US Army Corps
of Engineers
Mobile District

# APALACHICOLA, CHATTAHOOCHEE, FLINT RIVERS PROJECT

## WALTER F. GEORGE

### HYDRILLA HISTORY

1991 - Hydrilla discovered in W F George - treated

1992-2000 - Hydrilla patches found and treated

2001 - 120 acres

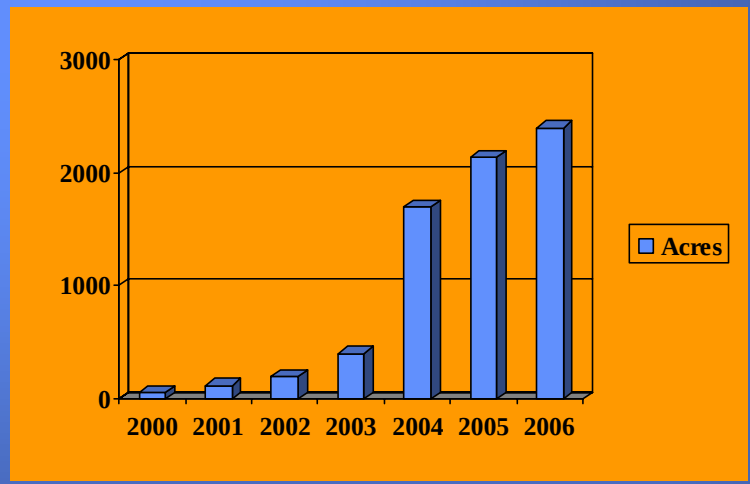
2002 - 200 acres

2003 - 400 acres

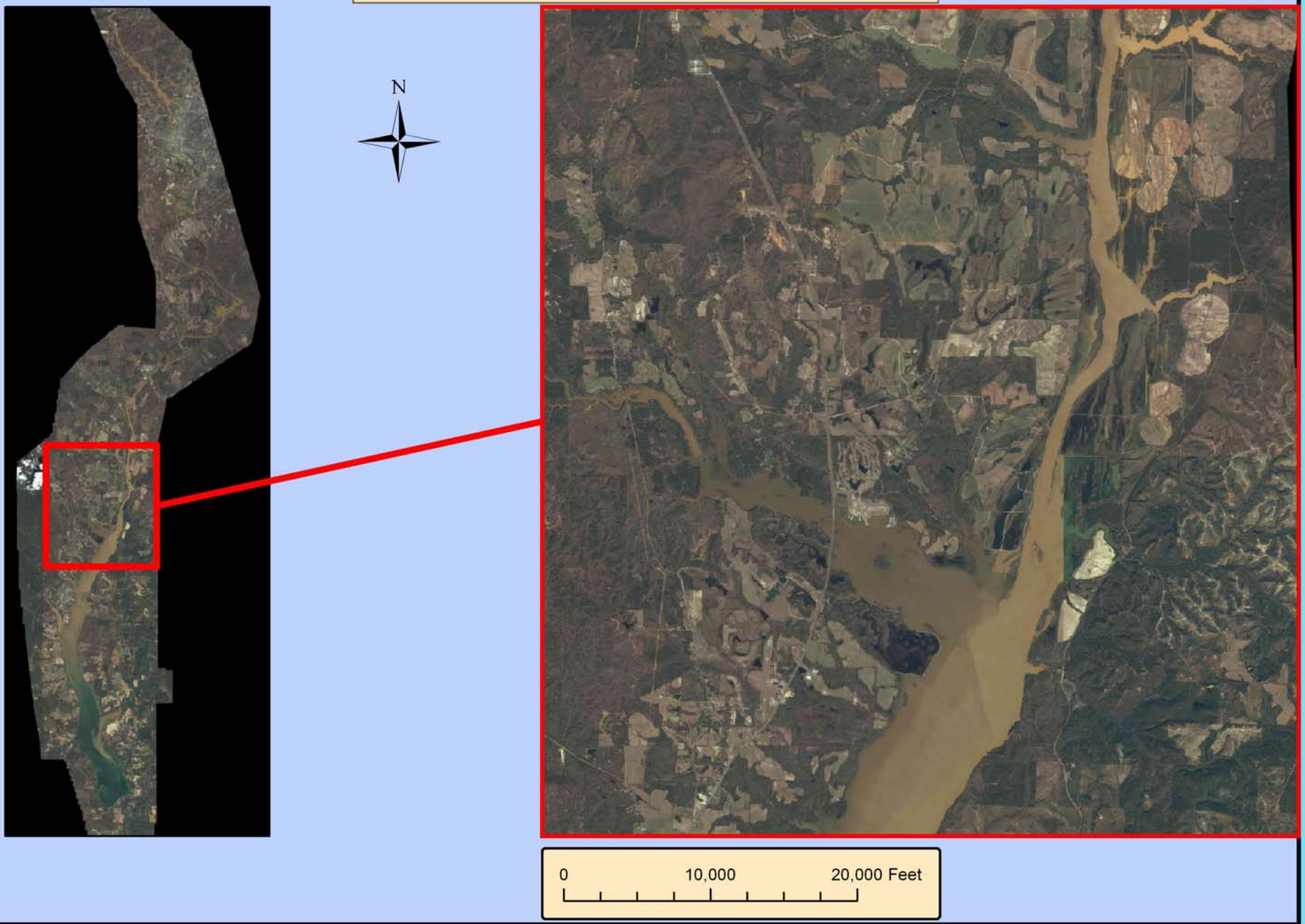
