CHRONOLOGY

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WATERBODY EVALUATION

STRATEGY STATEMENT

Recreational
Sportfish species are managed to provide a sustainable population while providing anglers the opportunity to catch or harvest numbers of fish adequate to maintain angler interest and efforts.

Commercial
Sibley Lake does not support significant numbers of fish species that normally comprise a commercial fishery. Catfish, spotted gar, freshwater drum and bowfin are present in the lake and are managed to provide sustainable populations.

Species of Special Concern
No species of special concern are known to occur in this lake.

EXISTING REGULATIONS

Recreational Fishing Regulations
Statewide recreational fishing regulations are in effect at Sibley Lake. Recreational fishing regulations may be viewed at the link below:
http://www.wlf.louisiana.gov/regulations

In addition to statewide LDWF regulations, The City of Natchitoches has passed ordinances establishing special fishing regulations for Sibley Lake to include the following:

Sec. 22-56. Fishing rules.
The following rules shall be in force governing fishing on Sibley Lake, to-wit:

(1) All state laws and regulations shall be enforced.

(2) No person will be allowed to seine in the waters of the lake. Fish traps and nets are prohibited.

(3) No commercial fishing will be permitted on Sibley Lake except when recommended by the Louisiana Wildlife and Fisheries to eradicate trash fish. In such event, commercial fishermen must be approved and must obtain a written permit from the Sibley Lake custodian.

(4) Fishing will be permitted in all areas of the lake except Area Three, which is off-limits, being the area around the water intake structure and the spillway.

(5) Use of unsanitary catfish bait or other unsanitary baits is prohibited.

(6) Trot lines will be permitted under the following rules and regulations, to wit:
(a) No trot lines will be permitted in ski areas from May 1 to October 1 of each year.

(b) Trot lines shall not exceed one hundred fifty (150) feet in length and no line shall contain more than fifty (50) hooks; one individual may have more than one line but will be limited to a total of seventy-five (75) hooks; each line must have one floating device bearing the name and address of owner.

(c) Any trot lines not meeting the above requirements, in any respect, will be confiscated by the lake custodian without notice.

(d) Any unattended trot lines, yo-yos, or other similar devices are to be confiscated by the lake custodian, and no such lines, or other lines or any type, are to be extended horizontally in such a manner that any such line will be above the water line of the lake.

(Ord. No. 854, § 5, 6-8-64; Ord. No. 895, 7-11-66; Ord. No. 1018, 4-24-72; Ord. No. 46-1981, § A, 12-28-81)

These and other special regulations may be viewed at:
https://library.municode.com/index.aspx?clientId=11202

Commercial Fishing Regulations
Statewide commercial fishing regulations are in effect at Sibley Lake. Louisiana’s commercial fishing regulations may be viewed at the link below:
http://www.wlf.louisiana.gov/regulations

SPECIES EVALUATION

Recreational Species

Largemouth Bass

Angler harvest and effort
A creel survey was initiated in February 1995 to determine angler effort and catch rates for sportfish species, including largemouth bass (LMB), crappies, catfishes and other panfishes. This access point survey was conducted on four weekend days and two weekdays per month during the survey period. The second and most recent access point creel survey was conducted for a twelve-month period from January to December of 2016, and included four weekend days and two weekdays each month. It should be noted that the latest creel did not include total trailer counts at the beginning of each survey, data that would have been needed to calculate LMB anglers, hours fished, LMB caught, harvested and released for the entire creel period.

The LMB fishery is an important component of Sibley Lake. Anglers logged 47,003 hours fishing on Sibley Lake in 1995, with 14,593 hours (31%) directed toward largemouth bass. In 2016, largemouth bass angling effort increased to 59.6 %. Specific results derived from
analysis of largemouth bass angler information data gathered during the two creel surveys are
given in Tables 1 and 2.

Table 1. Largemouth bass angler information taken from creel surveys conducted at Sibley Lake, Natchitoches Parish, LA in 1995 and 2016.

