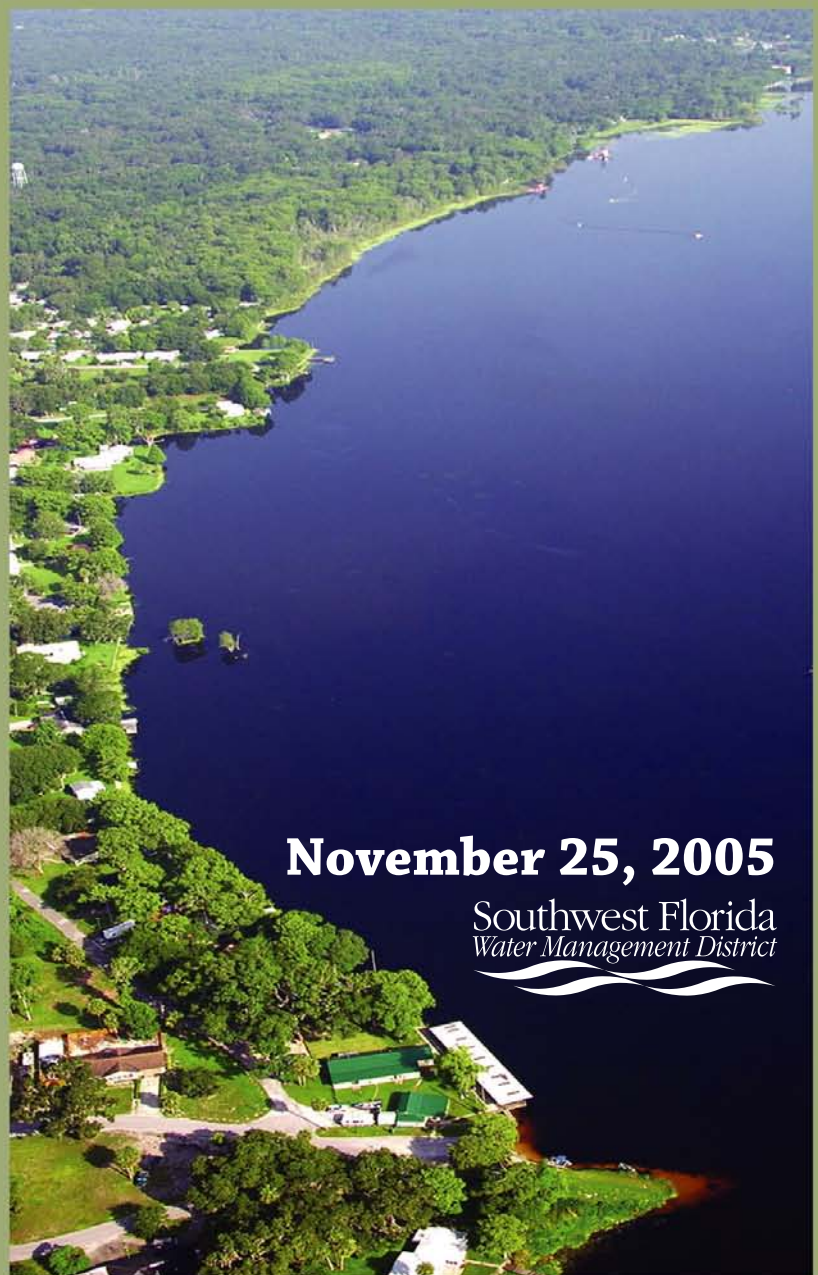


Lake Panasoffkee Restoration Council

Report to the Legislature



The Southwest Florida Water Management District (District) does not discriminate upon the basis of any individual's disability status. This non-discrimination policy involves every aspect of the District's functions, including one's access to, participation, employment, or treatment in its programs or activities. Anyone requiring reasonable accommodation as provided for in the Americans With Disabilities Act should contact the Resource Management Department, at (352) 796-7211, ext. 4226 or 1-(800) 423-1476 (Florida), ext. 4226; TDD ONLY 1-(800) 231-6103 (Florida); FAX (352) 754-6885/SUNCOM 663-6885.

**LAKE PANASOFFKEE RESTORATION PROJECT
REPORT TO THE LEGISLATURE
NOVEMBER 25, 2005**

Restoration Council Members:

**Billy Merritt, Chairman
John W. Springstead, Vice-Chairman
George L. Buhmeyer, Secretary
William W. Davis
Daniel McCormic
David Starnes
Jim W. Veal, Sr.**



Lake Panasoffkee Restoration Council

PLEASE ADDRESS CORRESPONDENCE TO THE Southwest Florida Water Management District
2379 BROAD STREET, BROOKSVILLE, FLORIDA 34604-6899 • 1-800-423-1476 (FLORIDA ONLY)
OR (352) 796-7211, EXTENSION 4609.

BILLY MERRITT
Chairman

November 18, 2005

JOHN W. SPRINGSTEAD
Vice Chairman

GEORGE BUHMEYER
Secretary

The Honorable Jeb Bush
Governor, State of Florida
The Capitol
Tallahassee, Florida 32399-0001

WILLIAM W. DAVIS
Member

JIM VEAL, SR.
Member

Subject: *Lake Panasoffkee Restoration Council, Report to the Legislature,
dated November 25, 2005*

DAVID STARNES
Member

DAN MCCORMIC
Member

Dear Governor Bush:

The Lake Panasoffkee Restoration Council is pleased to submit its 2005 Report to the Legislature as required under our enabling legislation, Chapter 98-69, Laws of Florida. The report provides a status on the progress that has been made this past year in implementing the adopted Lake Panasoffkee Restoration Plan.

This year the Council is proud to report we are well on our way toward our goal of implementing the full-scale in-lake components of the restoration plan which will restore 920 acres of open water area and re-establish 174 acres of hard lake bottom for fish spawning. By the November 25 reporting date, we will have dredged approximately 295 acres of lake bottom, which includes over five miles of shoreline along the western side of the lake. We expect to complete all dredging activity by the scheduled January 2008 completion date.

It is extremely rewarding to see the years of hard work by past and present members of the Council, its Advisory Group (i.e., Southwest Florida Water Management District, Florida Fish and Wildlife Conservation Commission, and the Florida Department of Environmental Protection) be realized through the implementation of the adopted restoration plan. The Council truly appreciates the resources and funding the state has brought to the project since its inception 1998, having appropriated \$19,520,000 over that time period for the restoration of Lake Panasoffkee. Rest assured the Council will remain cognizant of its fiduciary responsibility regarding the expenditures of state appropriations, and will continue to be diligent in that regard. The Council will continue to meet periodically to monitor the progress of the dredging project, take public input, and to direct the implementation of the restoration plan to ensure the project's successful completion.

In closing, the time you spent with Council members Billy Merritt (Chairman) and Jim Veal, discussing the project last May during your Governor's work day in Bushnell was sincerely appreciated. The Council, on behalf of the residents of Lake Panasoffkee and Sumter County, would like to extend a personal invitation to you to visit the project and see this success story first-hand.

