

US Army Corps of Engineers ®



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Fay Saves the Day – Ends 2-Year Drought

In late August, Tropical Storm Fay descended upon South Florida for six days dropping its precious cargo onto the parched basin of Lake Okeechobee. In just six days the lake rose more than two feet, and over the course of seven days nearly eight inches of rain fell directly on the Big O, which included precipitation from some pre-Fay storms, ending a near two-year area drought. That was the biggest one-week rise since record keeping began in 1931, according to figures released by the South Florida Water Management District. Just a few weeks after Fay, Lake Okeechobee rose nearly four feet in elevation and surpassed 15-ft for the first time since March 2006. See page 2 to view graph of historic water level averages of Lake Okeechobee. (Information taken from the South Florida Sun-Sentinel and Wikipedia)



NOAA satellite image of Tropical Storm Fay over southern Florida Photo: REUTERS

Tussocks Cause One-Day Closure of the Okeechobee Waterway



View looking east toward Lake Okeechobee

The rains from this years wet season prior to Tropical Storm Fay had already filled agricultural and residential canals to capacity along the Caloosahatchee River. With the emptying of these canal waters into the river came stockpiles of floating vegetation. In the last week of July, the currents of the Caloosahatchee transported the aquatic debris toward Lake Okeechobee piling it against the railroad bridge and S-235 spillway in Moore Haven.

Biologists in the Environmental Stewardship Section immediately coordinated efforts to have the tussock removed from the infrastructure and waterway. The Lake Okeechobee Aquatic Plant Management program contractor, Applied Aquatics Management, alerted subcontractor Texas Aquatic Harvesting to mobilize a mechanical harvester and begin removal operations. (cont. on page 2)

Continued from page 1

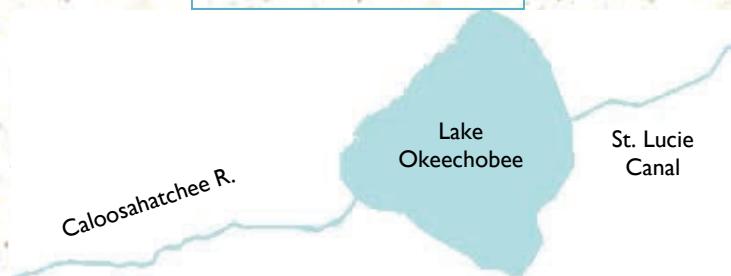
Tussocks Cause Closure of the Okeechobee Waterway



Biologist Jon Morton and Applied Aquatic Management project manager, Kurt Ramsey monitor progress of tussock harvesting (mechanical harvester in distance).

The Okeechobee Waterway was closed to navigation for only one day (July 25) thanks to the rapid response and excellent communications between everyone involved in the project.

Okeechobee Waterway



The Okeechobee Waterway consists of the Caloosahatchee River, Lake Okeechobee and St. Lucie River and stretches 152 miles from Gulf of Mexico to the Atlantic Ocean.