**2004 - 1,700 acres**

**2005 - 2,140 acres**

**2006 - 2,400 acres**



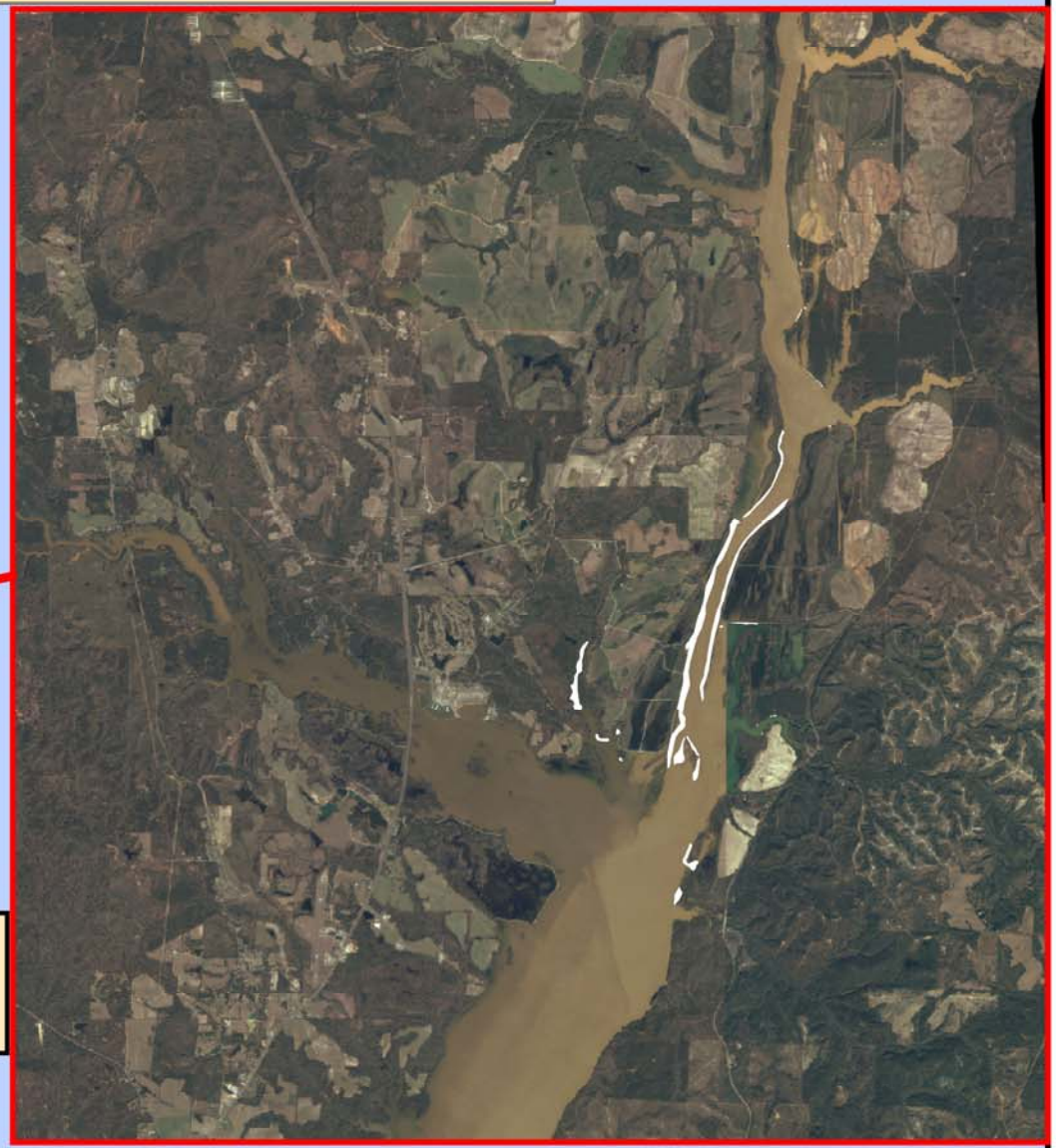
# Walter F. George Hydrilla\Egeria Survey Showing Expansion



# Walter F. George Hydrilla\Egeria Survey Showing Expansion

N

| Lake Wide Totals | | |
|---|---|---|
| Year | | Acres |
| 2001 | | 120 |
| 2002 | | 200 |



