LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES

OFFICE OF FISHERIES
INLAND FISHERIES SECTION

PART VI –C (ARCHIVES)

WATERBODY MANAGEMENT PLAN SERIES

CANEY CREEK RESERVOIR

AQUATIC VEGETATION TYPE MAPS
AND NARRATIVES

APPENDIX III – TYPE MAP HISTORY

Caney Lake – Aquatic Vegetation Assessment Narrative – 1989

CANEY LAKE, JACKSON PARISH

JULY 1989

Caney Lake, Jackson Parish, was surveyed for the presence of aquatic vegetation on July 13 and 14, 1989. See check list below for observed species:

Southern Naiad, Najas guadalupensis
Fanwort, Cabomba caroliniana
Bladderwort, Utricularia gibba and Utricularia inflata
Chara, Chara spp.
Filamentous algae, *Pithophora spp.*
Southern water grass, Hydrochloa caroliniensis
Parrots feather, *Myriophyllum brasiliensis*
Duckweed, Lemna minor,
Watermeal *Wolffia spp*.
Hydrilla, Hydrilla verticillata
Small leaf Pondweed, Potamogeton spp.
Large leaf Pondweed, Potamogeton spp.
Water Primrose, Ludwigia repens
White water lily, Nymphaea odorata
Button bush willow, Cephalanthus occidentalis
Salix willow, Salix niger
Frogs-bit, Limnobium spongia
Water shield, Brasenia schreberi
Cattail, Typha spp.
Water pennywort, Hydrocotyle umbellata

The lake was slightly turbid due to recent massive rain and was less than a foot above pool (200msl.). The Secchi disc reading was a 4 ½ feet (54 inches).

Hydrilla verticillata was found near the public boat launch at the dam (see map). Hydrilla's potential adverse impacts on Caney Lake by far exceed all other plant life noted. It will grow in two foot candles of light and continually improves its environment for optimum growth. Hydrilla's area of infestation in Caney will extend to all waters where the necessary light for photosynthesis occurs. It has been found in Toledo Bend growing in waters to an 18 foot depth. Necessary light for Hydrilla growth in Toledo Bend extends much deeper than 18 feet. The thermocline appears to be the factor which determines the depth of growth. Assuming Caney Lake stratifies and forms a thermocline similar to Toledo Bend, then Hydrilla will infest to the top side of the thermocline. If no similar definable thermocline develops in Caney Lake, I would expect all waters 20 to 30 feet to have a severe infestation of Hydrilla in the future. Hydrilla has been found in 60 foot waters in Florida. Once established in a lake or reservoir it

becomes the dominate plant and out competes all native and exotic plants found in Louisiana waters.

Control options for Hydrilla should be thoroughly evaluated and immediate action initiated to try and eradicate it from Caney Lake. The only control or eradication option is the use of Herbicides. At this time the Hydrilla is confined to the vicinity of the boat launch and is a minor infestation. Control and probably eradication is possible now due to the limited extend of the infestation.

The dominate vegetation in the south and mid-area of the lake is Southern Naiad, Najas guadalupensis, Muskgrass, Chara spp, and Bladderworts Utricularia gibba and U. inflata. In the Northern end of the lake from the Tennessee pipeline crossing North, the dominate vegetation is fanwort, Cabomba Caroliniana, Southern naiad, Bladderwort and Chara. White water lily, Nymphaea odorata and watershield, Brasenia schreberi is prevalent in the north end and will create access problems in the near future.

Southern naiad, bladderwort and fanwort are the native problematic plants in Caney Lake. Bladderwort is a free floating submerged aquatic plant. Dominate concentrations of bladderwort may render a water body useless for boating and severely restrict fishing activities during early spring to midsummer. Southern naiad is a rooted submersed aquatic plant. Dominant concentrations of naiad will render all water to a ten foot depth useless for boating and fishing. Fringe fishing of mats at the outside edge of the infestation will still exist. Naiad tends to become a nuisance in June and a problem in July which will remain until the end of the growing season. Naiad is an annual plant which reproduces by seeds and fragmentation. It has been noted to take on perennial characteristics in several Louisiana lakes. Fanwort is also a rooted submersed aquatic plant. It had been noted to eleven foot depths in Louisiana waters. Fanwort reproduces by seeds and fragmentation and can create fishing and access problems from late May to the early fall. It is expected that Southern naiad and Fanwort will be replaced by Hydrilla.

The causes of increased weed infestations in reservoirs such as Caney Lake are due to several factors. Probably the two most important are introduction of exotic plants (such as Hydrilla) in an environment ideally suited for their growth and free of natural predators. Second and most important is water level stabilization.

The introduction of Hydrilla into Caney Lake constitutes an important intrinsic change. Natural successional patterns have been interrupted by the introduction of this exotic plant and it will become the dominate plant.

Interest in the management of aquatic weeds has led to development of a range of control techniques including: Preventive, mechanical, biological and chemical. The techniques should be used in combinations for restoration and maintenance of a desired aquatic balance, not simply to kill weeds.

The most important type of control is preventive. Careful planning in the construction of reservoirs as well as thoughtful considerations of future management practices can be used in preventing aquatic weeds or facilitating in their control.

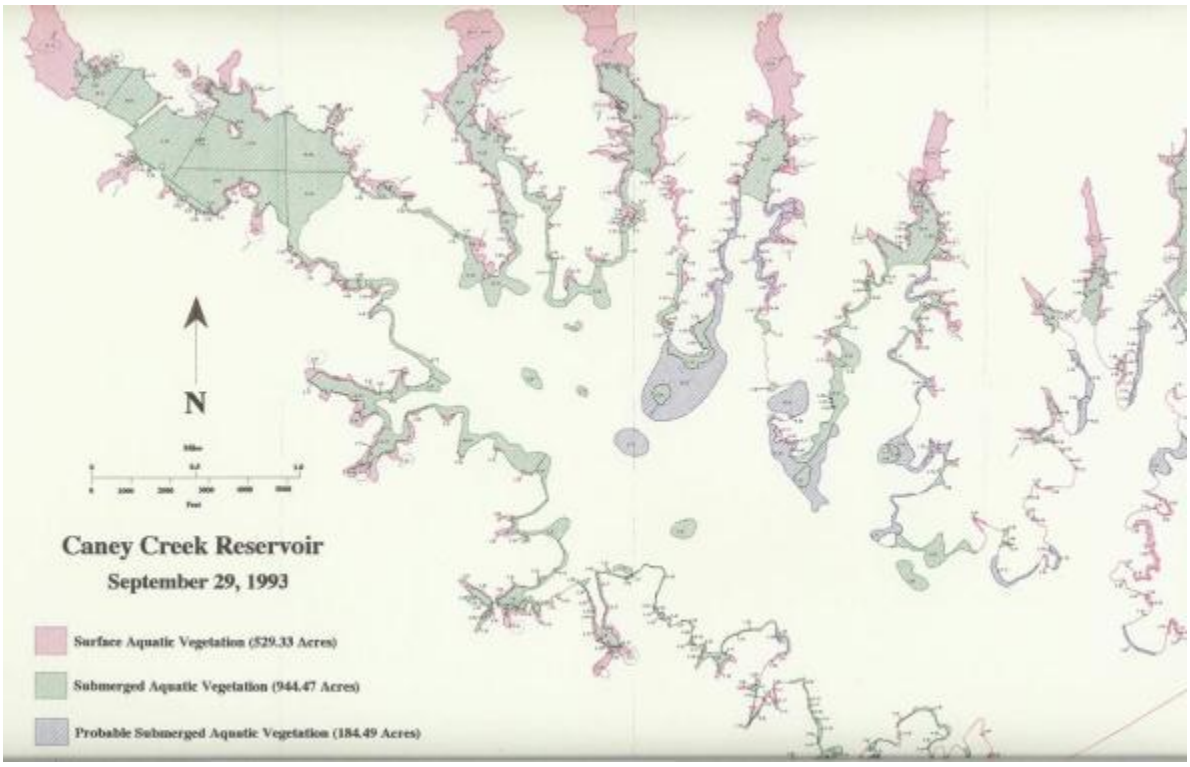
Large scale mechanical control has not proven feasible. Cost on a per acre basis (up to $1500 per acre) as well as the increase of the infestation due to cut stems re-sprouting overrides any temporary benefits.

Biological control is a selective form of control and has to be considered a calculated risk. There is no biological organism approved for release in Louisiana waters which will control the plant populations. Further complicating the management of Caney Lake is that the

watershed is insufficient to fill the reservoir during annual spring rains. This practically precludes the use of drawdowns for management purposes. Drawdowns on Caney Lake probably would be counterproductive to lake management goals.

