OFFICE OF FISHERIES
INLAND FISHERIES SECTION

PART VI –C (ARCHIVES)

WATERBODY MANAGEMENT PLAN SERIES

CYPRESS BAYOU RESERVOIR

AQUATIC VEGETATION TYPE MAPS
AND NARRATIVES - 2018
Cypress Bayou Reservoir, Bossier Parish, LA, was assessed for aquatic plants in September 1990. At the time of assessment Cypress Bayou Reservoir was at pool stage. There was no turbidity noted. There was some plankton bloom noted in all areas, although the water was fairly clear. The Secchi disc reading was 30 inches.

The dominant plant in the upper half of the lake was fanwort (*Cabomba caroliniana*). Secondary plants noted were bladderwort (*Utricularia* spp.), naiad (*Najas* spp.), pondweed (*Potamogeton* spp.), and variable-leaf milfoil (*Myriophyllum heterophyllum*).

The dominant plant in the lower half of the lake was bladderwort (*Utricularia* spp.). The secondary plants were naiad (*Najas* spp.), southern water-grass (*Luziola fluitans*), and pondweed (*Potamogeton* spp.).

The moderate infestations in the upper end are principally fanwort (*Cabomba caroliniana*), and bladderwort (*Utricularia* spp.). The light infestations were principally bladderwort (*Utricularia* spp.), naiad (*Najas* spp.), and in isolated areas pondweed (*Potamogeton* spp.).

The emergent plants noted were water shield (*Brasenia schreberi*), water lily (*Nymphaea* spp.), and American lotus (*Nelumbo lutea*). Black willow (*Salix nigra*), buttonbush (*Cephalanthus occidentalis*), cattail (*Typha* spp.), and miscellaneous grasses and rushes were also present.

Above text presumably written by Melvin Bagwell; transcribed, edited and corrected by James Seales, December 2014.
1990 Cypress Bayou Reservoir Type Map
Upper End

<table>
<thead>
<tr>
<th>Type</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td>Yellow</td>
</tr>
<tr>
<td>Moderate</td>
<td>Light blue</td>
</tr>
<tr>
<td>Severe</td>
<td>Red</td>
</tr>
</tbody>
</table>
1990 Cypress Bayou Reservoir Type Map
Lower End
At the time of assessment Cypress Lake was at pool stage. Turbidity was moderate and the plankton bloom was fair. The Secchi disc reading was 31 inches.

The submersed aquatic plants noted were fanwort (*Cabomba caroliniana*), bladderwort (*Utricularia* sp.), coontail (*Ceratophyllum demersum*), southern naiad (*Najas guadalupensis*), and pondweed (*Potamogeton* spp.).

The emergent plants noted were fragrant water lily (*Nymphaea odorata*), smartweed (*Polygonum* spp.), alligator-weed (*Alternanthera philoxeroides*), and water primrose (*Ludwigia octovalvis*).

In summary Cypress Lake had some areas of moderate infestation and were composed of bladderwort (*Utricularia* sp.), southern naiad (*Najas guadalupensis*), and pondweed (*Potamogeton* spp.).

Above text presumably written by Melvin Bagwell; transcribed, edited and corrected by James Seales, December 2014.
1991 Cypress Bayou Reservoir Type Map
Cypress Lake was surveyed for aquatic plants in September, 1992. At the time of assessment Cypress Lake was at pool stage. The water color was clear to slightly turbid.

The primary aquatic plant noted was fanwort (*Cabomba caroliniana*). The secondary plants were coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia* sp.), southern naiad (*Najas guadalupensis*), and pondweed (*Potamogeton* spp.).

The infestations of aquatic plants were light in all areas except the extreme upper end which was moderate. The infestations were in depths out to 8 feet in the upper end. The light infestations were in depths less than 5 feet.

Above text presumably written by Melvin Bagwell; transcribed, edited and corrected by James Seales, December, 2014.
1992 Cypress Bayou Reservoir Type Map

Light
Moderate
Severe
Cypress Lake was surveyed for aquatic plants in September, 1993. At the time of assessment Cypress Lake was at pool stage. The water color was clear. The Secchi disc reading was 4 feet.