<table>
<thead>
<tr>
<th>1995 Recreational Angler Survey – Sibley Lake (totals expanded to 365 days)</th>
<th>2016 Recreational Angler Survey- (data based on 72 creel-days only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER OF LARGEMOUTH BASS ANGLERS</td>
<td>3,580</td>
</tr>
<tr>
<td>MEAN NUMBER OF ANGLERS IN PARTY</td>
<td>1.34</td>
</tr>
<tr>
<td>MEAN TRIP LENGTH (HOURS)</td>
<td>3.72</td>
</tr>
<tr>
<td>MEAN ONE-WAY DISTANCE TRAVELED (MILES)</td>
<td>14.00</td>
</tr>
</tbody>
</table>

Table 2. Total estimates for largemouth bass catch data collected during creel surveys conducted at Sibley Lake, Natchitoches Parish, LA in 1995 and 2016.

<table>
<thead>
<tr>
<th>1995 (February-November) 10 fish creel limit (totals expanded to 365 days)</th>
<th>2016 (January-December) 10 fish creel limit (data based on 72 creel-days only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER LMB CAUGHT</td>
<td>11,422</td>
</tr>
<tr>
<td>NUMBER LMB HARVESTED</td>
<td>4,405(38.6% of catch)</td>
</tr>
<tr>
<td>NUMBER LMB RELEASED</td>
<td>7,017(61.4% of catch)</td>
</tr>
<tr>
<td>POUNDS LMB HARVESTED</td>
<td>3,764</td>
</tr>
<tr>
<td>AVERAGE WEIGHT PER LMB (POUNDS)</td>
<td>0.84</td>
</tr>
<tr>
<td>LMB CAUGHT PER TRIP</td>
<td>3.88</td>
</tr>
<tr>
<td>LMB HARVESTED PER TRIP</td>
<td>1.79</td>
</tr>
<tr>
<td>LMB CAUGHT PER HOUR</td>
<td>1.1</td>
</tr>
<tr>
<td>LMB HARVESTED PER HOUR</td>
<td>0.48</td>
</tr>
</tbody>
</table>
Size distribution for largemouth bass harvested by bass anglers at Sibley Lake during the 72-day creel survey conducted in 2016 are shown in Figure 1.

![Size distribution for largemouth bass harvested by bass anglers at Sibley Lake during the 72-day creel survey conducted in 2016.](image)

Figure 1. The size distribution (inch groups) of angler harvested largemouth bass taken at Sibley Lake, LA during the 72-day creel survey in 2016. \( n = 135 \)

The 1995 creel data indicates that during the survey periods, bass anglers harvested approximately 38.6% (release rate of 61.4%) of all bass caught. The median length for largemouth bass harvested by bass anglers was 11 inches in total length (TL). The 2016 creel data indicates similar retention rates where bass anglers harvested approximately 37.1 % (release rate of 62.9%) of all bass caught. The median length for largemouth bass harvested in 2016 had increased to 14 inches TL.

**Relative abundance, size structure and relative weight**-
Largemouth bass are utilized as an indicator species for the overall fish population due to their high position in the food chain. Electrofishing generally provides good insight into the abundance and size distribution of largemouth bass. However, electrofishing does not effectively sample large bass. Gill net sampling is used to determine the status of large bass and other large fish species.

Catch per unit effort (CPUE) is the term used to describe the number of fish collected during a given time period of sampling. For electrofishing samples, the standard CPUE time period is one hour and the unit of measure is number of fish captured. Analysis of electrofishing data from Sibley Lake indicates the presence of a stable bass population with adequate abundance to provide for a sustained fishery. The total CPUE value for spring electrofishing in 2013 was 110.6 bass per hour (Figure 2) which is 21% below the average value for the previous four sampling periods. However, the total CPUE value of 183 bass per hour for fall electrofishing in 2013 is 35% above the average of the previous four sampling periods.
Figure 2. Total CPUE for largemouth bass collected during spring and fall electrofishing at Sibley Lake, LA in 2000, 2003, 2005, 2007 & 2013.

