

In November 2018, FEMA revised the FIS for Bradford County. The report details as study of the Sampson, Rowell, and Crosby lake area, as shown below.

The detailed study area of Lake Sampson, Lake Crosby, and Lake Rowell is located southwest of the City of Starke, Bradford County, Florida south of SR 100 and north of County Road (CR) 225. Lake Sampson, Lake Crosby, and Lake Rowell are all interconnected with the outfall to the Sampson River on the southwest side of Lake Sampson. The total contributing drainage area for this basin associated with Lake Sampson, Lake Crosby, and Lake Rowell is approximately 52 square miles. Land use for the study area is mainly forested, agricultural, and pasture. In addition, Alligator Creek, which drains the City of Starke, also flows into the Lake Sampson, Lake Crosby, and Lake Rowell system. For the Lake Sampson, Lake Crosby, and Lake Rowell areas, Streamline Technologies ICPR v.3 unsteady flow model was used to estimate flood discharges and elevations for a series of flood frequencies including the 10, 2, 1, and 0.2 percent annual chance events.

(Source: <https://www.mysuwanneeriver.com/DocumentCenter/View/8662/Flood--Insurance-Study---Bradford?bidId=>)

Based on this, the report was able to put together a table summarizing the projected stillwater elevation at frequencies of 10%, 2%, 1%, and 0.2%. This data allows us to see, based on NAVD88 elevation, when flooding of the particular waterways could occur. For instance, we see that the backwater area north of Lake Sampson has a 10% annual chance of reaching elevations of 135.7 feet (NAVD88). The results are shown in the table below:

Flooding Source and Location	Elevation (feet NAVD88)			
	10-Percent	2-Percent	1-Percent	0.2 Percent
<b>LAKE SANTA FE</b>				
Along shoreline	142.2	142.8	143.0	143.7
<b>LITTLE LAKE SANTA FE</b>				
Along shoreline	142.2	142.8	143.0	143.7
<b>LAKE SAMPSON</b>				
Along shoreline	133.6	134.2	134.5	135.2
Backwater Area (North)	135.7	136.6	137.0	137.7
<b>LAKE CROSBY</b>				
Along shoreline	133.8	134.5	134.6	135.2
<b>LAKE ROWELL</b>				
Along shoreline	133.6	134.2	134.5	135.2