The primary aquatic plant noted was fanwort (*Cabomba caroliniana*). The secondary plants were coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia* sp.), southern naiad (*Najas guadalupensis*), and pondweed (*Potamogeton* spp.).

Most infestations were light except the extreme upper end which ranged from moderate to severe. The light infestations were less than 3 feet and the moderate to severe infestations were out to 5 feet deep.

Above text presumably written by Melvin Bagwell; transcribed, edited and corrected by James Seales, December, 2014.
1993 Cypress Bayou Reservoir Type Map
Cypress Bayou Reservoir – Aquatic Vegetation Type Map and Narrative – 1994

Cypress Bayou Reservoir
1994

At the time of assessment Cypress Lake was at pool stage. The water color was a browned stained. The Secchi disc reading was 51 inches. The pH was 7.1.

The aquatic plants noted were fanwort (*Cabomba caroliniana*), bladderwort (*Utricularia* sp.), southern naiad (*Najas guadalupensis*), pondweed (*Potamogeton* spp.), coontail (*Ceratophyllum demersum*), muskgrass (*Chara* spp.), and filamentous algae.

The submerged aquatic plants in Cypress Lake ranged from light in the lower and mid portion to light, moderate and severe in the upper end. The submerged aquatic plants have not significantly increased Cypress Lake. The plants broke at 6 feet.

Above text presumably written by Melvin Bagwell; edited and corrected by James Seales, December, 2014.
At the time of assessment Cypress Lake was at pool stage. The water color was clear with no turbidity. The Secchi disc reading was 45 inches.

The submersed aquatic plants noted were fanwort (*Cabomba caroliniana*), bladderwort (*Utricularia* sp.), southern naiad (*Najas guadalupensis*), and pondweed (*Potamogeton* spp.). Infestations were light in all areas except the extreme upper end which was severe. Most infestations were out to 5 feet deep.

The emergent aquatic plants noted were water primrose (*Ludwigia octovalvis*), alligator-weed (*Alternanthera philoxeroides*), fragrant water lily (*Nymphaea odorata*), American lotus (*Nelumbo lutea*), and arrowhead (*Sagittaria* spp.)

Above text presumably written by Melvin Bagwell; edited and corrected by James Seales, December, 2014.
At the time of assessment Cypress Lake was at pool stage. The water color was clear.

The submerged aquatic plants noted were fanwort (*Cabomba caroliniana*), coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia* sp.), southern naiad (*Najas guadalupensis*), and filamentous algae.

The floating and emergent aquatic plants noted were duckweed (*Lemna* spp.), fragrant water lily (*Nymphaea odorata*), and American lotus (*Nelumbo lutea*).

The distribution of aquatic plants in Cypress Lake are light in most areas and moderate in severe north of the public landing at Hwy. 162. Cypress Lake has approximately fifteen percent infestation of aquatic vegetation.

Above text presumably written by Melvin Bagwell; transcribed, edited and corrected by James Seales, December, 2014.
1997 Cypress Bayou Reservoir Type Map
At the times of assessment Cypress Lake was at pool stage. The water color was clear.

The aquatic plants noted were hydrilla (*Hydrilla verticillata*), fanwort (*Cabomba caroliniana*), coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia* sp.), southern naiad (*Najas guadalupensis*), and pondweed (*Potamogeton* spp.).

The floating and emergent plants were American lotus (*Nelumbo lutea*), and fragrant water lily (*Nymphaea odorata*).

The coverage of the plants was severe in the extreme upper end of the lake. The lower and mid portion had a light infestation. The total infestation was an estimated 10%.

Above text written by Melvin Bagwell; edited and corrected by James Seales, December, 2014.
1998 Cypress Bayou Reservoir Type Map

Cypress Bayou Reservoir

Light
Moderate
Severe
At the time of assessment Cypress Lake was undergoing a drawdown. The lake level was six feet below pool stage and an aquatic vegetation survey was not conducted.

