

LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES



OFFICE OF FISHERIES
INLAND FISHERIES SECTION

2018 AQUATIC VEGETATION MANAGEMENT
PLAN

RED RIVER POOL 1

Red River Lock and Dam #1 is located north of Marksville, LA. Take Louisiana Highway 452 (Brouillette Highway) north out of Marksville approximately 11 miles. Look for the U.S. Army Corps of Engineers sign on the left side of the road at the foot of the levee and the ramp is over the levee at the lock and dam recreation area. There are 5 locks and dams that run from Shreveport to Marksville. These structures perform a stair step effort on the river, creating controllable pools and passageways for river traffic. Pool #1 has depths ranging from 40 -60 feet. Small oxbows extend off of the main channel. Aquatic vegetation is minimal, consisting of water hyacinth (*Eichhornia crassipes*), common salvinia (*Salvinia minima*) and giant salvinia (*Salvinia molesta*).

Water body Information

Waterbody Type:

Impounded river

Parish/Location:

Avoyelles parish, LA

Date Created:

Completion of the 5 locks and dams was in 1994

Size (surface acres):

Lake: 3,750 acres

Water Control Structures:

Description:

Locks and Dams were completed in 1994. They are operated by the U.S. Army Corps of Engineers.

Age and Condition:

1994 - Good

Ownership:

Red River Waterway Commission

Pool stage:

40.0 feet MSL

Border waters:

Atchafalaya River and Black River

What significant stakeholders use the lake?

Recreational fishermen and hunters, commercial fishermen, and agricultural irrigation

What are their needs and concerns? What is the history of aquatic vegetation complaints?
Due to the lack of aquatic plants, there have been no aquatic vegetation complaints.

Have there been any controversial issues on the lake?
Very little aquatic plant issues in Red River pool 1.

Past Control Measures:

Biological:

None

Chemical:

In 2014, foliar herbicide applications were made on giant salvinia in Red River. A total of 3.5 gallons were applied to 4.6 acres. A mixture of diquat (0.25 gal/acre) and glyphosate (0.75 gal/acre) with Aqua King Plus (0.25 gal/acre) and Air Cover (12 oz./acre) surfactants was used to control giant salvinia.

In 2015, no herbicide applications were made.

In 2016, no herbicide applications were made.

In 2017, no herbicide applications were made.

Physical:

None

Aquatic Vegetation Status:

Biomass:

As of August 2012, there was very little aquatic vegetation in Pool 1. In the spring of 2013, giant salvinia was observed floating downstream in the main channel. Other vegetation observed consisted of water hyacinth and common salvinia. No submersed vegetation was observed.

As of October 2014, giant salvinia was observed floating downstream in the main channel. Other vegetation observed consisted of water hyacinth. No submersed vegetation was observed.

As of November 12th 2015, giant salvinia and water hyacinth was observed floating downstream in the main channel. No submersed vegetation was observed.

*In 2015, Red River water levels were extremely high through most of the spring and summer due to heavy rain events. Giant salvinia was observed floating in and out of Red River pool 1 during this period.

As of October 13th 2016, slight amounts of giant salvinia and water hyacinth were observed floating downstream in the main channel. No submersed vegetation was observed.

*In 2016, Red River water levels once again were extremely high through the spring and summer due to heavy rain events. Giant salvinia was observed floating in and out of Red River pool 1 during this period.

In November of 2017, slight amounts of giant salvinia and water hyacinth were observed in a few oxbows within pool 1. No submersed vegetation was observed.

Predictions for 2018:

Water Hyacinth – 200 acres

Giant Salvinia – 250 acres

Limitations:

Diploid grass carp have been present at least for the last 14 years, providing control over submersed vegetation.

Routine operation of the lock and dam provide flow and subsequent control of floating vegetation.

Recommendations:

Herbicide applications will be conducted as necessary as per the LDWF Aquatic Herbicide Application Procedures to facilitate public access. To control water hyacinth, 2,4-D will be applied at a rate of 0.5 gallons per acre with a non-ionic surfactant (1 pint/acre). A diquat (0.25 gal/acre) and glyphosate (0.75 gal/acre) mixture with Turbulence (or approved equivalent, 0.25 gal/acre) surfactant will be used to control common and giant salvinia from April 1 to October 31. Diquat (0.75 gal/acre) and a non-ionic surfactant (0.25 gal/acre) will be used to control these plant species from November 1 to March 31.

Map of the Red River

