



Protect the Lower Cape Fear River: Impacts to Fisheries and Water Quality

The Lower Cape Fear River supports one of North Carolina's most productive and ecologically rich estuaries - home to valuable commercial and recreational fisheries and serving as critical nursery habitat for countless species. The proposed deepening and widening of the Wilmington Harbor channel threatens to unravel these ecological and economic assets.

Fisheries Impacts

- **Loss of Essential Fish Habitat:** Dredging and disposal activities would destroy over 1,000 acres of wetlands and estuarine habitat, eliminating key nursery and feeding grounds for shrimp, blue crab, red drum, southern flounder, and over fifty snapper-grouper species that rely on the Cape Fear's tidal creeks and marshes.
- **Disruption of Nursery Areas:** The Lower Cape Fear River is designated as a Primary Nursery Area - a legally protected zone where juvenile fish and crustaceans develop. Deepening the channel will increase salinity and turbidity, threatening these sensitive areas and reducing fish survival rates.
- **Altered Salinity and Temperature Gradients:** Deepening the channel allows saltwater intrusion further upriver, disrupting the delicate mix of fresh and salt water that supports estuarine life. These changes can shift species distributions, collapse nursery functions, and harm freshwater-dependent organisms like Atlantic sturgeon.
- **Reduced Dissolved Oxygen:** Channel deepening decreases water circulation and can create low-oxygen "dead zones" that stress or kill aquatic life, particularly during summer months when oxygen levels are already low.
- **Increased Vessel Traffic and Wake Energy:** Heavier ship traffic generates stronger wakes that can erode shallow-water habitats, disturb bottom sediments, and displace juvenile fish and shellfish. Vessel strikes also pose risks to species such as sturgeon, sea turtles, and marine mammals.
- **Threats to the Atlantic Sturgeon:** This federally endangered species depends on the Cape Fear River for spawning. Dredging and changes to flow and salinity can destroy spawning habitat and disorient migrating adults and juveniles.
- **Cumulative Fishery Impacts:** Ongoing dredging, shoreline hardening, and previous channel modifications have already degraded habitats. Further deepening will compound decades of ecological stress, undermining commercial and recreational fishing economies along the coast.

Water Quality Impacts

- **Release of Contaminated Sediments:** Dredging will disturb riverbed sediments contaminated with PFAS, heavy metals, and industrial toxins, reintroducing these pollutants into the water column and bioaccumulating in fish and shellfish consumed by people.
- **Turbidity and Sediment Resuspension:** Widening and deepening will stir up fine sediments, reducing light penetration and smothering oysters, submerged aquatic vegetation, and benthic organisms that filter and clean the water.
- **Degraded Estuarine Health:** More saltwater intrusion, altered currents, and reduced flushing capacity will further degrade the river's natural self-cleansing functions, worsening existing water quality problems already linked to industrial pollution and wastewater discharge.
- **Increased Flooding and Erosion:** Channel modifications will accelerate shoreline erosion and marsh loss, reducing natural filtration and storm-buffering capacity that keep coastal waters clean.
- **Air and Water Pollution from Dredging Operations:** Dredging vessels release diesel emissions and discharge turbid plumes, compounding environmental stress in an already impaired watershed.



Why It Matters

- The Lower Cape Fear sustains **commercial and recreational fisheries worth tens of millions of dollars annually** and provides livelihoods for fishermen, guides, and small businesses across coastal North Carolina.
- Once estuarine habitats are destroyed or contaminated, **they cannot easily be restored** – resulting in long-term losses to water quality, biodiversity, and local economies.
- Protecting these waters means safeguarding **North Carolina's fishing heritage, public health, and coastal resilience.**

The proposed Wilmington Harbor expansion would **irreversibly damage the Cape Fear River's fisheries and water quality** with no clear public benefit. North Carolinians must speak up to protect this vital estuary – **protect, don't deepen, the Cape Fear River.**

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