Stock and preferred-size classes demonstrate a stable abundance level in surveys conducted since 2000. Quality-size bass abundance in year 2013 was 35% below the average value for the previous four surveys. The CPUE values for selected largemouth bass size groups collected during spring electrofishing sampling are shown in Figure 3.

Average relative weights (Wr) for different size groups of largemouth bass sampled from Sibley Lake by fall electrofishing during the years 2000, 2003, 2005, 2007 and 2013 are stock-size – 90.7, quality-size – 93, preferred-size – 97.5 and memorable-size – 98.1. Relative weight results for selected largemouth bass are depicted in Figure 4.

![Graph showing relative weights](image)

**Figure 4.** The relative weights of stock, quality, preferred and memorable size largemouth bass collected during fall electrofishing at Sibley Lake, LA in 2000, 2003, 2005, 2007 & 2013.

In comparing relative weights for largemouth bass collected in 2013 to earlier Wr values for that species, Wr for stock-size fish decreased by 0.4%, Wr for quality-size fish increased by 4.4%, and Wr for preferred-size fish increased by 7.5% when compared to the average of the previous four years.

The size distribution of largemouth bass from Sibley Lake for fall 2013 is presented in Figure 5. Size groups from 4 to 20 inches are represented in the sample, with 11 to 13-inch TL fish being very prevalent in the population. Young-of-the-year (YOY) bass from 4 to 8 inches’ TL comprised 39% of the population sample, indicating ample recruitment had occurred from the 2013 spring spawn.
Figure 5. The size distribution (inch groups) of largemouth bass in Sibley Lake, Louisiana from fall electrofishing results for 2013 (n = 183).

**Largemouth Bass Genetics**

Sibley Lake was stocked with 67,874 Florida strain largemouth bass fingerlings in 1993. Florida strain largemouth bass were stocked into the reservoir to incorporate a genetic trait associated with larger maximum sized adult fish. Samples taken from electrofishing in year 2007 show that the percentage of bass with Florida influence (F - F₅) was 23.5 percent at that time. Sampling indicated that largemouth bass with the genetic signature defined as pure Florida comprised 7.5 percent in 2007. Genetic testing results for largemouth bass are shown in Table 3.
Table 3. Genetic analysis of largemouth bass taken from Sibley Lake, LA.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Northern</th>
<th>Florida</th>
<th>Hybrid</th>
<th>Florida Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>68</td>
<td>76.5%</td>
<td>7.5%</td>
<td>16%</td>
<td>23.5%</td>
</tr>
</tbody>
</table>

**Sunfish (Bluegill & Redear)**

Sunfish anglers comprise a small portion of the total angler group at Sibley Lake with their effort comprising 0.37% of the total angling effort during the 1995 creel survey period. Annual catch information for bluegill sunfish appears in Table 4.

Table 4. Bluegill catch data collected during annual creel surveys at Sibley Lake, Natchitoches Parish, Louisiana.

<table>
<thead>
<tr>
<th>1995 (February-November)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER BLUEGILL CAUGHT</td>
<td>506</td>
</tr>
<tr>
<td>NUMBER BLUEGILL HARVESTED</td>
<td>506</td>
</tr>
<tr>
<td>(100% of catch)</td>
<td></td>
</tr>
<tr>
<td>POUNDS BLUEGILL HARVESTED</td>
<td>94.2</td>
</tr>
<tr>
<td>AVERAGE WEIGHT PER BLUEGILL (POUNDS)</td>
<td>0.19</td>
</tr>
<tr>
<td>BLUEGILL CAUGHT PER TRIP</td>
<td>10.3</td>
</tr>
<tr>
<td>BLUEGILL CAUGHT PER HOUR</td>
<td>2.9</td>
</tr>
<tr>
<td>BLUEGILL HARVESTED (NUMBER PER HOUR)</td>
<td>2.9</td>
</tr>
<tr>
<td>BLUEGILL HARVESTED (POUNDS PER HOUR)</td>
<td>0.54</td>
</tr>
</tbody>
</table>

**Crappie**

Relative abundance and size structure indices-

Crappies are present in Sibley Lake and provide significant recreational opportunity for anglers. Hours of angling effort directed toward crappies were slightly lower during the most recent creel survey period. In 1995, crappie anglers expended 54% of all angling effort compared to 39.7% of all angling effort on the lake in 2016. Crappies were sampled with leadnets seven times between 2006 and 2017. Total catch-per-unit-of-effort (number of fish caught per hour) values for those samples are given in Figure 6.