The Honorable Jeb Bush
Page 2
November 18, 2005

Respectfully submitted,

Billy Merritt, Chairman

John W. Springstead , Vice-Chair

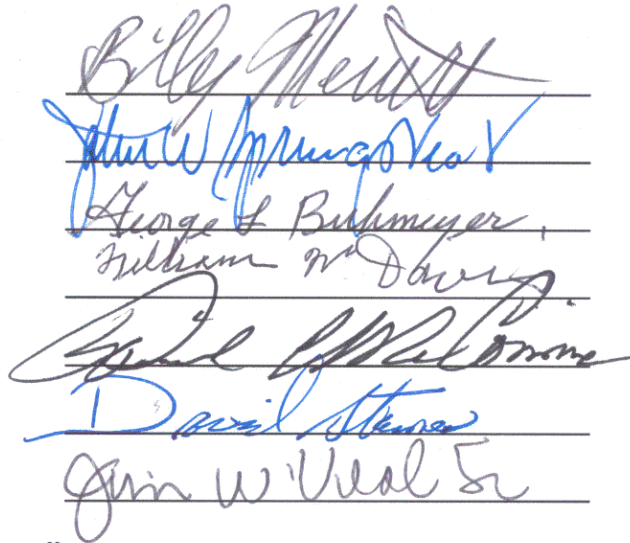
George L. Buhmeyer, Secretary

William W. Davis

Daniel McCormic

David Starnes

Jim W. Veal, Sr.



Handwritten signatures of the council members on lined paper:

- Billy Merritt
- John W. Springstead
- George L. Buhmeyer
- William W. Davis
- Daniel McCormic
- David Starnes
- Jim W. Veal Sr

Lake Panasoffkee Restoration Council

enclosure

cc: Governing Board Members
Withlacoochee Basin Board Members
Sumter County Legislative Delegation



Lake Panasoffkee Restoration Council

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BILLY MERRITT
Chairman

JOHN W. SPRINGSTEAD
Vice Chairman

GEORGE BUHMEYER
Secretary

WILLIAM W. DAVIS
Member

JIM VEAL, SR.
Member

DAVID STARNES
Member

DAN MCCORMIC
Member

November 18, 2005

The Honorable Tom Lee
Senate President
The Capitol
Room 404, SOB
404 S. Monroe Street
Tallahassee, Florida 32399-1100

Subject: *Lake Panasoffkee Restoration Council, Report to the Legislature,
dated November 25, 2005*

Dear President Lee:

The Lake Panasoffkee Restoration Council is pleased to submit its 2005 Report to the Legislature as required under our enabling legislation, Chapter 98-69, Laws of Florida. The report provides a status on the progress that has been made this past year in implementing the adopted Lake Panasoffkee Restoration Plan.

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The Honorable Tom Lee
Page 2
November 18, 2005

Respectfully submitted,

Billy Merritt, Chairman

John W. Springstead , Vice-Chair

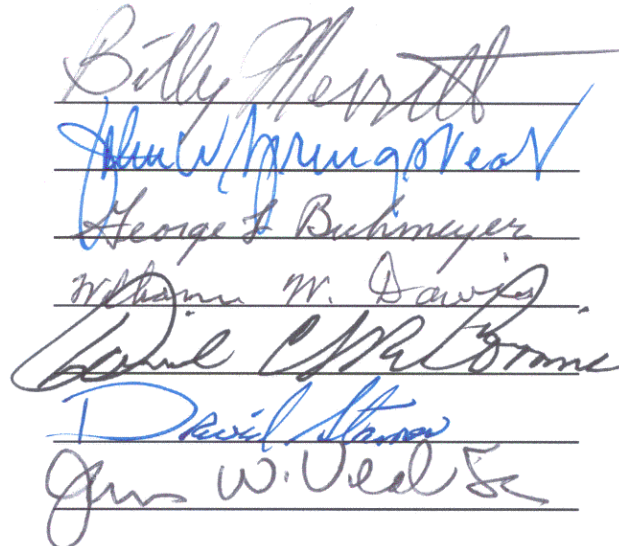
George L. Buhmeyer, Secretary

William W. Davis

Daniel McCormic

David Starnes

Jim W. Veal, Sr.



Handwritten signatures of the council members, each on a horizontal line. From top to bottom: Billy Merritt, John W. Springstead, George L. Buhmeyer, William W. Davis, Daniel McCormic, David Starnes, and Jim W. Veal Sr.

Lake Panasoffkee Restoration Council

enclosure

cc: Governing Board Members
Withlacoochee Basin Board Members
Sumter County Legislative Delegation



Lake Panasoffkee Restoration Council

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BILLY MERRITT
Chairman

JOHN W. SPRINGSTEAD
Vice Chairman

GEORGE BUHMEYER
Secretary

WILLIAM W. DAVIS
Member

JIM VEAL, SR.
Member

DAVID STARNES
Member

DAN MCCORMIC
Member

November 18, 2005

The Honorable Allan Bense
Speaker of the House
The Capitol
Room 513,C
402 S. Monroe Street
Tallahassee, Florida 32399-1300

Subject: *Lake Panasoffkee Restoration Council, Report to the Legislature,
dated November 25, 2005*

Dear Speaker Bense:

The Lake Panasoffkee Restoration Council is pleased to submit its 2005 Report to the Legislature as required under our enabling legislation, Chapter 98-69, Laws of Florida. The report provides a status on the progress that has been made this past year in implementing the adopted Lake Panasoffkee Restoration Plan.

This year the Council is proud to report we are well on our way toward our goal of implementing the full-scale in-lake components of the restoration plan which will restore 920 acres of open water area and re-establish 174 acres of hard lake bottom for fish spawning. By the November 25 reporting date, we will have dredged approximately 295 acres of lake bottom, which includes over five miles of shoreline along the western side of the lake. We expect to complete all dredging activity by the scheduled January 2008 completion date.

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The Honorable Allan Bense
Page 2
November 18, 2005

Respectfully submitted,

Billy Merritt, Chairman

John W. Springstead , Vice-Chair

George L. Buhmeyer, Secretary

William W. Davis

Daniel McCormic

David Starnes

Jim W. Veal, Sr.

Handwritten signatures in blue ink on lined paper. The signatures correspond to the names listed on the left: Billy Merritt, John W. Springstead, George L. Buhmeyer, William W. Davis, Daniel McCormic, David Starnes, and Jim W. Veal Sr.

Lake Panasoffkee Restoration Council

enclosure

cc: Governing Board Members
Withlacoochee Basin Board Members
Sumter County Legislative Delegation

Distribution List for the *Lake Panasoffkee Restoration Council, Report to the Legislature, dated November 25, 2005* (Cover letter dated November 18, 2005)

The Honorable Jeb Bush
The Honorable Tom Lee
The Honorable Allan Bense
The Honorable Paula Dockery
The Honorable Cary Baker
The Honorable Hugh Gibson
The Honorable David Russell
The Honorable Joey Chandler



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Southwest Florida Water Management District

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Bartow Service Office
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Bartow, Florida 33830-7700
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1-800-492-7862 (FL only)
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Lecanto, Florida 34461-8070
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Sarasota Service Office
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(941) 377-3722 or
1-800-320-3503 (FL only)
SUNCOM 531-6900

Tampa Service Office
7601 Highway 301 North
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)
SUNCOM 578-2070

October 25, 2005

Mr. Billy Merritt, Chairman
Lake Panasoffkee Restoration Council
Post Office Box 681
Bushnell, Florida 33513

Subject: Lake Panasoffkee Restoration Council – 2005 Report to the Legislature

Dear Chairman Merritt:

The Governing Board of the Southwest Florida Water Management District has received and reviewed the *Lake Panasoffkee Restoration Council's Report to the Legislature, dated November 25, 2005*, as directed in Chapter 98-69, Laws of Florida. At its October 25, 2005 meeting, the District's Governing Board approved the report, as presented, and found that none of the recommendations proposed by the Council required re-evaluation.

