LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES

OFFICE OF FISHERIES
INLAND FISHERIES SECTION

2024 AQUATIC VEGETATION CONTROL PLAN

LAKE VERRET / GRASSY LAKE / LAKE PALOURDE

1. Waterbody type – large, intermediate-depth natural lakes
2. Age and condition of control structure – No control structures
3. Water level range (MSL) – Gauge Height – approx 2.5 ft.

   See USGS 073814675 Bayou Boeuf at Railroad Bridge at Amelia, LA

   https://waterdata.usgs.gov/la/nwis/uv/?site_no=073814675&PARAmeter_cd=00065,72020,63160,00060
4. Surface area:
   a. Verret – 14,400 acres
   b. Grassy – 1,200 acres
   c. Palourde – 10,700 acres
5. Average depth – 5.0ft
6. Waterbody Board or Lake Commission – Fish and wildlife resources are managed by the Louisiana Department of Wildlife and Fisheries (LDWF).

   Primary contact information – Brian Heimann, District 7 Inland Fisheries Biologist Manager – (225) 765 – 2337.

What significant stakeholders use the lake?
Commercial and recreational fishermen along with some recreational boaters, hunters, the oil and gas industry, and camp owners

What are their needs and concerns? What is the history of aquatic vegetation complaints?
Verret, Grassy, and Palourde do not get a significant amount of vegetation complaints. Historically, the U.S. Army Corps of Engineers (USACE) has sprayed this area. The only areas that are treated annually are adjacent canal systems and small bayous that occasionally get a fringe of water hyacinth (*Pontederia crassipes*) or dense mixed emergent vegetation such as alligator weed (*Alternanthera philoxeroides*), and recently Peruvian watergrass (*Luziola peruviana*). Each year the actual lakes get trace amounts of submersed, emergent, and floating vegetation.

Have there been any controversial issues?
In the past, the U.S. Army Corps of Engineers (USACE) has been responsible for spraying this area. However, they only sprayed aquatic vegetation that was impeding navigation. Beginning in 2011 and continuing through 2019, the USACE did not receive funding for aquatic plant control activities in this area. In 2020, the USACE was awarded funding to treat 200 acres in the Bayou Pierre Part/Grand Bayou area. Treatment was targeted to treat water hyacinth impeding navigation in the area.

Aquatic Vegetation Status:

Lake Verret, including the Grand Bayou/Bay Alcide areas, as of November 1, 2023 –

Problematic Species:

Water hyacinth – 25 acres
Common salvinia (*Salvinia minima*) – 20 acres
Giant salvinia (*Salvinia molesta*) – <5 acres
Hydrilla (*Hydrilla verticillata*) – <10 acres
Alligator weed – 20 acres
Cuban bulrush (*Oxycaryum cubense*) – <5 acres
Water primrose (*Ludwigia spp.*) – 15 acres
Peruvian watergrass - 50 acres

Beneficial Species:

Coontail (*Ceratophyllum demersum*) – 15 acres
Fanwort (*Cabomba caroliniana*) – 10 acres
American lotus (*Nelumbo lutea*) – 40 acres (in summer)

Grassy Lake as of November 1, 2023 -

Problematic Species:

Water hyacinth – <5 acres
Common salvinia – <5 acres
Hydrilla – <5 acres
Alligator weed – <5 acres

Beneficial Species:

Coontail – <5 acres
Fanwort – <5 acres
American lotus – 10 acres (in summer)

Lake Palourde, including the Bayou Cheramie/Sherman areas as of November 1, 2023 -

Problematic Species:

Water hyacinth – <10 acres
Common salvinia – <5 acres
Hydrilla – <5 acres
Alligator weed – <5 acres
Cuban bulrush – <5 acres
Water primrose – <5 acres

Beneficial Species:

Coontail – <5 acres
Fanwort – <5 acres
American lotus – 20 acres (in summer)

Limitations:

Large areas of adjacent, inundated swamp harbor significant amounts of aquatic vegetation, including, but not limited to, common salvinia and Peruvian watergrass. LDWF spray crews are unable to access these areas due to the stands of dense timber and shallow water. Consequently, healthy populations of various nuisance vegetation thrive in these conditions and frequently spread into navigable waterways.

Past Control Measures:

Chemical

In 2023, LDWF spray crews treated 798 acres of water hyacinth, 3 acres of Alligatorweed, and 4 acres of water lettuce in the Bayou Pierre Part, Grand Bayou, Little Grand Bayou, Bayou Corne, and Bay Alcide area north of Lake Verret.

