Nuisance Flood Cofferdam

20-014

"On Demand" Protection from Flood Waters

Problems Addressed

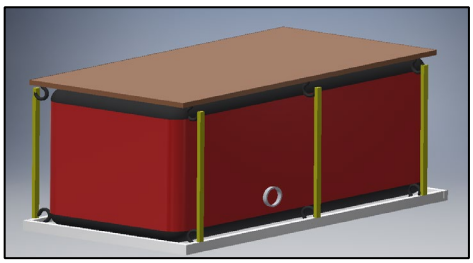
- Coastal communities are seeing a significant rise in nuisance flooding events that cause major financial damage. (By 2035, 170 U.S. coastal communities projected to experience nuisance flooding over 26 times per year.)
- Many communities find permanently installed higher seawalls as intrusive and aesthetically undesirable.
- Currently cofferdams can offer temporary barriers to flooding, but existing designs are difficult to store and are not suitable to erect as storms change course and intensity at an increasing rate.

Description

This invention provides systems and methods for making dynamic, low-visibility, portable pneumatic cofferdams that can be readily deployed in flood susceptible areas. It is an inflatable, pneumatic cofferdam system that is permanently anchored around a location's perimeter, creating a barrier of flood protection that can be deployed instantly in the event of a flood threat but acts as an attractive boardwalk when not deployed. This eliminates the need for excessive deployment labor and storage, while also allowing for constant availability in the event of a flood. The system uses an air pump to inflate an airbag with enough pressure to protect from most nuisance flooding events, with the airbag acting as the main protection component.

Advantages

- Pneumatic cofferdams are highly efficient, high performing, and are readily deployable
- They are inexpensive and are easily stored when not in use
- They can be used for protecting waterfront areas, airport runways, air traffic control hardware, naval bases, and commercial and private residential properties



Deployed Cofferdam

Post flood, the bag deflates, the nylon retaining straps collapse and fold up with the bags. The top IPE or synthetic wood becomes a simple boardwalk that can bear pedestrian and light vehicle (e.g., bicycle) traffic.

For More Information contact:
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