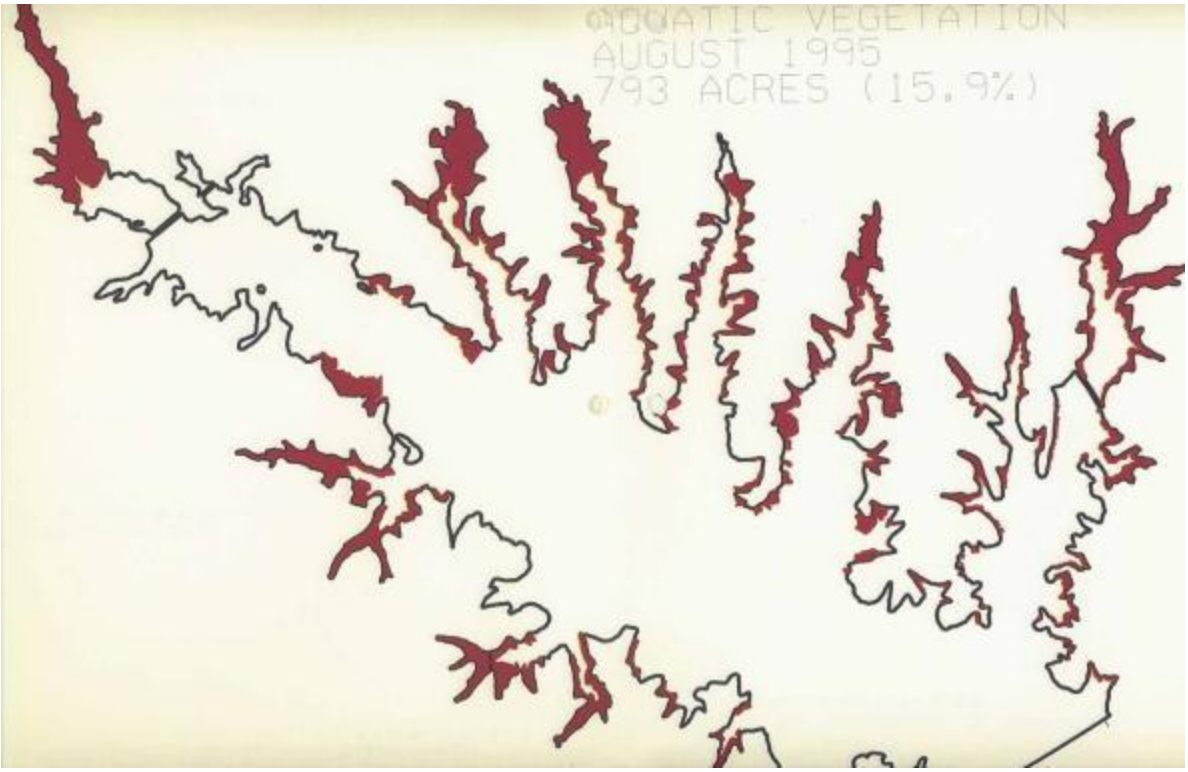
Chemical control of most aquatic vegetation can be accomplished by using selective herbicides. Depending on species of plants, bio mass and water use, one or more annual treatments may be required. A broad band herbicide treatment will cost $134.00 per acre for chemicals. A more specific or selected herbicide treatment will cost up to $285.00 per acre for chemicals. Due to extreme cost, total control of aquatic weeds using herbicides would not be feasible on a cost/benefit ratio. Complete control using herbicides is not the answer to aquatic weed control.

Caney Lake – Aquatic Vegetation Type Map – 1993



Caney Lake – Aquatic Vegetation Type Map – 1994

Caney Lake – Aquatic Vegetation Type Map – 1995



Caney Lake – Aquatic Vegetation Assessment Narrative and Type Map – 1996

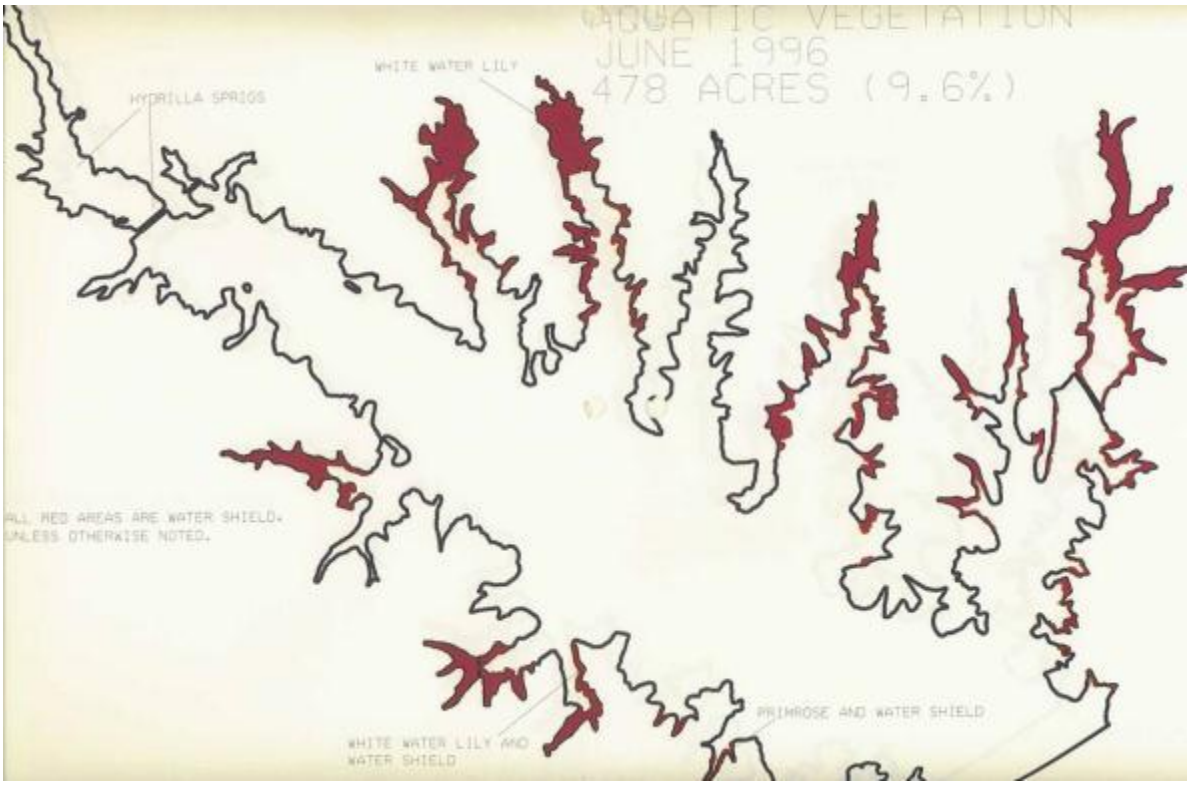
CANEY LAKE, JACKSON PARISH

JUNE 1996

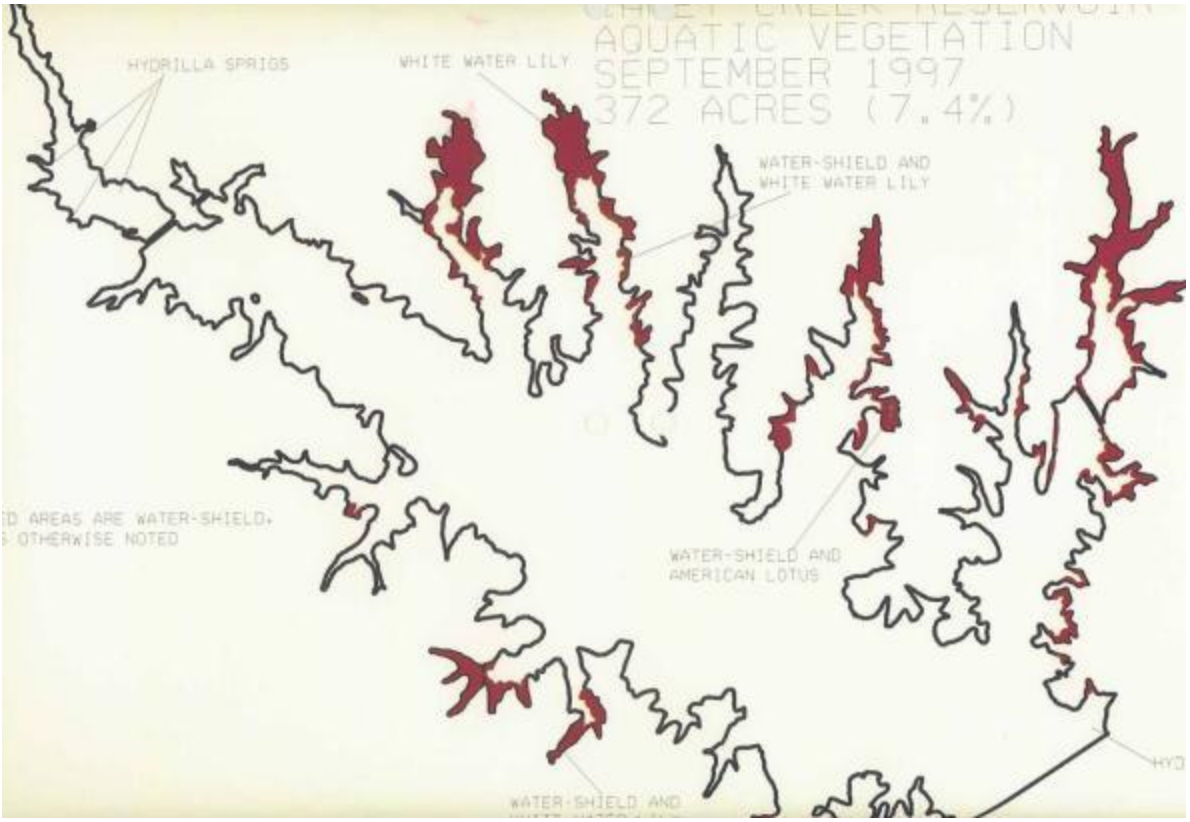
To: BENNIE FONTENOT, Administrator, Inland Fisheries Division
FROM: LOUIE V. RICHARDSON, Aquatic Research and Control Section
RE: JUNE 1996 SURVEY OF AQUATIC PLANTS: CANEY LAKE; JACKSON PARISH