**Close Up**

2002 Vegetation

**Lake Wide**

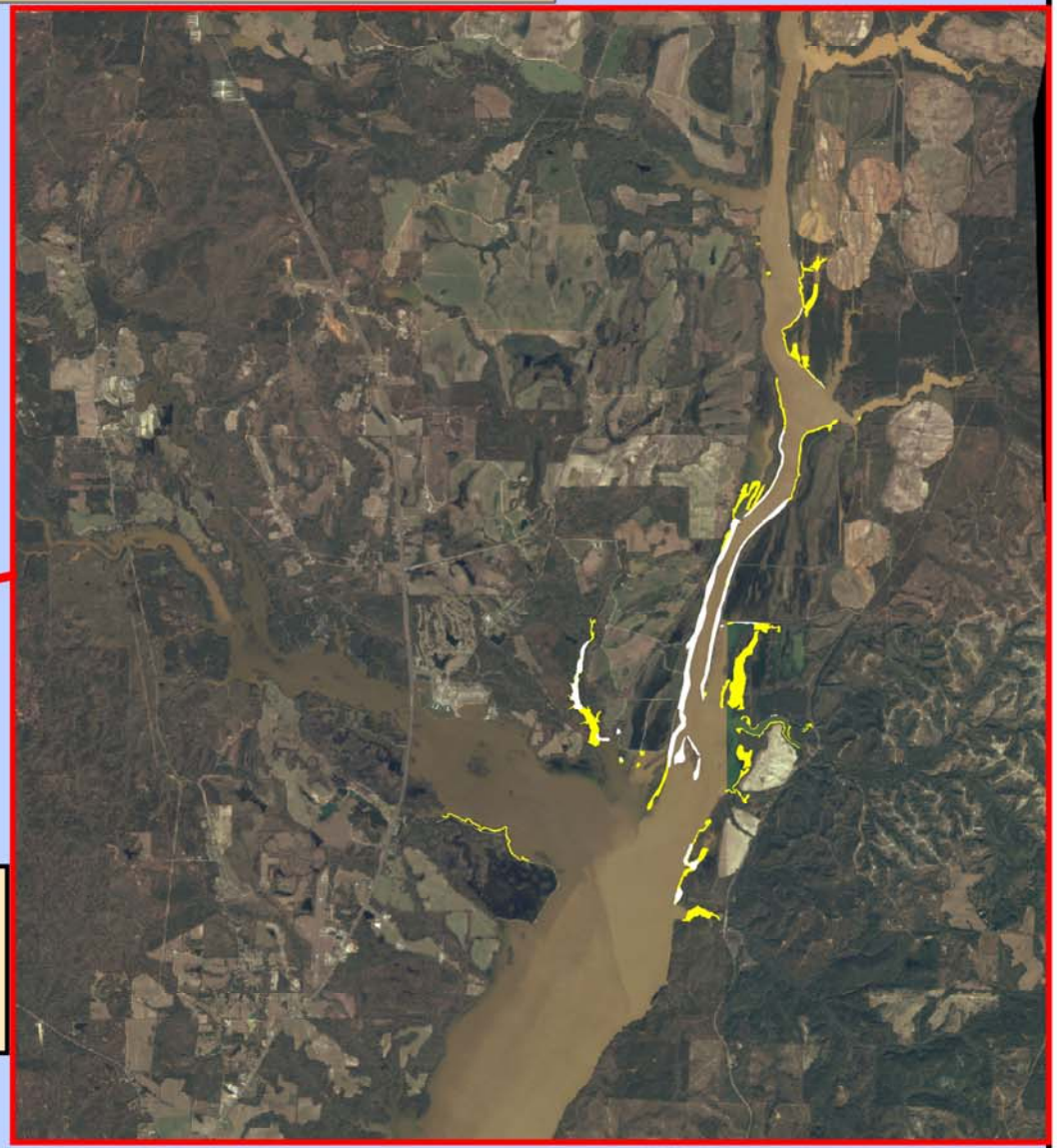
2002 Vegetation

0 10,000 20,000 Feet

# Walter F. George Hydrilla\Egeria Survey Showing Expansion

N

| Lake Wide Totals | | |
|---|---|---|
| Year | | Acres |
| 2001 | | 120 |
| 2002 | | 200 |
| 2003 | | 400 |