Acres of vegetation treated in the Lake Verret/Grassy Lake/Lake Palourde area, 2014-2023

	Lake Verret	Grassy Lake	Lake Palourde
2014	**-**	**-**	**-**
2015	**-**	**160**	**160**
2016	**80**	**-**	**-**
2017	**47.5**	**8**	**-**
2018	**80**	**-**	**-**
2019	**7**	**-**	**-**
2020	**470**	**-**	**-**
2021	**165**	**-**	**-**
2022	**235**	**-**	**-**
2023	**805**	**-**	**-**

Biological

While solid mats of giant salvinia do not frequently occur in this system of lakes, the area does contain scattered giant salvinia. Presumably, the plant was introduced into this system from areas north of Lake Verret, such as Bay Natchez. Due to repeated weevil stocking efforts in the areas north of Lake Verret, the giant salvinia found in the Verret/Grassy/Palourde area contains weevils.

Giant salvinia will continue to be sampled in these areas to determine presence/absence of weevils. Should an area be located that contains solid or matted giant salvinia, weevils will be stocked.

Recommendations:

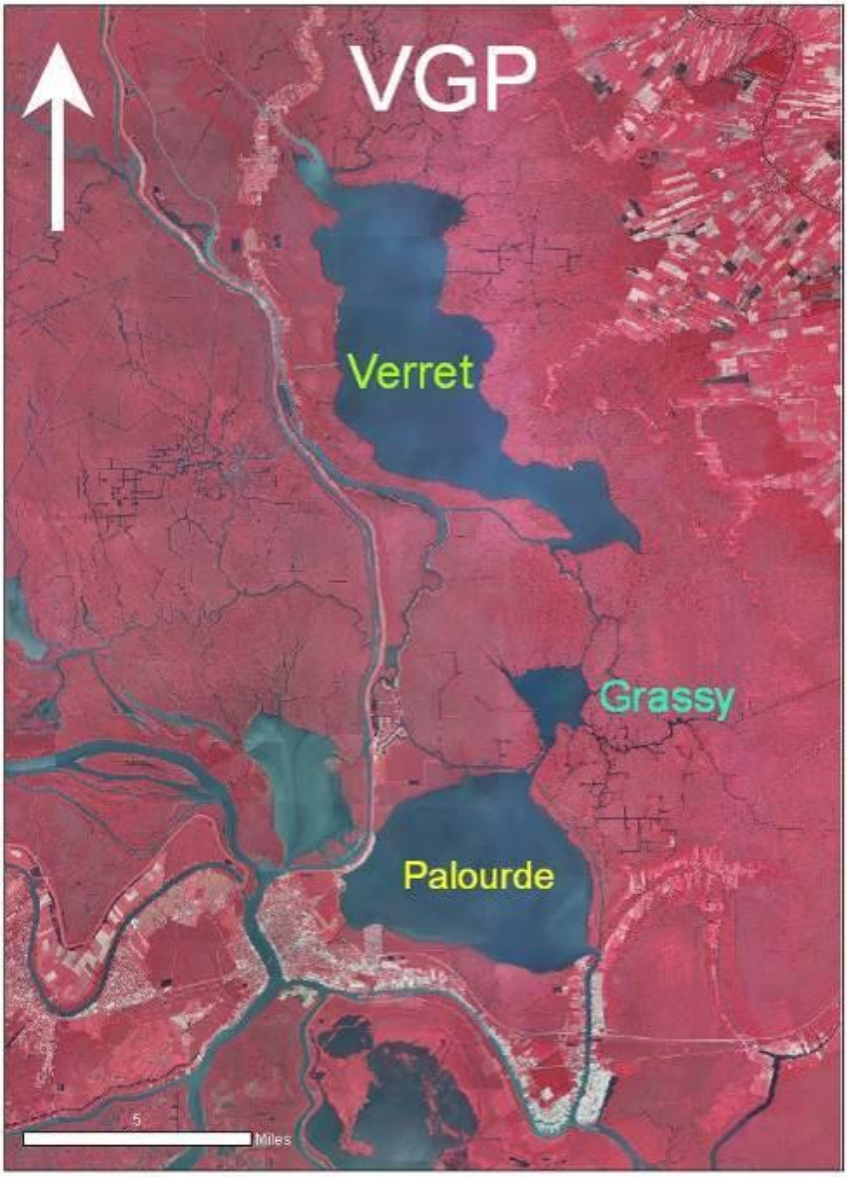
1. These lakes and the surrounding areas will be assessed monthly during the growing season.