Recent & Historic Lake Elevations from 1965-2007

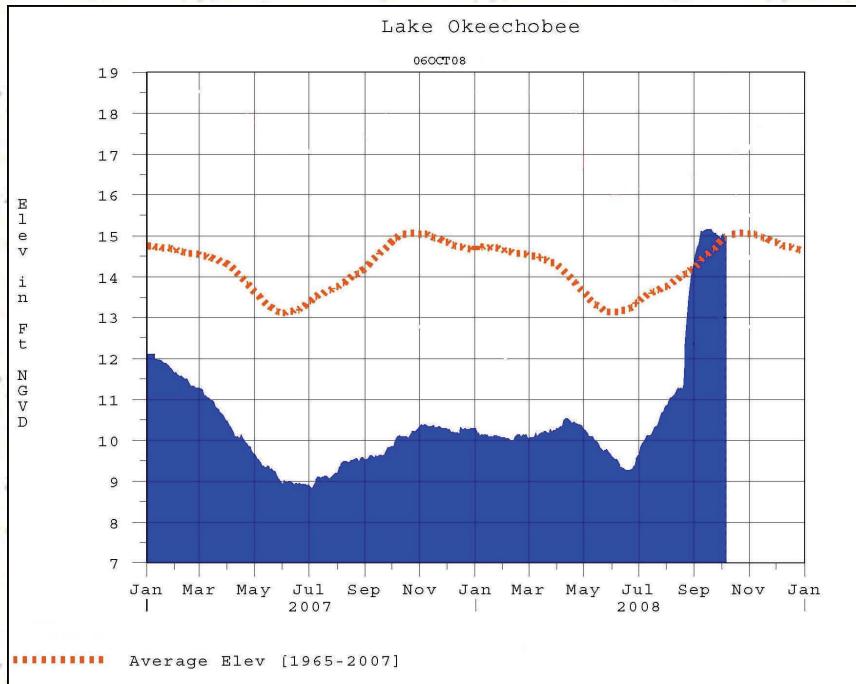


Chart modified from <http://www.saj.usace.army.mil/h2o/plots/okehp.pdf>



Mechanical Harvesters: How They Work

- ◆ Harvesters are fitted with paddle wheels that push them forward & pull them backward.



- ◆ Harvesters have a conveyor belt at the bow that can be pivoted, and lowered and raised.



- ◆ During harvesting, the conveyor belt is adjusted to the correct angle and lowered below the bottom of the vegetation. Forward motion provided by the paddle wheels push the plants onto the conveyer where it is transported toward the stern by a hydraulic rake.



- ◆ When the storage area of the harvester reaches capacity it is offloaded by reversing the direction of the rake and conveyor.

Cattail Growth Spurred by Drought Leave Canals and Boat Trails Impassable

An excellent rainy season has finally allowed the water levels of Lake Okeechobee to rebound after a two year drought. For those who were the first to return and embrace the Big O unfortunately discovered that some of their favorite routes along the lake were impassable. Over the past two years cattails have grown rampant in the drying marshes of Lake Okeechobee filling pre-existing boat trails and causing blockages in canals. Biologist Jon Morton of the environmental stewardship section initiated

efforts to mobilize mechanical harvesters to clear vegetation entrenched in Old Moore Haven Canal and Monkey Box Run. Nearly 7 acres of cattails were removed from the mouth of Old Moore Haven Canal and 29 acres from Monkey Box Run. Contract services were provided by Texas Aquatics Inc., and Applied Aquatic Management Inc.



Purple lines indicate paths of harvesting



Cattail blockage in Old Moore Haven Canal



Harvester taking a swipe in Old Moore Haven Canal



Cattail removal completed in Old Moore Haven Canal



Yellow lines indicate harvesting path to restore Monkey Box Run



Monkey Box Run after harvesting

Volunteers Offer Sweat and Toil in Support of National Public Lands Day

Park Rangers, Paula Bratschi and Adam Tarplee coordinated a public work day event at St. Lucie North Recreation Area in support of National Public Lands Day. The event took place from 8 a.m.—2 p.m. on Saturday, September 20. Approximately 30 volunteers comprised of community members, scout groups, and Corps volunteers and employees participated. Work projects involved installation of trail signs, interpretive wayside exhibits, and a wildlife tracking sandbox. Native plants were pruned and exotic vegetation removed from nature trails. Special thanks to Treasure Coast Presbyterian Church for providing lunches for the event, and much appreciation to all Corps staff for providing a helping hand, with additional thanks to Mike Boles for helping produce exhibit materials.



Scout Troop 519 working together



Ranger Bailey hacking away

National Public Lands Day began in 1994 with three federal agencies and 700 volunteers. Last year 110,000 volunteers worked in 1,300 locations and in every state. Now, 8 federal agencies and many state and local lands participate in this annual day of caring for shared lands.

National Public Lands Day keeps the promise of the Civilian Conservation Corps, the "tree army" that worked from 1933-42 to preserve and protect America's natural heritage.
www.publiclandsday.org



Corps volunteer, Richard Wagner (left) & scout members place final touches on new exhibit.



Oh, the glory of youth...



SFOO Chief , Steven Dunham (left), and Assistant Chief, Rob Schnell pulled their work boots from the attic to help clear vegetation along a nature trail.



Ranger Tarplee and other volunteers take on the rugged task of debris removal .

SFOO Staff Conducts Motorboat Certification Training

Motorboat Licensing Courses were hosted by the South Florida Operations Office (SFOO) at W.P. Franklin Lock Recreation Area on May 6-8, 2008 and June 10-12, 2008. The course is required for Corps of Engineers employees to operate vessels less than 26 feet in length. All instructors for the course were SFOO employees, and included Art Ruebenson, Robert Schnell and Adam Tarplee. In all, 13 Jacksonville District and 7 U.S. Geological Survey employees attended the two 24-hour classes.



Instructors Robert Schnell and Adam Tarplee conduct a towing exercise with students.