Above text written by Melvin Bagwell; transcribed, edited and corrected by James Seales, December, 2014.
Cypress Bayou Reservoir – Aquatic Vegetation Type Map and Narrative – 2000

Cypress Bayou Reservoir
October, 2000

At the time of assessment Cypress Lake was 4 inches below pool stage. The water color ranged from clear in the lower end to turbid in the upper end.

The submerged aquatic plants noted were hydrilla (*Hydrilla verticillata*), coontail (*Ceratophyllum demersum*), southern naiad (*Najas guadalupensis*), pondweed (*Potamogeton* spp.), spikerush (*Eleocharis* spp.), muskgrass (*Chara* spp.) and filamentous algae.

The emergent plants were American lotus (*Nelumbo lutea*), fragrant water lily (*Nymphaea odorata*), water shield (*Brasenia schreberi*) and bulrush (*Scirpus* spp.).

The estimated percent coverage was 10 percent.

Above text written by Melvin Bagwell; edited and corrected by James Seales, December 2014.
2000 Cypress Bayou Reservoir Type Map

Light
Moderate
Severe

Cypress Bayou Reservoir
Cypress Lake was surveyed for the presence of aquatic vegetation on September 20, 2001. At the time of the survey the lake was at pool stage. The water color was slightly turbid.

The submersed aquatic plants noted were: hydrilla (*Hydrilla verticillata*), coontail (*Ceratophyllum demersum*), fanwort (*Cabomba caroliniana*), bladderwort (*Utricularia sp.*), Chara muskgrass (*Chara spp.*), and filamentous algae.

The emergent plants noted were: American lotus (*Nelumbo lutea*), fragrant water lily (*Nymphaea odorata*), smartweed (*Polygonum spp.*), water primrose (*Ludwigia octovalvis*) and bulrush (*Scirpus spp.*).

The estimated percent coverage of submersed aquatic plants was 5%.

Above text written by Melvin Bagwell; edited and corrected by James Seales, December, 2014.
The vegetation type mapping survey was conducted on Cypress Reservoir (3400 acres, Bossier Parish) on October 2, 2006 by Louisiana Department of Wildlife and Fisheries, Inland Fisheries personnel. Jeff Sibley and Ronnie Christ identified the major aquatic plant species present in the lake and assessed the extent of coverage around the lake. At the time of the survey, the lake was 1.85 feet below pool and Secchi readings ranged from 16 inches to 23 inches.

Species Present
The following species of aquatic macrophytes were identified in Cypress Bayou Reservoir: hydrilla (*Hydrilla verticillata*), coontail (*Ceratophyllum demersum*), southern cutgrass (*Leersia hexandra*), maidencane (*Panicum hemitomon*), American lotus (*Nelumbo lutea*), fragrant water lily (*Nymphaea odorata*), water hyacinth (*Eichhornia crassipes*), primrose (*Ludwigia spp.*), alligator weed (*Alternanthera philoxeroides*), pennywort (*Hydrocotyle spp.*), smartweed (*Polygonum hydropiperoides*), frog’s-bit (*Limmobium spongia*), fanwort (*Cabomba caroliniana*), Illinois pondweed (*Potamogeton illinoensis*), watershield (*Brasenia schreberi*), big floating bladderwort (*Utricularia inflata*), and *Sagittaria spp.*

Severity
Aquatic vegetation covers approximately 7.5% (450 acres) of Cypress Reservoir. Aquatic vegetation is almost totally limited to the upper area of the lake above “Eagle’s Nest” point and especially above the Hwy 162 Bridge. Vegetation is very dense near the bridge and adjacent boat ramp, but densities decrease rapidly as one travels down the lake. As the lake spreads out, depths increase and wave action helps keep vegetation levels down.

Aquatic vegetation is almost nonexistent in the rest of the lake except the extreme back end of pockets and tributaries. The main lake tends to be more turbid from waves and boating activity which likely keeps submerged vegetation from growing. Maidencane does line much of the shoreline in areas that are not developed for residential purposes.