2. Public complaints will receive a timely response.

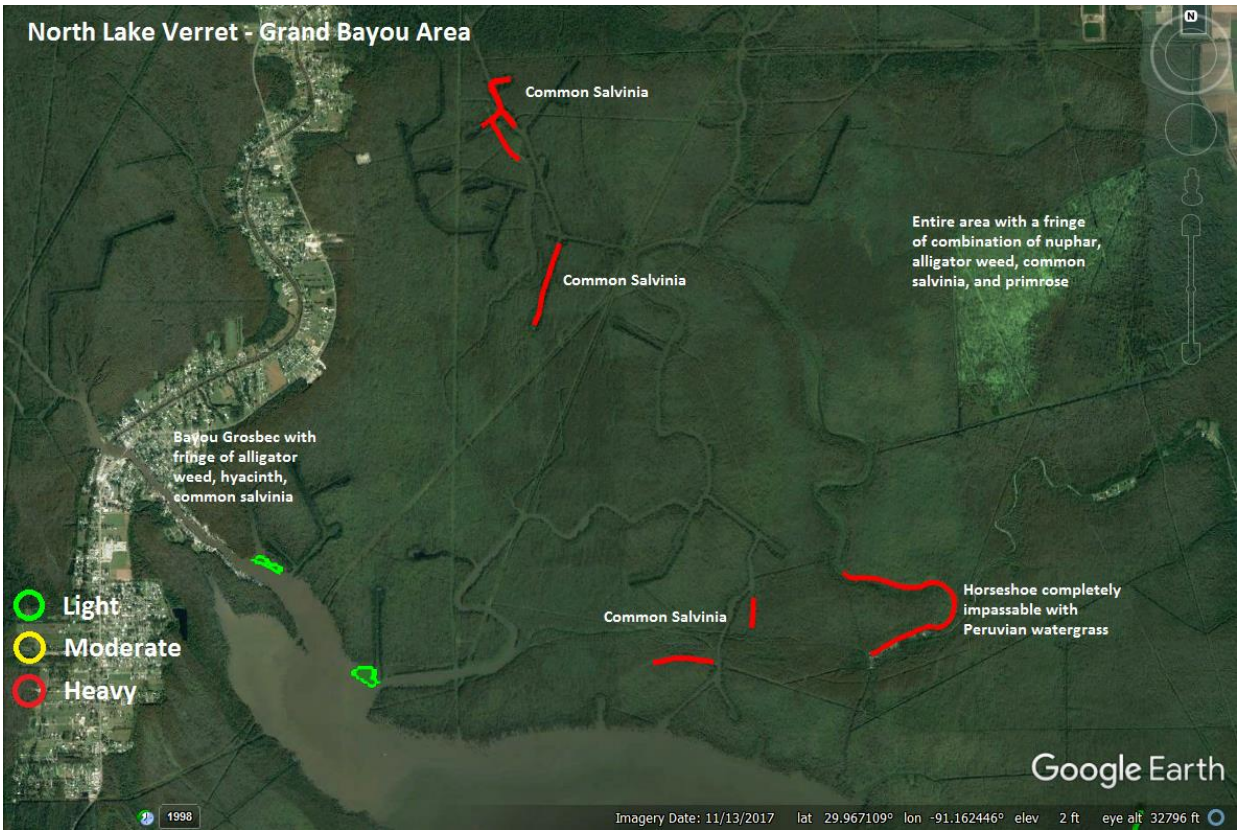
3. Problem areas will be treated as they arise with foliar applications of the appropriate herbicide per the LDWF Aquatic Herbicide Application Procedures:

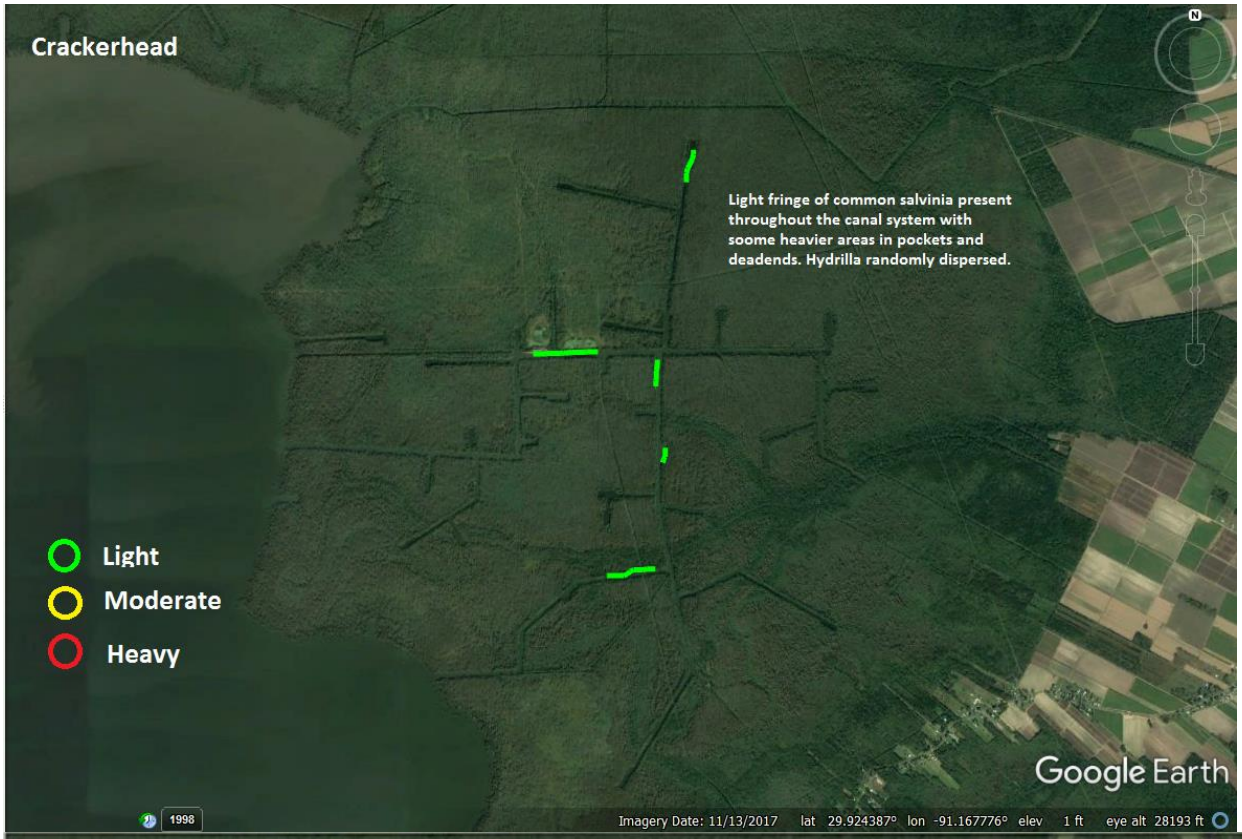
Plant Species	Herbicide	Surfactant
***Salvinia spp*. Alternative 1** Common/Giant Salvinia (April 1 to October 31)	Glyphosate (0.75 gal/acre) Diquat (0.25 gal/acre)	Turbulence (or approved equivalent, 0.25 gal/acre)
***Salvinia spp*. Alternative 2** Common/Giant Salvinia (April 1 to October 31)	Glyphosate (0.75 gal/acre) Flumioxazin (2 oz./acre)	Turbulence (or approved equivalent, 0.25 gal/acre)
***Salvinia spp*. Alternative 3** Common/Giant Salvinia (April 1 to October 31)	MSM (1 oz./acre) Flumioxazin (1 oz./acre)	Turbulence (or approved equivalent, 0.25 gal/acre)
***Salvinia spp*. Alternative 4** Common/Giant Salvinia (November 1 to March 31)	Diquat (0.75 gal/acre)	Nonionic surfactant (0.25 gal/acre)
***Salvinia spp*. Alternative 5** Common/Giant Salvinia (November 1 to March 31)	Flumioxazin (12 oz./acre)	Turbulence (or approved equivalent, 0.25 gal/acre)
Water Hyacinth	2, 4-D (0.5 gal/acre)	Nonionic surfactant (1 pint/acre)
Water Hyacinth in waiver areas (March 15 to September 15)	Glyphosate (0.75 gal/acre)	Nonionic surfactant (0.25 gal/acre)
Alligator Weed/Giant Cut Grass (undeveloped areas)	Imazapyr (0.5 gal/acre)	Turbulence (or approved equivalent, 0.25 gal/acre)
Alligator Weed/Giant Cut Grass (developed areas)	Imazamox (0.5 gal/acre)	Turbulence (or approved equivalent, 0.25 gal/acre)
American Lotus	2, 4-D (0.5 gal/acre)	Nonionic surfactant (1 pint/acre)
American Lotus in waiver areas (March 15 to September 15)	Glyphosate (0.5 gal/acre)	Nonionic surfactant (0.25 gal/acre)
American Lotus in waiver areas with potable water intakes (March 15 to September 15)	Triclopyr (0.5gal/acre)	Turbulence (or approved equivalent, 0.25 gal/acre)
Duckweed	Diquat (1.0 gal/acre) or Flumioxazin (8 oz./acre)	Nonionic surfactant (0.25 gal/acre) or Turbulence (or approved equivalent, 0.25 gal/acre)
Cuban Bulrush (sedge)	2, 4-D (0.5 gal/acre)	Nonionic surfactant (1 pint/acre)
Cuban Bulrush (sedge) in waiver areas (March 15 to September 15)	Glyphosate (0.75 gal/acre)	Nonionic surfactant (0.25 gal/acre)
Water Lettuce	Diquat (1.0 gal/acre) or Flumioxazin (6 oz./acre)	Nonionic surfactant (0.25 gal/acre) or Turbulence (or approved equivalent, 0.25 gal/acre)

