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# Summary Report for Incident on 10-7-17



- At approximately 7:30 AM on 10/7/17, staff member Robert Hammell found Manatee Gleewood (rehab manatee), on the hippo enclosure beach on her back. OPS Hammell called PSS (Park Services Specialist) Michelle Massingill to help assist. PSS Massingill helped Hammell shift Gleewood onto her stomach. Park Manager Kim Tennille, Assistant Park Manager Zach Phifer, Wildlife Care Supervisor Tricia Fowler, and Park Veterinarian Dr. Ray Ball were all called to assist. With the help of the wildlife care team and the maintenance team, Gleewood was loaded into a stretcher, removed from the hippo enclosure, and given a health exam. The manatee sustained superficial abrasions on both her sides and stomach area. Blood was taken, anti-inflammatories were administered and Veterinarian Dr. Ray Ball medically cleared Gleewood for return to the manatee spring enclosure on the same day. Wildlife Staff monitored her throughout the night. All notifications were made via email to FWC, US Fish and Wildlife Service and DEP.
- The Maintenance Team immediately performed a thorough review of the area and it was determined that the manatee's injuries were caused by the manatee encountering (attempting to push through and digging under) the metal grates of the Weir System, which is adjacent to the Hippo enclosure. The metal grates are not typically assessible via the Spring as this is the spillway from the Wildlife Walk area of the park. The higher than normal flood waters from Hurricane Irma made this area accessible (see page 3). Before close of business on 10/7/17, staff had reinforced the Spring-side of the Weir System by installing (3) 5ft x 4/5ft panels, with openings no greater than 6in x 6in (see photo pages #4-6). Park staff contacted Scott's Welding in order to have the (3) original Weir grates adjacent to the Hippo Habitat refabricated with smaller openings, as well as, (3) additional Weir grates for an added installation on the Spring Side of the Weir System.
- On 10/8/17, staff reported that Gleewood had been active, eating and the scrapes that she received on 10/7/17 were looking good and are no longer red.
- On October 9<sup>th</sup>, two separate dive teams performed safety checks of the entire spring area. No other safety concerns were found. It was determined that all of the rehabbed manatees will remain in the secured spring paddocks until the time of their release.
- In December, the new grates were installed on both sides of the Weir System (see photo pages 7-8). The new grates are made of 6101t Aluminum Construction Grade. The bars are 1 7/8" thick schedule 40 pipe, 0.14" thick with a tensile strength of 37,000 LBs and a deflection of 30,000 LBs. The angle is 2"x2"x1/8" with a tensile strength of 45,000 lbs. The bars are spaced no greater than 2 1/2" apart. In addition, the new weir bars have been reinforced with 5/8" steel rebar by running the rebar through the aluminum and driven into the river rock 3-4feet. To further reinforce the Spring side of the Hippo Habitat and prevent any digging under the bar systems in the times of flood, two courses of concrete bags were added and all anchored with 5/8" steel rebar in 8-10" sections. The park is currently awaiting a final review from USDA on the Weir System improvements.

