

# **LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES**



**OFFICE OF FISHERIES  
INLAND FISHERIES SECTION**

**2018 AQUATIC VEGETATION MANAGEMENT PLAN**

**BAYOU TECHE**

Bayou Teche is a 125-mile long waterway in south central Louisiana. The Teche, as it is known, begins in Port Barre where it draws water from Bayou Courtableau and then flows southward to meet the Lower Atchafalaya River at Patterson, LA. After the levees were built along the Atchafalaya River in the 1930s, the Teche and the rice farms located along the bayou suffered a drastic reduction in fresh water. Between 1976 and 1982, the United States Army Corps of Engineers built a pumping station at Krotz Springs to pump water from the Atchafalaya River into Bayou Courtableau.

## **Waterbody Information**

### ***Waterbody Type:***

Bayou that runs from Port Barre, LA to Patterson, LA.

### ***Parish/Location:***

St. Landry, St. Martin, Iberia and St. Mary Parishes in LA

### ***Size (surface acres):***

Approximately 125 miles long and 150 feet wide

### ***Watershed:***

Lies within the Teche/Vermilion Basin

Watershed Ratio: Unknown

### ***Water Control Structures:***

#### Description:

There are two control structures along Bayou Teche. The first one is in St. Martinville, LA (Keystone locks) and the second is in Patterson, LA (Calumet locks) which leads into the Wax Lake outlet.

#### Age and Condition:

29 years old / good condition

### ***Ownership:***

State of Louisiana owns the water bottoms and the Louisiana Department of Wildlife and Fisheries (LDWF) manage the fish and wildlife resources.

### ***Pool stage:***

Average Depth – 5 feet

### ***Border Waters:***

Atchafalaya River, Henderson Lake and Fausse Point Lake

### ***What significant stakeholders use the lake?***

This system is used primarily for recreational activities such as fishing, hunting and boating. Other uses are for agricultural practices such as sugar cane production.

***What are their needs and concerns? What is the history of aquatic vegetation complaints?***

The stakeholders want to make sure that Bayou Teche is navigable and useable. Water hyacinth lines the banks but, herbicide applications have kept the plant under control. Also, common salvinia has spread throughout the bayou, but herbicide applications have curtailed the growth of this plant.

***Have there been any controversial issues on the lake?***

Low water levels from St. Martinville, LA to Patterson, LA make navigation dangerous during drought conditions.

**Past Control Measures:**

***Biological:***

None

***Chemical:***

In 2011, 2,4-D was applied at a rate of 0.5 gallons per acre to control water hyacinth (*Eichhornia crassipes*), alligator weed (*Alternanthera philoxeroides*) and water primrose (*Ludwigia spp.*). Diquat and glyphosate were applied separately at 0.75 gallons per acre to control common salvinia.

In 2012, foliar herbicide applications were made on nuisance plants such as water hyacinth, alligator weed, primrose, common salvinia (*Salvinia minima*) and giant salvinia (*Salvinia molesta*) in Bayou Teche. A total of 473 gallons were applied to 888 acres. To control water hyacinth, alligator weed and primrose, 2,4-D was applied at a rate of 0.5 gallons per acre. A diquat (0.25 gal/acre) and glyphosate (0.75 gal/acre) mix was applied to control common and giant salvinia.

In 2013, foliar herbicide applications were made on nuisance plants such as alligator weed, primrose, sedge, common & giant salvinia, and water hyacinth for a total of 958 acres sprayed. To control water hyacinth, alligator weed and primrose, 2,4-D was applied at a rate of 0.5 gallons per acre. A diquat (0.25 gal/acre) and glyphosate (0.75 gal/acre) mix was applied to control common and giant salvinia.

In 2014, foliar herbicide applications were made on nuisance plants such as water hyacinth, alligator weed, primrose and common salvinia in Bayou Teche. A total of 68 gallons were applied to 110 acres. To control water hyacinth and white water lily, 2,4-D was applied at a rate of 0.5 gallons per acre. To control common & giant salvinia and alligator weed, a mixture of glyphosate (0.75 gal/acre) and diquat (0.25 gal/acre) with Aqua King Plus (0.25 gal/acre) and Air Cover (12 oz/acre) surfactants was applied.

In 2015, foliar herbicide applications were made on nuisance aquatic plants such as water hyacinth, primrose, and giant and common salvinia in Bayou Teche. A total of 45 gallons were applied to 80 acres. To control water hyacinth and primrose, 2,4-D was applied at a rate of 0.5 gallons per acre. To control common & giant salvinia, a mixture of glyphosate (0.75 gal/acre) and diquat (0.25 gal/acre) with Aqua King Plus (0.25 gal/acre) and Air Cover (12 oz./acre) surfactants was applied.