The Council should be extremely proud of the significant progress it has made over the last year in implementing its full-scale restoration plan for Lake Panasoffkee. The continued commitment and efforts of the Council, working with its Advisory Group, to carry out this important project have made it a success. On behalf of the District's Governing Board and the Withlacoochee River Basin Board, thank you for your continued hard work and dedication, and the outstanding job you have done in keeping the Governing Board advised on matters related to the restoration of Lake Panasoffkee.

Sincerely,

Heidi B. McCree
Chair

cc: Governing Board Members
Withlacoochee River Basin Board Members
Lake Panasoffkee Restoration Council Members

- Heidi B. McCree**
Chair, Hillsborough
- Talmadge G. "Jerry" Rice**
Vice Chair, Pasco
- Patsy C. Symons**
Secretary, DeSoto
- Judith C. Whitehead**
Treasurer, Hernando
- Edward W. Chance**
Manatee
- Jennifer E. Closshey**
Hillsborough
- Neil Combee**
Polk
- Thomas G. Dabney**
Sarasota
- Watson L. Haynes II**
Pinellas
- Janet D. Kovach**
Hillsborough
- Todd Pressman**
Pinellas

- David L. Moore**
Executive Director
- Gene A. Heath**
Assistant Executive Director
- William S. Bilenyk**
General Counsel

**LAKE PANASOFFKEE RESTORATION COUNCIL'S
2005 REPORT TO THE LEGISLATURE**

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INTRODUCTION

The Lake Panasoffkee Restoration Council (Council) is pleased to submit its 2005 Report to the Legislature documenting the progress made towards implementation of the adopted restoration plan. Significant progress was made over the past year in the implementation of the remaining full-scale in-lake components (Steps 2 and 3) of the Council's recommended restoration plan. Five miles along the lake's developed western shoreline from Turtle Back Fish Camp at the south end of the lake to Idlewild Fish Camp near the north end of the lake were dredged. The dredging along the western shoreline re-established the lake's hard sand bottom in areas where it previously existed prior to being covered with sediment. Additionally, the dense emergent vegetation/tussocks that were present along the western shoreline that typically extended 200 feet waterward, and in some instances in excess of 300 feet waterward, were removed leaving riparian land owners with an unobstructed view of the lake as well as boat access. The project's scheduled completion date of January 2008 remains unchanged.

As it has done since its inception, the Council continues its conservative pragmatic approach in implementing its recommended restoration plan and in the oversight of expenditures. The updated total project cost based on actual incurred costs and contractual obligations to date is \$25,127,078. The state's appropriation of an additional \$450,000 for the project in its FY2006 budget ensures there will be adequate funds available to implement the Council's restoration plan. The project's funding partners and their contributions are as follows: State of Florida, \$19,520,000; Federal Government, \$1,098,000; Southwest Florida Water Management District (District), \$3,043,837; Florida Fish and Wildlife Conservation Commission (FFWCC), \$2,000,000; and Florida Department of Transportation (FDOT), \$469,733. Without this much needed support, the Council could not have carried out the Legislative objective.

As was the case with the 2004 Report to the Legislature, this year's Report focuses on the implementation of the full-scale in-lake components of the Council's recommended restoration plan.

BACKGROUND

Lake Panasoffkee

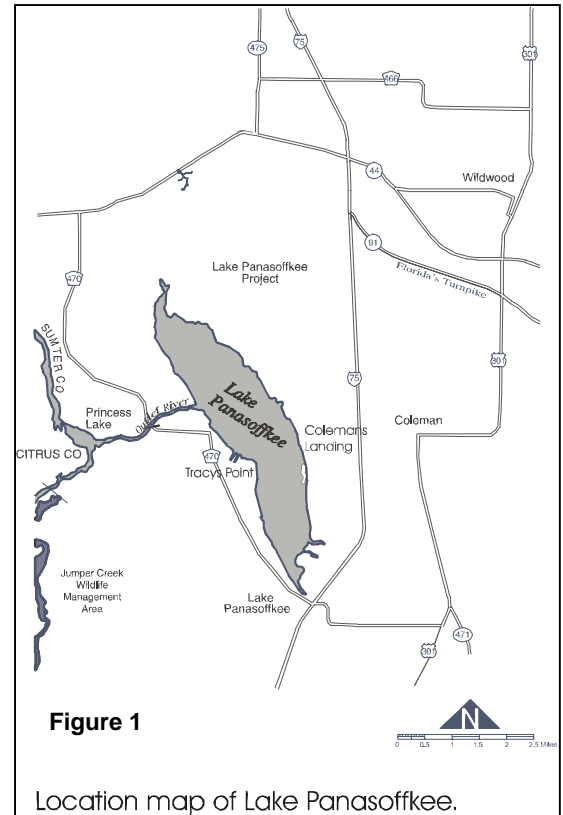
Lake Panasoffkee in Sumter County has been designated an Outstanding Florida Water by the Florida Department of Environmental Protection (FDEP) and is the third largest of the approximately 1,800 lakes in west central Florida. Additionally, the lake is included on the District's Surface Water Improvement and Management (SWIM) Priority Water Body List. Lake Panasoffkee has a national reputation, especially for its redear sunfish fishery, making the lake an important contributor to both the local and regional economies. Although fishing has remained popular at Panasoffkee in recent years, the lake's future as an important recreational resource was threatened as a result of the loss of historic fish spawning areas and open water

habitat. Since the mid-1950s when the lake's fishery was first being studied the lake's fisheries have declined considerably. At that time, at least 15 fish camps were in operation. When the Council's first Report to the Legislature was submitted in 1998 only three remained operational. Today there are five operating fish camps on the lake.

Lake Panasoffkee Restoration Council

In an effort to protect and restore the environmental and economic importance of Lake Panasoffkee, the 1998 Florida Legislature created the Lake Panasoffkee Restoration Council within the District. The enabling legislation (Chapter 98-69, Laws of Florida) established the membership and outlined the responsibilities of the Council and the Advisory Group.

Through the enabling legislation, the Legislature directed the Council to develop a restoration plan for Lake Panasoffkee. During its first year, the Council and Advisory Group prioritized the management issues and developed strategies for restoring the lake. The Council also recommended additional studies to evaluate the lake's fishery and identified additional information needed to implement the restoration plan. The culmination of this effort was discussed in detail in the first *Lake Panasoffkee Restoration Council Report to the Legislature*, dated November 25, 1998.



Pursuant to its Legislative directive, the Council has reported to the Legislature every year since 1998 to provide progress reports and recommendations for the next fiscal year.