Bennie, per your request, a late June survey was recently made of aquatic plants in Caney Lake. Previous surveys were conducted in August of each year during the peak time of plant coverage and biomass. Plant coverage and biomass presently in Caney does not necessarily reflect what coverage and biomass will be in August. It would be commonly accepted to assume greater coverage and biomass in August; however, with grass carp present in the system, it could be less. Charlie Dugas and I utilized GPS and the GIS to determine acreage of plant coverage. Four hundred and seventy three acres of emersed plant coverage was mapped in Caney Lake the last 2 weeks of June1996 (map attached). These acres comprise 9.2 percent of the surface acreage of Caney Lake- The mapped vegetation was water shield and white water lily.
A total of 21 species of floating, emersed and submersed plants were found in the lake. Bladderwort was by far the most abundant submersed plant. Chara and Southern Naiad would be third in abundance. Mappable floating, emersed and submersed species were associated with the 9.2% coverage.
There were numerous un-mappable sprigs, clumps and narrow light fringes of plants in waters less than one foot in depth. Notable to me was the presence of hydrilla in many of these areas. Interesting and disturbing was that many of these areas had no hydrilla or other vegetation in August 1995.
As per the Caney Aquatic Management Plan, vegetative coverage goal of 15% (750 acre) states If coverage drops below 15%, and j grass carp should be removed or reduced in made to capture or kill some of the fish. Coverage (9.2%) is now below the established a staff meeting to determine what measures are appropriate. If additional vegetative cover is desired grass carp population will need to be removed.

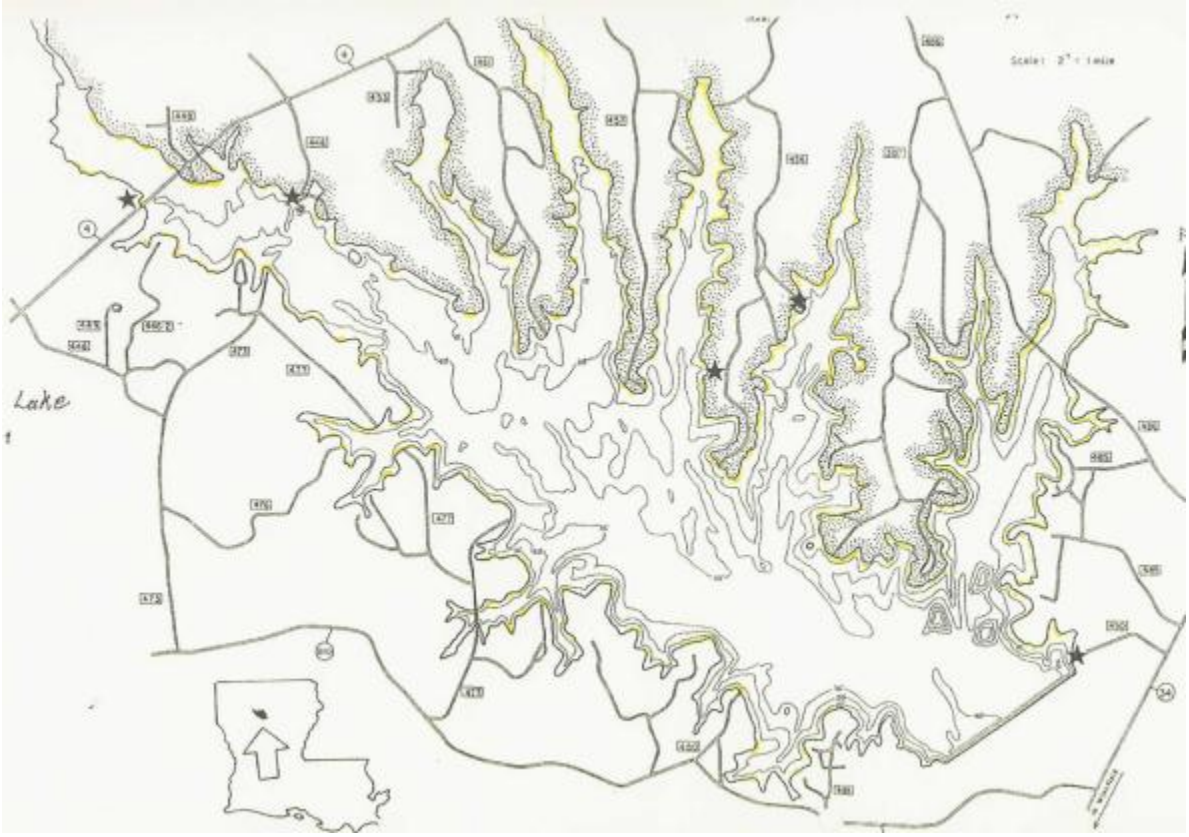
Caney Lake – 1996 Type Map



Caney Lake – Aquatic Vegetation Type Map – 1997



Caney Lake – Aquatic Vegetation Type Map – 2001



Caney Lake – Aquatic Vegetation Assessment Narrative – 2004

Caney Creek Reservoir
September 27, 2004

Caney Creek Reservoir, Jackson Parish, was surveyed for the presence of aquatic vegetation on September 21 and 22, 2004. The reservoir was approximately six inches below pool at the time of the survey.

During this year's survey submergent aquatic vegetation (SAV) was observed in small amounts intermittently around the shoreline. The predominant species of SAV found in the lake was bladderwort (Utricularia spp). Other submergent species identified in lesser amounts were fanwort (Cabomba caroliniana), coontail (Ceratophyllum demersum), muskgrass (Chara spp.) and slender pondweed (Potamogeton pusillus). The majority of the aquatic vegetation observed on the day of the survey was comprised of floating and emergent species. The predominant species being water shield (Brasenia schreberi) and to a lesser extent fragrant water lily (Nymphaea odorata) and creeping water primrose (Ludwigia repens). Water shield and creeping water primrose were found in an intermittent fringe out to approximately three feet in depth. The largest stands of water shield and fragrant water lily were observed in the shallow ends of the five Northern coves of Caney Lake. Southern water-grass (Luziola fluitans) was also observed in small patches throughout the lake. Fringes of water hyacinths (Eichhornia crassipes) were observed primarily along the Northwestern shoreline. This infestation was reported to the divisions spray crews so that herbicide applications could be scheduled. Illinois pondweed was found in two small patches in the coves of Hancock Creek and Boggy Branch. Fringes of emergent vegetation such as smartweed (Polygonum spp.), sagittaria (*Sagittaria spp*.), torpedo grass (*Panicum repens*), wild taro (Colocasia esculenta) and lizard's tail (*Saururus cernuus*) were found in a five to twenty foot fringe from the shoreline intermittently throughout the water body. Other aquatic vegetation observed in trace amounts were duckweed (Lemna spp.), Mosquito Fern (*Azolla caroliniana*), Pickerelweed (*Pontederia cordata*), spike rush (Eleocharis baldwinii), American lotus (*Nelumbo lutea*) and Cattail (*Typha spp*.).

Caney Lake – Aquatic Vegetation Assessment Narrative and Type Map– 2005

Caney Creek Reservoir
Aquatic Type Map
July 15, 2005

Caney Creek Reservoir, Jackson Parish, was surveyed for the presence of aquatic vegetation on July 13, 2005. Inland fisheries biologists, Scott Longman, Ryan Daniel, and Mike Wood conducted the survey. Observations were made throughout the entire reservoir. The team traveled by boat along the entire 70 mile shoreline. The reservoir was approximately two inches below pool at the time of the survey.

During this year's survey, submergent aquatic vegetation (SAV) was observed in small amounts intermittently around the shoreline and in the backs of coves. The predominant species of SAV found in the lake was bladderwort (*Utricularia spp*). Other submergent species identified in lesser amounts were:

- fanwort (*Cabomba caroliniana*)
- muskgrass (*Chara spp*.)
- slender pondweed (*Potamogeton pusillus*)
- variable leaf milfoil (*Myriophyllum heterophyllum*)