Map:

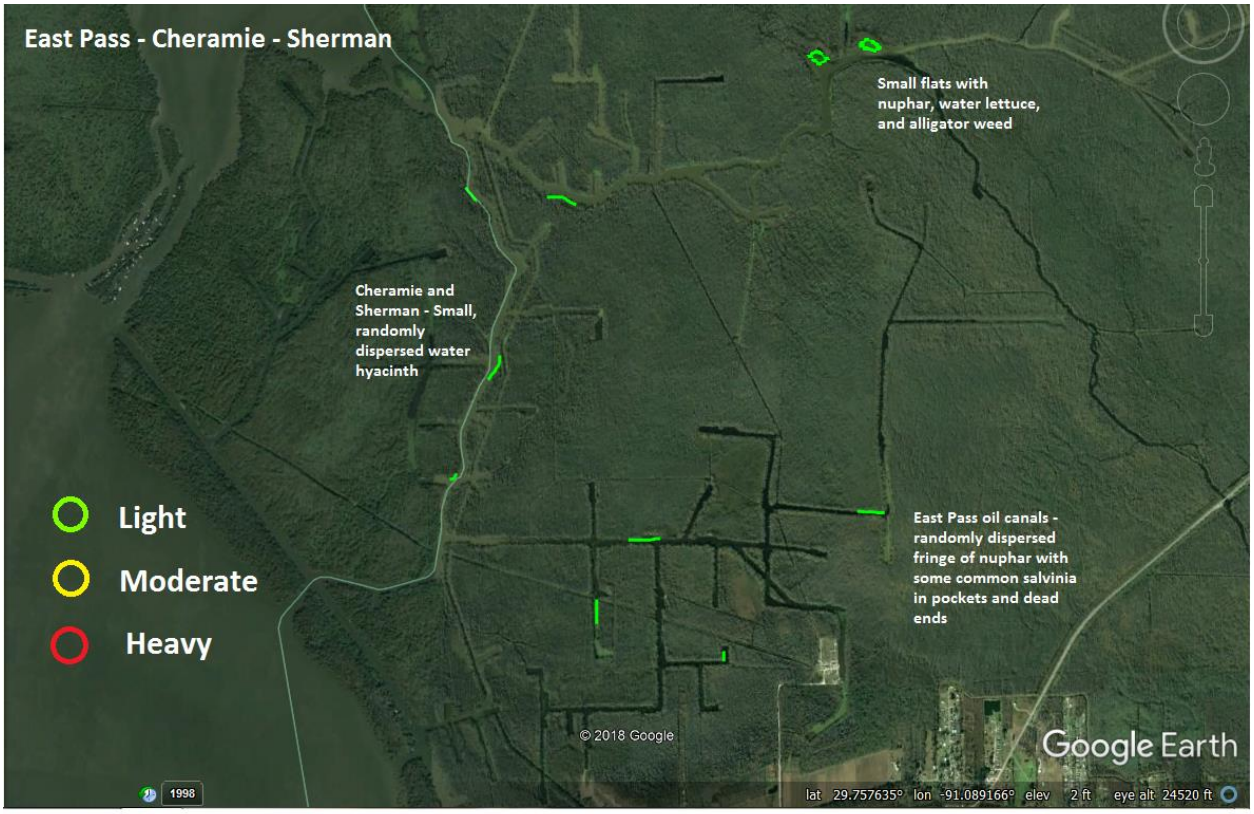


Typemaps (2018):