Lake Panasoffkee Restoration Plan

The final restoration plan documented in the Council's 2003 Report to the Legislature is comprised of four steps. Step 1 of the plan, the Coleman Landing Pilot Project, was completed in December 2000. The primary focus now is on the implementation of Steps 2 and 3 of the restoration plan which constitutes the full-scale in-lake restoration effort, and consists of the dredging of approximately 8,209,735 cubic yards of accumulated sediments over 1,977 acres of lake area. Steps 2 and 3 are crucial to achieving the Council's goals to restore fisheries habitat and historic shoreline conditions, and improving navigation. Step 4 involves the removal of sediment and undesirable vegetation from the man-made residential canals on the western shoreline. Sumter County is taking the lead on this step with

the Council contributing a percentage of the costs. The benefit of Step 4 to the lake is the control of undesirable vegetation and migration of sediment back into the lake. The four steps comprising the Council's final restoration plan are described below in order of priority.

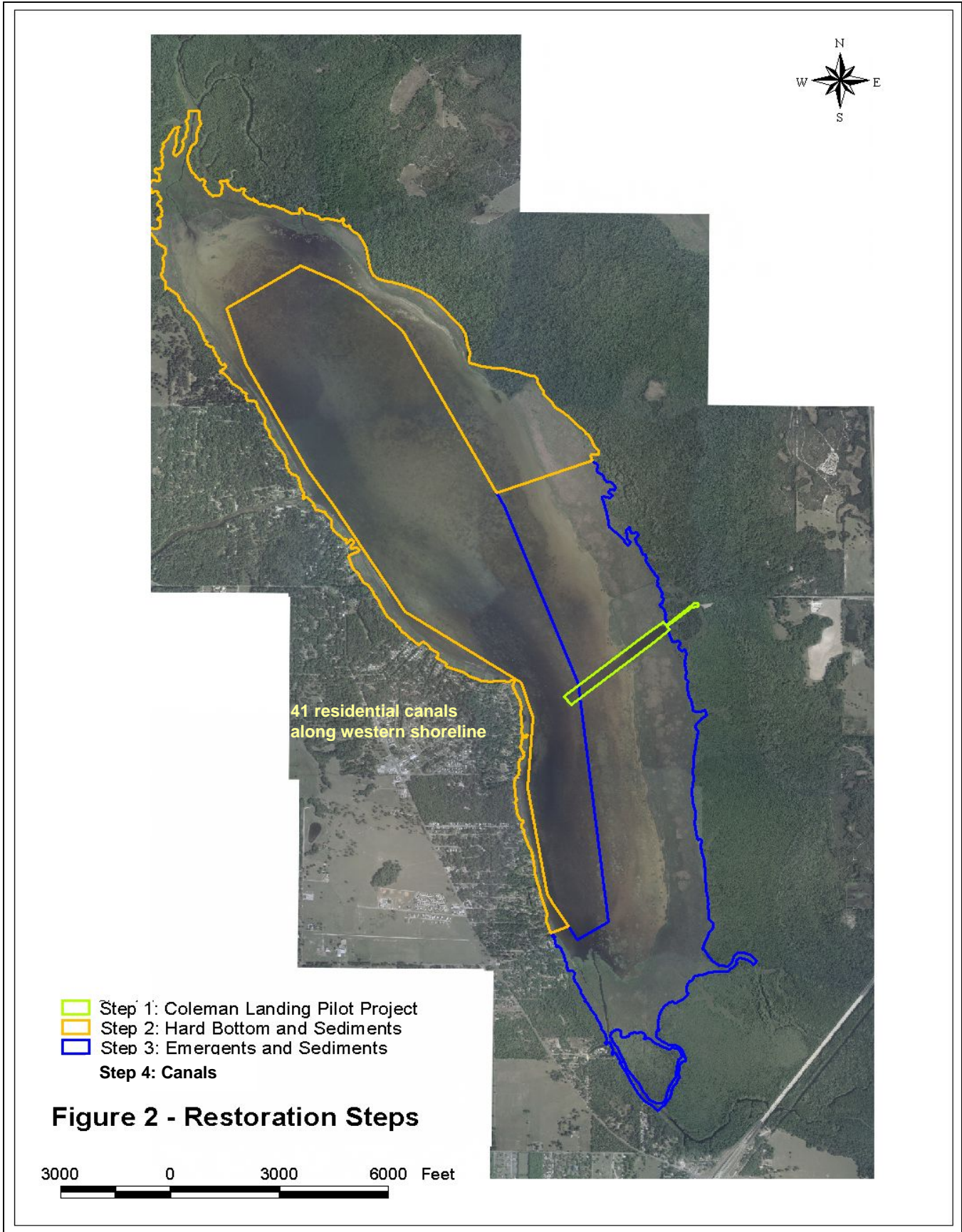
Step 1 – Coleman Landing Pilot Project: (Completed in December 2000) The goals of this step were threefold. First and foremost, this pilot dredging project provided information critical to the design, permitting, and dredging of Steps 2 and 3 by confirming settling rates needed to size the upland spoil disposal area for Steps 2 and 3, and by demonstrating that discharge water would meet state water quality standards. Step 1 also confirmed that submerged aquatic vegetation (SAV) would re-colonize in dredged areas, and provided an expected rate of re-colonization, both of which were key issues in the environmental permitting of Steps 2 and 3. Step 1 also restored public access and navigation by re-establishing a navigable channel from the existing Coleman's Landing boat ramp into the lake.

Step 2 – Dredge to Hard Bottom: The goal of this step is to dredge approximately 915 acres of lake bottom (3,442,071 cubic yards of sediment) to restore fisheries habitat, specifically the historic fish spawning areas in the vicinity of Grassy and Shell Points, where the desired hard bottom (sand/shell) for fish spawning has been covered by unconsolidated sediments. The dredging of this step will also restore historic shoreline conditions along the eastern and western shores to provide improved fisheries, navigation, and recreational benefits.

Step 3 – Dredge East-side Emergent Vegetation: The goal of this step is to dredge approximately 1,062 acres of lake bottom (4,767,664 cubic yards of sediment) along the eastern and southern shores and in the creeks at the southern end of the lake to restore fisheries habitat and historic shoreline conditions.

Step 4 – Canals: The goal of this step is to improve lake access, and to control the transport of sediment and undesirable vegetation back into the lake from the 41 residential canals located along the lake's western shoreline by the maintenance dredging of sediment and vegetation in the canals. Sumter County has taken the lead in implementing this step. In 2001, at the request of Sumter County, the Council authorized the District (as custodian for the restoration funds) to release \$200,000 in State appropriated funds to the county for the implementation of Step 4.

The dredging boundaries of the three in-lake steps of the restoration plan are shown in Figure 2 on the following page.



PROGRESS REPORT

Funding and Project Costs

The four-step restoration plan for Lake Panasoffkee as detailed in Table 1 below is fully funded. The state's appropriation of an additional \$450,000 in project funding during the 2005 Legislative session, which amounts to slightly under two percent of the contract amount for Steps 2 and 3, provides a contingency for unexpected expenses that may arise over the course of dredging contract which extends through January 2008. Updated costs for the four steps of the Council's recommended restoration plan are provided in Table 1. The costs shown for each step include design, permitting, construction management, construction/dredging, SAV monitoring, and miscellaneous project related costs. In-kind costs incurred by the District, the FFWCC, and the FDEP for in-lake water quality and fisheries monitoring and project management are not included in the costs shown.

