

# Hamak Lake

## Site Description

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### **Location**

Water designation number (WDN)	28-0001-00
Legal description	T120N-R69W-Sec. 3, 4
County (ies)	Faulk
Location from nearest town	4.5 miles north and 0.5 miles west of Wecota

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

Survey dates	June 2, 2015 (GN)
Gill net sets (n)	3

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

Watershed area (acres)	34,476
Surface area (acres)	36
Maximum depth (ft)	14
Mean depth (ft)	5

### **Ownership and Public Access**

Hamak Lake is an impoundment owned by the State of South Dakota and the fishery is managed by the SDGFP. Public access is available via a two-track trail that runs west off 353<sup>rd</sup> Avenue to the lake (Figure 1); no formal boat ramp exists. Lands adjacent to the lake are under private ownership.

### **Watershed and Land Use**

The 34,476 acre Hamak Lake sub-watershed (HUC-12) is located within the larger Hamak Lake (HUC-10) watershed. Land use within the watershed is primarily agricultural including a mix of pasture or grassland, cropland, and scattered shelterbelts.

### **Water Level Observations**

Water levels on Hamak Lake are not monitored by SDDENR.

### **Fish Management Information**

Primary species	northern pike, yellow perch
Other species	green sunfish
Lake-specific regulations	none
Management classification	warm-water marginal
Fish consumption advisories	none

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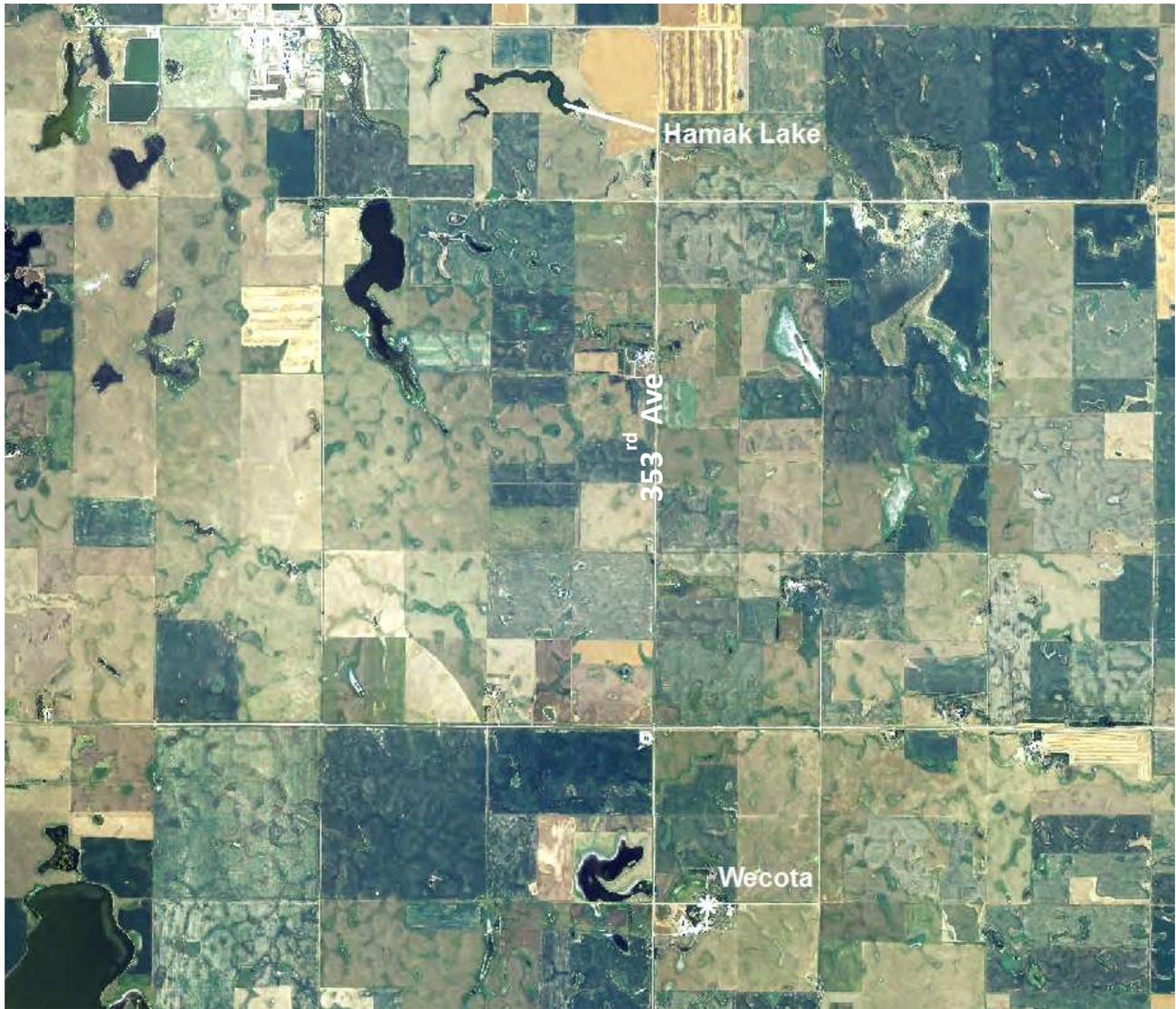


Figure 1. Map depicting geographic location of Hamak Lake from Wecota, South Dakota.

## **Management Objectives**

- 1) Maintain a population of northern pike in Hamak Lake.
- 2) Maintain a population of yellow perch in Hamak Lake.

## **Results and Discussion**

Hamak Lake, located north of Wecota, South Dakota, was formed in the 1930's by the Works Progress Administration. Like many WPA dams, siltation has decreased the water depth of the dam and limited the ability to manage sport fish populations. Past reports dating back to the early 1960's, indicate that the fishery is often dominated by black bullheads. As a result, management has primarily been geared toward northern pike and yellow perch; species believed to be less vulnerable to winterkill.

In 2015, three overnight gill net sets were used to sample Hamak Lake. Unfortunately, only three fish (a single green sunfish and two yellow perch) were captured (Table 1).

## **Management Recommendations**

- 1) Conduct fish community surveys utilizing gill nets periodically to monitor fish relative abundance, fish population size structures, fish growth, and stocking success.
- 1) Stock adult northern pike to establish a population and manage as a self-sustaining northern pike/yellow perch fishery.
- 2) Monitor winter and summerkill events. In cases of substantial winter/summerkill stock with northern pike and yellow perch to re-establish a fish community.

Table 1. Number (N) and mean catch rate (CPUE; catch/net night) for fish species captured in experimental gill nets from Hamak Lake, 2015. Confidence intervals include 80 percent ( $\pm$  CI-80). GSF= green sunfish; YEP= yellow perch

Species	N	CPUE	CI-80
<i>Gill nets</i> <sup>†</sup>			
GSF	1	0.3	0.7
YEP	2	0.7	0.6

<sup>†</sup> All fish sizes