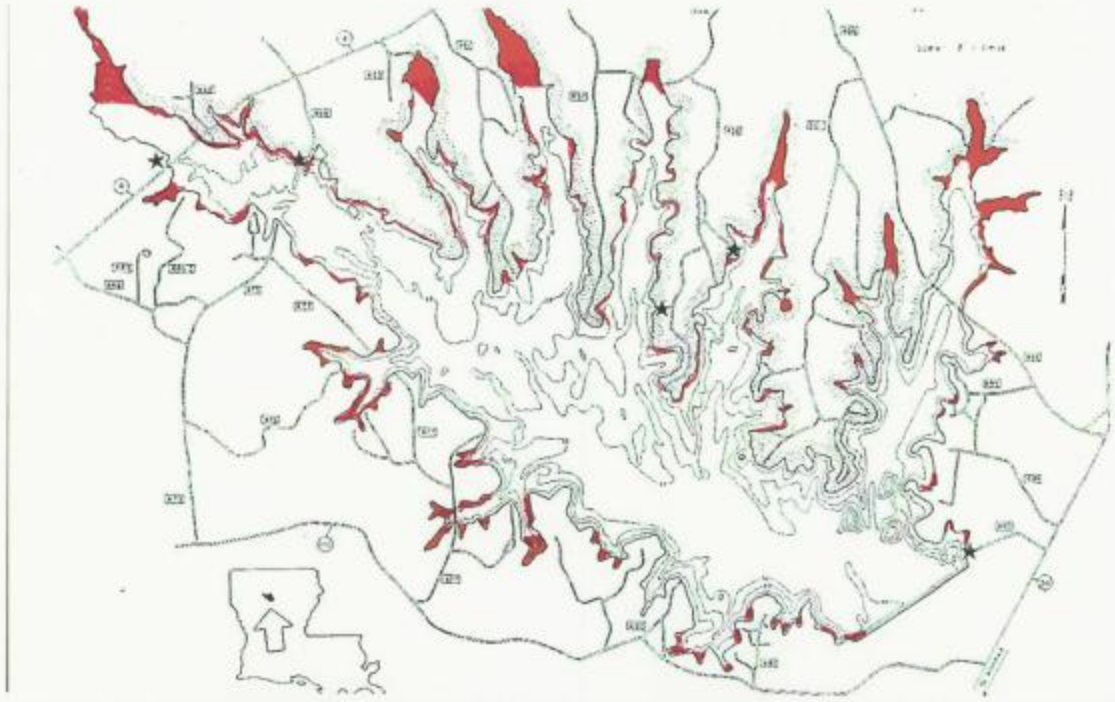
Notably absent species were *Hydrilla verticillata* and coontail (*Ceratophyllum demersum*).

The majority of observed aquatic vegetation was comprised of floating and emergent species. The predominant species being:

- water shield (*Brasenia schreberi*)
- fragrant water lily (*Nymphaea odorata*)
- creeping water primrose (*Ludwigia repens*)

Water shield and creeping water primrose were found in a fringe to approximately three feet in depth. The largest stands of water shield and fragrant water lily were observed in the shallow ends of the five Northern coves. Southern water-grass (*Luziola fluitans*) was also observed in small patches throughout the lake. Fringes of water hyacinths (*Eichhornia crassipes*) were observed primarily along the Northwestern shoreline. As in the 2004 survey, Illinois pondweed was found in two small patches in the coves of Hancock Creek and Boggy Branch. Fringes of emergent vegetation such as smartweed (*Polygonum spp*.), sagittaria (*Sagittaria spp*.), torpedo grass (*Panicum repens*), wild taro (*Colocasia esculenta*) and lizard's tail (*Saururus cernuus*) were found in a five to twenty foot fringe from the shoreline intermittently throughout the water body. Emergent species were observed to have extended coverage from last year's type map, but not significantly. Total aquatic vegetation coverage is estimated to be 5%. Other aquatic vegetation observed in trace amounts were duckweed (*Lemna spp*.), mosquito fern (*Azolla caroliniana*), pickerelweed (*Pontederia cordata*), spike rush (*Eleocharis baldwinii*), American lotus (*Nelumbo lutea*) and cattail (*Typha spp*.), and aquatic liverwort (*Ricciocarpus natans*).

September 2005 Plant Survey



Caney Lake – Aquatic Vegetation Assessment Narrative and Type Map– 2006

Caney Creek Reservoir
Aquatic Type Map
August 28, 2006

Caney Creek Reservoir, Jackson Parish, was surveyed for the presence of aquatic vegetation between the dates of August 24 and August 28, 2006. Inland fisheries biologist, Mike Wood and fisheries technician, Randy Lively conducted the survey. Observations were made throughout the entire reservoir. The entire 70 mile shoreline was traveled by boat. The reservoir was 12 inches below pool at the time of the survey.

During this year's survey, submergent aquatic vegetation (SAV) was observed in small amounts mixed with emergents around the shoreline and in the backs of coves. The predominant species of SAV found in the lake was bladderwort (*Utricularia spp*). Other submergent species identified in lesser amounts were:

- fanwort (*Cabomba caroliniana*)
- muskgrass (*Chara spp*.)
- slender pondweed (*Potamogeton pusillus*)
- coontail (*Ceratophyllum demersum*).

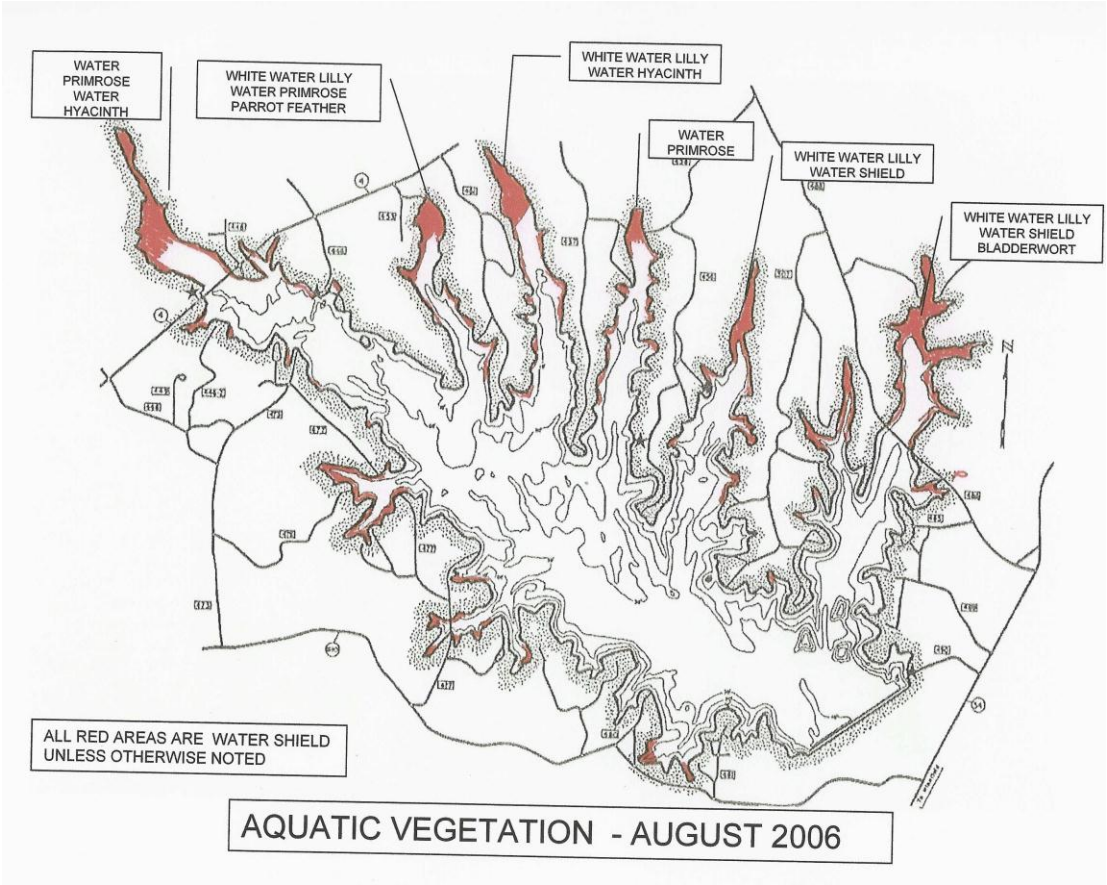
Notably absent was *Hydrilla verticillata.*

The majority of observed aquatic vegetation was comprised of floating and emergent species. The predominant species being:

- water shield (*Brasenia schreberi*)
- fragrant water lily (*Nymphaea odorata*)
- creeping water primrose (*Ludwigia repens*)

Water shield and creeping water primrose were found in a fringe to approximately four feet in depth. The largest stands of water shield and fragrant water lily were observed in the shallow ends of the five Northern coves. Southern water-grass (*Luziola fluitans*) was also observed in small patches throughout the lake. Fringes of water hyacinths (*Eichhornia crassipes*) were observed primarily along the Northwestern shoreline. More extensive coverage was observed in the back of Hancock Creek. Herbicide applications were conducted soon after the survey.

Fringes of emergent vegetation such as smartweed (*Polygonum spp*.), sagittaria (*Sagittaria spp*.), torpedo grass (*Panicum repens*), wild taro (*Colocasia esculenta*) and lizard's tail (*Saururus cernuus*) were found in a five to twenty foot fringe from the shoreline intermittently throughout the water body. Emergent species were observed to have extended coverage from last year's type map. Total aquatic vegetation coverage is estimated to have increased from 5% in 2005 to 8% areal coverage. Other aquatic vegetation observed in trace amounts were duckweed (*Lemna spp*.), mosquito fern (*Azolla caroliniana*), pickerelweed (*Pontederia cordata*), spike rush (*Eleocharis baldwinii*), American lotus (*Nelumbo lutea*) and cattail (*Typha spp*.).


