September 29, 2025

COL Brad Morgan

District Engineer

USACE Wilmington District

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Wilmington, NC  28403

Subject: Comments on Draft Wilmington Harbor 403 Letter Report and Draft EIS – Unaddressed Future Flooding Risks from Navigation Channel Deepening

Dear COL Morgan

Will the Port of Wilmington's dredging exacerbate flooding in Wilmington, NC?

The simple answer is YES!

However, the Port’s Section 203 Report has overlooked the possible future economic and environmental damage caused by flooding. In my view, this is a significant oversight.

The North Carolina Battleship Commission has already spent over $2 million to upgrade its parking facilities due to increased flooding at its site. Dredging the Cape Fear River increases flood risk in downtown Wilmington by raising the average water level and exacerbating storm surges. While dredging does not directly cause floods, it contributes to making flooding more severe and more frequent, especially nuisance flooding during king tides, compound flooding, and major floods during hurricanes like Florence, as more water surges up the funnel-shaped river.

What actions has USACE taken to reduce flooding near Wilmington and the Port? USACE chose to build a significant physical barrier—a dredged spoil pile—right in the middle of an active floodplain, healthy wetland habitat, and culturally significant land on the south side of Eagles Island, albeit before Congress authorized NEPA.

A significant citation in the Port’s 203 Report highlights a crucial warning regarding any future deepening of the Cape Fear River. “The Effect of Channel Deepening on Tides and Storm Surge: A Case Study of Wilmington, NC: The Alteration of Tides and Storm Surge.” The final sentence of this document states, “In the future, local depth changes due to accelerating sea level rise [Church et al., 2013] and additional development may further alter storm surge characteristics and flood hazard.”

Key impacts of dredging on Wilmington's flood risk:

* **Increased storm surge intensity:**Studies have shown that the deepened and straightened shipping channel allows more tidal and storm surge energy to travel farther upriver, reaching Wilmington with greater force. A 2016 study found that Wilmington is an "outlier" among coastal cities because dredging has caused significant changes in tides.
* **Worsened nuisance flooding:**Research has specifically linked dredging and channel deepening to an increase in Wilmington's "nuisance flooding," or flooding caused by high tides. Since 1936, the tidal range in the Cape Fear River upstream of Wilmington has increased by approximately 1.2 feet, a change primarily attributed to dredging.
* **Saltwater intrusion:**The deeper channel allows the saltwater “wedge” to travel further upstream. This intrusion harms wetlands and can kill trees that previously helped absorb floodwaters. The loss of these natural buffers further raises the area's risk of flooding.
* **Riverbank erosion:**Increased ship traffic and the wakes from larger vessels traveling through the widened and deepened channel have caused considerable erosion along the river's shoreline. This damages the riverbanks and marshes that normally act as a buffer against flooding.
* **Extreme precipitation:**Climate change has amplified rainfall events. The share of total annual rainfall from the heaviest downpours is expected to increase in Wilmington by 2050, raising the risk of riverine and surface flooding.

Even more concerning is a recent report published by the NC Coastal Resources Commission Science Panel’s report Sea Level Rise, dated September 18, 2024. That report projects that Wilmington could experience a meter of sea level rise by 2100.

When deepening the Cape Fear River through dredging, a key focus of the Port’s Section 203 Report for tradeoff analysis should have been the comparison between two competing outcomes.

1.       The economic benefits of port expansion, driven by deeper dredging to accommodate a growing fleet of massive container ships and,

2.       The increased flood risk for the surrounding Lower Cape Fear River communities caused by the unintended hydraulic effects of a deeper river channel. Taxpayers, the economy, and environmental resources will shoulder these costs, including property damage, destruction of vital wetlands, infrastructure stress, and environmental harm.

Besides digging ourselves deeper into a hole, what other creative alternatives does USACE have to protect the health and well-being of our citizens and environment here on the Lower Cape Fear River?

Thank you for allowing me the opportunity to comment on this crucial endeavor. Thank you.

Essayons,

//signed//

Brayton Willis

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