Water hyacinths were found in the upper end of the lake, but are at low densities. Hydrilla and lotus are severe in the upper area near the public boat launch. Access is limited to the creek channel above the bridge and down until the lake starts to widen. American lotus poses the largest problem with limiting access to some homes and camps on the upper end of the lake. Hydrilla was located out to the 5 feet below pool contour line.
The vegetation type mapping survey was conducted on Cypress Reservoir (3400 acres, Bossier Parish) in September 2009 by Louisiana Department of Wildlife and Fisheries, Inland Fisheries personnel. Jeff Sibley and Kevin Houston identified the major aquatic plant species present in the lake and assessed the extent of coverage around the lake. At the time of the survey, the lake was 0.5 feet below pool and Secchi readings ranged from 16 inches to 23 inches.

Species Present
The following species of aquatic macrophytes were identified in Cypress Reservoir: hydrilla (*Hydrilla verticillata*), coontail (*Ceratophyllum demersum*), southern cutgrass (*Leersia hexandra*), maidencane (*Panicum hemitomon*), American lotus (*Nelumbo lutea*), fragrant water lily (*Nymphaea odorata*), water hyacinth (*Eichhornia crassipes*), primrose (*Ludwigia spp.*), alligatorweed (*Alternanthera philoxeroides*), pennywort (*Hydrocotyle spp.*), smartweed (*Polygonum hydropiperoides*), frog’s-bit (*Limnobium spongia*), fanwort (*Cabomba caroliniana*), Illinois pondweed (*Potamogeton illinoensis*), watershield (*Brasenia schreberi*), big floating bladderwort (*Utricularia inflata*), *Sagittaria spp.* and giant salvinia (*Salvinia molesta*).

Severity
Aquatic vegetation covers approximately 7.5% (450 acres) of Cypress Reservoir. Aquatic vegetation is almost totally limited to the upper area of the lake above “Eagle’s Nest” point and especially above the Hwy 162 Bridge. Vegetation is very dense near the bridge and adjacent boat ramp, but densities decrease rapidly as one travels down the lake. As the lake spreads out, depths increase and wave action helps keep vegetation levels down.

Aquatic vegetation is almost nonexistent in the rest of the lake except the extreme back end of pockets and tributaries. The main lake tends to be more turbid from waves and boating activity which likely keeps submerged vegetation from growing. Maidencane does line much of the shoreline in areas that are not developed for residential purposes.

Water hyacinths were found in the upper end of the lake, but are at low densities. Hydrilla and American lotus are severe in the upper area near the public boat launch. Access is limited to the creek channel above the bridge and down until the lake starts to widen. American lotus poses a problem with limiting access to some homes and camps on the upper end of the lake, but otherwise are generally beneficial for fish habitat. Hydrilla was located out to the 5 feet below pool contour line.

Giant salvinia was first found on the lake in 2007 near the public launches. Although the plants have expanded their range, there was still less than 40 acres on the lake. The general morphology of the lake plus on-going herbicide applications have helped limit the spread of salvinia. Salvinia was generally limited to the extreme back ends of coves in calm water or mixed in small amounts
around the shore of the lake in the cutgrass and maidencane. On the upper reaches of the reservoir, the other vegetation present is competing with salvinia for nutrients and space. No large mats were found on the lake. Many of the areas where salvinia was found should dewater during the upcoming drawdown that is for shoreline erosion repairs.
2009 Cypress Bayou Reservoir Type Map
A survey of the aquatic vegetation on Cypress Bayou Reservoir commonly known as Cypress Lake (3400 acres) was conducted by Inland Fisheries Biologist James Seales on September 9, 2015.  The lake was approximately 8 inches below pool stage at the time of the survey.  The water color ranged from heavily stained on the upper end to moderately stained with an algae bloom on the lower end of the lake.

