



September 16, 2020

U.S. Army Corp of Engineers  
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Comments Electronically Submitted to:  
[Collier\\_CSRM@USACE.army.mil](mailto:Collier_CSRM@USACE.army.mil)

**RE: USACE Feasibility Study Collier County's Storm Surge Protection  
Tentatively Selected Plan (TSP)**

To Whom It May Concern:

As requested, I am submitting comments detailing some of the concerns that the Conservancy of Southwest Florida has regarding aspects of the Feasibility Study Collier County's Storm Surge Protection Tentatively Selected Plan (TSP). There is increasing evidence that our climate has changed and will continue to change with far-reaching and potentially devastating impacts worldwide. Our mission is to protect Southwest Florida's unique natural environment and quality of life...now and forever. The ability to maintain our quality of life will depend, in part, on how we plan for and meet the challenge of climate change and its impacts. The Conservancy supports climate adaptation and mitigation strategies that protect our natural environment as well as the people who enjoy our area and call it home.

While we appreciate the Army Corps efforts to spearhead mitigation projects to address storm surge in Collier County, we would like to see the project goals address a wider range of challenges our area will face with climate change. Storm surge as a result of stronger weather systems is only one aspect of climate change and while important, other impacts are just, if not more problematic and should be addressed in concert with storm surge. Urbanization increases our vulnerability to climate change. Impacts to Southwest Florida's residents run the gamut from contamination of our water supplies from saltwater intrusion; to failure and ultimate submersion of gravity-fed stormwater systems and pumping stations; to increased public health risks from disease-bearing insects from warmer temperatures; increased frequency and intensity of storms, drought and wildfires; to negative impacts on our tourist based economy and our way of life as

coastlines disappear. Given the likely substantial impacts on our coastal communities within our lifetime, there is a need for comprehensive regional planning and scientific research to develop effective adaptation strategies to sustain habitats, wildlife and our quality of life.

#### General Concerns with the Army Corps Feasibility Study

1. The bulk of this plan is directed at protecting structures and does not address the environmental impacts associated with any of the alternatives presented.
2. This plan could exacerbate equity problems, exposing certain areas to increased flood risk, and does not address sea level rise.
3. Lack of coordination with other current climate change initiatives and efforts such as the UF-FGCU ACUNE study and other regional subject matter experts.
4. Alternatives presented appear to be focused primarily on structural alternatives and beach renourishment, rather than natural protective feature enhancement such as dune expansion, mangrove re-vitalization and estuarine based alternatives.

A few examples that further illustrate the general concerns listed above are presented below:

Addressing Environmental Impact Concerns: While we applaud the Army Corps intent to increase Collier County's resilience to storm surge, the plan appears to focus on protecting structures without evaluating the cost to the environment and any ramifications of the loss of natural resources that will occur in the process. There are many endangered and threatened species that share this area and the Plan's heavy reliance on structural components such as seawalls and gates is troublesome. One of the biggest threats to our coastal environments is "Coastal Squeeze". As the seas rise and shorelines erode, there will be increasing pressure to armor shorelines to protect real estate investments. Wildlife that nest on or utilize beaches will have no recourse and will be boxed in by the ocean and infrastructure. There is no mention of the impact to natural resources, or if any, would be displaced or irreparably harmed by the alternatives presented in the Plan.

Addressing Equity Concerns: It is important that funding be allocated fairly, there is some concern that resources are being distributed based on property value. While it is inherent due to geographic location that storm surge will affect the more affluent areas first, care must be taken that this plan does not cause more flooding in vulnerable low topographical neighborhoods as a result or leave these communities without storm surge protection. The cost benefit analysis does not appear to adequately value ecosystem services. Undervaluing the economic benefits of natural resources leads to an unbalanced cost benefit ratio when comparing environmental and structural solutions. The proposed plan calls for large floodwall and gate features, which in essence, will divert storm surge. The question becomes where the excess water energy ends up and what impacts it will cause. It is unclear whether these concerns are addressed by the Plan.

This Plan is focused on the urban area, whereas the larger coastal section of Collier County is largely ignored. Mangrove forests make up the bulk of Collier County's coast

and their value and strength in protecting the inland areas from storm surge and wind damage was substantiated by the protection they provided during Hurricane Irma. The Ten Thousand Islands and Rookery Bay mangroves took the brunt of the hurricane and investing in their continued health and re-vitalization is instrumental in protecting inland communities. Yet these natural barriers are not considered by the Plan.

Addressing the Lack of Coordination: Concurrently, many climate change initiatives are being undertaken. Working together to come up with resilience plans that address all aspects of climate change that will impact this area will prevent overlap or working at cross purposes. Making use of the best available science and local subject experts to guide initiatives and provide feedback on possible solutions on all challenges that Collier County will face from climate change will provide the best chance of success.

Addressing Alternatives: It is concerning that the only natural solution that seems to have gained traction in the Plan is oyster reef restoration. While this is a worthwhile endeavor, there is a reason why oyster bars have disappeared in some areas. Have the original cause of their disappearance been addressed? What is the likelihood of success?

As far as protecting inland communities from storm surge and sea level rise, spending resources to expand mangrove forests and dune systems are viable solutions. These natural living shorelines provide natural flood protection through wave and wind attenuation, buffering inland communities by being the first line of defense from storm surge and sea level rise, preventing erosion, etc. These areas are also important to our economy by providing recreational and fishing opportunities.

In conclusion, we urge the Army Corp and Collier County to include more naturally based solutions in addition to other methods. An assessment using a multiple lines of defense approach could prove beneficial. Additionally, we request that the impacts to natural communities be considered in decisions involving structural solutions. Working with nature instead of fighting against nature will ultimately have a better chance of success in the long-term. There are many cases where structural alternatives, such as removal of septic systems and installation of sewer systems, stormwater retrofits, and fortification of utilities are warranted and could alleviate associated flooding problems. Whereas investments in enhancing natural resources along coastal beach, mangrove and dune areas will enhance their benefits, including mitigating storm surge. We thank you for considering these comments as you move forward.

Sincerely,

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c.c. Mr. Gary McAlpin Coastal Zone Management Collier County