Rip currents and Beach Erosion in Belmar Beach NJ

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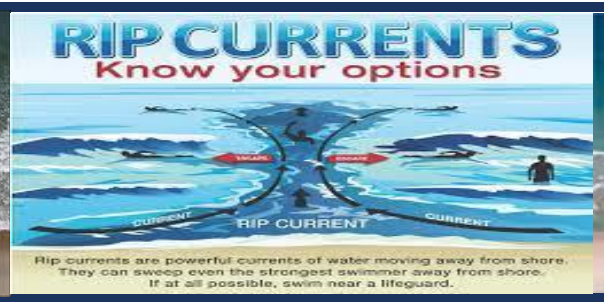
(National Weather Service, Davis).



(North Carolina sea grant, NC State University, July 3, 2019)

(SLF Beach safe)

Causes: Rip currents are formed when waves break near the shoreline, piling up water between the breaking waves and the beach. As the water returns to the sea from gravity, it forms a narrow stream of water that circulates which forms a current.

Effects: The major effects of a rip current is the beach erosion that occurs. Beach erosion is the process of breaking down sand sediment and rocks along the coast. After rip currents are formed, this leaves large rip embayment's in the shore which carve out big amounts of sand along the coast of the beach.

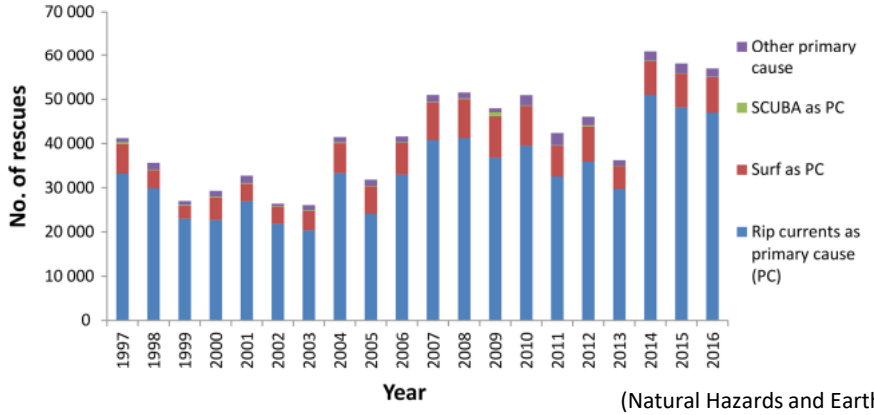
Solution: Build several modified groins, especially at the end of the beach which is called a terminal groin. Groins will have a graduated height along with a s few open areas which will allow sand to be passed through limiting the formation of rip currents.

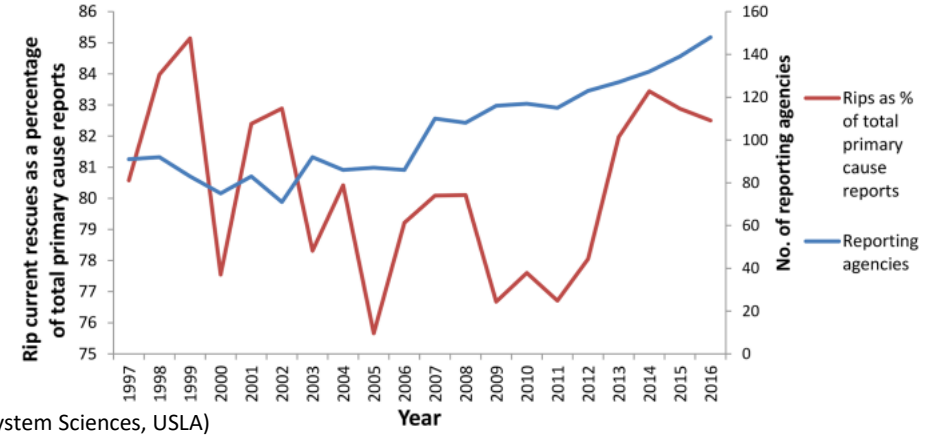
Project Goal:

- Limit the occurrence of rip currents and beach erosion.

Study Results:

Rip currents continue to increase leading to deaths, injuries and beach erosion





(Natural Hazards and Earth System Sciences, USLA)

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