

erosion can increase the debris flow of trees and structures like docks that can pile up against structures in the floodway, increasing stresses on the pilings and possibly contributing to failures.

Occurrences

No specific information was found on Riverine/Stream Erosion for Bradford County. However, roadway erosion has been seen, such as during Hurricane Irma in 2017, due to flooding during heavy rainfall events. Damage to structures is believed to have been mitigated by the setback requirements set forth in the Future Land Use Element in the Bradford County Comprehensive Plan, which states that there shall be a 50-foot setback from a lake, pond, or wetland.

Vulnerability

Due to the above-mentioned setback requirements, as well as the slow rate that erosion normally occurs, the vulnerability is relatively low. However, there is some vulnerability to the county's population that live along the Santa Fe River, near Alligator Creek, and the New River to riverine erosion and as noted above might have limited access to a bridge or road that erodes or washes out. Additionally, erosion can increase the debris flow of trees and structures like docks that can pile up against structures in the floodway, increasing stresses on the pilings and possibly contributing to failures.

Probability - Erosion probability is low for the planning area.

Location – While the entire county, including municipalities, are susceptible to erosion, areas located near the banks of creeks and rivers are most vulnerable to erosion. Specifically, areas around Lakes Sampson, Rowell, Crosby, Hampton, and Santa Fe, as well as Alligator Creek, Water Oak Creek, the Santa Fe River, and New River are at risk of erosion.

Extent – The worst case scenario for a riverine erosion event would include erosion causing damage to infrastructure or residences.

Impact - Structures and infrastructure could be impacted by a riverine erosion event if a bridge collapsed and residents were unable to use the bridge or roads for transportation.

Loss of soils due to riverine erosion under paved roads, bridge abutments and approaches, bridge pilings and other structural pilings, can cause structural failures that endanger public safety. Washouts of boat ramps can restrict access for emergency personnel.

Riverine erosion can increase the debris flow of trees and structures like docks that can pile up against structures in the floodway, increasing stresses on the pilings and possibly contributing to