

Merritt Island Hunt Impoundment Conditions

November 1, 2011

The following is a brief summary of habitat conditions within impoundments opened to waterfowl hunting. Water levels and salinity for November 2010 are included for comparison.

Current salinity and water levels are at our target objectives and while targets were reached later in the season than we would prefer, conditions should be favorable when wintering waterfowl arrive. The refuge began the year with severe drought conditions due to an extended lack of rainfall. The drought produced hyper saline conditions within the impoundment and within the surrounding lagoon system. The impoundments were isolated from the lagoon when water levels were near seasonal lows at the beginning of the wet season. Impoundments filled with rainwater over the course of the summer wet season. By early teal season, salinity levels were reduced to 25 parts per thousand (ppt) in most impoundments. The summer rains filled the impoundments which diluted the salt present but there was not the necessary volume needed to export water/salt out of the impoundments. Despite marginal salinity levels in September, impoundments had some production of submerged aquatic vegetation (waterfowl food). October brought the rainfall we had been waiting for and although it was a little late, it was much appreciated. The abundant rainfall allowed flushing of the impoundments and lowered salinity to ideal levels for submerged aquatic plant production. Currently water levels in the impoundments are staged at capacity in anticipation of the dry season. Submerged aquatic vegetation production is getting a late start but is expected be strong due to current conditions.

- Bio-Lab (T-27A) - Current water level = 1.8, salinity 11 ppt (0.9, 25 ppt 11/2010).
- Max Hoeck Creek (T-27B) - Current water level = 1.9, salinity 11 ppt (0.9, 22 ppt 11/2010).
- East Gator Creek (T-24B) - Current water level = 2.1, salinity 15 ppt (0.7, 47 ppt 11/2010).
- Catfish Creek (T-24C) - Current water level = 2.1, salinity 10 (0.7, 32ppt 11/2010).
- Peacocks Pocket (T-24D) - Current water level = 2.1, salinity 7ppt (0.8, 24ppt 11/2010).
- Gator Creek - Current water level = 2.1, 8 ppt (0.7, 37 ppt 10/2010).

- Shiloh 5 - Current water level = 2.2, salinity 15ppt (0.6, 51 ppt 11/2010).
- Shiloh 3 - Current water level = 2.1, 18 ppt (0.65, 50 ppt 11/2010).
- Shiloh 2 - Current water level = 2.0, salinity 18 ppt (0.7, 46 ppt 11/2010).
- Shiloh 1 - Current water level = 1.7, salinity 22 ppt (0.7, 51 ppt, 11/2010).
- Duck Roost - Current water level = 1.4, salinity 25 ppt (0.6, 45 ppt 11/2010)
- M Pond - Current water level = 1.8, salinity 6 ppt (0.8, 44 ppt 11/2010).
- L Pond - Current water level = 1.8, salinity 9 ppt (0.8, 45 ppt 11/2010).
- Beach Area Impoundments – Due to their limited watersheds, some of these impoundments have been greatly affected by the droughty conditions of previous years. The most severely impacted impoundment, V-3 (aka “Glory Hole”) has lost much of its emergent vegetation, and has minimal SAV. V-3 (Glory Hole) and V-4 (Cat Hammock) are currently open to the lagoon, but conditions have improved and they will likely return to waterfowl focused management next year. Production of SAV (primarily *Chara*) within the remaining impoundments is extremely variable.