**Close Up**

2002 Vegetation

2003 Vegetation

**Lake Wide**

2003 Vegetation

0 10,000 20,000 Feet

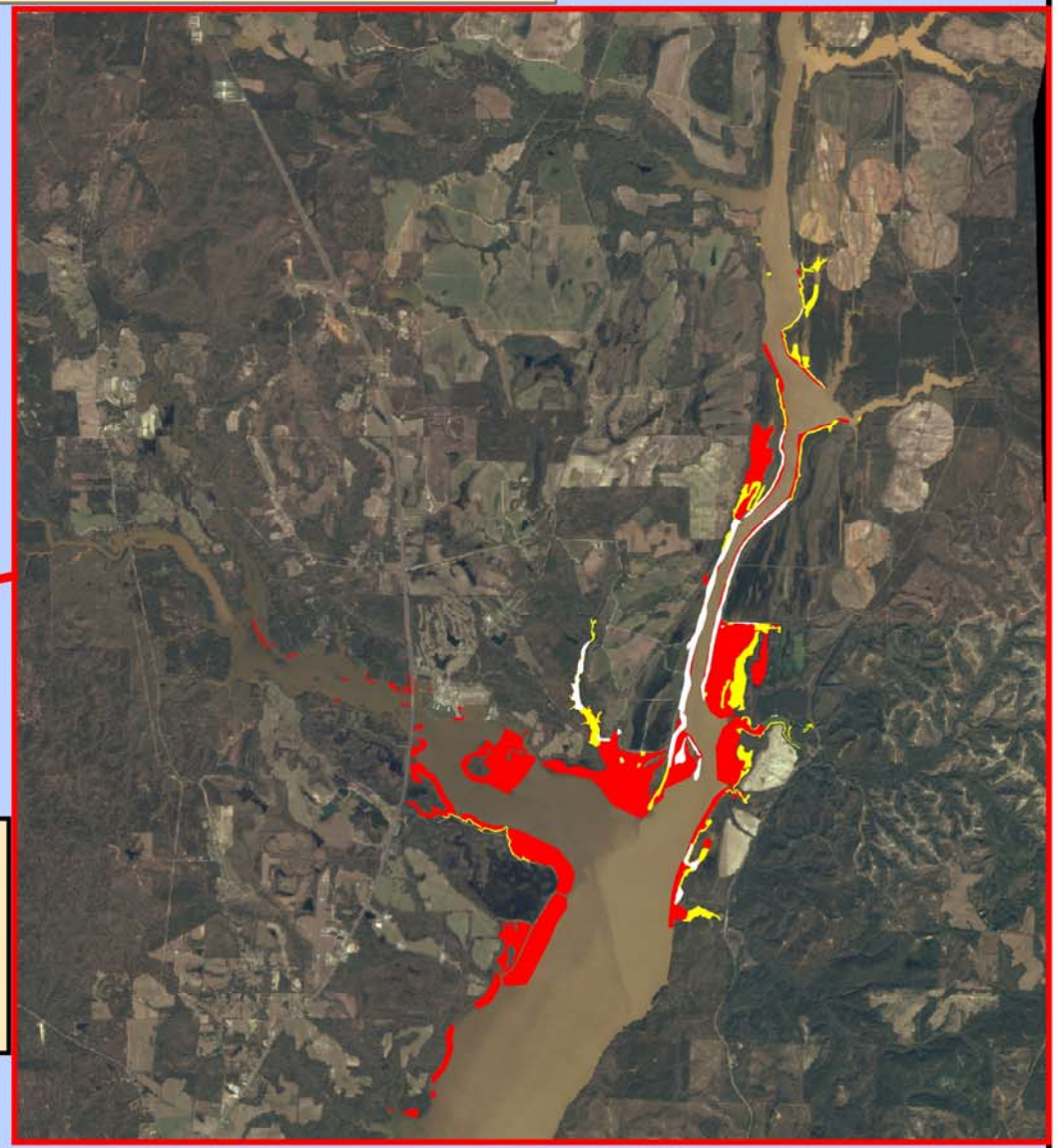
# Walter F. George Hydrilla\Egeria Survey Showing Expansion

N

| Lake Wide Totals | | |
|---|---|---|
| Year | | Acres |
| 2001 | | 120 |
| 2002 | | 200 |
| 2003 | | 400 |
| 2004 | | 1700 |

