

## **2013 Sabine River Vegetation Control Plan**

### **LDWF, Inland Fisheries**

The lower Sabine River is a coastal river system with moderate discharge that originates in the grassland prairies east of Dallas, TX. The river in District 5 begins at Toledo Bend Dam and runs south to Sabine Lake, below which it empties into the Gulf of Mexico. Numerous oxbows, backwaters, scar lakes, and cypress swamps are associated with the river. It is a border water of Louisiana and Texas. River flow volume is primarily dependent upon the Toledo Bend generation schedules.

### **Water body Information**

***Waterbody Type:***

Coastal River

***Parish/Location:***

LA/TX border running through Vernon, Beauregard, Calcasieu, and Cameron parishes.

***Size:***

~146 river miles

***Watershed Ratio:***

Lower basin: Approximately 318 to 1 surface acres

***Water Control Structures:***

None

***Ownership:***

State of Louisiana owns the water and water bottoms with the Louisiana Sabine River Authority responsible for management of both through Act 261 by the Louisiana legislature in 1950 (RS 38:2321). The Louisiana Department of Wildlife and Fisheries (LDWF) manages the fish and wildlife resources.

***Stakeholders:***

Sabine River Authorities of LA and TX are the primary stakeholders. Both agencies regulate water withdrawal for their respective states. Industry uses water from the Sabine River via the Sabine River Authority (SRA) canal that diverts water directly from the river to the Lake Charles area. The Toledo Bend project is currently in the process of renewing its Federal Energy Regulation Commission license.

The river is used by recreational anglers from both LA and TX. Hunters also use the river as an access route to private hunting leases and the Sabine Island WMA. Additionally, LA allows commercial fishing on its territorial waters.

## Past Control Measures:

### *Biological:*

Occasional natural control from increased salinity levels that occurs in drought years. Plant growth can be inhibited during these conditions.

### *Chemical:*

Most aquatic plant treatments on the lower Sabine were conducted by roadside application on the SRA canal. Since this area is not open to public access, treatments were discontinued in 2007. LDWF crews also treat some areas south of I-10 to keep access to the river open from the “burned out bridge” launch. Due to regular flushing from Toledo Bend, treatments are generally not needed on public waters.

Table 1. Historical treatment measures in lower Sabine River

Target Plants	Herbicide	Rate (gal/acre)	Treatments per year
Water Hyacinth Alligator Weed Primrose	2-4D	0.5	2
Common Salvinia	Glyphosate	0.75	3

No treatments were made on the lower Sabine River in 2012.

## Aquatic Vegetation Estimates:

### Biomass:

Fall 2012:

Common salvinia: 100 acres

Water hyacinth: 100 acres

Alligator weed: 100 acres

Fall 2013 Estimates:

Common salvinia: 200 acres

Water hyacinth: 200 acres

Alligator weed: 200 acres

### **Limitations:**

- Backwater swamps and scar lakes, many of which are private, provide nursery habitat for nuisance aquatic plants.
- No drawdown capability
- Frequent natural transport/dispersal from animals and high river flows.

## **Recommendations:**

### ***Biological Control***

Continue public outreach efforts to get private landowners to utilize Department weevil stocking program.

### ***Chemical Control***

Make one treatment below I-10 with Ecomazapyr (0.5 gal/acre) and Inergy surfactant (0.25 gal/acre) to control emerged plants, including water hyacinth, alligator weed and common salvinia in late spring. Repeat this treatment in late summer or early fall if necessary.



Figure 1. Map of southwest Louisiana with the lower Sabine River highlighted in red.