Table 1 - Restoration steps showing acreage, sediment volume and costs

Restoration Step	Area Acres	Volume Cu. Yards	Total Costs ⁴
Step 1 - Coleman Landing Pilot Project ¹	24.5	138,035	\$759,404
Step 2 - Dredge to Hard Bottom ²	915	3,442,071	\$12,135,017
Step 3 - Dredge East-side Emergent Zone ²	1,062	4,767,664	\$12,032,659
Step 4 - Canals ³		128,444	\$200,000
Total		8,476,214	\$25,127,080

Notes:

1. Step 1 was completed in December 2000. Costs include reclamation costs for the spoil disposal site.
2. Costs shown are based on actual bid amounts. The costs for design, permitting, construction management, and SAV monitoring, have been pro-rated between Steps 2 and 3.
3. The dredging of the canals is being undertaken by Sumter County. The amount shown in the total cost column, \$200,000, only represents the amount committed by the Council in 2001. Sumter County has included \$800,000 in its FY2006 budget for Step 4. Additionally, the 128,444 cubic yard figure is the estimated volume of material to be removed from the canals, but should not be used as a comparative cost per cubic yard against the \$200,000 shown to the right.
4. Total costs shown for Steps 1, 2, and 3 have been revised since the 2004 report to include costs associated with ground water monitoring, laboratory analyses, an archeological assessment and quarterly project monitoring, and other miscellaneous costs in support of the design, permitting, and construction of the restoration plan.

Project Implementation

The dredging contract for Steps 2 and 3 was awarded by the District to Subaqueous Services, Inc. in August 2003 in the amount of \$22,627,895. The notice to proceed was issued to the contractor on December 8, 2003 with a four year construction/dredging period. As reported by the Council in its 2004 Report to the Legislature, the 450 acre upland confined disposal facility (CDF) was completed in June 2004 and the dredging of Step 2 commenced in July 2004. Over this past year the contractor has made substantial progress in implementation of Step 2 along the

lake's western shoreline. The dredging status of Steps 2 and 3 and related site work at the CDF, along with the status of the other recommendations in the Council's 2004 Report to the Legislature are reported below.

Confined Disposal Facility: Figure 3 provides an aerial photograph of the CDF prior to the commencement of dredging of Step 2 . Since the commencement of dredging Step 2 in July 2004, sediments have been deposited in Settling Cell 1. Figure 4 provides two aerial photographs of Settling Cell No. 1 taken from the northeast corner looking south. The top photograph was taken October 4, 2004, two months after dredging began. The bottom photograph was taken September 12, 2005 after 14 months of dredging activity.

Dredging of Steps 2 and 3: When the dredging contract for Steps 2 and 3 was advertised, Step 2 was subdivided into two sections, Step 2a and Step 2b, to provide flexibility in the award of the dredging contract given the fact that Steps 2 and 3 were not fully funded at the time. Additionally, the southerly limit of Step 2 was extended approximately 5,500 feet to the south to the southerly project limit to include approximately 48 acres of Step 3. This was done so the entire developed western shoreline would be included in Step 2a which was the first step to be dredged. Figure 5 shows the modified dredging limits for Step 2a, Step 2b, and Step 3. As of October 31, 2005, the contractor had dredged 218 acres of Step 2a along the westerly shoreline, and 39 acres of Step 3 on the east side of the lake immediately north of the dredged Coleman Landing channel (Step 1). The dredged areas are shown in Figure 6.

The contract documents for Steps 2 and 3 provide 500 calendar days and 800 calendar days for completing Step 2 and Step 3, respectively; or, 1,300 calendar days to complete the entire project. The contractor's original schedule anticipated the dredge's production would be slower along the developed western shoreline (Step 2a) due to the substantial number of docks and appurtenances around which the dredge would have to work. Unlike Step 2a, Steps 2b and 3 have no development along the shorelines, and generally consist of open water areas where the dredge can swing through a much larger radius for each forward advancement, thereby allowing for higher production rates. The contractor's original schedule to complete Steps 2 and 3 within the allotted 1,300 calendar day contract period was based on an average daily dredge production rate of 1.0 acres/day for Step 2a, and an average daily production rate of 1.62 acres/day for Steps 2b and 3. However, as a result of unanticipated down time during the first seven months of dredging due to mechanical problems, coupled with a lower than expected production rate while dredging adjacent to the existing docks where substantial amounts of submerged debris (e.g., rocks and concrete) were encountered, the average daily production rate for Step 2a was only 0.46 acres/day. In contrast, when the dredge was working away from the shoreline in the open water area, daily production rates were as high as 2.6 acres/day. Since relocating the dredge to the east side of the lake in Step 3, the average daily production rate has increased to 1.89 acres/day, with rates as high as 2.97 acres/day. The contractor will also be adding an idler barge to the dredge to extend the dredge's overall length to increase production. It is projected the addition of the idler barge will increase the average daily production rate to 2.5 acres/day or

greater. In addition to being in the open water area away from the developed shoreline and docks, dredge production has increased as a direct result of the use of a “cookie cutter” machine to chop up and pulverize the dense mats of emergent vegetation and tussocks in advance of the dredge’s path. The “cookie cutter” was made available to the project by the FDEP’s Bureau of Invasive Plant Management. Figure 7 shows an area immediately north of the Coleman Landing channel where the “cookie cutter” had chopped the emergent vegetation prior to the area being dredged. Given the 0.46 acres/day average daily production rate of Step 2a, the dredging contractor will need to average 2.13 acres/day for Steps 2b and 3 in order to complete the project within the specified 1,300 calendar day contract period. Given the daily production rates observed since relocating the dredge to the east side of the lake, it is not anticipated the dredging contractor will have a problem completing dredging by the scheduled January 2008 completion date. The original and revised schedules for completing Steps 2 and 3 within the 1,300 calendar contract period are shown in Table 3 below.

Table 3 – Original and Revised Schedules for Steps 2 and 3

Original Schedule			
Step	Area (acres)	Production Rate (ac./day)	Days to Complete
Step 2a	218	1.00	218
Step 2b	709	1.62	436
Step 3	1,050	1.62	646
Total Acres/Days	1,977		1,300
Revised Schedule			
Step	Area (acres)	Production Rate (ac./day)	Days to Complete
Step 2a	218	0.46	474
Step 2b	709	2.13	333
Step 3	1,050	2.13	493
Total Acres/Days	1,977		1,300

Figures 8 through 11 provide pre- and post-dredging photographs along the completed western shoreline documenting the dramatic improvement in riparian conditions as a result of the dredging of Step 2a. Figures 12 through 15 provide additional post-dredging photographs documenting the improved riparian conditions along the western shoreline of Lake Panasoffkee.

Monitoring of SAV: The Council's first Report to the Legislature in 1998 acknowledged the importance of existing healthy SAV in Lake Panasoffkee in order to maintain good water quality and water clarity. Baseline SAV mapping for the lake

was obtained in the spring of 2000. Since the baseline mapping effort, the District has implemented an annual SAV mapping program to monitor SAV coverage prior to and during dredging operations to ensure SAV coverage does not drop below 60 percent as a result of dredging activities. Research on Florida lakes has shown that 60 percent areal coverage is the minimal SAV coverage necessary to maintain a healthy lake in terms of water clarity.