### Species Present

The following species of aquatic vegetation was observed during the survey:

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alligator-weed</td>
<td>Alternanthera philoxeroides</td>
</tr>
<tr>
<td>American Lotus</td>
<td>Nelumbo lutea</td>
</tr>
<tr>
<td>Bladderwort</td>
<td>Utricularia spp.</td>
</tr>
<tr>
<td>Coontail</td>
<td>Ceratophyllum demersum</td>
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<tr>
<td>Creeping Water Primrose</td>
<td>Ludwigia repens</td>
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<tr>
<td>Duck Potato</td>
<td>Sagittaria latifolia</td>
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<tr>
<td>Duckweed</td>
<td>Lemna spp.</td>
</tr>
<tr>
<td>Fanwort</td>
<td>Cabomba caroliniana</td>
</tr>
<tr>
<td>Filamentous Algae</td>
<td></td>
</tr>
<tr>
<td>Fragrant Water Lily</td>
<td>Nymphaea odorata</td>
</tr>
<tr>
<td>Hydrilla</td>
<td>Hydrilla verticillata</td>
</tr>
<tr>
<td>Giant cutgrass</td>
<td>Zizaniopsis miliacea</td>
</tr>
<tr>
<td>Giant Salvinia</td>
<td>Salvinia molesta</td>
</tr>
<tr>
<td>Maidencane</td>
<td>Panicum hemitomon</td>
</tr>
<tr>
<td>Muskgrass</td>
<td>Chara spp.</td>
</tr>
<tr>
<td>Pondweed</td>
<td>Potamogeton spp.</td>
</tr>
<tr>
<td>Smartweed</td>
<td>Polygonum spp.</td>
</tr>
<tr>
<td>Torpedo Grass</td>
<td>Panicum repens</td>
</tr>
<tr>
<td>Water Hyacinth</td>
<td>Eichhornia crassipes</td>
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<tr>
<td>Water Pennywort</td>
<td>Hydrocotyle umbellata</td>
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<tr>
<td>Watershield</td>
<td>Brasenia schreberi</td>
</tr>
<tr>
<td>Widgeon grass</td>
<td>Ruppiia maritima</td>
</tr>
<tr>
<td>Wild Taro</td>
<td>Colocasia esculenta</td>
</tr>
</tbody>
</table>
Severity

The majority of Cypress Lake is not adversely impacted by aquatic vegetation. Less than 15% of the lake has aquatic vegetation coverage that could be described as moderate or severe. The only areas negatively impacted are the upper end of the lake and the upper reaches of some of the coves of the lake. The water depth in most of these areas is extremely shallow and navigation would be difficult even if aquatic vegetation was not present.

The area above the Hwy. 162 Bridge contains dense mats of creeping water primrose, alligator-weed, American lotus, torpedo grass and smartweed. The conditions in this area have deteriorated over time to the point where the only open water is in the main channel.

Submerged vegetation found in these shallow areas includes, coontail, fanwort, hydrilla, muskgrass, widgeon grass, filamentous algae, and bladderwort. Submerged vegetation was found out to water depths of 5 feet, but was most prevalent in water three feet or less in depth.

A small amount of giant salvinia was found mixed in with the vegetation in the upper end of the lake, especially near the Hwy. 162 Bridge. A few water hyacinths were also noted in this area. Floating vegetation was not found to be problematic on any area of the lake during this survey.

American lotus was still prevalent in the shallow areas on the upper end between “Eagle’s Nest Point” and the Hwy. 162 Bridge, but was not as problematic as it has been in past years when it made access to many shoreline properties very difficult. Some areas still had problems but it appears that foliar herbicide applications have been useful in helping with this problem.

The remainder of the lake has very little submerged or emergent aquatic vegetation. Sparse amounts of submerged vegetation can be found on the lower end of the lake. There are a few scattered patches of emergent vegetation on the lower end of the lake, mostly in protected areas. Marginal vegetation such as maidencane, torpedo grass, giant cutgrass and wild taro was prevalent along most of the undeveloped or less developed shorelines.

Discussion

Aquatic vegetation coverage and coverage patterns have been relatively stable in Cypress Lake for the past several years. There has not been a significant increase in problematic aquatic vegetation since the drought extended drawdown of 2010 - 2012. Giant salvinia persists in the upper end of the lake but thus far has not negatively impacted large areas of the lake. Hydrilla was not found topped out on a large scale in any area of the lake.