Marlinspike is the art of seamanship that includes the tying of various knots. The name is derived from the tool that is used for splicing.

Classroom instruction covered navigation rules of the road, aids to navigation, boat & trailer maintenance, required safety equipment, fire suppression, and marlinspike. Practical course work involved a 100-yard swim test while wearing a personal flotation device (PFD), emergency boat based rescue procedures, trailering/launching/docking of vessels, towing procedures and operating vessels on four different maneuvering courses. Students were required to successfully pass a written exam and demonstrate competence of the practical exercises before being issued a license. By Art Ruebenson.

What's that Yellow Flower?



This time of year roadsides are aflame with the wildflower known as Marsh Beggartick. It is also called Bidens, which is the genus of this plant (*Bidens mitis*).



Photo taken in vicinity of Fisheating Creek by Jon Morton.

Manatee Protection System Installed at St. Lucie Lock

Back in late July, St. Lucie Lock was drained for the purpose of installing hardware for a new acoustic array manatee protection system (see BigWater July 2007 edition for more information). During this time, manatee protection screens and damaged baffles were repaired, and electrical conduits painted. running the length of the lock chamber. The dewatering was conducted by maintenance field staff with additional assistance provided by employees of R&D Inc.



Electrical Conduits

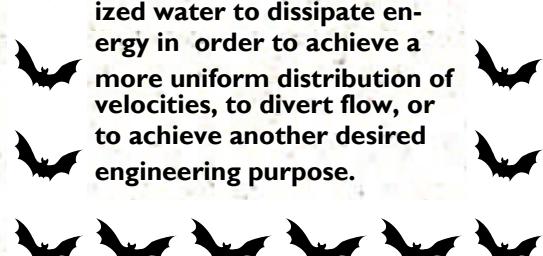


St. Lucie Lock during dewatering

St. Lucie Lock is scheduled for dewatering every seven years for routine cleaning and maintenance. In recent history, however, the lock been receiving attention much ahead of schedule, with reconditioning occurring about every 3-4 years.



Baffle: a large, flat piece of material placed in channelized water to dissipate energy in order to achieve a more uniform distribution of velocities, to divert flow, or to achieve another desired engineering purpose.



A series of concrete baffles are located at each end of the lock chamber.



US Army Corps of Engineers
South Florida Operations Office
525 Ridgelawn Road
Clewiston, FL 33440
Phone: 863-983-8101

BigWater is a quarterly newsletter. The next edition will be distributed sometime in late December or early January.

BigWater archives can be viewed at: www.saj.usace.army.mil/sfoo/BigWater/BigWaterIndex.htm

Recognition

Thank you to the following individuals for contributing articles and content to this edition of BigWater:

Paula Bratschi
Hope White
Art Ruebenson
Jon Morton
Rob Schnell
Adam Tarplee

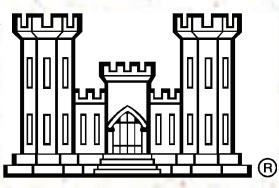


Cottonmouth. Photo taken in vicinity of Fisheating Creek. by Jon Morton.

Help Wanted

If you would like to contribute content to BigWater please contact the newsletter editor, Mike Boles.

michael.e.boles@usace.army.mil
863-983-8101



US Army Corps of Engineers



Happy Halloween

Personnel Update

After 20 years of service with the Corps, Park Ranger, John Cichoski decided to resign and return to Pennsylvania. John's future plans include fulfilling a long-term desire of establishing a hospice to provide care for the terminally ill.

Lock operator, Robert Siegmann of Canaveral Lock will retire on October 31, 2008. Best of luck, Bob.

Lock and Dam Mechanic, Alan Adams transferred to Ortona Lock.

Phillip Nall transferred from the Navigation & Readiness Section to Contracting.

Jimmy Shaw recently joined the Field Engineering & Maintenance Section and will work as an Equipment Operator. He hails from the Memphis District.

Mathew Kircshner is new to the Corps and currently is working as a Lock & Damn Operator at Port Mayaca Lock. He served in the USMC from 2001-2006.

Fred Carino is our new Tug Boat Operator. Fred retired from the U.S. Navy with over 20 years of service. He also operates a LLC delivering yachts to the Caribbean and all along the eastern seaboard.

Glen Hutson a longtime volunteer of SFOO has joined our workforce as a Lock & Dam Rover.



John Cichoski spent 10 years at St. Lucie Recreation Area and SFOO. His departure is a great loss.

Beware of the Evil



Pumpkin Man!