Picture taken 12/17

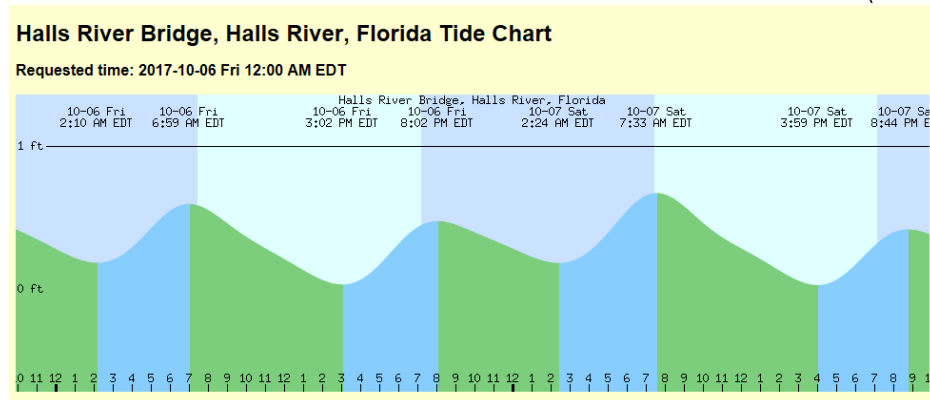


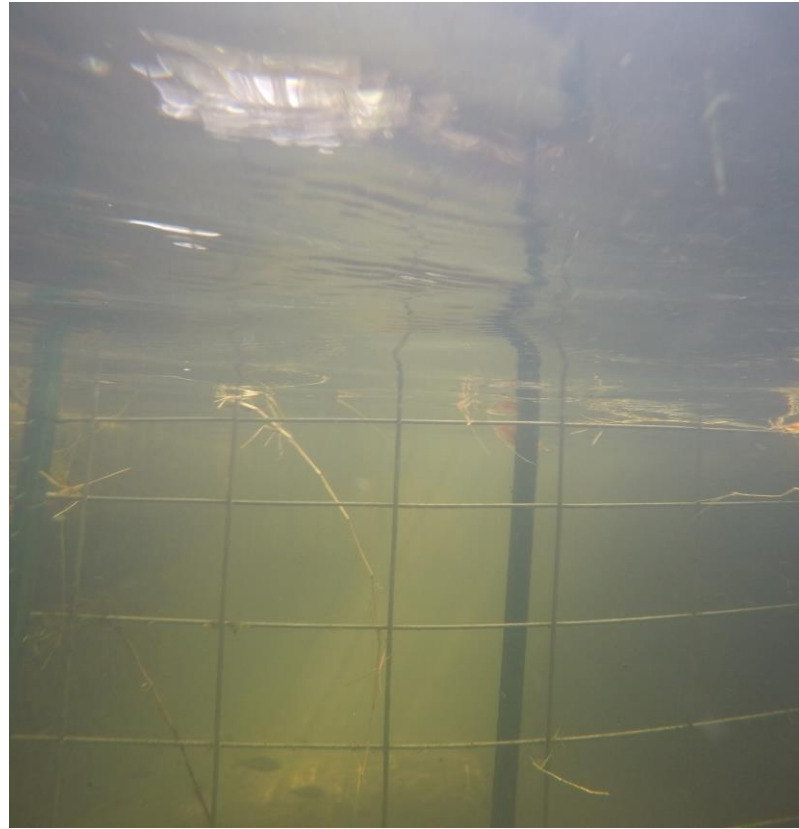
Picture taken 10/17



Water level difference from Hurricane Flooding. Picture.

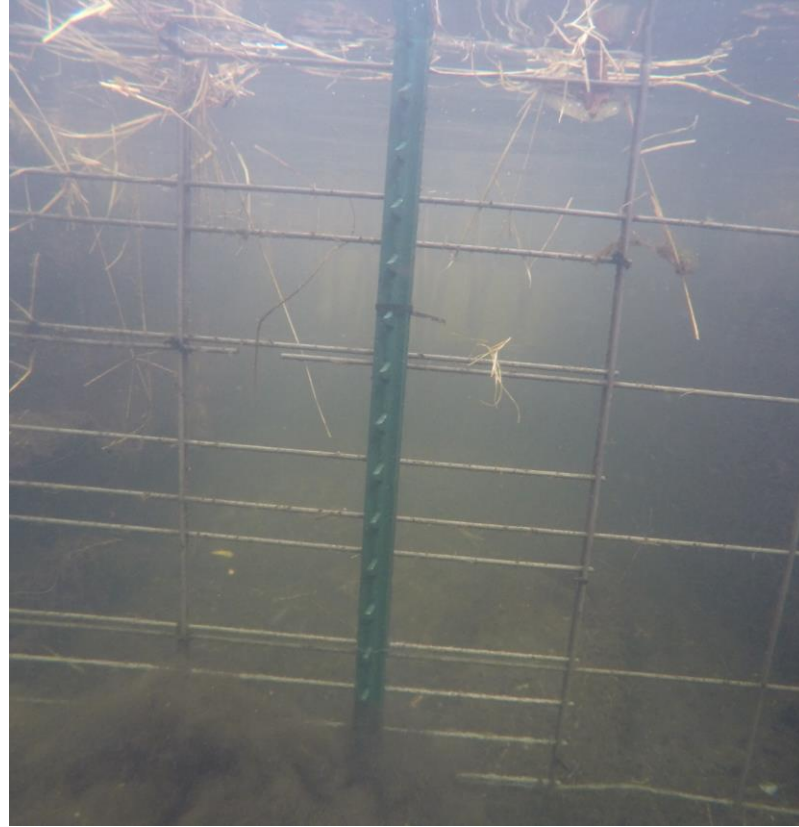
Photo was not taken at highest tide. Water level would have been higher (see Tide Chart).