**Close Up**

- 2002 Vegetation
- 2003 Vegetation
- 2004 Vegetation



**Lake Wide**

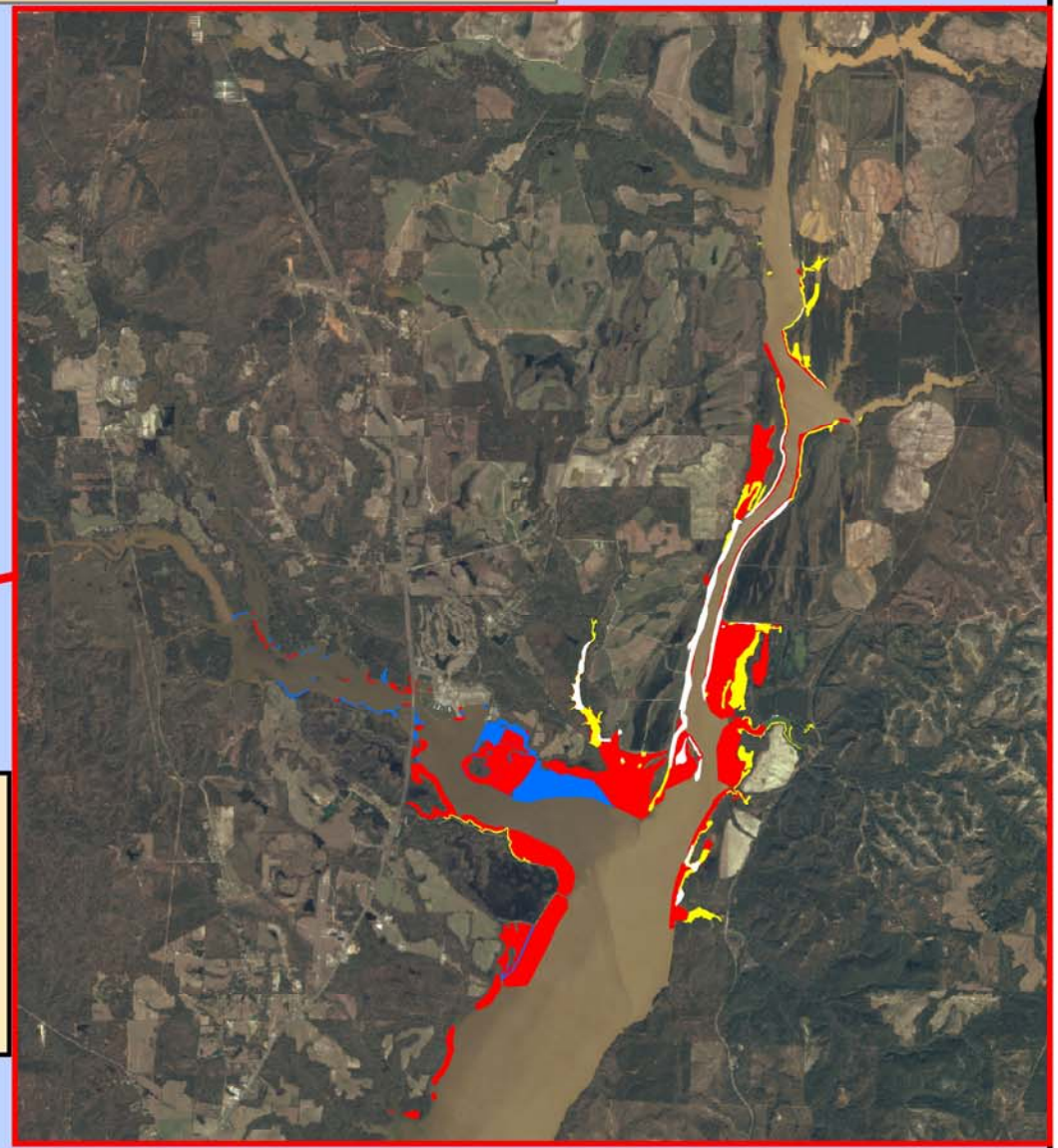
- 2004 Vegetation

0 10,000 20,000 Feet

# Walter F. George Hydrilla\Egeria Survey Showing Expansion

N

| Lake Wide Totals | | |
|---|---|---|
| Year | | Acres |
| 2001 | | 120 |
| 2002 | | 200 |
| 2003 | | 400 |
| 2004 | | 1700 |
| 2005 | | 2140 |



