

## WHAT IS A TIDAL WETLAND?

A wetland is land that is saturated all year or seasonally which leads to distinctive types of soil and plants.

Freshwater tidal wetlands are close enough to the ocean to be influenced by the tides, but far enough away to remain less salty. They are unique because the plants and animals living there can survive in the wet conditions. Here in the Christina wetlands, water levels rise and fall by six feet every twelve hours, so they vary in wetness depending on where the tide is.

## WHY ARE WETLANDS IMPORTANT?

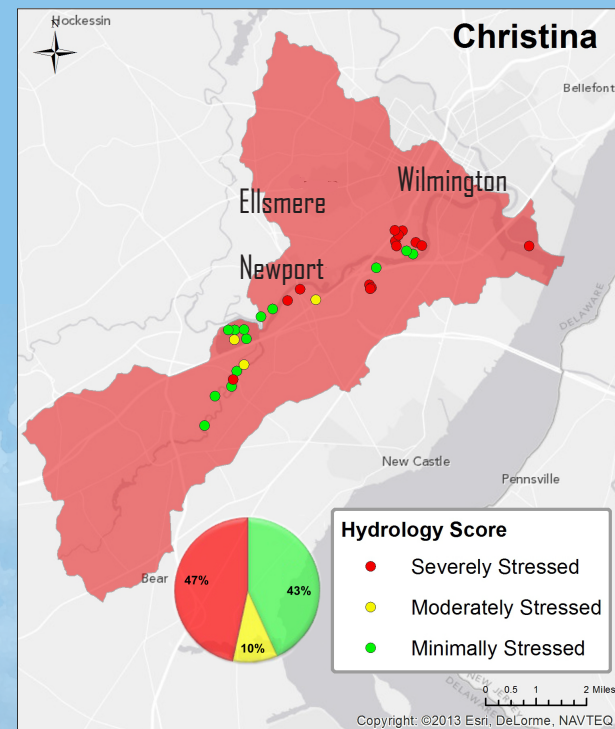
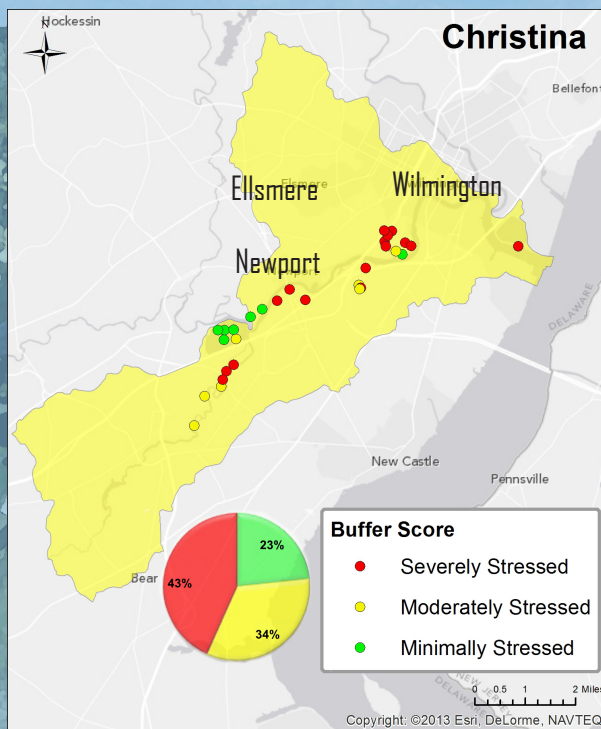
Freshwater tidal wetlands are nationally rare and the Delaware Estuary is lucky to have some! Wetlands act like sponges that absorb a lot of water. They reduce flooding, prevent erosion, and they even filter pollutants from the water. They are like nature's kidneys, and we could not function very well without them! Many birds and animals also depend on them for food and shelter.

## WHY DO WE STUDY WETLANDS?

Because wetlands are so valuable to the health of the Christina, it is important to take care of them. To measure their health and make sure they can function properly, we look at the "buffer" of land area surrounding the wetland, the "hydrology" which is the movement of water in, within, and out of the wetland, as well as the quality of the habitat for the wildlife that should be able to live there.

## BUFFERS

Looking in and around the wetland, we measure how much human development is present. Our manmade surfaces, like streets, parking lots, and rooftops, do not allow water to soak naturally into the ground. Development also stops the marsh from being able to move or migrate if it needs to. Because the land in the Christina watershed is so developed, 60% of the wetlands have severely distressed buffer zones.