The District was not able to map SAV coverage in the spring 2003 due to poor water clarity conditions resulting from heavy rainfall that began in the summer 2002 and extended through the summer 2003. However, water clarity in the lake improved in 2004 to the point where the District was able to resume SAV mapping in the spring of 2004. The most recent spring 2005 SAV mapping effort showed the areal coverage of SAV to be at 77.1 percent, up 8.9 percent from spring 2004. Although SAV coverage has increased since the 2004 mapping effort and remains above the minimal 60 percent level, the lake has experienced a significant infestation of hydrilla. Of the 77.1 percent SAV coverage mapped in 2005, 44.9 percent is desirable SAV and 32.2 percent is undesirable hydrilla. In recent years hydrilla has not been a problem on Lake Panasoffkee. However, with the poor water clarity conditions that existed from the summer 2002 through the summer 2003, there was a substantial die-off and contraction of desirable SAV coverage in the lake. This contraction in the areal coverage of desirable SAV, coupled with poor water clarity, provided an opportunity for hydrilla to get established and out compete the desirable native species. In May 2005, the District, working with the FDEP Bureau of Invasive Plant Management, initiated a program to achieve maintenance control of hydrilla in the lake. In May 2005, 200 acres of hydrilla were chemically treated with aquathol K herbicide. The treatment was very successful and future applications are planned when conditions are favorable for applying the herbicide. Future herbicide applications will be coordinated with District staff managing the Lake Panasoffkee Restoration Project to ensure the minimal 60 percent areal SAV coverage is maintained. Table 3 below summarizes the District's SAV mapping efforts since the baseline mapping in the spring of 2000.

Table 3 - Summary of Spring SAV Mapping Efforts

Coverages	Year					
	2000	2001	2002	2003	2004	2005
SAV (ac.)	2,006.2	1,715.5	1,827.5	(not mapped)	1,738.5	1,998.3
Bare Bottom (ac.)	540.6	688.3	594.7	(not mapped)	717.8	594.7
Open Water (ac.)	2,609.5	2,403.8	2,422.2	(not mapped)	2,456.3	2,593.0
Percent SAV	78.8%	71.4%	75.4%	(not mapped)	70.7%	77.1%

Semi-annual Progress Report to the FDEP: In accordance with Specific Condition 7 of the Operations Plan that accompanied the District's Noticed General Environmental Resource Permit Application for Step 2 and Step 3 of the Lake Panasoffkee Restoration Project, semi-annual progress reports were submitted to the FDEP December 30, 2004 and July 15, 2005. Additionally, in accordance with

Specific Condition 16 of the aforementioned plan that requires annual inspections and re-certifications of the confined disposal facility to the FDEP, the confined disposal facility was inspected by the District's engineering consultant June 29, 2005 and re-certified to the FDEP in a report dated July 5, 2005.

Re-verification of U. S. Army Corps of Engineers (USACE) Nationwide 27 and Nationwide 29 Permits: U. S. Army Corps of Engineers Nationwide 27 and Nationwide 29 Permits are issued for a period of two years at which time they expire unless they are re-verified. The original Nationwide 27 and Nationwide 29 Permits issued for Steps 2 and 3 were issued on December 20, 2002, and would have expired on December 20, 2004. In a letter dated October 15, 2004 the District formally requested the USACE re-verify the Nationwide 27 and Nationwide 29 Permits issued for the project. The USACE re-verification letter was issued December 16, 2004.

RECOMMENDATIONS

The Council's recommendations for the upcoming year are listed below.

- Continue the dredging of Step 3 north of Coleman Landing channel, and Step 2b.
- Continue to map and monitor submerged aquatic vegetation to ensure that areal coverage is maintained at 60 percent or greater.
- Submit semi-annual status reports to the FDEP as required under the Environmental Resource Permit issued for Steps 2 and 3.
- Perform annual inspection of the confined disposal facility in June 2006 and re-certify the facility to the FDEP.

These recommendations were formally adopted by the Council at its meeting September 12, 2005 and accepted by the District's Governing Board October 25, 2005.



Confined Disposal Facility
Size: 450 acres
Embankment Height: 20 ft.
Embankment Volume: 1.2 million C. Y.

Upland Confined Disposal Facility for Steps 2 and 3 Prior to the Commencement of Dredging of Step 2
(Looking Northwest)

Figure 3



Aerial view of the dredge discharge point at the northeast corner of Settling Cell 1 taken October 4, 2004



Aerial view of the dredge discharge point at the northeast corner of Settling Cell 1 taken September 12, 2005, after 14 months of pumping