**Close Up**

- 2002 Vegetation
- 2003 Vegetation
- 2004 Vegetation
- 2005 Vegetation

**Lake Wide**

- 2005 Vegetation

0 10,000 20,000 Feet

# Walter F. George Hydrilla\Egeria Survey Showing Expansion

**Lake Wide**

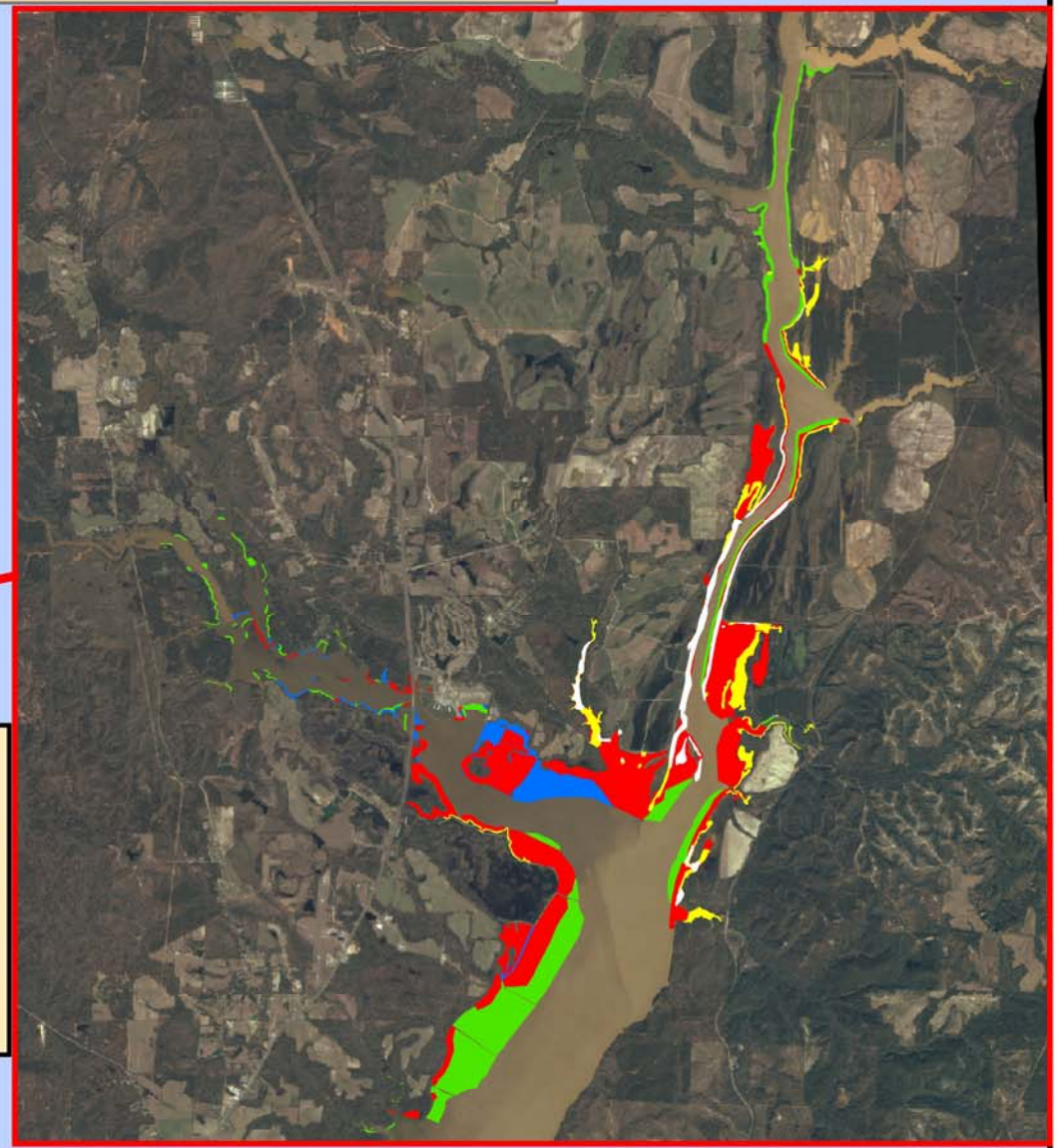
2006 Vegetation

N

| Lake Wide Totals | |
|---|---|
| Year | Acres |
| 2001 | 120 |
| 2002 | 200 |
| 2003 | 400 |
| 2004 | 1700 |
| 2005 | 2140 |
| 2006 | 2400 |

**Close Up**

- 2002 Vegetation
- 2003 Vegetation
- 2004 Vegetation
- 2005 Vegetation
- 2006 Vegetation

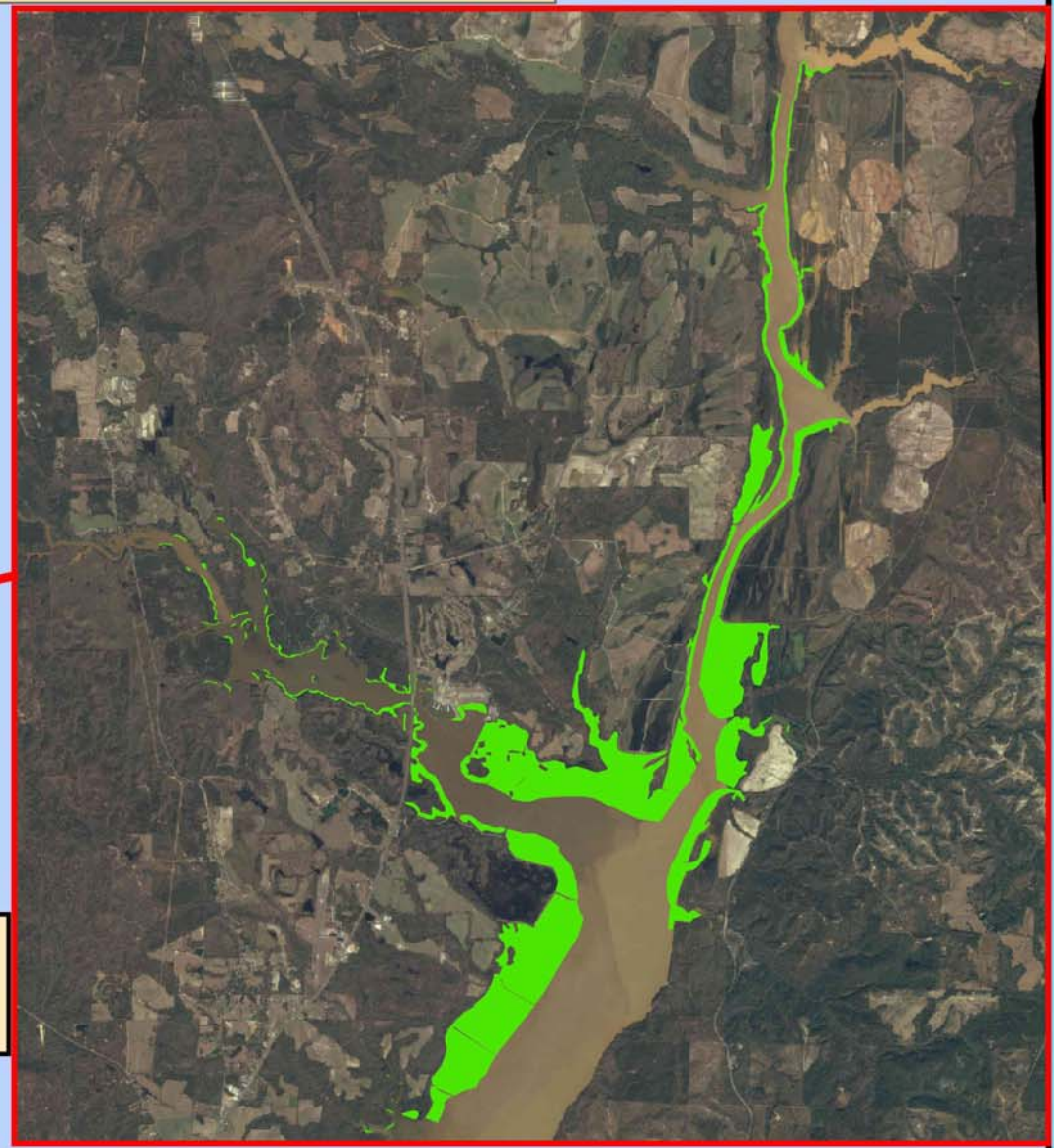


0 10,000 20,000 Feet

# Walter F. George Hydrilla\Egeria Survey Showing Expansion

N

| Lake Wide Totals | | |
|---|---|---|
| Year | | Acres |
| 2001 | | 120 |
| 2002 | | 200 |
| 2003 | | 400 |
| 2004 | | 1700 |
| 2005 | | 2140 |
| 2006 | | 2400 |