These results indicate the presence of a sustained population of crappie in this lake. They also indicate the cyclical pattern exhibited by crappies in waterbodies statewide.

Further understanding of the size distribution of this crappie population can be gained by looking at the relative stock density (RSD) values calculated for crappies collected with leadnets. RSD values for the three largest size groups of crappie are given in Figure 7.


The RSD of crappies suggests a significant portion of the crappie population is in the preferred-size group (TL > 10 in.). Memorable-sized fish are not considered as abundant in this waterbody,
but are present in numbers sufficient to provide reasonable angler opportunity and show an increasing number within the population. The RSD of trophy-size crappies was zero, which is typical for this sampling method in most crappie populations. Relative stock density for preferred- and memorable-sized crappies was higher in 2016 than in the previous five sampling periods.

The size distribution of crappies (black and white combined) from Sibley Lake for fall 2016 leadnet results is presented in Figure 8. Size groups from 2 to 14 inches were present in the sample, with 7 to 10-inch fish being very prevalent in the population. Young-of-the-year (YOY) crappie 5 to 7 inches’ total length (TL) comprised 38.8% of the population sample, indicating good recruitment had occurred from the 2016 spring spawn.

Figure 8. The size distribution (inch groups) of crappies (black and white combined) from Sibley Lake, Louisiana captured during leadnet sampling in the fall of 2016 (n = 1,010).
Angler harvest and effort
Crappie anglers were interviewed as part of the previously mentioned creel survey. Size distribution results from that survey are illustrated in Figure 9.

![Figure 9](image)

Figure 9. The size distribution (length groups) of angler harvested crappie measured during the 72 day creel survey at Sibley Lake, LA in 2016 (n = 580).

Most of the crappies caught by anglers were 9 to 11 inches TL. The minimum and maximum sizes were 7 and 15 inches TL, respectively. The median length for all crappies caught by crappie anglers was 11.0 inches TL.

Catfish
Channel catfish, *Ictalurus punctatus* and flathead catfish *Pylodictis olivaris* are found in this reservoir, with channel catfish being the most abundant species. Gillnetting results for the two species of catfish are shown in Figures 10 and 11.
Figure 10. The total CPUE (pounds per net night) of channel catfish and flathead catfish collected in Sibley Lake, LA by gillnet sampling in 1997-1998, 2004-2005, and 2007-2008.

Figure 11. The total CPUE (number per net night) of channel catfish and flathead catfish collected in Sibley Lake, LA by gillnet sampling in 1997-1998, 2004-2005, and 2007-2008.
Forage

Forage fish are those that are available for use as food by predatory fishes. In general, all individuals up to six inches in length are forage fish, particularly when discussing forage for largemouth bass. Forage sampling conducted by electrofishing in the fall season 2013 resulted in 59.1 pounds per hour of forage fishes equal to or less than six inches in length. Figures 12 & 13 depict forage sample results from multiple years.

Figure 12. Forage fish by species collected during fall electrofishing at Sibley Lake, LA in 1990, 1994-1996 & 2013.

Figure 13. Forage fish collected per hour of fall electrofishing sampling at Sibley Lake, LA in 1990, 1994-1996 & 2013.
**Commercial Species**

Data collected with standardized gillnets is presented in the following graphs. Standardized gillnet sampling involves the use of 100 yards each of 2.5 inch, 3 inch, 3.5 inch and 4-inch bar mesh monofilament gill nets at each station.

**Carp**

While common carp (*Cyprinus carpio*) are not subject to species specific management, they are considered a commercial species. As such, they are managed to provide a sustainable population. Figure 14 depicts total CPUE of common carp collected in gillnets at Sibley Lake.

