other water quality characteristics were measured in the field on June 29, 2009, using a HACH water quality kit, an Oyster meter and a YSI 55 meter. Results are found in Table 1.

Presence of a thermocline and depth from surface: No

Station for water chemistry located on attached map: Yes

Table 1. Water chemistry results from West Morristown, Corson County, June 29, 2009.

Station	Depth (ft)	Temp (F)	DO (ppm)	CO2 (ppm)	ALK (mg/l)	Hardness (mg/l)	pH	Secchi disc (ft)
A	Surface	71.6	6.35	34.6	201	140	7.4	5.5
A	15.2	67.3	8.85	55.2	140	158	7.25	

BIOLOGICAL DATA

Methods:

West Morristown Lake was sampled on June 29-30, 2009, with five overnight trap net sets. The trap nets have 3ft x 5ft frames, 60ft leads, and ¾ in. knotted mesh. No electrofishing or gill netting was done during this survey. Fish indices and statistics were completed using Winfin.

Results and Discussion:

Trap Net Catch

Table 2. Total catch of ten, overnight ¾-inch frame nets at West Morristown, Corson County, June 17-19, 2002.

Species	#	%	CPUE	80% C.I.	Mean CPUE*	PSD	RSD-P	Mean Wr
No fish	0	0	0	± 0.0	0	0	0	0

* Five years (1994, 1995, 1997, 1999, 2002)

Fish Population

A netting survey was done on West Morristown to see if any fish were present in the lake after it refilled from being completely dry. After checking five trap nets that were set overnight around the lake, no fish were found and the nets were pulled.

Shortly after the netting was done, Blue Dog State Fish Hatchery called and had a surplus of first crop small largemouth bass fingerling. So it was decided to give them a try to get a fish population started as quickly as possible. A total of 31,200 fish were stocked and will be monitored over the next couple years to see if they took. Also other stockings are planned in the next couple years to establish fishable populations.

Table 3. Gill net (GN) and trap net (TN) CPUE for all species sampled from 1994 (the year after filled up from going dry) to the present for West Morristown, Corson County.

Species	1994	1995	1997	1999	2002
Black Bullhead (GN)	--	--	--	142.5	268.0
Black Bullhead (TN)	0.6	0.3	66.8	14.9	2577.7
Black Crappie (GN)	--	--	--	0.5	--
Black Crappie (TN)	0.1	--	--	0.3	0.5
Yellow Perch (GN)	--	--	34.0	8.0	--
Yellow Perch (TN)	--	0.6	1.0	0.3	--
Northern Pike (GN)	--	--	4.0	9.5	7.0
Northern Pike (TN)	--	4.0	2.0	2.5	1.1

Table 4. Stocking records from 1993 (the year filled back up after going dry) to the present for West Morristown, Corson County.

Year	Number	Species	Size
1993	55,000	Northern Pike	Fingerling
1993	324	Black Crappie	Adult
1994	5,500	Northern Pike	Fingerling
1995	300	Yellow Perch	Adult
1995	2,500	Yellow Perch	Fingerling
1995	11,000	Northern Pike	Fingerling
1997	10,000	Largemouth Bass	Fingerling
1998	245	Black Crappie	Adult
2003	12,000	Largemouth Bass	Fingerling
2009	31,200	Largemouth Bass	Sm. Fingerling

RECOMMENDATIONS

1. Monitor the first cropping of largemouth bass stocked for their success.
2. Continue to stock largemouth bass of various sizes to establish a population.
3. Stock black crappie to establish a population.
4. Stock yellow perch to establish a population.
5. Conduct a full lake survey in 2011 to monitor the stockings so adjustments can be made.