



AGENDA MEMORANDUM

Planning Department

City Council Meeting Date: November 12, 2024

To: City Council
From: Craig Chandler, AICP, Deputy Planning Director
Date: November 6, 2024

SUBJECT: Discussion of Temporary Flood Barriers

BACKGROUND:

The use of temporary flood barriers for storm surge protection was one of the many storylines of preparedness for Hurricanes Helene and Milton. Most notably, a video showing the installation of AquaFence, a 9-foot-tall barricade designed to protect against a 15-foot storm surge, at Tampa General Hospital received national media attention.

Other similar products utilized in Florida and other flood prone areas include barriers like Muscle Wall, and inflatable water dam products, such as Tiger Dam and The Guppy. The effectiveness of these products after Hurricanes Helene and Milton appears to have had mixed results. Floodplain Manager Jessica Leatherman attended the Flooding Adaptation Symposium, hosted by Sea Grant Florida, Florida Climate Institute, and University of Florida, on October 28-31, which emphasized that these methods are continuing to be studied and monitored as additional flood protection measures in conjunction with or beyond the required minimum protections required by code. (Please note: References to specific temporary flood barrier products are not intended as a recommendation)

Staff has received two emails and several verbal inquiries regarding these methods.

The Land Development Code provides standards for temporary uses, fences and walls, and emergency beach shoreline erosion control development (i.e., temporary sandbag structures). However, those sections do not appear to be applicable to the use of temporary flood barriers.

ANALYSIS:

Staff provides its initial response to some of the questions that have been raised relating to temporary flood barriers for City Council discussion:

- Will Sanibel allow a temporary flood barrier?

Staff generally finds the use of temporary flood barriers to protect structures and reduce the risk of flood damage to homes and businesses is not contrary to the Sanibel Plan or Code. However, staff highly recommends completion of building improvements that achieve compliance with flood standards, by increasing the floor height of living area at residences via addition or elevation projects or implementation of dry or wet floodproofing methods for commercial structures, as the best defense against flood risk.

There are some conditions under which temporary flood barriers should not be allowed, as necessary to protect wildlife habitat (i.e., Gopher Tortoise) and vegetation from unintended impacts. Staff recommends restriction of temporary flood barrier use and placement within, or at the edge of, wetlands and open bodies of water, Gulf Beach and Bay Beach Ecological Zones (preservation districts), and conservation lands.

- Will a permit be required?

No, a permit will not be required for use of temporary flood barriers when the City of Sanibel is under a local state of emergency within 72-hour forecast of landfall, unless permanent alterations to the site (that would increase developed area or impermeable coverage) are necessary. Staff recommends guidance be developed for property owners on the placement of such barriers to limit impacts to wildlife and vegetation while in use.

- Can temporary flood barriers be used for the duration of hurricane season (6 months)?

Planning staff does not recommend allowance of temporary flood barriers for an extended period of time, by permit or otherwise, due to impacts to vegetation and wildlife habitat, as well as visual impacts relating to community character and scenic preservation.

PUBLIC COMMENT:

Staff has received two aforementioned written public comments related to this item and has received several verbal inquiries.

RECOMMENDED ACTION:

Staff is seeking direction on this topic, which may include consideration of a Land Development Code amendment or establishing guidance for the use of temporary flood barriers within the City of Sanibel.

Sanibel is and shall remain a barrier island sanctuary