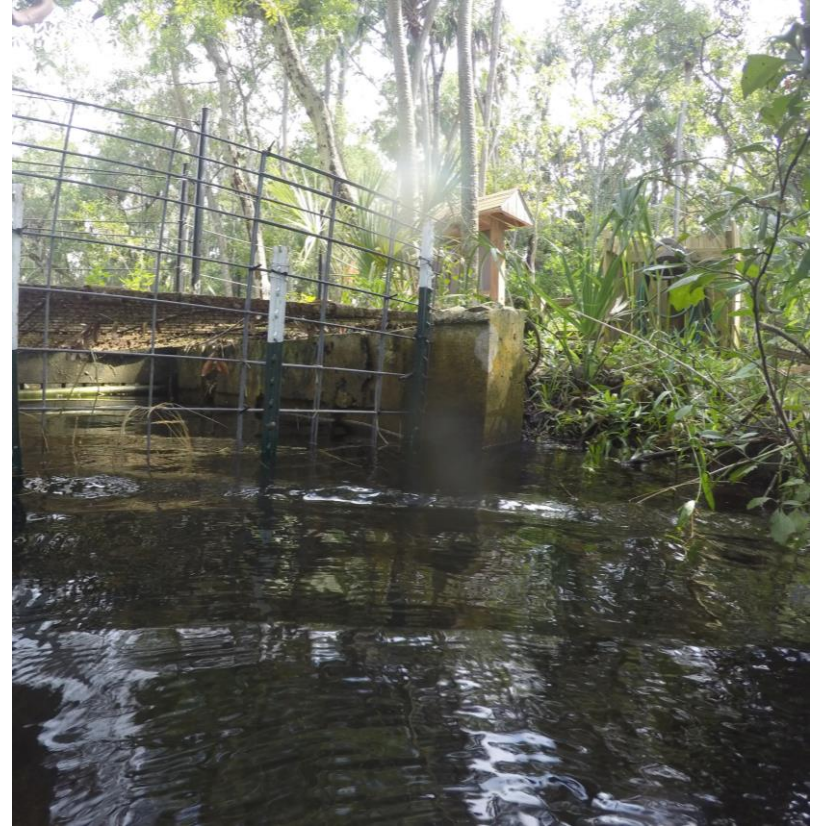
Gate #1, View From Spring  
Temporary panel installation 10-7-17

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Gate #2, View From Spring  
Temporary panel installation 10-7-17

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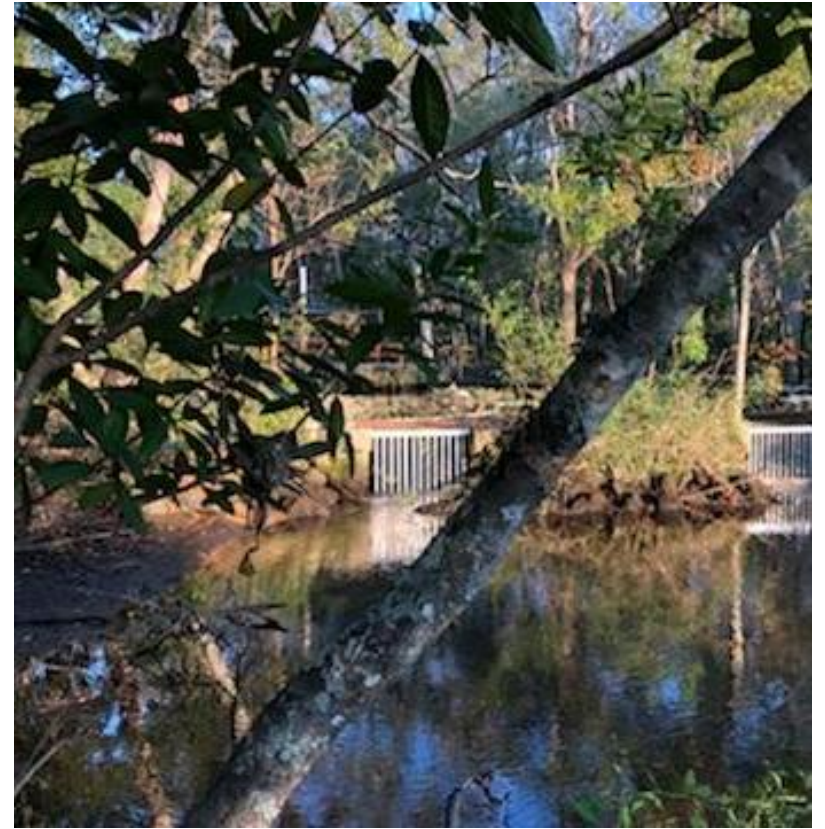
Gate #3, View From Spring  
Temporary panel installation 10-7-17

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View From Hippo Enclosure Side  
Weir panel installation in December 2017

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View From Spring Side  
Weir panel installation in December 2017

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