Figure 4

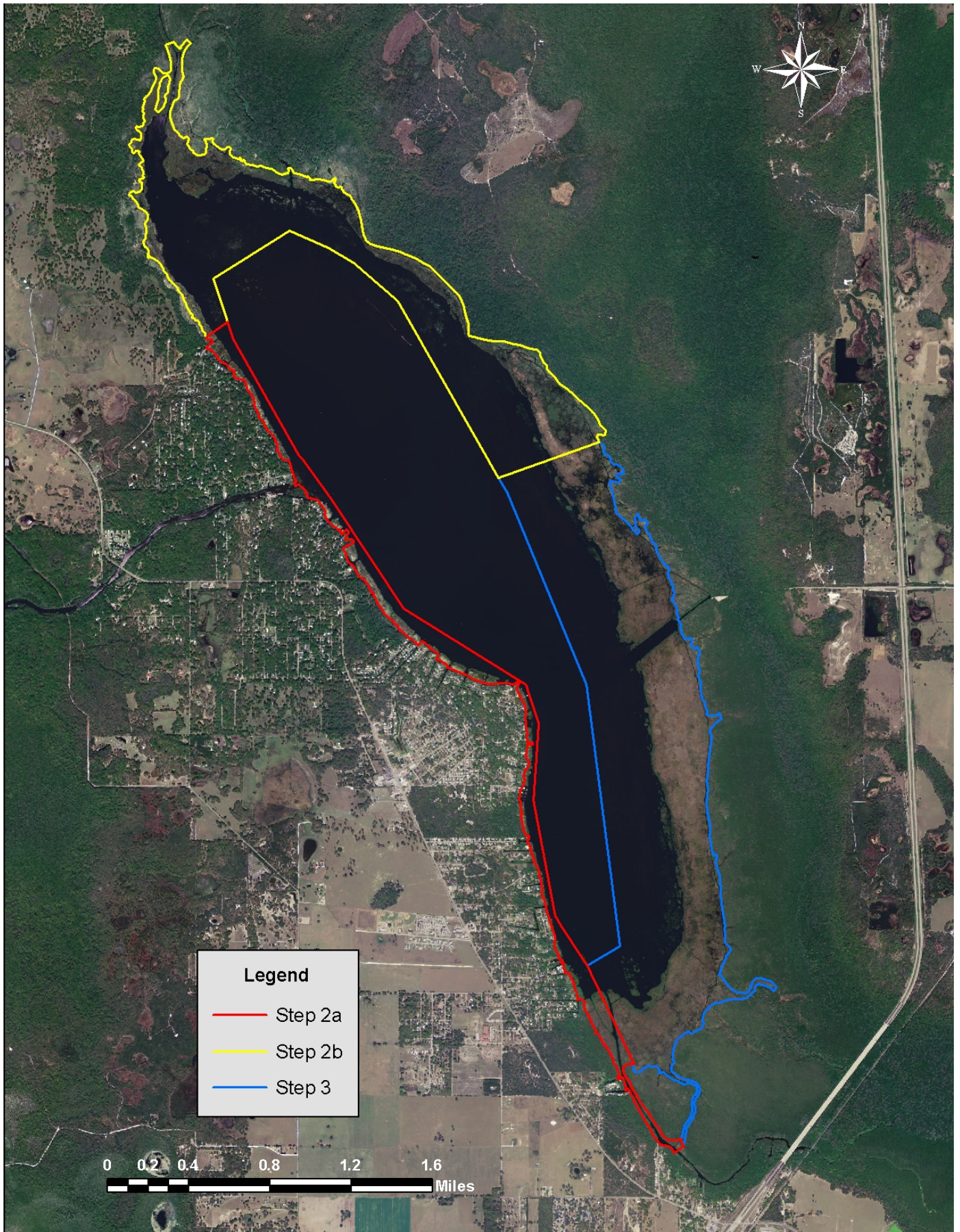


Figure 5 –Modified Dredging Limits for Steps 2a, 2b, and 3

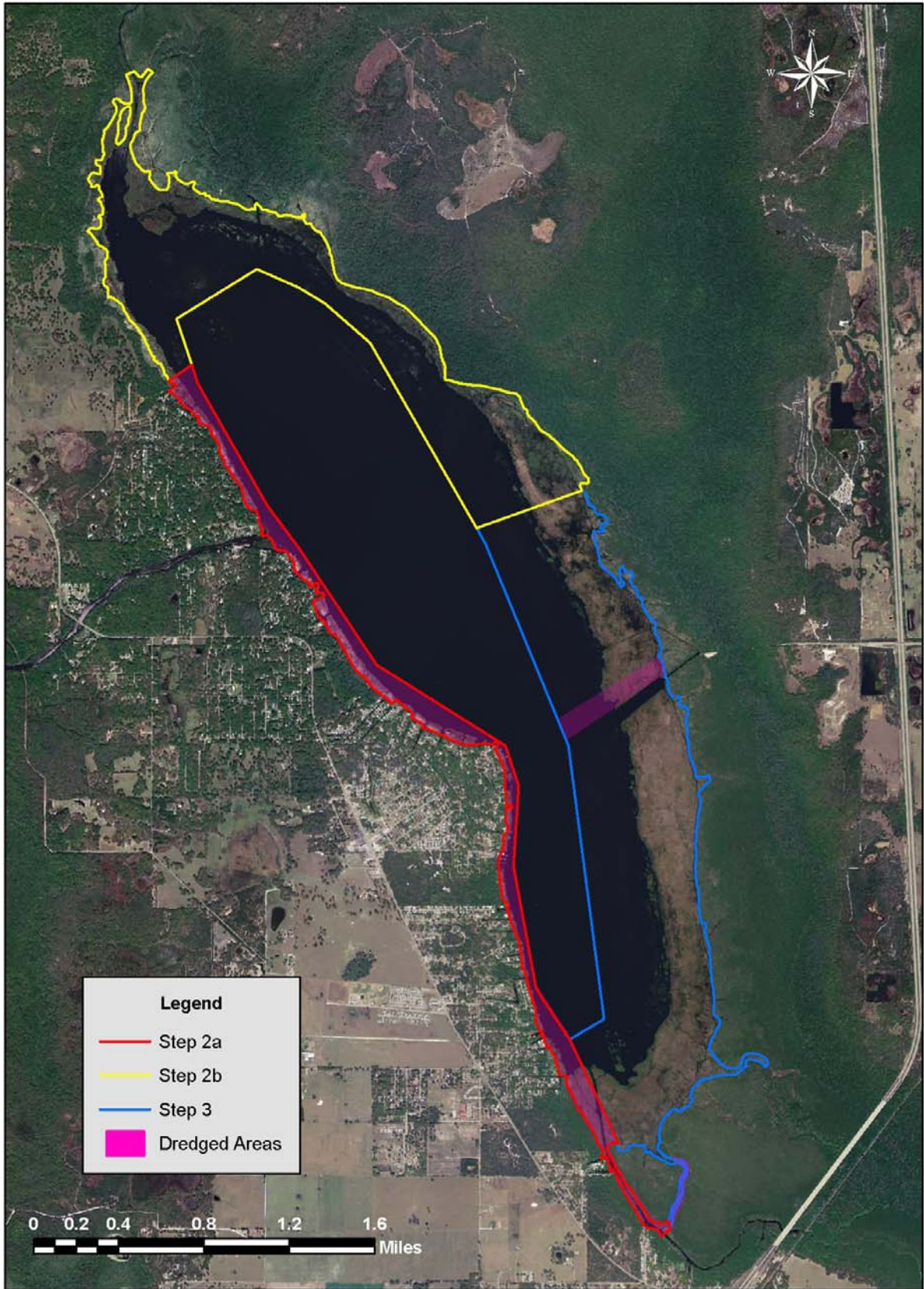


Figure 6 – Dredged Areas as of October 31, 2005



Figure 7 – Area along the eastern shoreline immediately north of the Coleman Landing channel where the dense emergent vegetation and tussocks have been chopped up by the “Cookie Cutter” machine

