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Renourishment and Rip Currents

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Introduction

Renourishment projects around Wrightsville Beach, NC have been followed by an increase in rip currents along the coastline. Could beach renourishment and altering the coastline be the cause of these deadly rip currents?

Renourishment on Wrightsville Beach

What is renourishment? Sand is brought or dredged in to replenish eroded beachfronts. Essentially changing the landscape of the beach.

- Wrightsville Beach is “renourished” every 4 years
- Renourishment has been the largely preferred method as opposed to hard methods such as sea walls and other solid structures
- Army Corps of Engineers is responsible for the renourishment projects
- Wrightsville Beach has been renourished 250 times to date

Additional Information:

- The Army Corps of Engineers has emphatically claimed that there is no correlation between the beach nourishment and rip currents
- They also refuse to study the rip current trend
- NOAA has since begun a study that is currently in the early stages to see if the nourishment projects are indeed linked to rip currents

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Rip currents on Wrightsville Beach

Rip currents are defined as: concentrated movements of water that flow opposite to the direction of breaking waves

- During Summer 2018, 10 people died as a result of rip currents at Wrightsville Beach.
- Lifeguards on Wrightsville Beach have recorded a noticeable change in the frequency of rip currents after beach nourishment



Conclusion:

- Further research must be done on the correlation between beach nourishment and rip currents
- Such research must also look into other soft methods to prevent erosion – especially with increasing activity during hurricane season
- Until then, beach guard and swimmers must remain vigilant and education on rip currents must be provided



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