

## Red Tide Cleanup with Beach Cleaners

While the term, “Red Tide” may elicit an image of blood in the water, the coloration is due to an overabundance of microscopic algae, *Karenia brevis*. Besides discoloring the water, it releases a toxin that paralyzes fish, prevents them from being able to breathe, and kills them. These dead fish then wash up on shore. Additionally, by consuming too much oxygen from the water, many forms of sea life die and wash ashore. This dead sea life then sits in the sun, which spawns other chemical reactions, causing many of the fish to become bloated like ready-to-blow-grenades. The smell from the beach can reach miles inland and results in beach closures and negative PR.

Even though Red Tides are believed to be a natural result of a combination of unknown factors, and consequently, not man made, it is up to humans to clean up their mess. Cleanup by individual people subjects them to foul smells and unsanitary conditions. Past red tides have caused authorities to issue warnings for asthmatics against the fumes released by the dead fish.

*Mechanical beach cleaners provide the optimal solution for red-tide cleanup.* By keeping the operator high on the tractor (hopefully in a cab) and separated from the dead fish, tractor-towed beach cleaners offer a safer and more pleasant way to remove the fish from the beach.



Mechanical rake beach cleaners are typically the optimal method for removing the fish. By running the conveyor belt at slower-than-normal cleaning speeds and skimming the surface, the machines can remove fish without dicing or exploding them. The forward scooping motion of the conveyor belt also helps scoop the fish up instead of driving them into the sand.

In contrast to mechanical raking beach cleaners, most sifting beach cleaners use a beater bar to scoop the sand onto the vibrating/rotating screen. This bar rotates counter-clockwise, which pushes materials into the sand before being lifted onto the screen. While this method may be effective under optimal beach conditions, it turns the beach into a rotten sushi restaurant when cleaning up after red tides. The counter-clockwise motion typically explodes the fish, dices them, and drives them into the beach—releasing the toxic gasses that have been building in them, chopping them into tiny pieces, and making cleanup infinitely more difficult.

Therefore, it is important to use the proper beach cleaner and cleaning technique to ensure red-tide cleanup is successful.