WATER PRIMROSE WATER HYACINTH
WHITE WATER LILLY WATER PRIMROSE PARROT FEATHER
WHITE WATER LILLY WATER HYACINTH
WATER PRIMROSE
WHITE WATER LILLY WATER SHIELD
WHITE WATER LILLY WATER SHIELD BLADDERWORT
ALL RED AREAS ARE WATER SHIELD UNLESS OTHERWISE NOTED
AQUATIC VEGETATION - AUGUST 2006

Caney Lake – Aquatic Vegetation Assessment Narrative and Type Map– 2007

Caney Creek Reservoir
Aquatic Type Map
July 10 and 13, 2007

Introduction

An aquatic vegetation survey was performed Caney Creek Reservoir in Jackson Parish on July 10th and 13th, 2007. The survey was conducted by inland fisheries biologist Ryan Daniel, with assistance from technicians Bruce Jackson and Jason Daniel. A boat was used to map aquatic vegetation around the entire 70 mile length of shoreline. Observations on the species present, their location, and abundance were made on a Caney Lake topo map in the field and redone with color coding (see Type Map). Caney Lake was at pool stage at the time of the survey.

Summary

Very little submersed aquatic vegetation (SAV) was observed in Caney during this survey. Marginal and emergent species dominated the survey. Much of the vegetation was confined to shallow coves that receive little wind action. There was very little vegetation along the developed shoreline where sea-walls have been constructed. Total aquatic vegetation coverage is believed to be similar to the 2006 estimate of 8% areal coverage. Of the total coverage, the following are approximate percentages of the different vegetation types: 10% SAV, 50% emergent, 30% marginal, and 10 % floating.

Observed Vegetation

Marginal Vegetation

Torpedo grass *Panicum repens* was the most prevalent species found around the lake. It was mostly restricted to depths of less than 1ft., growing out to an average of 5 ft. from the bank, and was present in most areas of the lake, especially along the undeveloped areas of the large coves. Lizard's tail *Saururus cernuus* was also found in the same habitat throughout the lake but in lesser amounts. Clumps of wild taro *Colocasia esculenta* were also scattered around the shoreline, but not prevalent in any one area. Smartweed *Polygonum hydropiperoides* was observed in several locations, primarily in the backs of coves on the northern side of the lake. Other marginal species observed, but in small amounts, include southern watergrass *Luziola fluitans,* cattail *Typha spp.*, and spike rush *Eleocharis baldwinii.*

Emergent Vegetation

Creeping water primrose *Ludwigia repens*, water shield *Brasenia schreberi*, and water lily *Nymphaea odorata* were the dominant emergent species. These species were mostly restricted to depths less than 5 ft., and prevalent in the backs of coves. Water lily formed dense stands in the back of 4 of the 5 main creeks that feed Caney coming in from the north. It was only found in Smith cove on the south side of the lake. Water shield was usually associated with the shoreline where found, but formed dense stands across the back of some coves, especially in Smith Creek. It was found along the entire shoreline north of the bridge in Smith Creek. Primrose was the major emergent species in several locations around the lake, growing out to 20

ft. or more from the shoreline in some areas. Other emergents observed included: parrots feather *Myriophyllum aquaticum* (2 locations), American lotus *Nelumbo lutea* (2 locations), and pennywort *Hydrocotyle umbellata* (1 location).

Submersed Vegetation

Nearly all of the submersed vegetation in the lake was confined to the portion of Smith Creek north of the Hwy. 486 Bridge. Bladderwort *Utricularia spp.* was the most abundant, but fanwort *Cabomba caroliniana* was also common in this area. Both of these species were associated with watershield, but the bladderwort was also found by itself in depths to at least 6 ft. A cove on the east side of Boggy Creek also contained bladderwort amongst the watershield. An unidentified diminutive submersed plant (possibly a *Najas spp.*) with no obvious roots and very slender unserrated leaves 4" long growing from whorls of 6 was seen in small amounts tangled in the stems of the watershield in Smith Branch. It was not abundant.

Floating Vegetation

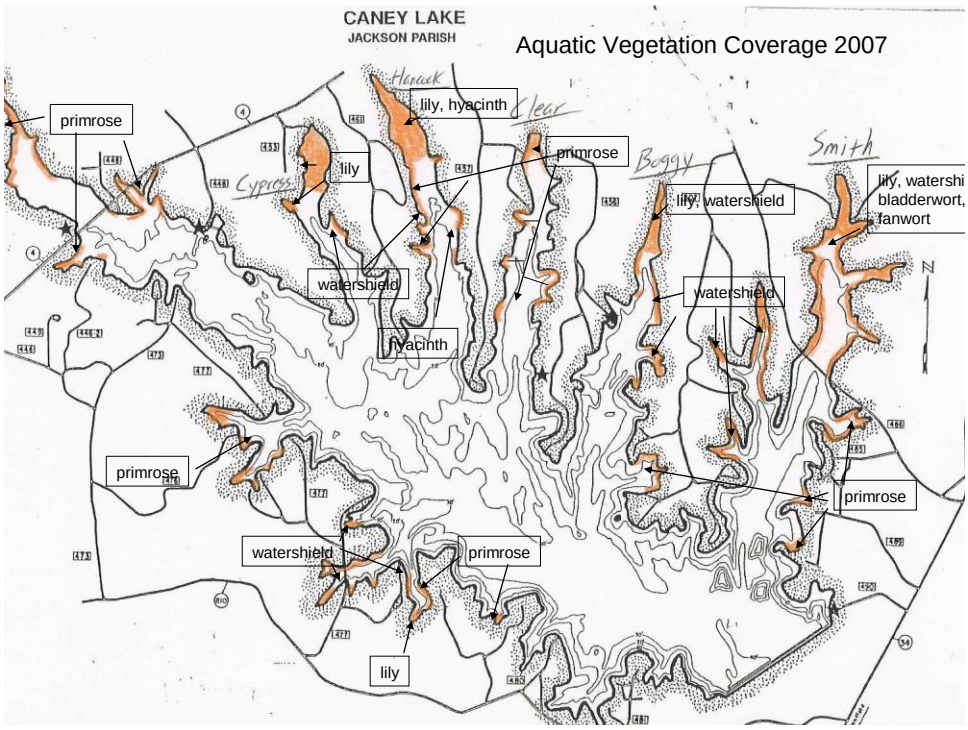
Water hyacinth *Eichhornia crassipes* was the primary floating species observed. The vast majority of hyacinth on Caney is located in Hancock Creek, forming a dense mat along with water lily in the upper end. Some isolated plants were also observed at various locations. There was also some frog's-bit *Limnobium spongia* floating with the hyacinth in Hancock. Duckweed *Lemna spp.* was also observed, but in very small amounts.

Vegetation Concerns

The primary concern in Caney Lake is the lack of desirable SAV. It is confined to only one fairly shallow area on the lake. The emergent species provide some much needed shallow cover for fish, but not to the extent that SAV's would. Once again, no hydrilla *Hydrilla verticillata* was observed. The mat of hyacinth and pond lily in the northern end of Hancock Creek continues to be an area of concern, as several residences and boat houses are impacted in this area. This area is shallow and will require maintenance spraying. The mats in the backs of the other creeks do not impact any residences and provide refuge for fish and wildlife.

Revegetation Efforts

No coontail *Ceratophyllum demersum*, which was transplanted in various locations in 2005 and 2006, was observed during the survey. The only evidence of survival from the seed plantings of eelgrass *Vallisneria americana* and sago pondweed *Potamogeton pectinatus* was the presence of eelgrass in exclosure no. 5 in Clear Branch. Most of the 10 exclosures have become overgrown with watershield or primrose. The bottom portions of the exclosure fences are now corroded and deteriorated. It should be noted that some eelgrass was observed adjacent to the State Park Clear Branch boat ramp earlier this year, but it was not seen during the survey. Eelgrass seeds were planted again this spring in various locations outside of the exclosures.


CANEY LAKE
JACKSON PARISH
Aquatic Vegetation Coverage 2007
Hancock
Clear
Cypress
Beggy
Smith
primrose
lily, hyacinth
lily
primrose
lily, watershield
lily, watershi
bladderwort,
fanwort
watershield
hyacinth
watershield
primrose
primrose
watershield
primrose
lily
N

Caney Lake – Aquatic Vegetation Assessment Narrative – 2008

Caney Creek Reservoir
Aquatic Type Map
July 29, 2008

Introduction

An aquatic vegetation survey was performed Caney Creek Reservoir in Jackson Parish on July 29th. The survey was conducted by inland fisheries biologists Ryan Daniel and John White. A mudboat was used to map aquatic vegetation around the entire 70 mile length of shoreline. Observations on the species present, their location, and abundance were made on a Caney Lake topo map in the field and redone with color coding (see Type Map). The lake was approximately 6 inches below pool stage at the time of the survey.

Summary

The 2008 type map survey revealed many similarities to 2007, when marginal and emergent species dominated the survey. One major change this year was the significant increase of eelgrass, *Vallisneria americana.* Though it was confined only to Clear Branch, it has become widespread throughout this arm of the lake, forming mats out to depths of nearly 2 feet. This was one of the species that was planted in the exclosures and also scattered in various areas of the lake. Much of the other vegetation was confined to shallow coves that receive little wind action. There was very little vegetation along the developed shoreline where sea-walls have been constructed. Total aquatic vegetation coverage is believed to be similar to the 2007 estimate of 8% areal coverage. Of the total coverage, the following are approximate percentages of the different vegetation types: 10% SAV, 45% emergent, 40% marginal, and 5 % floating.