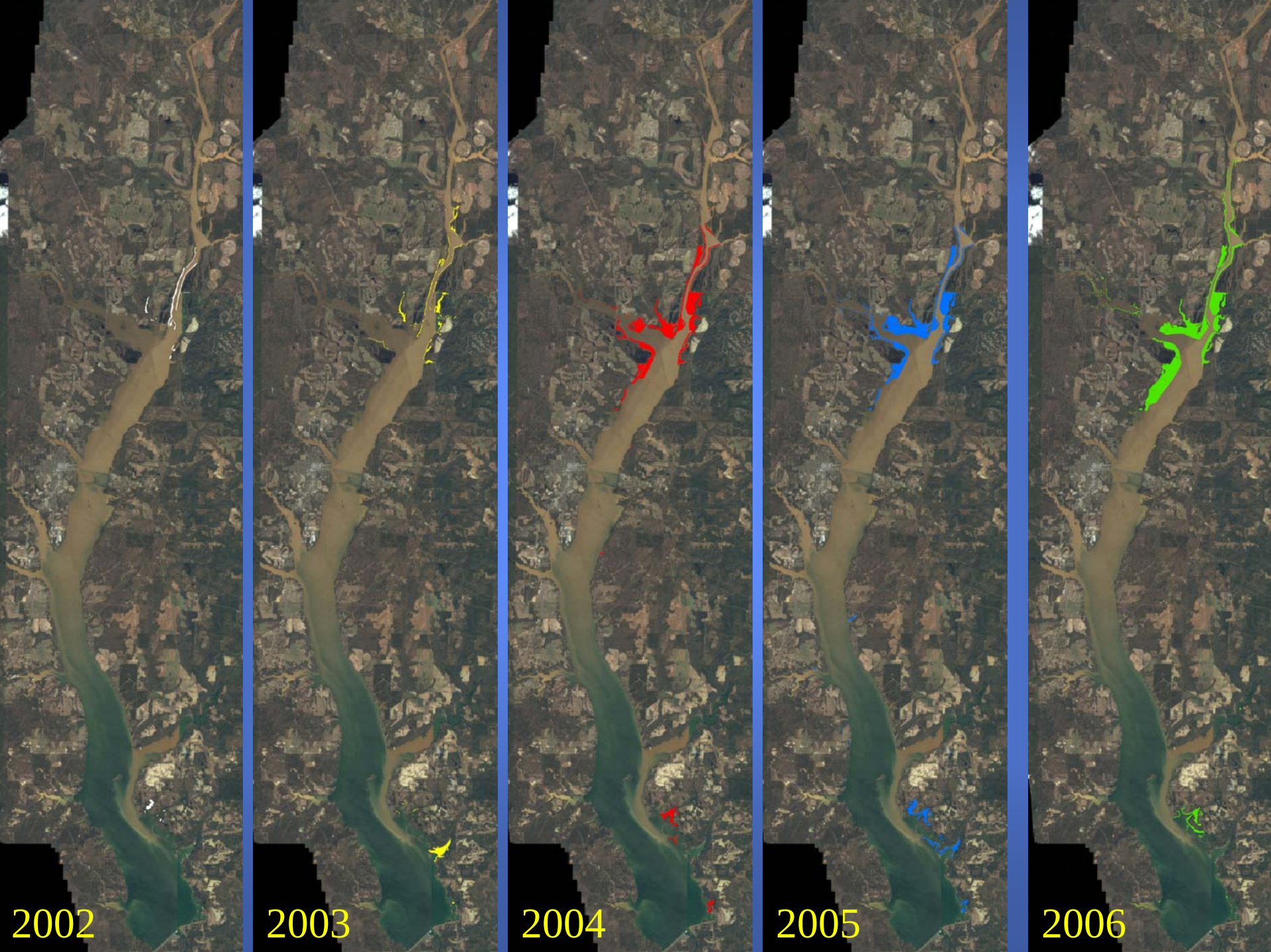
**Close Up**

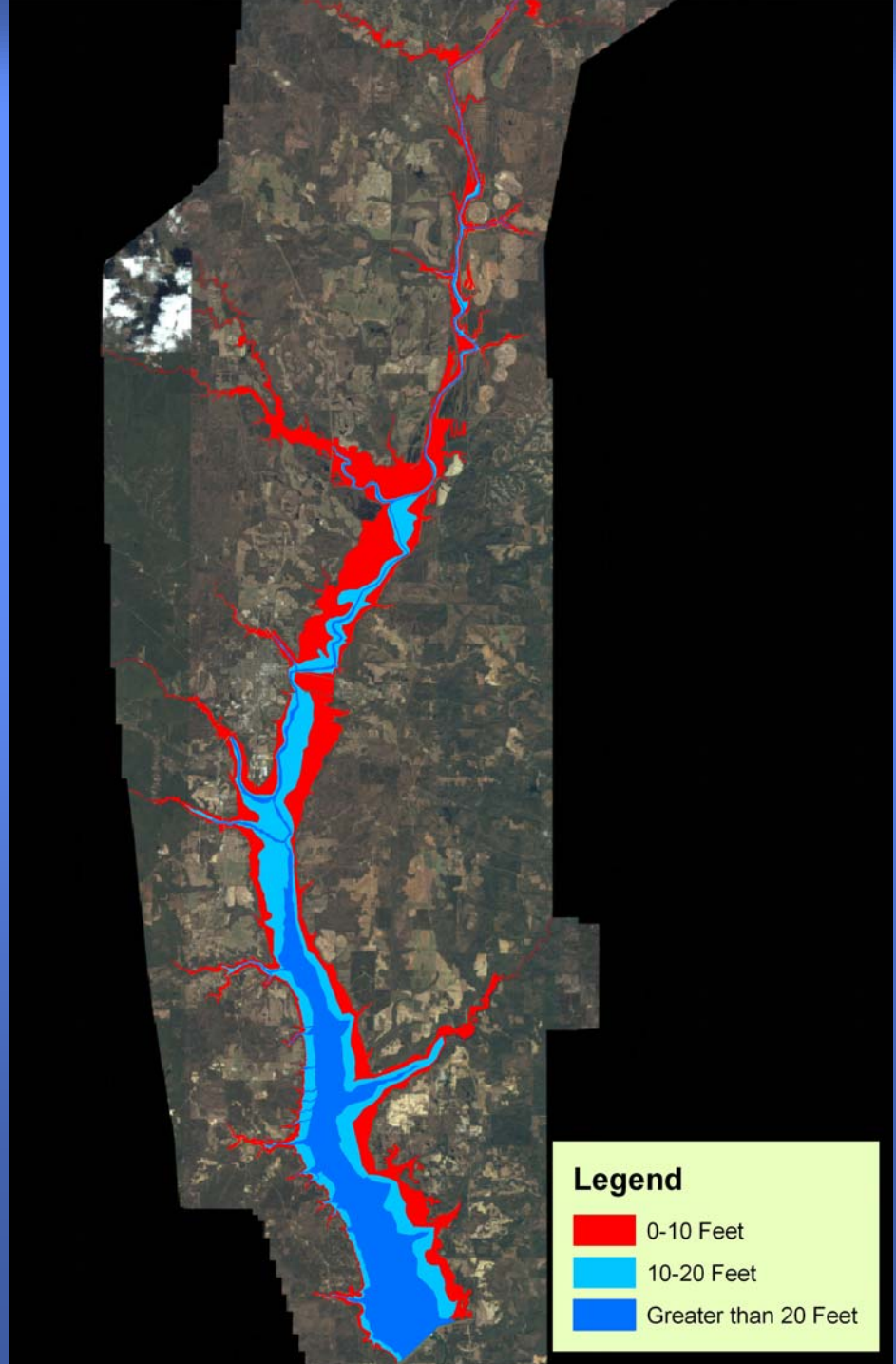
2006 Vegetation

**Lake Wide**

2006 Vegetation

0 10,000 20,000 Feet


2002
2003
2004
2005
2006


Legend
0-10 Feet
10-20 Feet
Greater than 20 Feet

- Background: Walter F. George Lake is a multipurpose lake with the following purposes: navigation, hydropower, recreation, regulation of stream flow, and fish and wildlife conservation. Walter F. George Lake has not historically had problems with invasive aquatic plants. Hydrilla was first discovered on the lake in 1991. From 1992-2000, small infestations of hydrilla were found and treated with herbicides. By 2002 the hydrilla problem escalated. In the following years, the infestation approximately doubled each year. In 2006, the aquatic survey estimated 2,400 acres of Walter F. George Lake infested with hydrilla. This infestation of hydrilla is still in a relatively early stage, and the density of the vegetation covers about 30% of the infested area. In the early stages of expansion, low numbers of Grass Carp should be able to impact the hydrilla expansion without a major impact on the native vegetation. Herbicides will be used to reduce the biomass of hydrilla and give the low numbers of triploid grass carp an opportunity to stay ahead of the hydrilla.

- The proposed action is to introduce triploid (sterile) grass carp at a relatively low stocking rate into the Walter F. George Lake to aid in the management of the invasive plant hydrilla. It has been proposed that triploid grass carp be released into the lake at areas of high hydrilla concentration. To reduce the probability of mortality from predatory fish, the carp should be a minimum of 12 inches total length. At this time the proposal would be to release approximately 8,000 triploid grass carp in 45,190 surface acres of Walter F. George Lake (approximately one grass carp per six surface acres).

# APALACHICOLA, CHATTAHOOCHEE, FLINT RIVERS PROJECT

## WALTER F. GEORGE

Basic Numbers

| | Spring 07 | Best Est Fall 07 |
|---|---|---|
| Walter F. George Acreage: | 45,190 acres | |
| Infested Acreage: | 2,400 acres | 3,200 |
| Percent with hydrilla: | 30 % | 40 % |
| Vegetated Acreage: | 720 acres | 1,280 |
| Triploid Grass Carp per vegetated acre: | 11 | 11 |
| Number of Triploid Grass Carp: | 7,920 | 14,080 |

Triploid Grass Carp in system if stocked in Spring 07:

One fish for every 5.69 acres