![Figure 14. Total CPUE (pounds/100'/net night) of carp taken by gillnet sampling at Sibley Lake, LA during sampling periods 1997-1998, 2004 – 2005 & 2007 - 2008.](chart)

**Catfish**

All catfish species are managed to provide a sustainable population. Two major catfish species, channel catfish *Ictalurus punctatus* and flathead catfish *Pylodictis olivaris*, are found within the waterbody. Catch data from standardized gillnets for these species was presented in Figures 10 and 11.

**Freshwater Drum**

Freshwater drum *Aplodinotus grunniens* are occasionally collected during standardized sampling at this lake. Abundance of this species remains relatively low. Catch data from standardized gillnets is presented in Figure 15.

Bowfin
Bowfin *Amia calva* is not a major commercial species in Sibley Lake. Bowfins are occasionally collected during standardized sampling. The CPUE for bowfins collected in gillnets is depicted in Figure 16.

Garfish
Spotted gar *Lepisosteus oculatus* are the only species of garfish that occur in this reservoir. The CPUE for spotted gar collected in gillnets is depicted in Figure 17.

![Figure 17](image-url)


Species of Special Concern
No species of special concern are found in this lake.

HABITAT EVALUATION

Aquatic Vegetation
Hydrilla (*Hydrilla verticillata*) was discovered in Sibley Lake in January of 1973. Records indicate a subsequent five successive year drawdown regime that eradicated hydrilla from the lake at that time. Scattered specimens of hydrilla can currently be found in Sibley Lake but no treatments or control measures directed towards this plant species have been implemented by LDWF in recent years.

In 2008, common salvinia (*Salvinia minima*) and giant salvinia (*Salvinia molesta*) were first treated by LDWF spray crews. Giant salvinia has remained problematic since that time in isolated areas that are protected from wind and wave action.

Heavy rainfall events in 2016 and 2017 flushed giant salvinia from previously inaccessible areas of Sibley Lake and private ponds into the main lake. Areas most treated following these events were upstream of the Hwy 504 Oak Grove Bridge and behind the Tennessee Gas Pumping Station. Both the City of Natchitoches and LDWF worked together to treat these areas without overlapping efforts. Below average temperatures in December 2017 and January 2018 have appeared to decreased salvinia coverage further. The most recent vegetation survey is depicted in Table 5.
Table 5. Total acreage of major plant species found in Sibley Lake during a vegetation survey conducted September 14, 2017.

<table>
<thead>
<tr>
<th>Aquatic Plant Species</th>
<th>Acreage Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrilla (<em>Hydrilla verticillata</em>)</td>
<td>1 acre</td>
</tr>
<tr>
<td>Giant salvinia (<em>Salvinia molesta</em>)</td>
<td>46 acres</td>
</tr>
<tr>
<td>Chara (<em>Chara spp.</em>)</td>
<td>4 acres</td>
</tr>
<tr>
<td>American lotus (<em>Nelumbo lutea</em>)</td>
<td>3 acres</td>
</tr>
<tr>
<td>Giant cutgrass (<em>Zizaniopsis miliacea</em>)</td>
<td>2 acres</td>
</tr>
<tr>
<td>Illinois pondweed (<em>Potamogeton illinoensis</em>)</td>
<td>5 acres</td>
</tr>
<tr>
<td>Total vegetation coverage</td>
<td>61 acres</td>
</tr>
<tr>
<td>Percentage of lake covered by vegetation</td>
<td>2.8% coverage</td>
</tr>
</tbody>
</table>

In recent years, minor treatments were made for control of alligator weed (*Alternanthera philoxeroides*), American lotus (*Nelumbo lutea*), cutgrass (*Zizaniopsis miliacea*), common salvinia (*Salvinia minima*), giant salvinia (*Salvinia molesta*), water hyacinth (*Eichhornia crassipes*) and water lily (*Nymphaea spp.*).