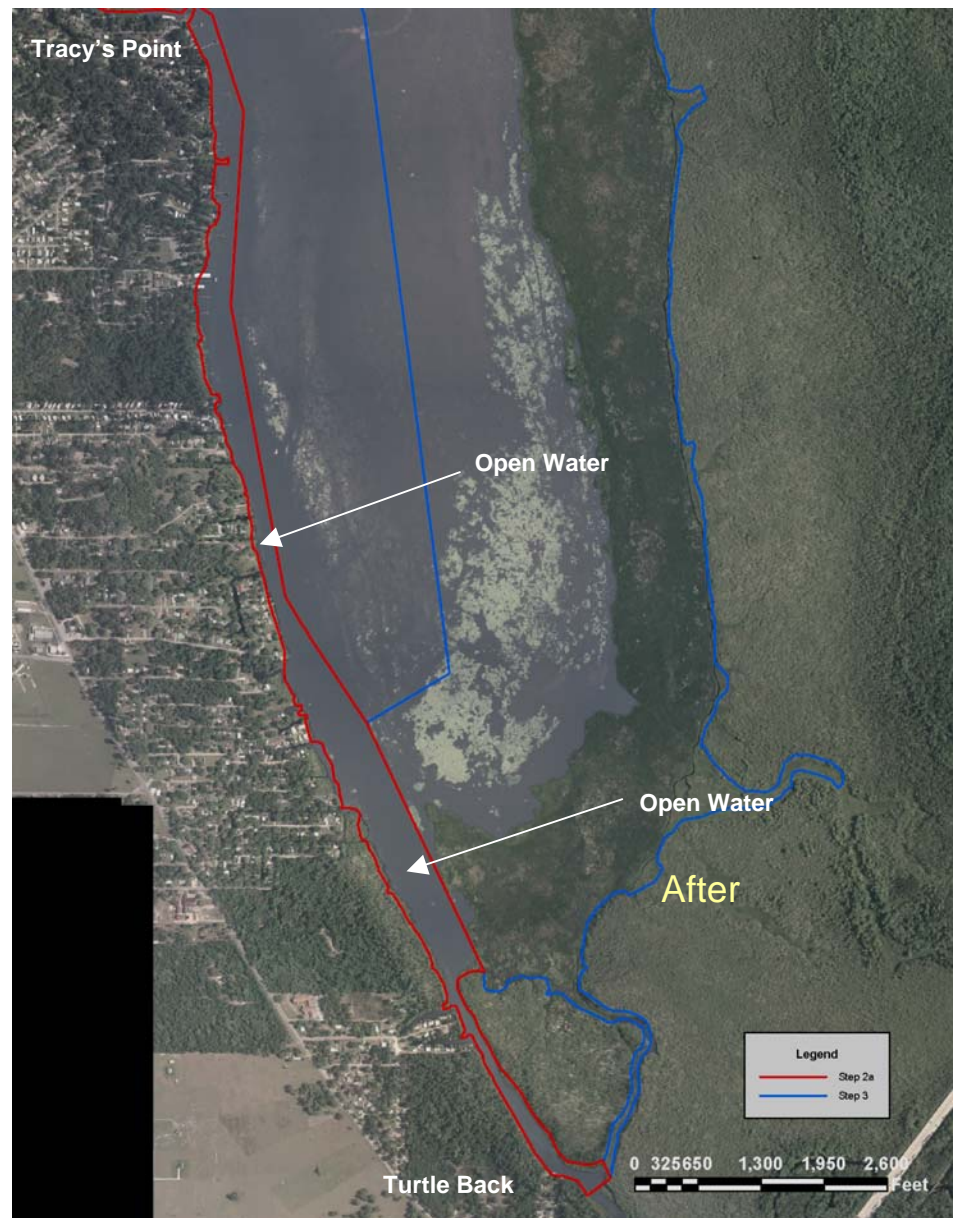
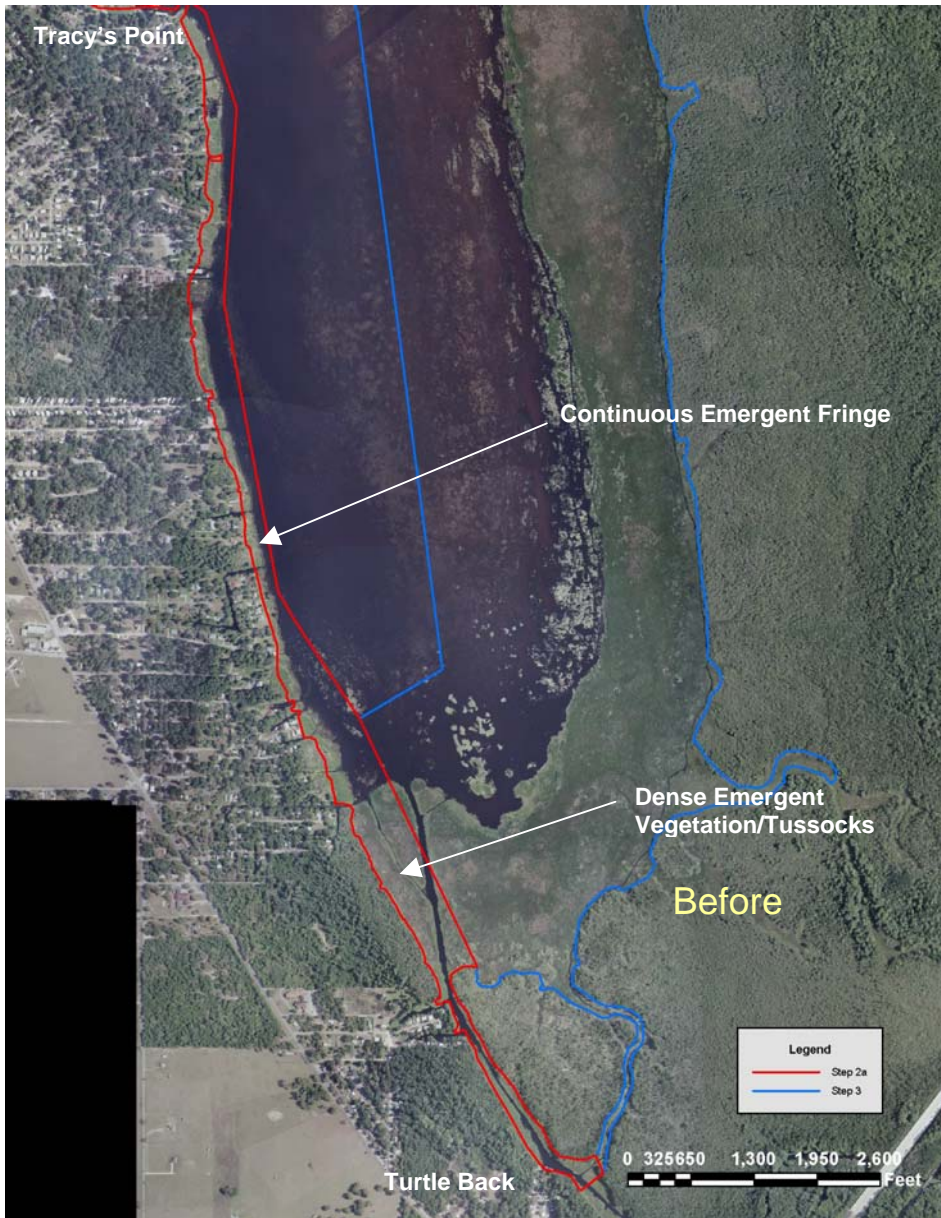


Figure 8 – Western shoreline from Turtle Back Fish Camp to Tracy's Point Fish Camp before and after dredging



Figure 9a – The southwest shoreline of Lake Panasoffkee prior to being dredged



Figure 9b – The southwest shoreline of Lake Panasoffkee after being dredged



Figure 10 – Dense emergent vegetation along the western shoreline immediately north of Tracy’s Point Fish Camp prior to shoreline being dredged. Frame on right side shows vegetation extending 300’ +/- waterward



Figure 11 – Oblique aerial photograph of western shoreline immediately north of Tracy’s Point fish camp after the shoreline was dredged. The 300’ waterward extent of emergent vegetation shown in Figure 10 has been approximated by the yellow dashed line.



Figure 12 – The western shoreline of Lake Panasoffkee immediately south of Tracy’s Point fish camp



Figure 13 – The western shoreline of Lake Panasoffkee immediately south of Outlet River near Pana Vista Lodge and fish camp



Figure 14 – The western shoreline of Lake Panasoffkee north of the outlet river



Figure 15 - The western shoreline of Lake Panasoffkee immediately south of Idlewild fish camp after being cleared by the cookie-cutter prior to being dredged