

Connect the Issues

1. Cut out the hexagons of Chesapeake Bay Watershed issues shared on www.chesapeakebay.net/issues
2. Ask the group to lay down one issue that is locally relevant and discuss its importance
3. Continue to lay down one issue at a time; making sure the new issue card always touches at least one other card (with 6 sides, it could touch up to 6 other issues)
4. For every issue card the new card touches, share how those issues impact each other
5. In the end, you should have a hive of interconnected issues

Example

New card: Agricultural Runoff

Connections: agricultural runoff impacts oyster health; rivers and streams carry agricultural runoff to habitats downstream; agricultural runoff can create dead zones and impact the fish population eagles eat





Agricultural Runoff

Farms provide us with food and fiber, natural areas and environmental benefits. But agriculture is also the largest source of nutrient and sediment pollution entering the Bay.



Air Pollution

Pollution emitted by cars, trucks, power plants and other sources doesn't just cloud the air we breathe—it falls back onto the earth's surface, where it can wind up in our waterways.



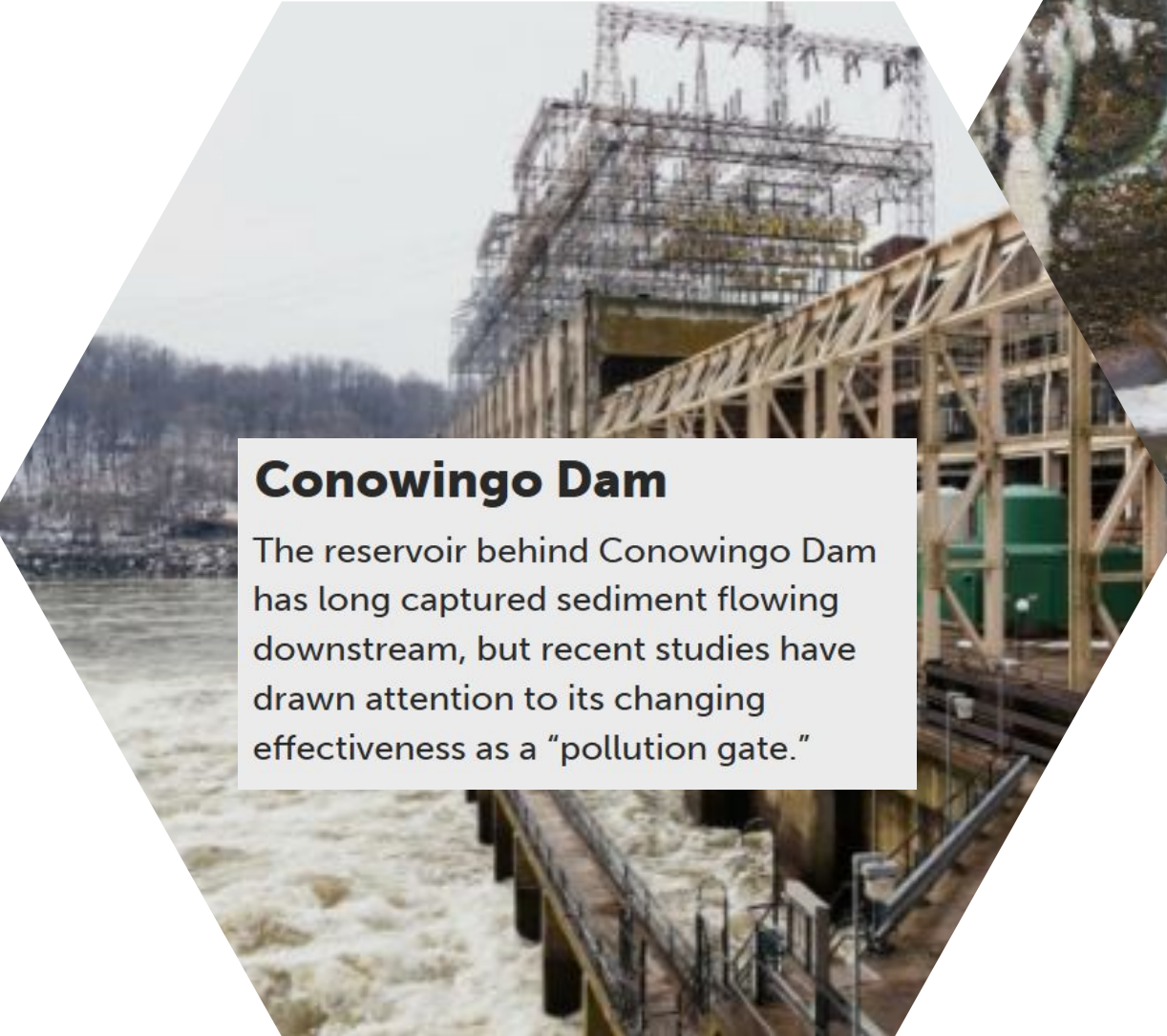
Chemical Contaminants

Almost three-quarters of the Bay's tidal waters are impaired by pesticides, pharmaceuticals, metals and other chemicals, which can harm the health of both humans and wildlife.



Climate Change

Some effects of climate change—rising seas, warming water temperatures and prolonged periods of extreme weather—are already being observed in the Bay region.

