

SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

2102-F-21-R-45

Name: Okaton Dam **County(ies):** Jones
Legal Description: T15S-R27E-Sec. 32, 33 **GPS:** 43°55'10.89"N 100°54'19.15"W
Location from nearest town: 2 miles N of Okaton

Date of present survey: June 18-19, 2012 (netting)
Date of last survey: July 21-22, 2009 (netting)
Most recent lake management plan: F-21-R-24 (January 1, 1990 to December 31, 1995)
Management classification: Warmwater Semi permanent

Primary Game Species	Secondary and Other Species
Largemouth Bass	Bluegill
	Black Bullhead

PHYSICAL DATA

Surface Area: 25 acres **Watershed:** 1,200 acres
Maximum Depth: 14 feet **Mean Depth:** 7 feet
Lake elevation at time of survey (field observations): Full
Contour map: No **Date:** NA

Ownership of lake and adjacent lakeshore properties:

Okaton Dam is an artificial lake located just south of the town of Okaton, which is how the lake derived its name. The dam was constructed in 1935 by the Works Progress Administration (WPA) on land purchased by Jones County from Albert Tornow. An easement was granted to the State of South Dakota to construct a dam and spillway, and grants public use and access on a strip of land 12 feet above the high-water level.

Watershed condition with percentages of land use types:

Okaton Dam was constructed on an unnamed tributary to Dry Creek, which is a tributary of the Bad River. The watershed consists of approximately 1,200 acres south of the lake. Approximately 70% of the watershed is agricultural land, mostly cultivated for winter wheat. The remaining 30% is pasture and hayland. The adjacent shoreline area is hayed and not used for livestock grazing except as a calving and lambing area in early spring.

Fishing access:

There is no boat ramp for lake access. There is also very little shorefishing opportunity due to dense amounts of cattails and rushes that surround the entire shoreline.

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

Dam is showing signs of erosion and leakage. No other structures are found at Okaton Dam.

Field observations of aquatic vegetation conditions:

Submergent vegetation consists of dense mats of various pondweed species throughout most of the lake. Emergent vegetation consists of cattails and rushes and surrounds the entire shoreline.

CHEMICAL DATA

Field observations of water quality and pollution problems:

No pollution problems were evident at the time of the survey. Water clarity was good with a secchi disc reading of 3 feet. Other water quality characteristics were measured in the field on June 18, 2012, using a HACH water quality kit and a Hanna multiparameter 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 Okaton Dam, Jones County, June 18, 2012.

Station	Depth (ft)	Temp (F)	DO (ppm)	CO2 (ppm)	ALK (mg/L)	HRD (mg/L)	pH	Cond. (µS/cm)	TDS (ppm)	Sal.	ORP	Secchi (ft)
A	Surface	80.95	10.71	55.6	262	625	8.77	2078	--	--	-88.0	3
A	15	78.95	1.89	75.6	269	618	8.21	--	--	--	-204.5	

BIOLOGICAL DATA

Methods:

Okaton Dam was sampled on June 18-19, 2012, with four overnight trap net sets. The trap nets have 3ft x 5ft frames, 60ft leads, and 3/4 inch knotted mesh. No experimental gill nets set or electrofishing was done during this survey season. Fish indices and statistics were completed using Winfin.

Results and Discussion:

On June 18, four trap nets were set to check in on the fish populations in Okaton Lake. The nets were pulled on June 19 as no fish were sampled. The only thing sampled was a number of turtles, crayfish and waterdogs. The lake looks like it should support a fish population and a fingerling stocking of largemouth bass was done in 2009 with nothing found to survive. This is even more surprising as the lake has been full for the last few years. Okaton will be resurveyed in 2015 to further check the fish population and management strategies may need to be adjusted accordingly.

RECOMMENDATIONS

1. Resurvey in 2015 to monitor the fish populations and evaluate the ability of the lake to sustain fish populations.
2. Stock largemouth bass of any size to help establish a population.
3. Stock bluegill as a secondary species.