



**LEVY COUNTY
DEPARTMENT OF EMERGENCY MANAGEMENT
7911 NE 90th Street
BRONSON, FLORIDA 32621**



**STORM SURGE!
WHAT IS MSL, AND HOW DO I KNOW IF IT WILL AFFECT ME?**

As the first named storm of the 2018 Hurricane Season has passed, many still have some questions that need answered. One of the biggest questions that we are hearing from residents and visitors from the gulf coast areas of Levy County is “What is MSL, and what does that mean for me?”

MSL is a term that stands for “Mean Sea Level”. It is one of several ways that forecasters use to measure storm surge and other tide related flood heights. Why this term is important to know, is due to the fact that the National Weather Service uses this term when describing the storm surge potential for Cedar Key and Yankeetown in Levy County.

In its basic definition, MSL or Mean Sea Level is the average sea level over a 19 year period in a given area. So, to break it down farther, if a water level at one area is usually 2 feet at low tide, and 4 feet at high tide, then the MSL would be 3 feet for that given area. Where this can cause some confusion is the fact that when a storm surge watch or warning is given, most areas along the gulf coast are measured in AGL or Above Ground Level, whereas Levy County and Citrus County are measured in MSL. As an example, if the National Weather Service is predicting a storm surge value for Cedar Key at 6 feet MSL, that means that they are expecting water heights at 6 feet above the mean sea level, NOT the high tide level. That is the reason that storm surge predictions are always higher in Cedar Key and Yankeetown compared to other areas of the State.

The reason our area is measured in MSL is due to the fact that Levy and Citrus Counties are two of the very few places in Florida that actually have physical storm surge tide poles installed along the coast that are calibrated on a regular basis. This gives us the ability to better predict the effects of storm surge in a given area. Residents and visitors can actually view these tide poles by visiting <http://www.tropicaltampa.com/tidepoles.html> where you can view different water heights for different storm surge warnings.

So, what does this mean for you, and how can you tell what the damage is going to be for your area. The best way, is to find the tide pole that is closest to your property and view the water levels marked on the pole to get the best understanding on how the storm surge predictions will directly affect you. As a general rule of thumb, most properties in Levy County will not start seeing any damages until approximately 7 feet MSL. At 5 feet, water can start to crest over the banks and can cause some issues to boat docks if the weather is rough. At 6 feet, water will usually start crossing roadways along areas in Cedar Key that are directly along the water, and at 7 feet, property starts to become impacted and damage can occur. Anything at or over 7 feet can start to cause property issues. To put some perspective to it, during Hurricane Hermine in 2016, Yankeetown received 12.6 feet MSL storm surge, which put many homes almost completely underwater. Cedar Key received 10.5 feet MSL, which pushed water all the way up to 2nd street, and some bridges were completely underwater.

We hope that this information helps you with your personal emergency preparedness. Please contact our office at 352-486-5213 or email at questions@levydisaster.com if we can be any additional help. You can also visit a number of websites that can help:

Tide Poles: <http://www.tropicaltampa.com/tidepoles.html>
National Weather Service Tampa: <https://www.weather.gov/tbw/>
National Hurricane Center: <https://www.nhc.noaa.gov/>

We have a 15 tide poles through Cedar Key and Yankeetown. Go to <http://www.tropicaltampa.com/tidepoles.html> for the interactive map to find the tide pole nearest to you.

STAY SAFE, STAY PREPARED