Observed Vegetation

Marginal Vegetation

Torpedo grass *Panicum repens* was the most prevalent species found around the lake. It was mostly restricted to the immediate shoreline, with the lake level being 6 inches below pool. Lizard's tail *Saururus cernuus* was also found around the shoreline of much of the lake. Clumps of wild taro *Colocasia esculenta* were also scattered around the shoreline, but not prevalent in any one area. Smartweed *Polygonum hydropiperoides* was observed in several locations, primarily in the backs of coves on the northern side of the lake. Other marginal species observed, but in small amounts, include cattail *Typha spp.*, spike rush *Eleocharis baldwinii* and duck potato *Sagittaria latifolia.*

Emergent Vegetation

Creeping water primrose *Ludwigia repens*, water shield *Brasenia schreberi*, and water lily *Nymphaea odorata* were the dominant emergent species. These species were mostly restricted to depths less than 4.5 ft., and prevalent in the backs of coves. Water lily formed dense stands in the upper ends of Cypress and Hancock Creeks, whereas water shield formed a dense mat in the upper end of Boggy Creek. Both were equally abundant in the upper end of Smith Creek. Much of the shallow protected areas along the shoreline had mats of either

primrose or water shield extending out from the shore, but usually no more than 20 ft., except in the shallow coves. It should be noted that both species were nearly absent in Clear Branch. Other emergents observed included: parrots feather *Myriophyllum aquaticum* (1 location in Smith Creek), and American lotus *Nelumbo lutea* (3 small patches).

Submersed Vegetation

Eelgrass has become a significant submersed species in Clear Branch, where it is currently confined to. A few individual plants were observed in 2007, but now extensive mats have formed in several locations throughout Clear Branch. The eelgrass appears to still be expanding and is currently observed in depths of up to 2 ft. The other submersed vegetation in the lake was mostly confined to the portion of Smith Creek north of the Hwy. 486 Bridge. Bladderwort *Utricularia spp.* was found underneath the water shield in this area. Also found along with the bladderwort, although in small amounts was an unidentified small pondweed with the following description: leaves alternate, 2 cm, unserrated, pointed tip, with no obvious mid-vein. Fanwort *Cabomba caroliniana* was found underneath the water shield in Boggy Branch only, mostly in the cove across from the State Park beach. Muskgrass *Chara* sp. was common in various locations, growing in depths of up to 3 ft., but never forming large, dense mats. It is not considered to be a significant submersed species.

Floating Vegetation

Water hyacinth *Eichhornia crassipes* was seen along the shoreline in many areas of the lake, but not in excessive amounts. It only formed mats in the upper end of Hancock Creek. Common salvinia, *Salvinia rotundifolia* was observed only west of the Hwy. 4 Bridge, with most blown along the north shoreline. Total coverage was low, and posed no threat. A small amount of mosquito fern *Azolla mexicana* was seen in the upper end of Clear Branch.

Vegetation Concerns

The primary concern in Caney Lake is still the low occurrence of SAV. The expanding eelgrass community is promising, but it is only confined to Clear Branch. The abundance of primrose and water shield in other areas of the lake may possibly be prohibiting the growth of submersed species. The mat of hyacinth and pond lily in the northern end of Hancock Creek continues to be an area of concern, as several residences and boat houses are impacted in this area. This area is shallow and will require maintenance spraying. The mats in the backs of the other creeks do not impact any residences and provide refuge for fish and wildlife. Common salvinia has not spread beyond the area west of Hwy. 4 and currently poses no threat. It should be sprayed on a routine basis, though.

Revegetation Efforts

All vegetation exclosures have been removed. The presence of eelgrass in Clear Branch, where it was seeded inside and outside of the exclosures may be a result of the effort. No coontail *Ceratophyllum demersum* or Sago pondweed *Potamogeton pectinatus* has been observed.

SPECIES LIST
CANEY LAKE TYPE MAP 2008

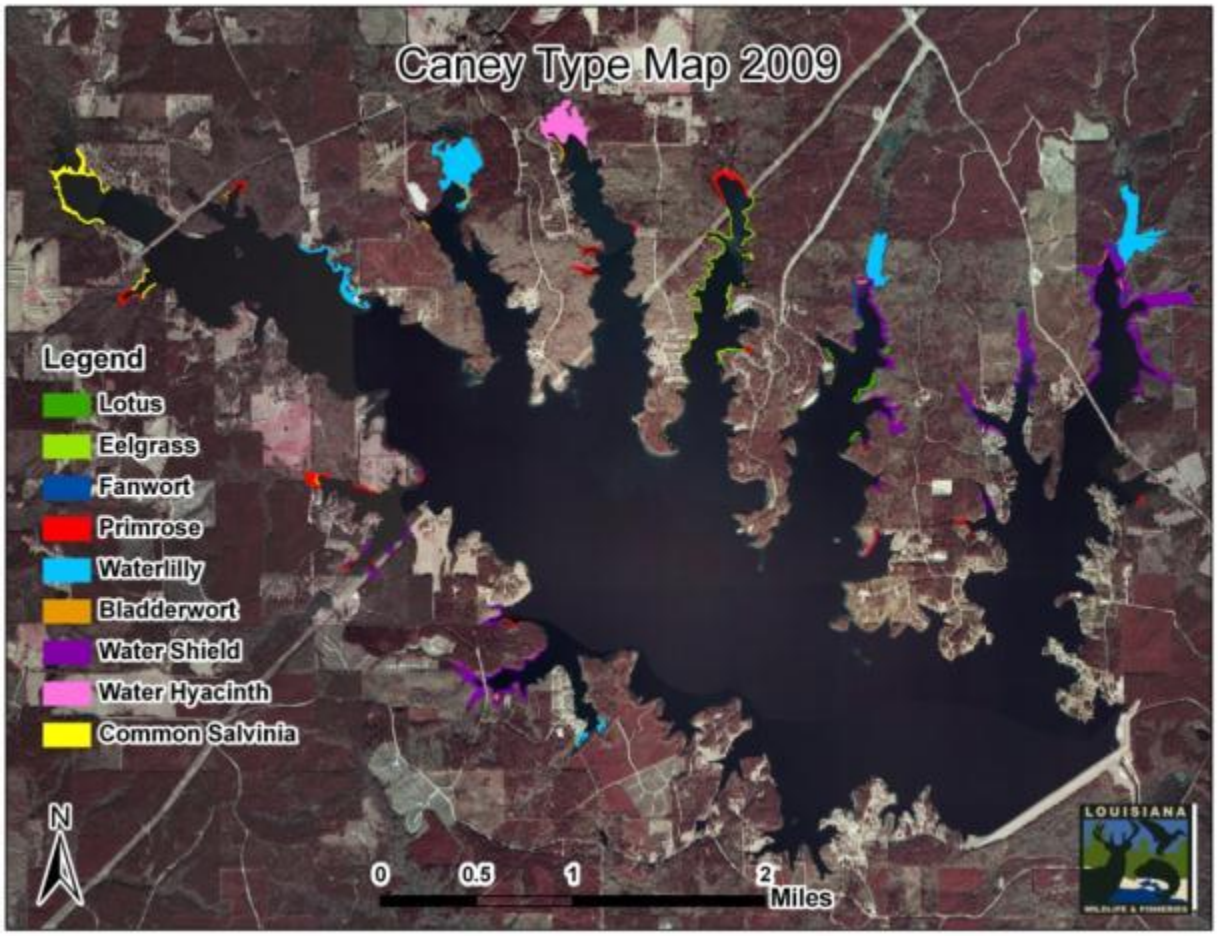
Common Name	**Scientific Name**
American Lotus	*Nelumbo lutea*
Bladderwort	*Utricularia spp.*
Cattail	*Typha spp.*
Common Salvinia	*Salvinia rotundifolia*
Duck Potato	*Sagittaria latifolia*
Eelgrass	*Vallisneria americana*
Fanwort	*Cabomba caroliniana*
Lizard's Tail	*Saururus cernuus*
Mosquito Fern	*Azolla mexicana*
Muskgrass	*Chara spp.*
Primrose	*Ludwigia repens*
Smartweed	*Polygonum hydropiperoides*
Spike Rush	*Eleocharis baldwinii*
Taro	*Colocasia esculenta*
Torpedo Grass	*Panicum repens*
Water Hyacinth	*Eichhornia crassipes*
Water Lilly	*Nymphaea odorata*
Water Shield	*Brasenia schreberi*

Caney Lake – Aquatic Vegetation Type Map – 2009

<u>Caney Lake 2009 Vegetation Estimates</u>

American Lotus- 4.75
Common Bladderwort- 4.99
Fanwort- 3.28
Eelgrass- 9.05
Common Salvinia- 10.06
Water Shield- 87.54
Water Hyacinth
Primrose- 16.31
Water Lilly- 80.29

* Acreage estimated with use of GPS and field notes



Caney Lake – Aquatic Vegetation Assessment Narrative and Type Map– 2010

Caney Creek Reservoir
Aquatic Type Map
August 3, 2010

Introduction

An aquatic vegetation survey was performed on Caney Creek Reservoir in Jackson Parish on August 3, 2010. The survey was conducted by inland fisheries biologists Ryan Daniel and William Finkbeiner. A ProDrive shallow running boat was used to map aquatic vegetation around the entire 70 mile length of shoreline. Observations on the species present, their location, and abundance were made with the use of G.P.S. and a Caney Lake topo map in the field and will be digitized on an aerial photo. The lake was approximately 10 inches below pool stage at the time of the survey.

