

# Pigors

## Site Description

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### **Location**

Water designation number (WDN)	03-0012-00
Legal description	T122N R60W Sec. 36
County (ies)	Brown
Location from nearest town	5.0 miles east and 0.5 miles north of Ferney, SD

### **Survey Dates and Sampling Information**

Survey dates	June 12, 2014
Electrofishing (min)	50

### **Morphometry (Figure 1)**

Watershed area (acres)	30,810
Surface area (acres)	48
Maximum depth (ft)	14
Mean depth (ft)	7

### **Ownership and Public Access**

The majority of Pigors Dam is located on the Pigors Lake Game Production Area (GPA) and the fishery is managed by SDGFP. A single public access site that includes a concrete plank boat ramp and landing dock is located on the southwest shore. Shorefishing opportunities exist along 411<sup>th</sup> Ave. (Pigors Dam) and from state-owned lands adjacent to much of the shoreline (Figure 2).

### **Watershed and Land Use**

The 30,810 acre Pigors Lake-Mud Creek sub-watershed (HUC-12) encompasses Pigors Dam and is located within the larger Upper Mud Creek (HUC-10) watershed. Land use within the watershed is primarily agricultural with a mix of pasture or grassland, cropland, and scattered shelterbelts.

### **Water Level Observations**

Water levels on Pigors Dam are not monitored by SDDENR.

### **Fish Management Information**

Fish species	black bullhead, black crappie, bluegill, largemouth bass, northern pike, rock bass, yellow perch
Lake-specific regulations	none
Management classification	warm-water semi-permanent
Fish consumption advisories	none

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SOUTH DAKOTA  
DEPARTMENT OF GAME, FISH AND PARKS  
PIGORS LAKE  
BROWN COUNTY

