San Luis Pass Must be Gated for the Coastal Spine to be Effective

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The 2020 United States Army Corps of Engineers/Texas General Land Office Texas Coastal Plan does not gate San Luis Pass. Moreover, the Corps seems intent on not carefully examining this measure for substantially reducing flood risk for the region. Normally we would analyze the USACE engineering results but they provide none on this important subject.

The USACE claims there is "limited surge risk" in leaving San Luis Pass ungated, but they. present no analysis of any modeling results or economic benefits to support their statements, just hand-waving and speculative arguments that seem to only target the effects of direct surge near the west end of Galveston Island.

The USACE claims that "anticipated risk reduction benefits for protective features at San Luis Pass do not outweigh the potential negative environmental impacts of closing off the last remaining natural pass along the Texas coast," more hand-waving without supporting analyses, not even a list of potential impacts, and the dubious notion that San Luis Pass is a natural pass. In reality it is silting up after being altered significantly by bridging years ago. The words "closing off" are misleading because the gates are only projected to be closed during hurricane conditions and would be open at all other times.

Our response to USACE was to meet with them, including our expert, Bruce Ebersole with Jackson State University, performed detailed analysis on Bay conditions with San Luis Pass left open and closed. We outlined our concerns with leaving San Luis Pass ungated. Not closing the pass during storm events allows fore-runner surge in the Bay as well as the main surge which directly effects many structures on Galveston Island, the mainland north of West Bay and around Galveston Bay. It also disallows sealing the Bay at low tide with an approaching hurricane, to minimize in-Bay surge. Every contribution to water height in the Bay increases the surge and thus increases the need for and strength of the in-Bay lines of defense. Details of our analysis are included in our official public comments to the Corps, which is published in its entirety on the Ike Dike website https://www.tamug.edu/ikedike/

The USACE cites meeting "with the SSPEED Center to compare engineering models and confirm the areas most likely to see increased water surface elevations with surge entering through San Luis Pass. The evaluation confirmed that the relatively low development areas to the east of Galveston Bay would not justify the environmental impacts of constructing a barrier in the pass." The interpretation of results of the meeting is obviously wrong. Areas east of Galveston Bay wouldn't be strongly influenced by a pass on the far west end of the Bay. Also, it's odd that they didn't mention our meeting where we reviewed engineering results in those areas that are strongly influenced.

The Corps should undertake a comprehensive examination of gating San Luis Pass using hard analytics not unsupported generalities. Our work provides a good start on this.