Summary

Marginal and emergent species are still the dominant vegetation types in Caney Lake. Eelgrass *Vallisneria americana* has continued to spread throughout the Clear Branch arm of Caney and was also found in several other areas of the lake. This was one of the species that was planted in the exclosures and by weighted tubers scattered in various areas of the lake. Transplanting of established eelgrass was also conducted in 2009, with an assessment made in May, 2010. Eelgrass was found in 7 of 41 transplant locations. Much of the other SAV was found growing underneath watershield *Brasenia schreberi* or white water lily *Nymphaea odorata*. There was very little vegetation along the developed shoreline where sea-walls have been constructed and on the main lake shoreline. Overall, there was less vegetation in the lake than in the past few years, but this was due to a significant decrease in nuisance species such as water hyacinth, common salvinia *Salvinia rotundifolia*, and hydrilla *Hydrilla verticillata*. A small amount of giant salvinia was found in Caney for the first time in 2009, however it was aggressively treated with herbicides and it was not seen during the 2010 survey. Of the aforementioned, only water hyacinth was even observed, yet at a very small amount. The drastic reduction in coverage of these nuisance species was the result of unusually cold winter temperatures and intensive herbicide applications.

Other than the decline in those nuisance species and continued expansion of the eelgrass, the plant community has not changed considerably, with no new species found. Total coverage (265 acres), and SAV (34 acres), are still less than optimal for sportfish populations. The SAV coverage is extremely low, considering the abundant shallow areas in Caney. The following are acreage estimates for various species estimated by use of GPS and field notes:

American Lotus – 15.5
Bladderwort – 2.4
Chara – 7.4
Eelgrass - 16.5
Fanwort – 7.7
Water Hyacinth – 0.1
Water Shield – 91.4
Water Primrose – 49.0

Water Lilly – 74.8

Observed Vegetation

Marginal Vegetation

Torpedo grass *Panicum repens* was the most prevalent species found around the lake. It was seen around much of the lake and was mostly restricted to the immediate shoreline. Lizard's tail *Saururus cernuus* was also found around the shoreline of much of the lake. Clumps of wild taro *Colocasia esculenta* were also scattered around the shoreline, but not prevalent in any one area. Smartweed *Polygonum hydropiperoides* was observed in a few locations, primarily in the backs of coves on the northern side of the lake. Marginal species found in low densities include cattail *Typha spp.*, spike rush *Eleocharis baldwinii* and duck potato *Sagittaria latifolia.*

Emergent Vegetation

Creeping water primrose *Ludwigia repens*, water shield *Brasenia schreberi*, and water lily *Nymphaea odorata* were the dominant emergent species. These species were mostly restricted to depths less than 4.5 ft., and prevalent in the backs of coves. Water lily formed dense stands in the upper ends of Cypress and Smith Branches and in the backs of some coves on the south side of the lake, whereas water shield formed a dense mat in the upper end of Boggy Creek. Both were equally abundant in the upper end and much of the shoreline above the bridge in Smith Branch. Much of the shallow protected areas along the shoreline had mats of either primrose or water shield extending out from the shore, but usually no more than 20 ft., except in the shallow coves. It should be noted that watershield is absent in Clear Branch, where eelgrass has been successful. Primrose is the dominant emergent in the extreme upper end of Clear and Hancock Branches. Total coverage of American lotus *Nelumbo lutea* continues to increase in the Boggy Branch arm, but was not found elsewhere in the lake. Emergent vegetation comprises nearly all of the aquatic vegetation on the south side of the lake.

Submersed Vegetation

Coverage of eelgrass continues to increase, especially in Clear Branch. It is now found on much of both the east and west shorelines. Only 1 patch was seen north of the pipeline crossing, on the west shore. It is currently observed in depths of up to 2 ft. It was not observed in Boggy and Smith Branches. Bladderwort *Utricularia spp.* and fanwort *Cabomba caroliniana* are the 2 other major submersed species. They were both mostly found growing underneath watershield and water lily in the Smith, Boggy, and Cypress Creek arms. *Chara sp*. was common in various locations, growing in depths of up to 3 ft., and formed moderate sized mats in a few locations. It is not considered to be a significant submersed species. Hydrilla, which was found in 2009, was not seen this year.

Floating Vegetation

Almost no floating vegetation was observed during the survey. Both common and giant salvinia were present in 2009, but were not detected this year. A very small and insignificant amount of water hyacinth was seen in the upper end of Hancock Creek, which marks a considerable reduction from past years

Vegetation Concerns

The expanding eelgrass community is promising, although the abundance of primrose and water shield in other areas of the lake may possibly impede its growth. At the time of the survey, there is no need for herbicide treatment of nuisance vegetation on the lake. Only the small amount of water hyacinth in Hancock Creek warrants a concern.

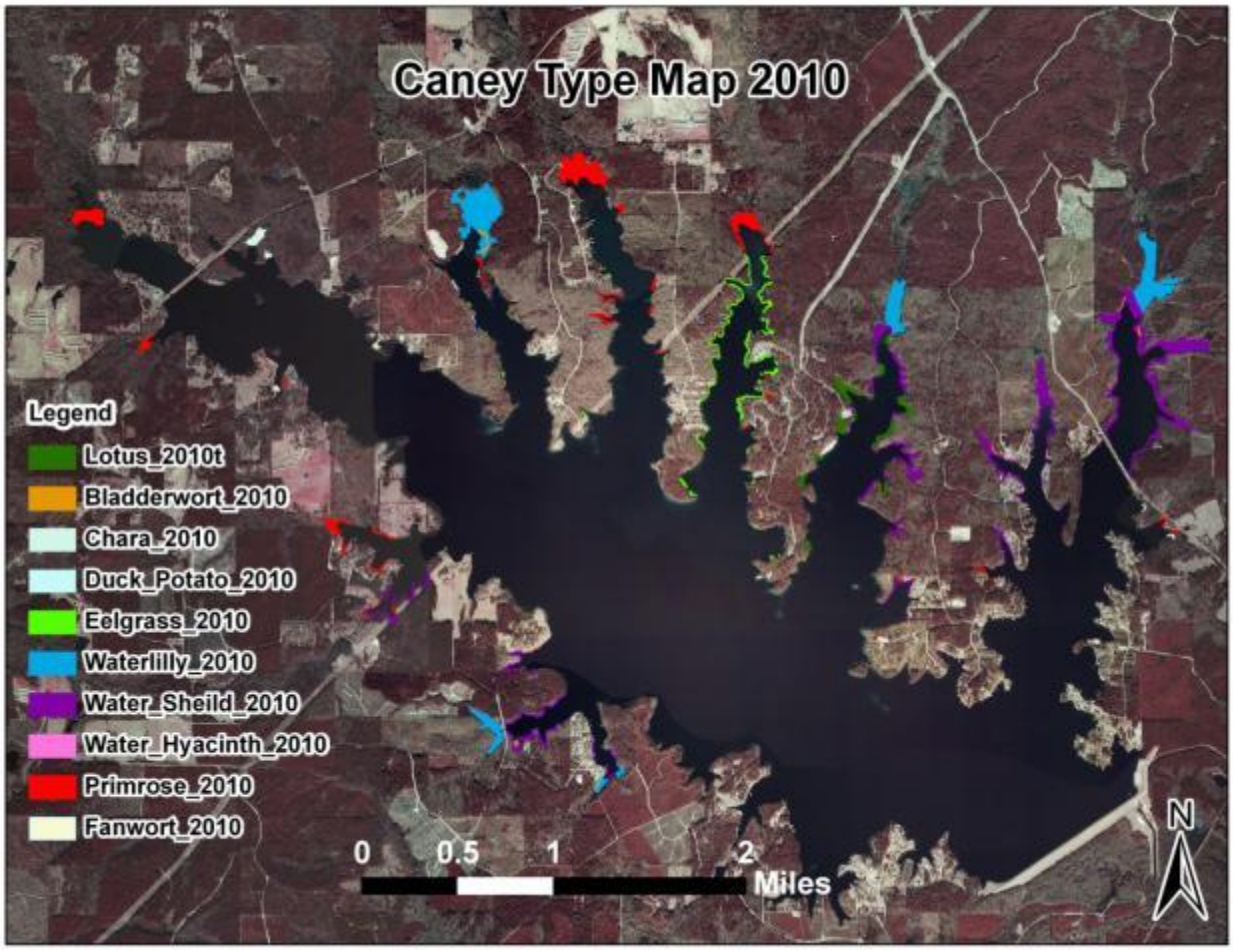
Revegetation Efforts

The recent eelgrass transplant project had limited success. At this time, it is uncertain if further efforts will be made to transplant this species.

