



**BOLTON
& MENK**

Real People. Real Solutions.

GRAVITY OCEAN STORMWATER OUTFALL

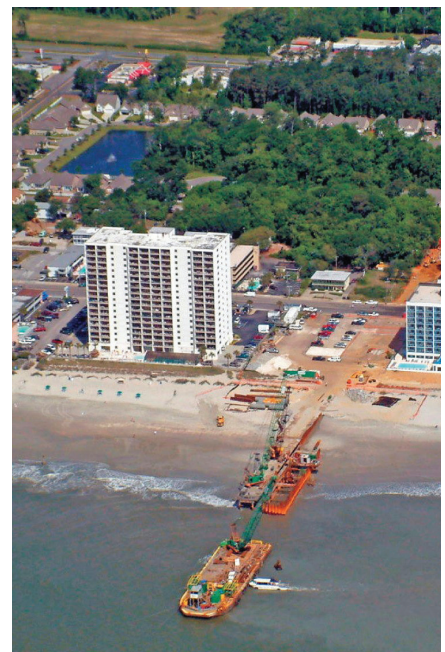
Gravity Ocean Stormwater Outfalls are an innovative, tested, and effective alternative to discharging stormwater compared to the historical, unsightly beach outfalls and natural swashes in coastal communities. Some proven benefits include water quality improvements, encouragement of natural habitat, reduction of stormwater pipes on beaches, and reduction in public health concerns of historical methods.

The Challenge

Beach outfalls can be unsightly and cause erosion of natural beaches, in addition to transmitting harmful bacteria to the beach during and after rainfall—causing concern for swimmers and habitats. Many communities are experiencing contamination of beach water due to their outfall pipes sitting directly on the beach. Gravity ocean stormwater outfalls solve these problems; however, they can be expensive and present construction challenges that could potentially affect tourism.

Why Bolton & Menk

We've done this before. Not only have we pioneered the practice of bringing ocean outfalls 1,000+ feet into the ocean to avoid stormwater discharge into the surf, **we've secured millions of dollars in funding for our clients to successfully complete these first-of-their-kind projects.** Deepwater outfall projects performed by Bolton & Menk have been well received by state and federal regulatory agencies due to the water quality improvements in the removal of oil, grease, street litter, and cigarette butts from the runoff, as well as the encouragement of natural habitats while the structures act as reefs. Gravity Ocean Stormwater Outfalls solve beach town stormwater, drainage, and shoreline beautifying challenges.



CONTACT

 Eric Sanford, PE, Principal Engineer

 Eric.Sanford@bolton-menk.com

 Bolton-Menk.com