Treatments by LDWF crews from 2014 to 2017 have specifically targeted giant salvinia close to the Oak Grove Bridge area Tennessee Gas Pumping Station. Coordination with private landowners and possible treatments to adjacent ponds with salvinia coverage is ongoing. Chemical treatments made at Sibley Lake for 2013 -2017 are depicted in Table 6.
Table 6. Chemical treatments made by LDWF at Sibley Lake, LA from 2013 to 2017.

<table>
<thead>
<tr>
<th>Treatment Year</th>
<th>Chemical</th>
<th>Vegetation</th>
<th>Acres Treated</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Aquamaster</td>
<td>American Lotus</td>
<td>20.4</td>
<td>0.75 gal./acre</td>
</tr>
<tr>
<td></td>
<td>Aquamaster</td>
<td>Cutgrass</td>
<td>0.4</td>
<td>0.75 gal./acre</td>
</tr>
<tr>
<td></td>
<td>Aquamaster and Tribune (summer mixture)</td>
<td>Giant Salvinia</td>
<td>134.77</td>
<td>0.75 and 0.25 gal./acre</td>
</tr>
<tr>
<td></td>
<td>Roundup Custom and Tribune (summer mixture)</td>
<td>Giant Salvinia</td>
<td>84.0</td>
<td>0.75 and 0.25 gal./acre</td>
</tr>
<tr>
<td></td>
<td>Sonar AS</td>
<td>Giant Salvinia</td>
<td>1.0</td>
<td>80ppb</td>
</tr>
<tr>
<td></td>
<td>Tribune (winter mixture)</td>
<td>Giant Salvinia</td>
<td>1.99</td>
<td>0.75 gal./acre</td>
</tr>
<tr>
<td>2014</td>
<td>Roundup Custom and Tribune (summer mixture)</td>
<td>Giant Salvinia</td>
<td>1.0</td>
<td>0.75 and 0.25 gal./acre</td>
</tr>
<tr>
<td></td>
<td>Tribune (winter mixture)</td>
<td>Giant Salvinia</td>
<td>2.0</td>
<td>0.75 gal./acre</td>
</tr>
<tr>
<td>2015</td>
<td>Roundup Custom and Tribune (summer mixture)</td>
<td>Giant Salvinia</td>
<td>9.0</td>
<td>0.75 and 0.25 gal./acre</td>
</tr>
<tr>
<td>2016</td>
<td>Roundup Custom and Tribune (summer mixture)</td>
<td>Giant Salvinia</td>
<td>31.0</td>
<td>0.75 and 0.25 gal./acre</td>
</tr>
<tr>
<td></td>
<td>Tribune (winter mixture)</td>
<td>Giant Salvinia</td>
<td>20.0</td>
<td>0.75 gal./acre</td>
</tr>
<tr>
<td>2017</td>
<td>Roundup Custom and Tribune (summer mixture)</td>
<td>Giant Salvinia</td>
<td>143.0</td>
<td>0.75 and 0.25 gal./acre</td>
</tr>
<tr>
<td></td>
<td>Aquaneat and Tribune (summer mixture)</td>
<td>Giant Salvinia</td>
<td>25.0</td>
<td>0.75 and 0.25 gal./acre</td>
</tr>
<tr>
<td></td>
<td>Tribune (winter mixture)</td>
<td>Giant Salvinia</td>
<td>19.0</td>
<td>0.75 gal./acre</td>
</tr>
</tbody>
</table>

**Durable Natural Structure**
Very little woody structure exists in this lake.

**Substrate**
Information from the Natural Resources Conservation Service shows that soils in the Sibley Lake watershed range from silt loam to sandy loam to various clay types. Soil pH values fall between 5 and 7.3 for the drainage area. Soil fertility is classified as moderate.

**Artificial Structure**
Eight artificial reef structures have been placed in this reservoir by LDWF. These structures are clusters of plastic feed pallet “trees” and are marked by yellow buoys. Location information for the eight reefs is given in Table 6.
Table 6. Location coordinates for artificial reef structures at Sibley Lake, LA.