SPECIES LIST
CANEY LAKE TYPE MAP 2010

Common Name	Scientific Name
American Lotus	*Nelumbo lutea*
Bladderwort	*Utricularia spp.*
Cattail	*Typha spp.*
Duck Potato	*Sagittaria latifolia*
Diverse-leaved Pondweed?	*Potamogeton diversifolia**
Eelgrass	*Vallisneria americana*
Fanwort	*Cabomba caroliniana*
Lizard's Tail	*Saururus cernuus*
Muskgrass	*Chara spp.*
Primrose	*Ludwigia repens*
Smartweed	*Polygonum hydropiperoides*
Spike Rush	*Eleocharis baldwinii*
Taro	*Colocasia esculenta*
Torpedo Grass	*Panicum repens*
Water Hyacinth	*Eichhornia crassipes*
Water Lilly	*Nymphaea odorata*
Water Shield	*Brasenia schreberi*

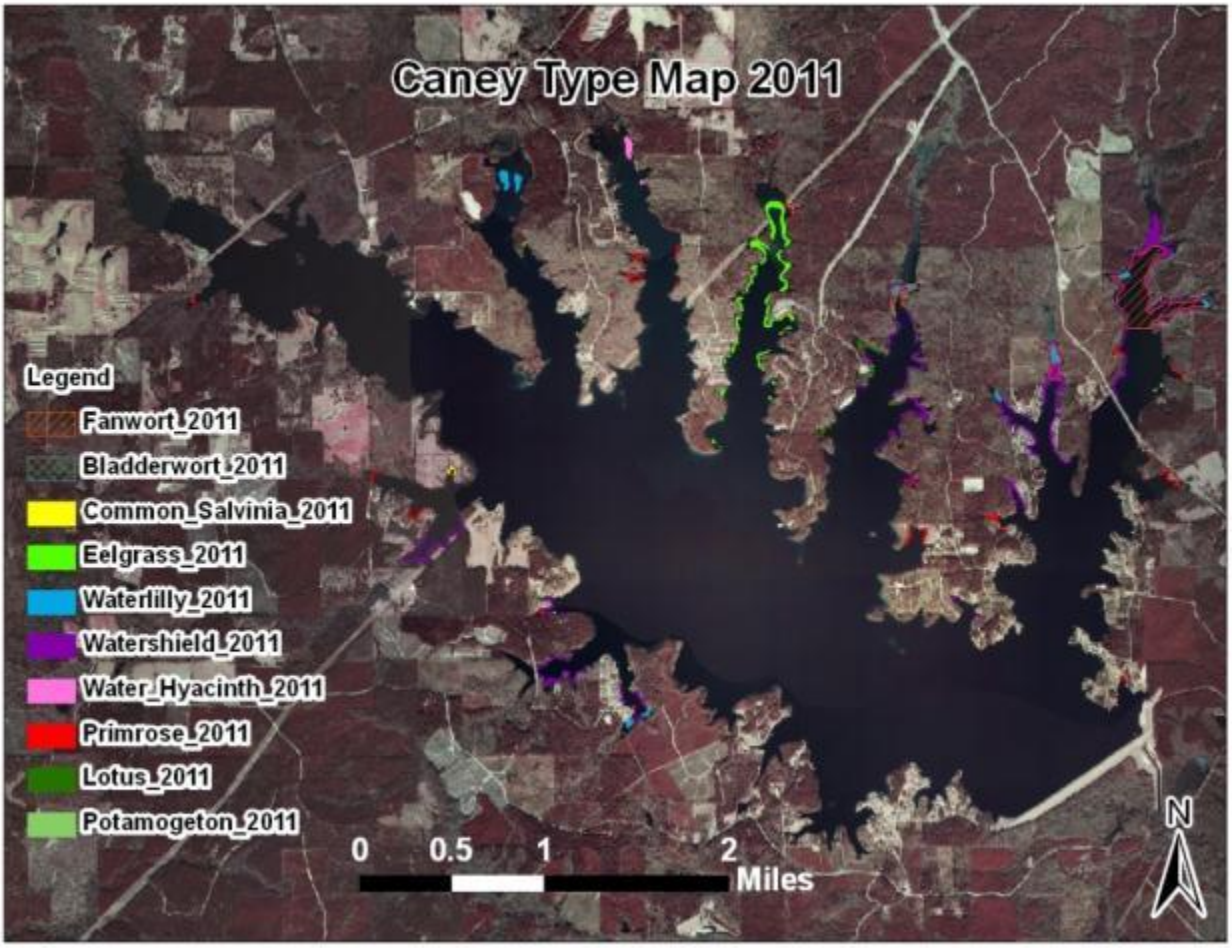
*not certain of species of this small-leaved *Potamogeton*


Caney Type Map 2010
Legend
Lotus_2010t
Bladderwort_2010
Chara_2010
Duck_Potato_2010
Eelgrass_2010
Waterlilly_2010
Water_Sheild_2010
Water_Hyacinth_2010
Primrose_2010
Fanwort_2010
0
0.5
1
2
Miles
N

Caney Lake – Aquatic Vegetation Type Map – 2011

Caney Vegetation Totals 2011
Total Coverage being less than 5 %
Respective coverage of that 5% is listed below:

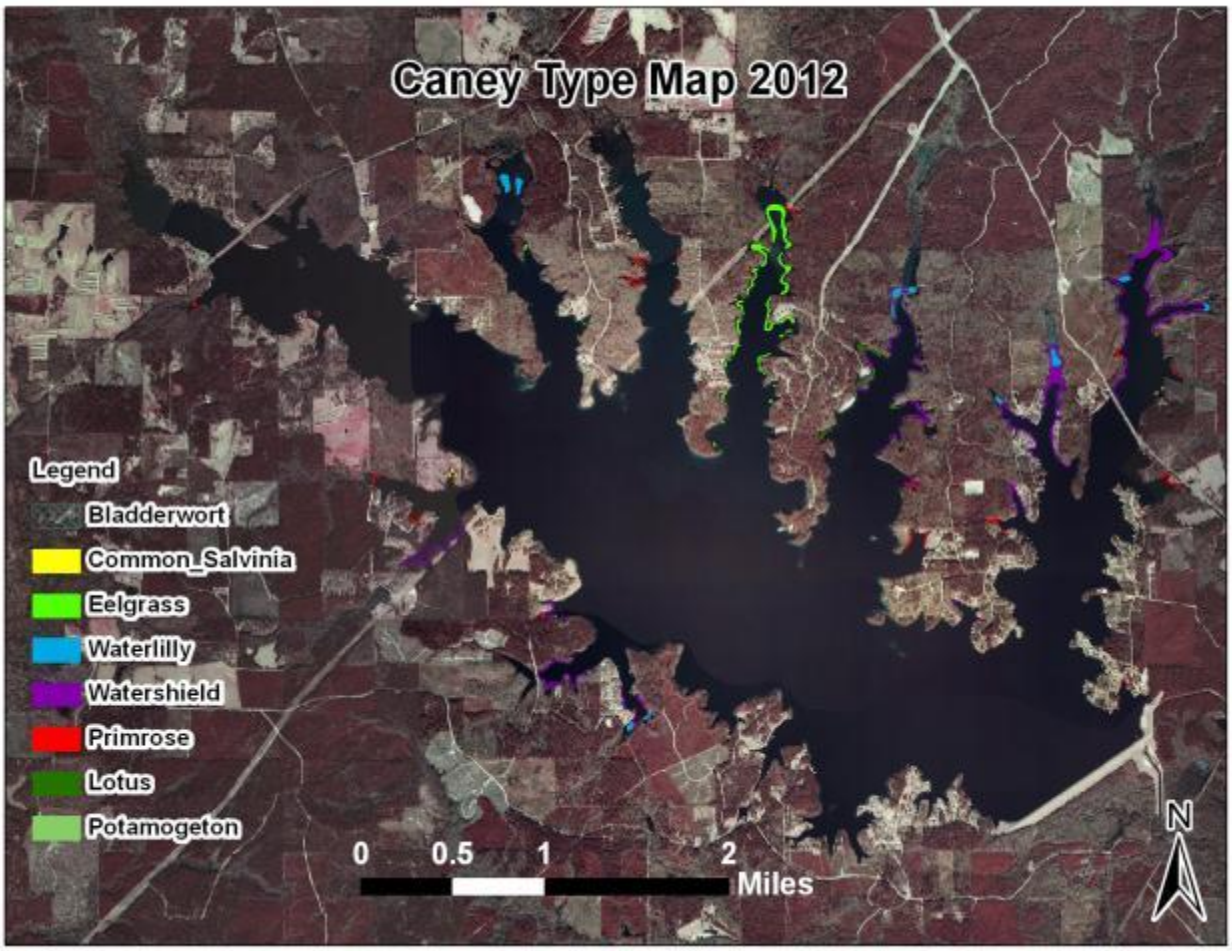
Water Sheild-53.5%
Waterlilly-10.8%
Primrose-6.5%
Eelgrass-14.7%
Lotus-7.8%
Fanwort-56.5%
Bladderwort-4.6%
Water Hyacinth-2.3%
Common Salvinia-0.15%



Caney Lake – Aquatic Vegetation Type Map – 2012

Caney Vegetation Totals 2012
Total Coverage being less than 5 %
Respective coverage of that 5% is listed below:

Water Shield 40%
Bladderwort – 20%
Waterlilly-10%
Lotus-10%
Common Salvinia-7%
Potamogeton- 5%
Eelgrass- 5%
Primrose- 3%



SPECIES LIST
CANEY LAKE TYPE MAP 2012

Common Name	Scientific Name
American Lotus	*Nelumbo lutea*
Bladderwort	*Utricularia spp.*
Cattail	*Typha spp.*
Duck Potato	*Sagittaria latifolia*
Diverse-leaved Pondweed?	*Potamogeton diversifolia**
Eelgrass	*Vallisneria americana*
Fanwort	*Cabomba caroliniana*
Lizard's Tail	*Saururus cernuus*
Muskgrass	*Chara spp.*
Primrose	*Ludwigia repens*
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Torpedo Grass	*Panicum repens*
Water Hyacinth	*Eichhornia crassipes*
Water Lilly	*Nymphaea odorata*
Water Shield	*Brasenia schreberi*