# Our Water Our Future

Dead zones typically occur when phosphorus enters a body of water. This issue can be hard to solve however, because phosphorus is used as fertilizer for crops. When excess amounts of phosphorus enter the water algae forms which blankets the surface cutting off sunlight, and aquatic life to die, dead zones occur. This is the process known as eutrophication.

### **Dead Zone:**

Bodies of water with a lack of oxygen due to excess algal growth, which leaves marine life to die.

How can we reduce local dead zones?

**Plant Buffers!** 

### What are plant buffers?

Forest and Plant buffers contain trees and shrubs on the banks of streams, rivers and lakes.

These buffers collect

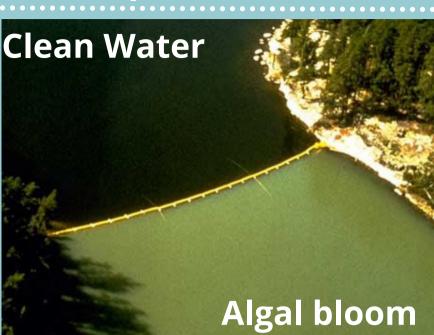
agricultural runoff and pollution from entering bodies of water.

### Benefits to plant buffers:

- Affordable
- Environmentally friendly
- Sustainable
- Achievable.



Image Key:
Demonstration of how increased Phosphorus levels and algal production interact.





# CHESAPEAKE BAY RECORD DEAD ZONE AUGUST 2005 Milligrams of Oxygen per liter of water: 10 HEALTHY 7.5 GOOD Chesapeake Bay 5.0 FAIR PLAKE BAY Source: Chesapeake Bay Program

Image Key:
A map of the amount of oxygen per liter of water in the Chespeake Bay.

# **Chesapeake Bay Dead Zones:**

- On average, there is a 55% presence of water side barriers that are classified as forest buffers on the 288,000 miles of the Chesapeake Bay.
- 70% of the Chesapeake Bay area has water side barriers that include forests, shrubs, grasses and other plants.
- Nearly 30% of the bay's total nitrogen input is due to air pollution (cars, factories, gasoline combustion, and power plants).
- Chesapeake Bay dead zones form in the main stream and tidal rivers, with the dead zone formation peak during the summer.

## How can you help?

- Donate to local foundations actively working against dead zones and agricultural runoff such as the "Chesapeake Bay Foundation" and "MidShore River Keepers".
- Bayside native plants and trees can be planted to create and replenish buffers by members of the Chesapeake Bay communities.