Also in 2015, boat spray contractors were used from October 13<sup>th</sup> – 15<sup>th</sup>, for a foliar herbicide

application on water hyacinth in Bayou Teche from Franklin to Calumet Cut in St. Mary Parish. A total of 80 gallons were applied to 160 acres. To control water hyacinth, 2,4-D was applied at a rate of 0.5 gallons per acre with a surfactant (Activate Plus) at a rate of 0.25 gallon per acre.

In 2016, foliar herbicide applications were made on nuisance aquatic plants such as water hyacinth, cutgrass, and giant and common salvinia in Bayou Teche. A total of 152 gallons were applied to 233 acres. To control water hyacinth, 2,4-D was applied at a rate of 0.5 gallons per acre. To control common & giant salvinia, a mixture of glyphosate (0.75 gal/acre) and diquat (0.25 gal/acre) with Aqua King Plus (0.25 gal/acre) and Air Cover (12 oz./acre) surfactants was applied. To control cutgrass, imazapyr mixed with Turbulence (0.25 gal./acre), a methylated vegetable oil surfactant was applied.

Also in 2016, boat spray contractors were used for a foliar herbicide application targeting water hyacinth in Bayou Teche from Franklin to Calumet Cut in St. Mary Parish. To control water hyacinth, 2,4-D was applied at a rate of 0.5 gallons per acre with a non-ionic surfactant (Activate Plus) at a rate of 0.25 gallon per acre. A total of 120 gallons were applied to 224 acres.

In 2017, foliar herbicide applications were made on nuisance aquatic plants such as water hyacinth and pennywort. To control water hyacinth, 2,4-D was applied at a rate of 0.5 gallons per acre. A total of 15 gallons were applied to 30 acres.

Also in 2017, boat spray contractors were used for a foliar herbicide application targeting water hyacinth in Bayou Teche from Baldwin to Centerville in St. Mary Parish. To control water hyacinth, 2,4-D was applied at a rate of 0.5 gallons per acre with a surfactant. A total of 158.75 gallons were applied to 294 acres.

***Physical:***

None

**Aquatic Vegetation Status:**

As of November 2017, aquatic plants were slightly below normal levels. Water hyacinth remains the dominant aquatic plant present with giant and common salvinia, giant cutgrass (*Zizaniopsis miliacea*) and submersed vegetation such as hydrilla (*Hydrilla verticillata*), fanwort (*Cabomba caroliniana*) & coontail (*Ceratophyllum demersum*) spread throughout the system.

**Plant growth projections for 2018:**

hydrilla – slight amount along shoreline of bayou

water hyacinth – moderate in the lower section of Bayou Teche in St. Mary parish

coontail and fanwort – slight amount along shoreline of bayou

common salvinia – spread throughout, but more abundant in the lower Bayou Teche in St. Mary Parish

giant salvinia – small to moderate amounts located in the lower Bayou Teche in St. Mary parish.

\*The northern half of Bayou Teche, from Port Barre to St. Martinville, has light to moderate amounts of aquatic vegetation. The spray crews typically spend most of their time in the lower section from New Iberia to Patterson in St. Mary Parish. In 2017, water hyacinth amounts were moderate and expectations should remain the same for 2018. Common and giant salvinia are also located in the lower section. Moderate amounts in this section are expected.

### **Limitations:**

Spray crews have to be very careful when applying herbicides to control aquatic plants because of numerous homes along the bayou.

### **Recommendations:**

Continue to control emergent and floating vegetation with spray herbicides in accordance with the approved LDWF Aquatic Herbicide Application Procedures. Herbicides such as 2,4-D (0.5 gal/acre) will be used to control water hyacinth and water lily. A mixture of glyphosate (0.75 gal/acre) and diquat (0.25 gal/acre) with Turbulence (or approved equivalent, 0.25 gal/acre) surfactant will be used to control common and giant salvinia. Alligator weed will be controlled with applications of imazapyr (0.5 gal/acre) and Turbulence (or approved equivalent, 0.25 gal/acre) in undeveloped areas, or imazamox (0.5 gal/acre) and Turbulence (or approved equivalent, 0.25 gal/acre) near developed shorelines. Applications will be made as conditions dictate.

Bayou Teche Map

