



# WINTER STORMS AND BEACH EROSION



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# ISSUE



- Location: Cape May Beach, NJ
- Winter storms are rampant near Cape May Beach and as a result, erosion has been negatively affecting the nearby town of Cape May.



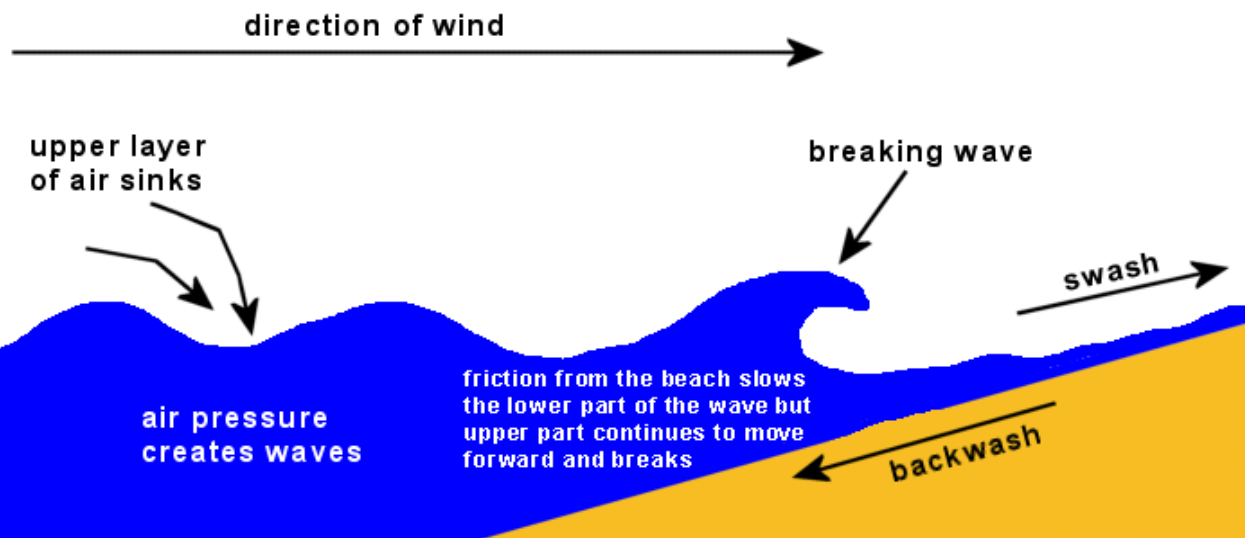
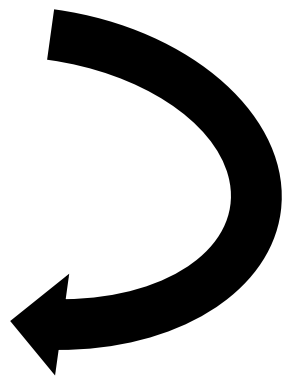
# CAUSES



- Usually normal beach erosion is occurs as a result of wave backwash
- However, during winter storms, waves intensify causing stronger backwash ( more erosion)
- Longshore drift



Backwash

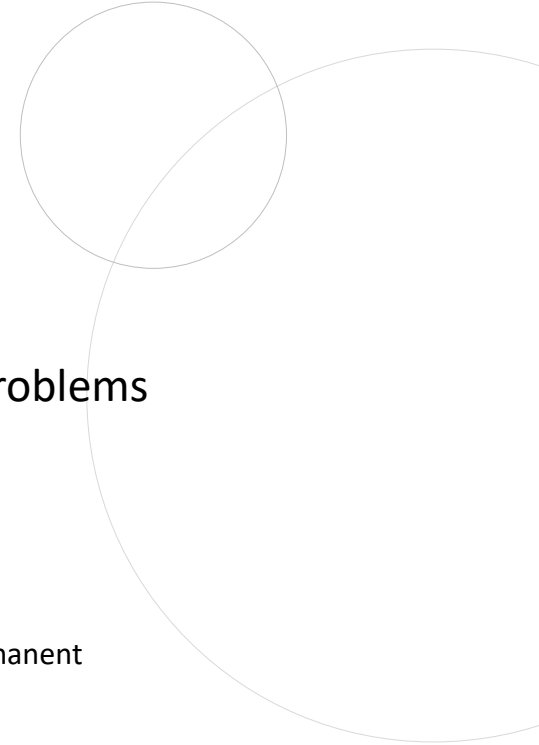


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# EFFECTS

- Sand acts as a natural barrier, preventing water from entering the cities
  - Without it, ocean water may
    - Flood the cities
    - Cause monetary damage to businesses and homes
    - Potentially harm/kill individuals
    - Harm natural life (i.e. plants, animals, etc)





# POSSIBLE SOLUTIONS

There are many solutions to this huge problems

- Soft methods
  - Beach replenishment
    - Consequence
      - Time Consuming; Costly; Not Permanent
  - Sand dunes
    - Consequence
      - Time Consuming, Not Permanent
  - Boarding up the business
  - Sand bags
- Hard methods
  - Sea walls
    - Consequence
      - Extremely Costly, and not guaranteed



# THANK YOU

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With constant storms prevalent in these areas, shoreline communities such as Cape May, NJ learned to adapt to these weather conditions. They have not only used sand dunes and sand bags that temporary aid them in this endeavor, but also used more permanent methods such as sea walls.



# SOURCES

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