<table>
<thead>
<tr>
<th>Structure Number</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N 31.770896°</td>
<td>W -93.129200°</td>
</tr>
<tr>
<td>2</td>
<td>N 31.759189°</td>
<td>W -93.111104°</td>
</tr>
<tr>
<td>3</td>
<td>N 31.753812°</td>
<td>W -93.129975°</td>
</tr>
<tr>
<td>4</td>
<td>N 31.752906°</td>
<td>W -93.115882°</td>
</tr>
<tr>
<td>5</td>
<td>N 31.753506°</td>
<td>W -93.111422°</td>
</tr>
<tr>
<td>6</td>
<td>N 31.766775°</td>
<td>W -93.126021°</td>
</tr>
<tr>
<td>7</td>
<td>N 31.769551°</td>
<td>W -93.109954°</td>
</tr>
<tr>
<td>8</td>
<td>N 31.764674°</td>
<td>W -93.108884°</td>
</tr>
</tbody>
</table>

CONDITION IMBALANCE / PROBLEM

Aquatic vegetation is sometimes problematic at Sibley Lake. Primary concerns are related to alligator weed (*Alternanthera philoxeroides*), American lotus (*Nelumbo lutea*), Cutgrass (*Zizaniopsis miliacea*), common salvinia (*Salvinia minima*), giant salvinia (*Salvinia molesta*), water hyacinth (*Eichhornia crassipes*) and water lily (*Nymphaea* spp.).

CORRECTIVE ACTION NEEDED

LDWF will periodically assess aquatic vegetation in Sibley Lake by both physical survey and regular communication with the Sibley Lake Patrol. LDWF will respond appropriately based upon such assessments.

RECOMMENDATIONS

The Sibley Lake Patrol closely monitors this waterbody and communicates well with LDWF when problems arise regarding aquatic vegetation.

The Sibley Lake Patrol has purchased herbicide and spray equipment, including a surface drive boat for control of aquatic vegetation at this lake. The program that the patrol has in place has provided adequate vegetation control from 2013 through 2017. LDWF has cooperated with the patrol by serving in an advisory role with respect to herbicide and equipment selection. LDWF has provided personnel, equipment and chemicals for spot treatments in response to requests from the patrol. Increased efforts in August 2017 by both The Sibley Lake Patrol and LDWF were in response to above average precipitation with increased flushes of salvinia into Sibley Lake.
LDWF will continue to maintain a good line of communication with the Sibley Lake Patrol regarding aquatic plants on this lake. Additionally, LDWF staff will make observations of aquatic plant coverage during routine fisheries sampling on the lake. LDWF will respond appropriately with spot treatments of foliar herbicides as a first line of action for the treatment of floating and emergent vegetation upon requests for assistance made by the Sibley Lake Patrol.

Alligator weed in undeveloped shoreline areas will be treated with foliar applications of imazapyr (0.5 gal/acre) and Turbulence (or approved substitute, 0.25gal/acre) surfactant. Alligator weed in developed shoreline areas will be treated with foliar applications of imazoxom (Clearcast, 0.5 gal/acre) and Turbulence (or approved substitute, 0.25 gal/acre) surfactant.

Water hyacinth will be treated with foliar applications of glyphosate (0.75 gal/acre) and a non-ionic surfactant (0.25 gal/acre) from March 15 to September 15. Water hyacinth will be treated with foliar applications of 2,4-D (0.5 gal/acre) and a non-ionic surfactant (1 pint/acre) from September 16 to March 14.

Giant salvinia will be treated with a mixture of glyphosate (0.75gal/acre), diquat (0.25gal/acre) and methylated seed oil (0.25 gal/acre) surfactant from April 1 to October 31. Outside of that time period, diquat (0.75 gal/acre) and a 90:10 non-ionic surfactant or equivalent (0.25 gal/acre) will be used.

Submerged aquatic vegetation will be controlled in response to requests from the Sibley Lake Patrol. It is recommended that the patrol use endothall at 2 ppm for submerged aquatic vegetation control if that need arises.

Continue standardized sampling to monitor fish population status.