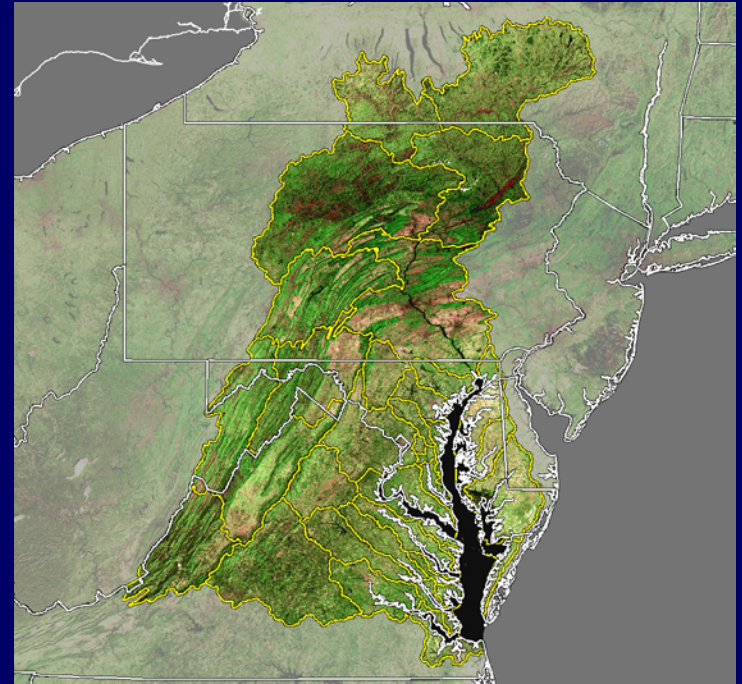


The Chesapeake Bay



The Chesapeake Bay

- The Chesapeake Bay is the largest estuary in the United States
- Its watershed covers 64,000 square miles
- The Bay is a complex ecosystem including people, birds, fish, shellfish, trees, wetlands, and water



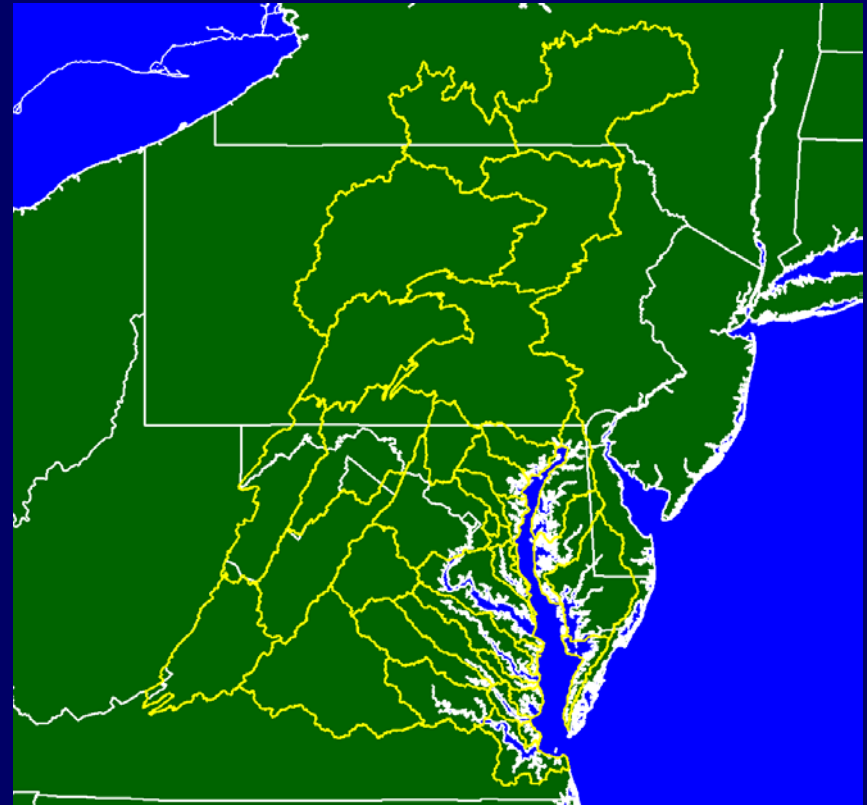
What is an Estuary?

- An estuary is a body of water where fresh and salt water mix
- In the case of the Bay, freshwater from rivers mix with the salty water of the Atlantic Ocean



What is a watershed?

- A watershed is an area of land that drains into a particular body of water
- About 64,000 square miles of land catches rainwater and drains into the Bay's watershed via rivers, streams, and creeks
- Six states (Maryland, Virginia, Delaware, Pennsylvania, New York, and West Virginia) and Washington, DC make up the Bay's watershed



What is an ecosystem?