Cypress Lake is in good condition in regards to problematic aquatic vegetation and present coverage levels do not impact the majority of the users of the lake, but there is some impact to shoreline property owners on the upper end of the lake and in some of the shallow coves.
An assessment of the aquatic vegetation on Cypress Bayou Reservoir (3400 acres) was conducted by Inland Fisheries Biologist James Seales on June 27, 2016. The lake was at pool stage at the time of the survey. The water color ranged from moderately stained on the upper end to heavily stained on the lower end of the lake.

The majority of Cypress Lake is not adversely impacted by aquatic vegetation. Less than 15% of the lake has aquatic vegetation coverage that could be described as moderate or severe. The only areas impacted are the upper end of the lake, the upper reaches of some of the coves, and some of the shoreline areas of the lake. The water depth in most of these areas is extremely shallow and navigation would be difficult even if aquatic vegetation was not present.

The area above the Hwy. 162 Bridge contains dense mats of creeping water primrose, alligator-weed, American lotus, fragrant water lily, torpedo grass and smartweed. Submerged vegetation found in these shallow areas includes, coontail, fanwort, hydrilla, muskgrass, widgeon grass, filamentous algae, and bladderwort. Submerged vegetation was found out to water depths of 5 feet, but was most prevalent in water three feet or less in depth. The conditions in this area have deteriorated over time to the point where the only open water is in the main channel.

A small amount of giant salvinia (< 1 acre) was found mixed in with the vegetation in the upper end of the lake, especially near the Hwy. 162 Bridge. Floating vegetation was not found to be problematic on any area of the lake during this assessment.

American lotus was still present in the shallow areas on the upper end between “Eagle’s Nest Point” and the Hwy. 162 Bridge, but was not as prevalent as it has been in past years. The lower portion of the lake has very little submerged or emergent aquatic vegetation. Marginal vegetation such as maidencane, torpedo grass, giant cutgrass and wild taro was found along most of the undeveloped shorelines.
Cypress Bayou Reservoir  
Bossier Parish, LA  
Aquatic Vegetation Assessment  
July 17, 2017

An assessment of the aquatic vegetation on Cypress Bayou Reservoir commonly known as Cypress Lake (3400 acres) was conducted on 7-17-17 by Inland Fisheries Biologist James Seales. The lake was at pool stage at the time of the survey. The water color was stained and a moderate algae bloom was present.

The majority of Cypress Lake is not adversely impacted by aquatic vegetation. Less than 15% of the lake has aquatic vegetation coverage that could be described as moderate or severe. The only areas negatively impacted are the upper end of the lake, the upper reaches of some of the coves, and some of the shoreline areas of the lake. The water depth in most of these areas is extremely shallow and navigation would be difficult even if aquatic vegetation was not present.

The area above the Hwy. 162 Bridge contains dense mats of giant salvinia (200 acres), creeping water primrose, alligator-weed, American lotus, water hyacinth (30 acres) fragrant water lily, torpedo grass and smartweed. Submerged vegetation found in these shallow areas includes, coontail, fanwort, muskgrass, widgeon grass, filamentous algae, and bladderwort. Submerged vegetation was found out to water depths of 5 feet, but was most prevalent in water three feet or less in depth. The conditions in this area have deteriorated over time to the point where the only open water is in the main channel.

American lotus was present in the shallow areas on the upper end between “Eagle’s Nest Point” and the Hwy. 162 Bridge. Access to many of the shoreline properties is restricted due to the American lotus infestation.

The remainder of the lake has very little submerged or emergent aquatic vegetation. Sparse amounts of submerged vegetation can be found on the lower end of the lake. There are a few scattered patches of emergent vegetation on the lower end of the lake, mostly in protected areas. Marginal vegetation such as maidencane, torpedo grass, giant cutgrass and wild taro was prevalent along most of the undeveloped or less developed shorelines. Giant salvinia was found interspersed with the marginal vegetation in many of these areas.