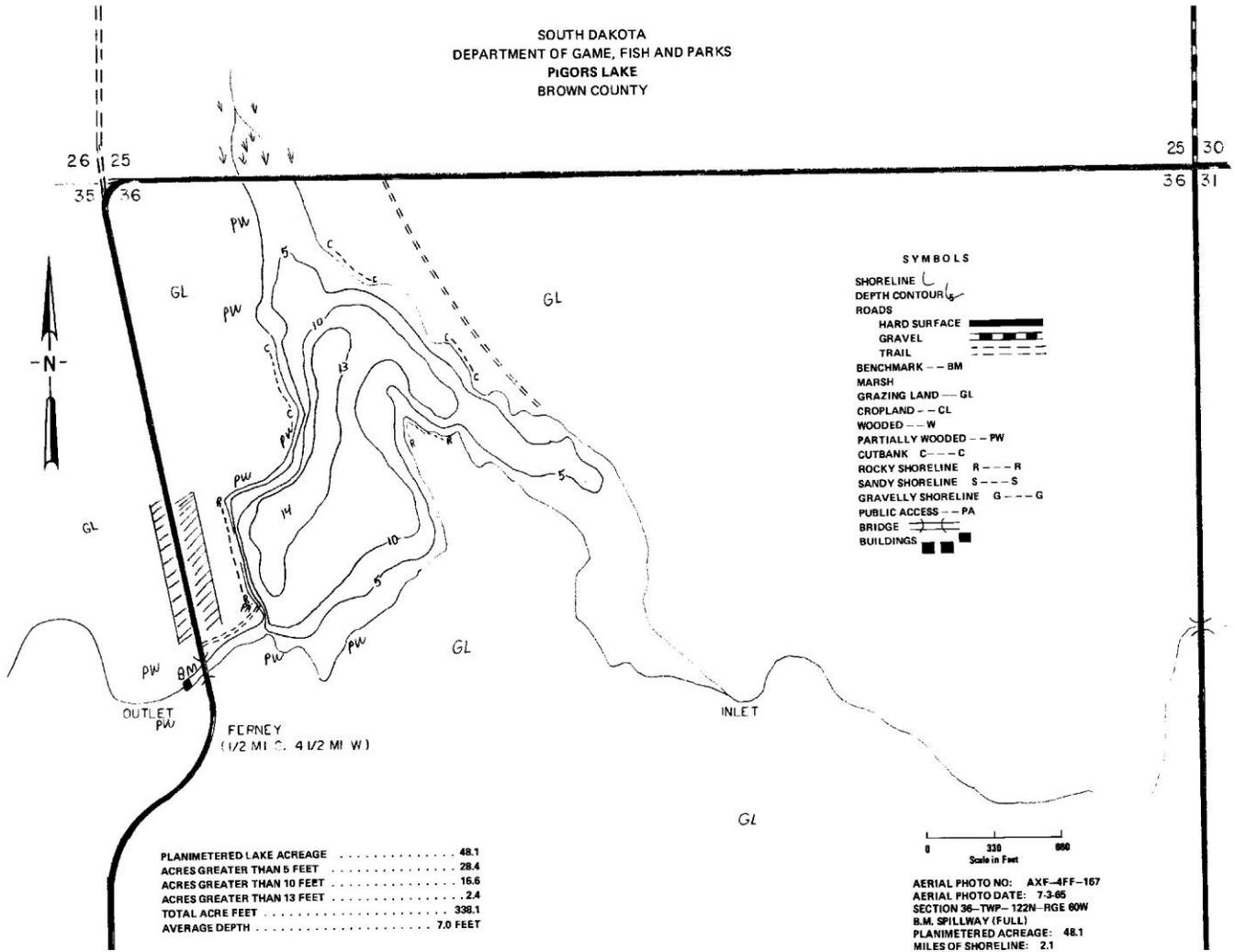


Figure 1. Map depicting depth contours of Pigors Dam.



Figure 2. Map depicting geographic location of Pigors Dam (Brown County) from Ferney, South Dakota (top). Also noted are the public access location, 411<sup>th</sup> Ave., and the Pigors Lake Game Production Area boundary (bottom).

## **Results and Discussion**

Pigors Dam was created in 1937 by the Works Progress Administration (WPA) on an unnamed tributary of Mud Creek. The dam is relatively shallow and heavily vegetated. Emergent vegetation (e.g., bulrushes and cattails) surround nearly the entire perimeter; while submersed vegetation (e.g., coontail, sago pondweed) cover much of the lake bottom.

Past reports and stocking history (since the late 1970's) suggest that the fishery has primarily been managed for largemouth bass and bluegill, which at times have provided quality angling opportunities. Unfortunately, like many WPA dams, siltation has decreased the water depth of Pigors Dam and limited the ability to manage sport fish populations. In recent years, several partial winter kills have occurred resulting in a fish population comprised primarily of black bullheads, northern pike, and yellow perch (Table 1; Table 2). No largemouth bass were sampled in 2005 or 2014, despite stockings of both fingerling (age 0) and juvenile (age 1) largemouth bass (Table 1; Table 2; Table 3).

## **Management Recommendations**

- 1) Conduct fish community assessment surveys using spring electrofishing on an every fourth year basis (next survey scheduled in summer 2018) to monitor fish relative abundance, fish population size structures, fish growth, and stocking success.
- 2) Shift management strategies toward a self-sustaining northern pike and yellow perch fishery.
- 3) Monitor winter and summerkill events. In cases of substantial winter/summerkill stock northern pike and yellow perch to re-establish a fish community.
- 4) Evaluate the possibility of conducting a large-scale renovation project that would remove siltation and increase the overall water depth; thereby decreasing the frequency of winterkill and expanding fish management options.

Table 1. Mean catch rate (CPUE; catch/hour) of stock-length fish, proportional size distribution of quality- (PSD) and preferred-length fish (PSD-P), and mean relative weight (Wr) of stock-length fish for various fish species captured during daytime electrofishing from the Pigors Dam, 2014. Confidence intervals include 80 percent ( $\pm$  CI-80) or 90 percent ( $\pm$  CI-90). BLB= black bullhead; NOP= northern pike; YEP= yellow perch

Species	Abundance		Stock Density Indices				Condition	
	CPUE	CI-80	PSD	CI-90	PSD-P	CI-90	Wr	CI-90
<i>Electrofishing</i>								
BLB	139.2	47.9	34	7	0	---	---	---
NOP	8.4	4.7	0	---	0	---	---	---
YEP	1.2	1.8	0	---	0	---	---	---

Table 2. Historic mean catch rate (CPUE; catch/hour) of stock-length fish for various fish species captured during spring electrofishing from Pigors Dam, 2005-2014. BLB= black bullhead; BLG= bluegill; NOP= northern pike; YEP= yellow perch

Species	CPUE								
	2005 <sup>1,2</sup>	2006	2007	2008	2009	2010	2012	2013	2014 <sup>3</sup>
<i>Electrofishing</i>									
BLB	---	---	---	---	---	---	---	---	139.2
BLG	63.5	---	---	---	---	---	---	---	0.0
NOP	1.0	---	---	---	---	---	---	---	8.4
YEP	1.0	---	---	---	---	---	---	---	1.2

<sup>1</sup>Spring night electrofishing

<sup>2</sup>Other fish species (primarily black bullheads) were observed but not recorded

<sup>3</sup>Spring day electrofishing

Table 3. Stocking history including size and number for fishes stocked into Pigors Dam, 1998-2014. LMB= largemouth bass

Year	Species	Size	Number
1998	LMB	fingerling	6,570
1999	LMB	fingerling	5,800
2005	LMB	fingerling	5,200
2008	LMB	fingerling	4,000
2009	LMB	juvenile	760
2010	LMB	juvenile	725