- An ecosystem is a complex community of plants and animals, similar to a neighborhood
- The Bay's ecosystem consists of its tributaries and the living resources it supports - this includes everything from seagrass to people
- There are many different types of habitats in the Bay's ecosystem



What is a habitat?

- A habitat is a place in which a plant or animal normally lives
- Habitat provides all the right conditions for the organisms' survival, such as food, water, shelter, light, temperature, nutrients, and protection



Habitats in the Chesapeake Bay

- The Bay watershed includes many types of habitats
- Examples include rivers, forests, and wetlands
- Some habitats are being destroyed by our activities in the watershed



Rivers

- There are five major rivers in the Bay watershed
- They are the Susquehanna, Potomac, Rappahannock, York, and James rivers
- These rivers provide freshwater to the Bay
- Some organisms that these rivers support include: mayflies, salamanders, turtles, algae, bacteria, worms, clams, striped bass, and crabs



Forests

- Forests cover 60% of the Bay's watershed
- There are 50 tree species and 2,700 plant species that grow in the Bay watershed
- Besides improving air quality, forests also provide food, shelter, nesting sites, and migration paths for many animals - both aquatic and terrestrial - in the Bay watershed.
- An example of such an animal is the oriole



Wetlands

- Wetlands are the transition zones between land and water
- Some types of wetlands in the Bay are marshes, bogs, and swamps
- Only 4% of the Bay watershed is wetlands
- Wetlands are important because they provide protection, food, shelter, and nursery grounds; prevent erosion; and improve water quality
- Some of the organisms that the Bay's wetlands support include: fish, oysters, blue crabs, geese, turtles, and algae



Striped Bass

- Striped bass are a type of fish that lives in the Bay
- They can be light green, silver, brown, or black in color and have seven to eight stripes
- Adults can be very large, sometimes reaching 100 pounds
- They spend most of their adult lives in the ocean, but migrate up rivers and streams in the Bay to reproduce



The Oriole

- The oriole is a migratory bird
- During winter months it lives in Central America
- During the spring it migrates north, to the Chesapeake Bay watershed
- Although they can be found in open spaces, they prefer open woodlands and forest edges



Algae

- Algae are plants without roots that often grow in estuaries and other water bodies
- They use nutrients (such as nitrogen and phosphorus) in the water
- Seaweed is a type of algae



Blue Crabs

- The blue crab is a crustacean, related to shrimp and lobsters
- It lives on the bottom of the Bay and eats oysters, fish, worms, plants, and detritus
- Crabs like to use seagrass beds in the Bay as protection during larval and molting periods



Human Impacts on the Bay

- 15 million people live in the Chesapeake Bay watershed
- Humans depend on many aspects of the Bay especially for food and recreation
- These activities, when combined with farming, development, and industry have a negative impact upon the health of the Bay
- To name just a few examples, human actions have propelled global warming and land erosion, and have reduced oyster populations



Farming

- We have altered the Bay watershed through agriculture
- Fertilizer runoff from farms has caused an increase in nutrients in the Bay
- These nutrients are food for algae, leading to dangerously high amounts of these plants
- Too much algae leads to poor water clarity and less oxygen in the water
- Some farmers are working to help the bay by reducing runoff



Development

- Every day 300 people move into the Chesapeake Bay Watershed
- In order to meet this demand homes and businesses are constantly being built - this results in sprawl
- Sprawl can lead to habitat loss and more cars on the roads which increase air pollution
- Urban redevelopment projects can decrease sprawl



Global Warming

- Greenhouse gases produced by factories and cars trap heat within the atmosphere, causing the earth's temperature to rise
- Rising temperatures can lead to the melting of polar ice caps and sea level rise, which may lead to flooding in some areas around the Bay
- Carpooling and using public transportation can decrease greenhouse gases in the atmosphere



Land Erosion

- Wind, waves, sea level rise, storms, and flooding can all result in land erosion
- In the Bay watershed 10,500 acres of land have been lost in the last 150 years
- This land is vital habitat for animals like pelicans, ducks, bald eagles, diamondback terrapins, and river otters



Oyster Populations

- Oysters are a type of shellfish
- They filter their food - algae and nutrients - out of the water, which improves water quality
- Humans have over-harvested oysters in the Bay
- Historically, oysters were able to filter the Bay's water volume in only 3 days. Today, due to the reduced oyster population, it takes over a year



What You Can Do:

- Become involved! Join a local restoration event or clean-up
- Recycle and dispose of waste properly
- Carpool, walk, or ride your bike to work or school
- Plant trees and shrubs to prevent erosion
- Use less water by taking shorter showers and doing laundry less frequently
- Inspect your car regularly to be sure it's running "clean"

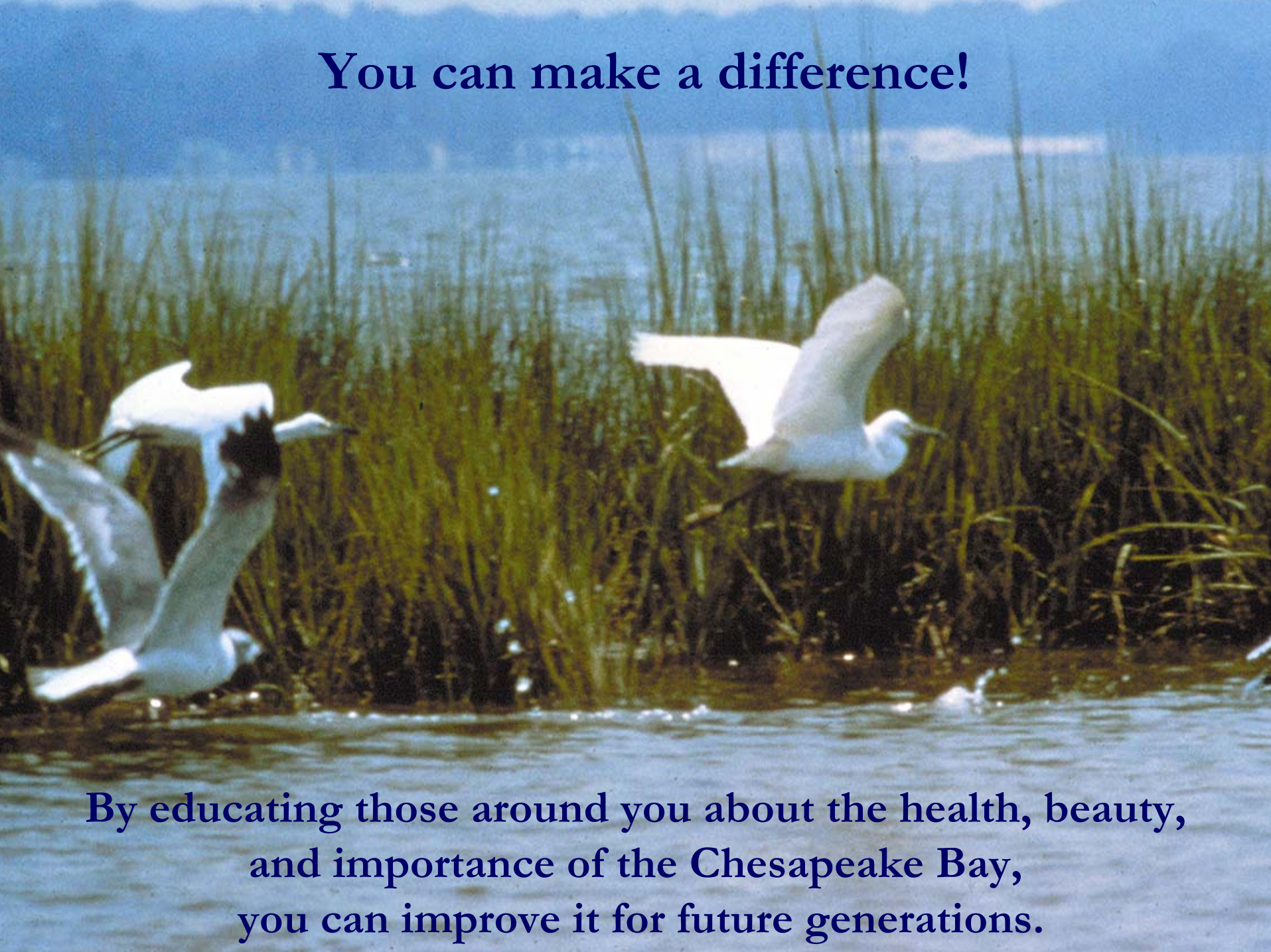


What Can You Do?

- Dispose of hazardous products properly, never pour them down a household drain or storm drain
- Attract wildlife to your yard
 - install bird baths, bird feeders, and butterfly gardens
- Turn off electrical appliances when not in use
- Do not buy exotic pets



You can make a difference!



**By educating those around you about the health, beauty,
and importance of the Chesapeake Bay,
you can improve it for future generations.**