## HYDROLOGY

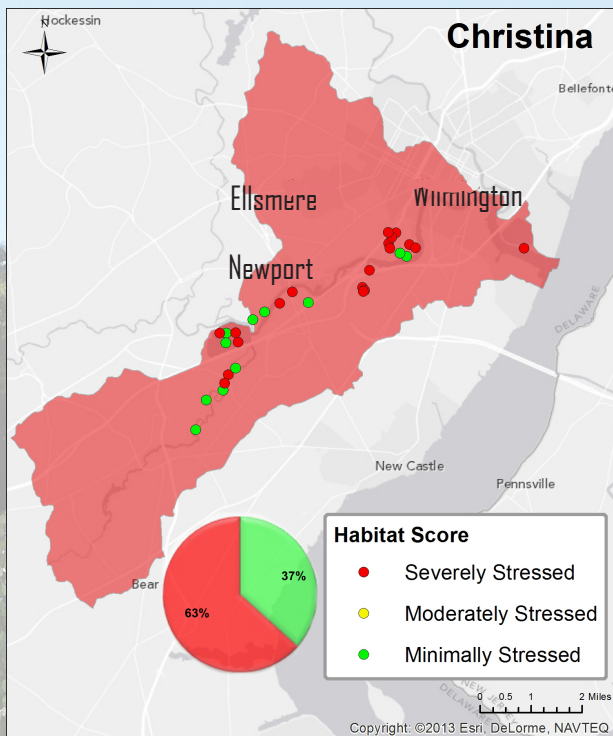
To understand the hydrology, or flow of water in Christina wetlands, we look for ditches and dikes that can change the natural course that water would take, as well as places where pollution directly enters the waterways. In Christina wetlands, we see most water flow and pollution problems near Wilmington, while other wetland areas are slightly less affected.

## PARTNERS:





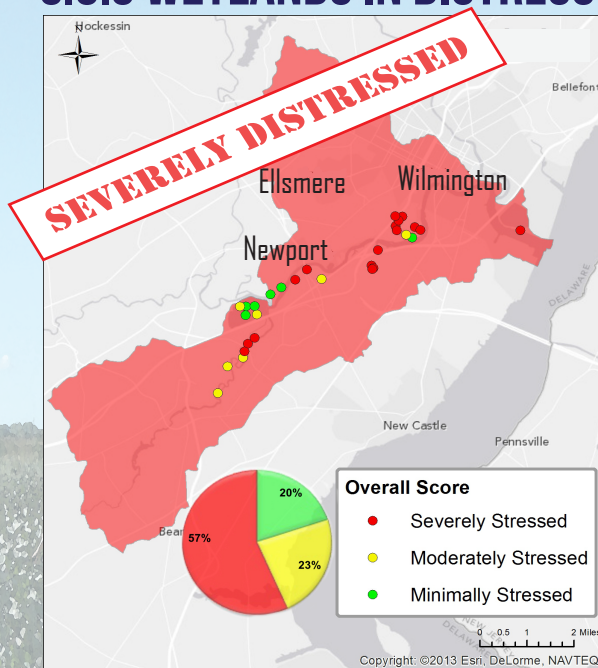
# HABITAT



When we look at the health of habitats in the wetlands, we hope to find many different plants and animals that belong here. Plants that arrive from other parts of the world may not have natural enemies here, so they can crowd out the plants and animals that support the healthy performance of our wetlands. We also look to see how hard or soft the ground is, which can tell us a lot about how stable a wetland is.



# S.O.S WETLANDS IN DISTRESS!



To measure the health of wetlands, we combine the scores for buffers, hydrology, and habitat. The report card for the Christina wetlands is not very good. More than half are in severe distress, 13% are in the moderately distressed range, and only 30% are in good health. But there are things we can all do to improve these scores!

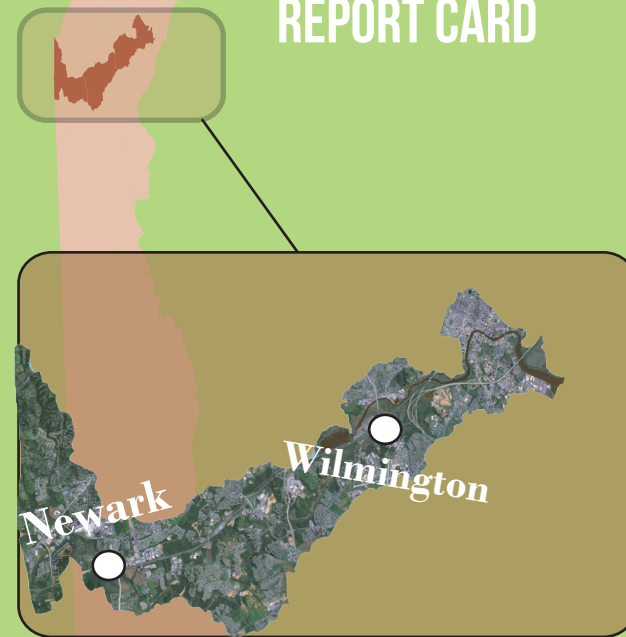
## HERE IS HOW YOU CAN HELP!

These guides (and more) are available for free at <http://DelawareEstuary.org/how-guides> or call 800-445-4935 x106 to request copies.

We will even mail them to you at no charge!

- Homeowner's Guide to Stormwater Management
- Rain Gardens – Gardens with Benefits!
- Native Plants Lists
- City Trees Work for Wilmington
- Green Guide to Stormwater Management (for large commercial or public properties)
- Clean Water Partners (for small Business or public properties)
- Promote planning and policies that protect Wetlands

# CHRISTINA COASTAL WETLAND HEALTH REPORT CARD



Located in New Castle Co., DE, the Christina River and the land and streams that drain to it is home to half a million people - many whom rely on it for clean drinking water. Wetlands protect waterways by filtering out many types of pollution. We looked at 30 wetlands in this watershed to see how healthy they are.