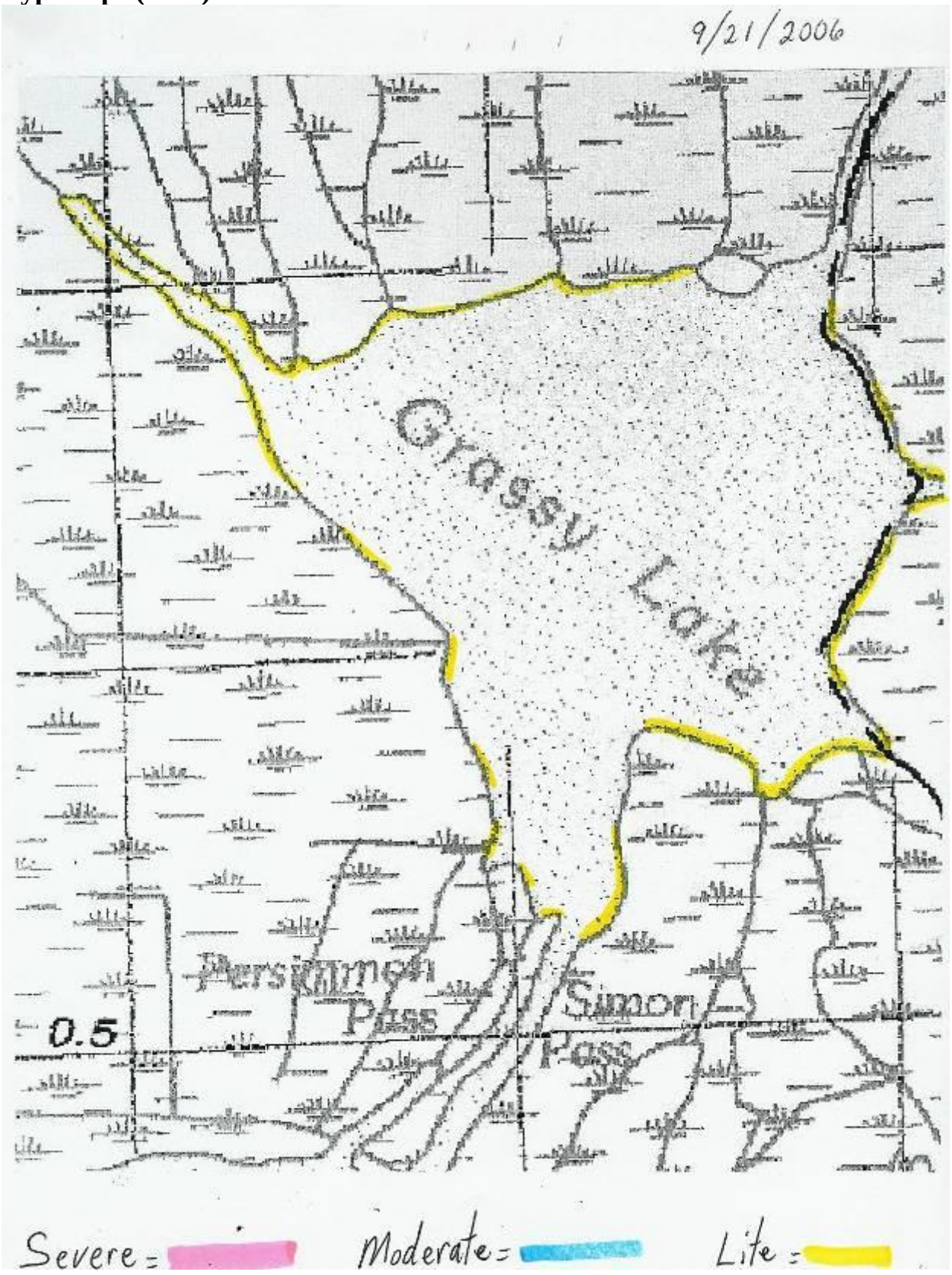


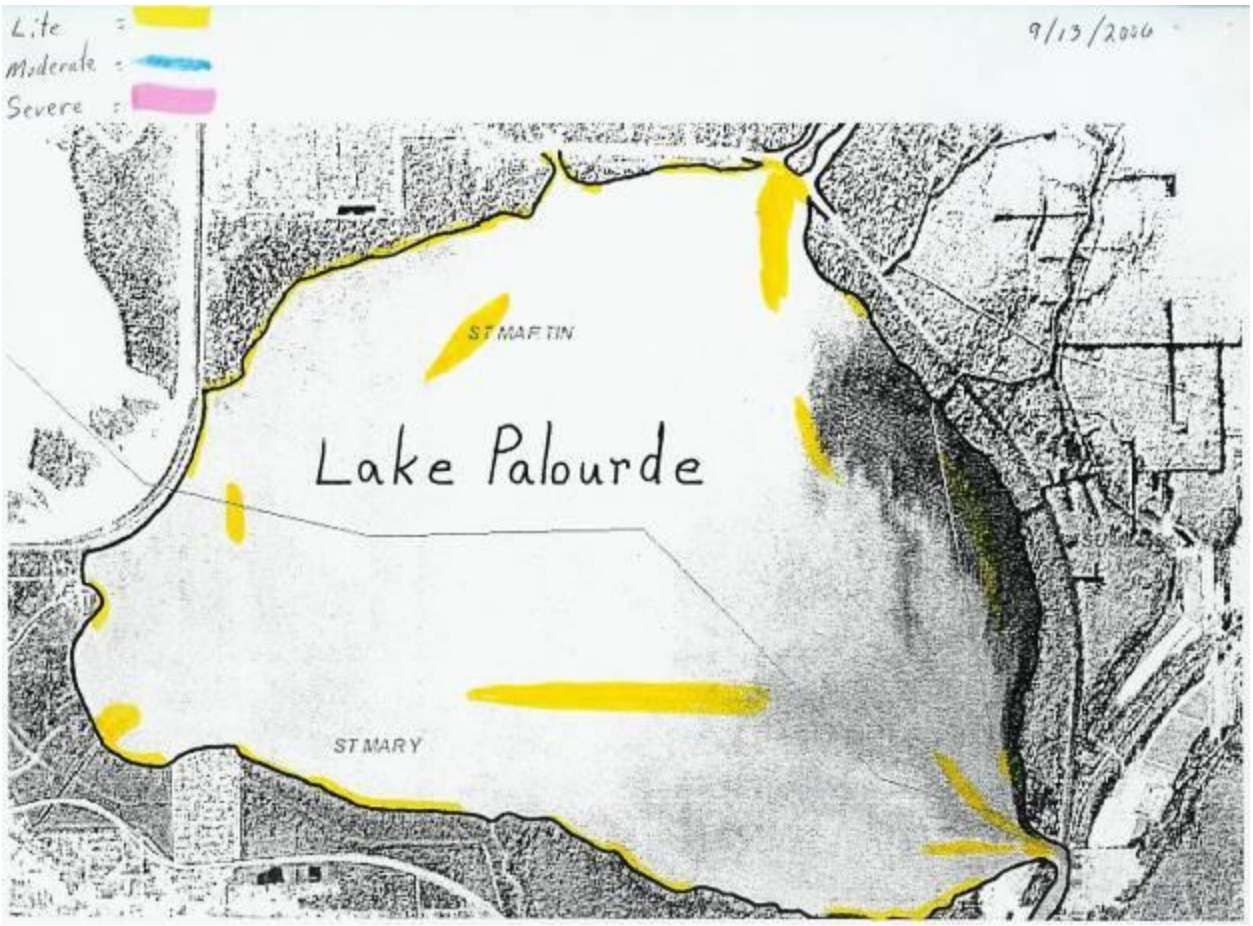

Crackerhead
Light fringe of common salvinia present throughout the canal system with soome heavier areas in pockets and deadends. Hydrilla randomly dispersed.
Light
Moderate
Heavy
Google Earth
1998
Imagery Date: 11/13/2017 lat 29.924387° lon -91.167776° elev 1 ft eye alt 28193 ft

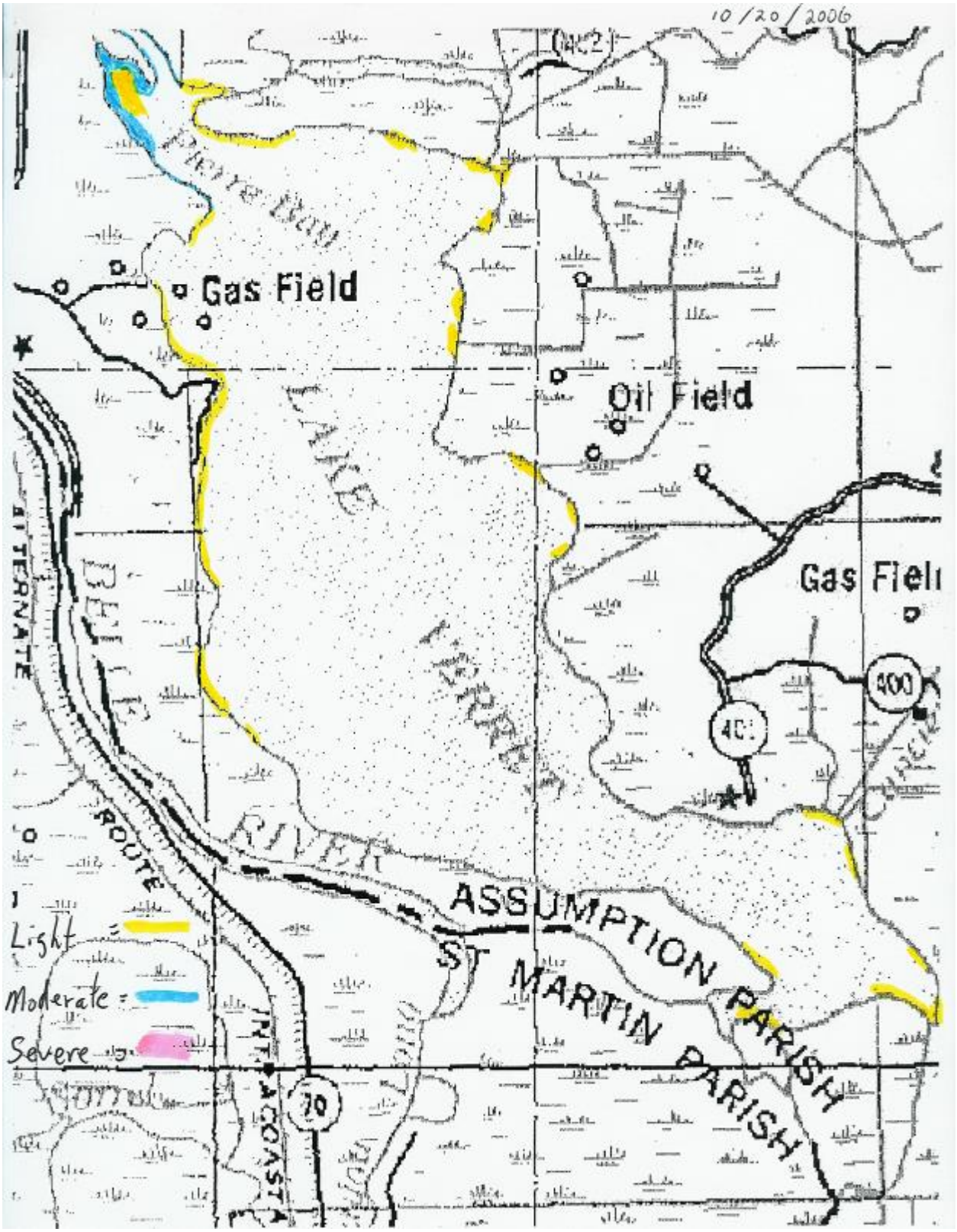

Grassy Lake - Hog Bayou
Randomly dispersed small patches of water hyacinth and alligator weed
Light
Moderate
Heavy
Google Earth


East Pass - Cheramie - Sherman
Small flats with nuphar, water lettuce, and alligator weed
Cheramie and Sherman - Small, randomly dispersed water hyacinth
East Pass oil canals - randomly dispersed fringe of nuphar with some common salvinia in pockets and dead ends
Light
Moderate
Heavy
© 2018 Google
Google Earth
1998
lat 29.757635° lon -91.089166° elev 2 ft eye alt 24520 ft

Typemaps (2006):




Lite :
Moderate :
Severe :
9/13/2006
ST MARTIN
Lake Palourde
ST MARY


10/20/2006
Gas Field
Oil Field
Gas Fiel
400
ASSUMPTION PARISH
ST MARTIN PARISH
ROUTE
INTRACOASTAL
Light
Moderate
Severe