A photograph of the Conowingo Dam, showing its concrete structure and the turbulent water flowing through its spillways. The dam is situated in a wooded area with trees visible in the background.

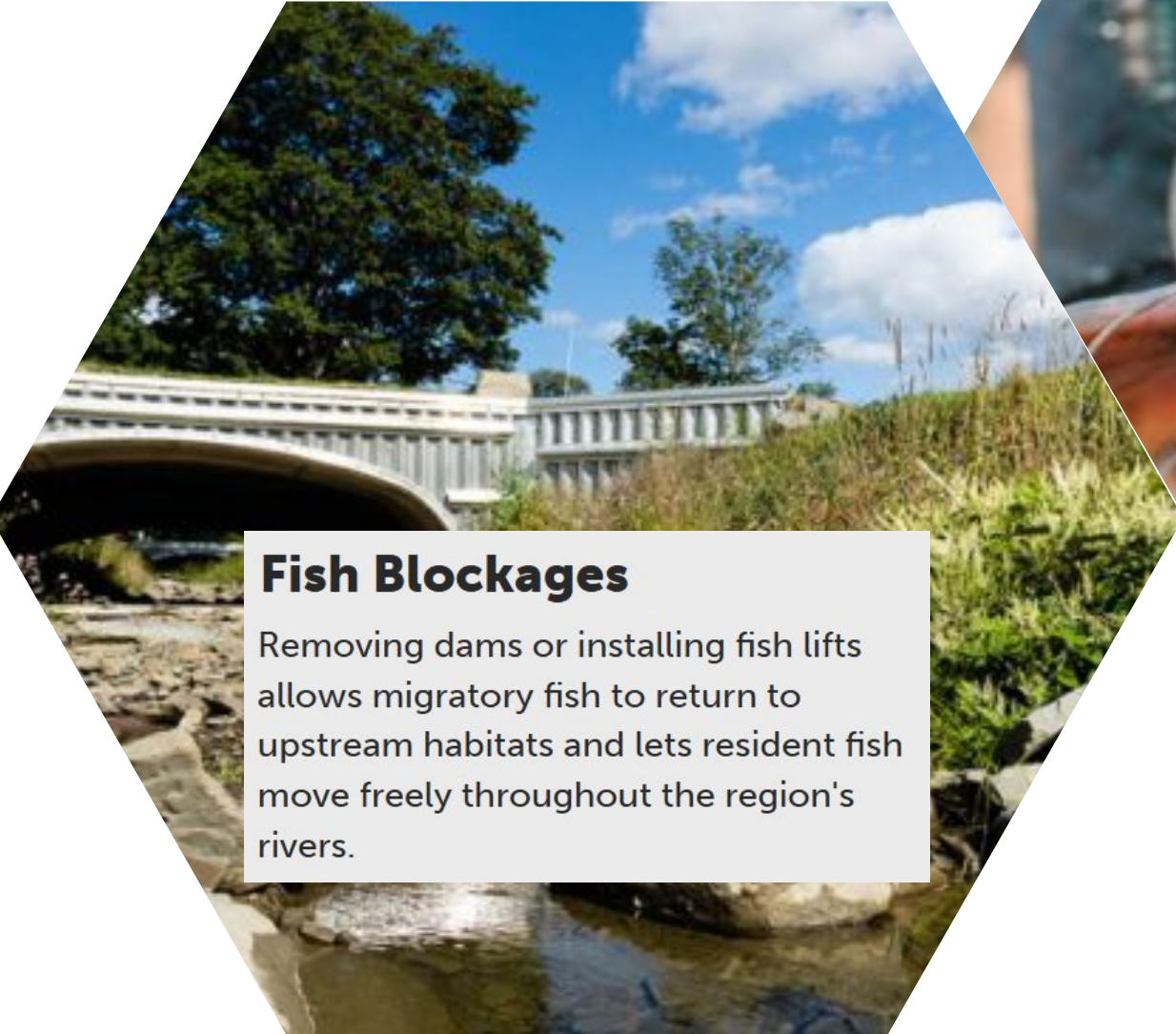
Conowingo Dam

The reservoir behind Conowingo Dam has long captured sediment flowing downstream, but recent studies have drawn attention to its changing effectiveness as a “pollution gate.”

A photograph showing a rocky shoreline with waves crashing against the rocks. In the background, there is a large, dark, industrial-looking structure, possibly a dam or a bridge, with some graffiti visible on its surface.

Development

As more people move into the Chesapeake Bay region, development has turned forests, farms and other landscapes into subdivisions, shopping centers and parking lots.



Fish Blockages

Removing dams or installing fish lifts allows migratory fish to return to upstream habitats and lets resident fish move freely throughout the region's rivers.



Invasive Species

Invasive species—plants or animals that have been introduced to their current habitat—can cause harm when they establish themselves at the expense of native plants and animals.



Nutrient Runoff

Plants and animals need nutrients to survive. But when too many nutrients enter waterways, they fuel the growth of algae blooms and create conditions that are harmful to underwater life.



Population Growth

Each of the 18.4 million people that live in the region affects the Bay: consuming resources, altering the landscape and polluting the air and water.



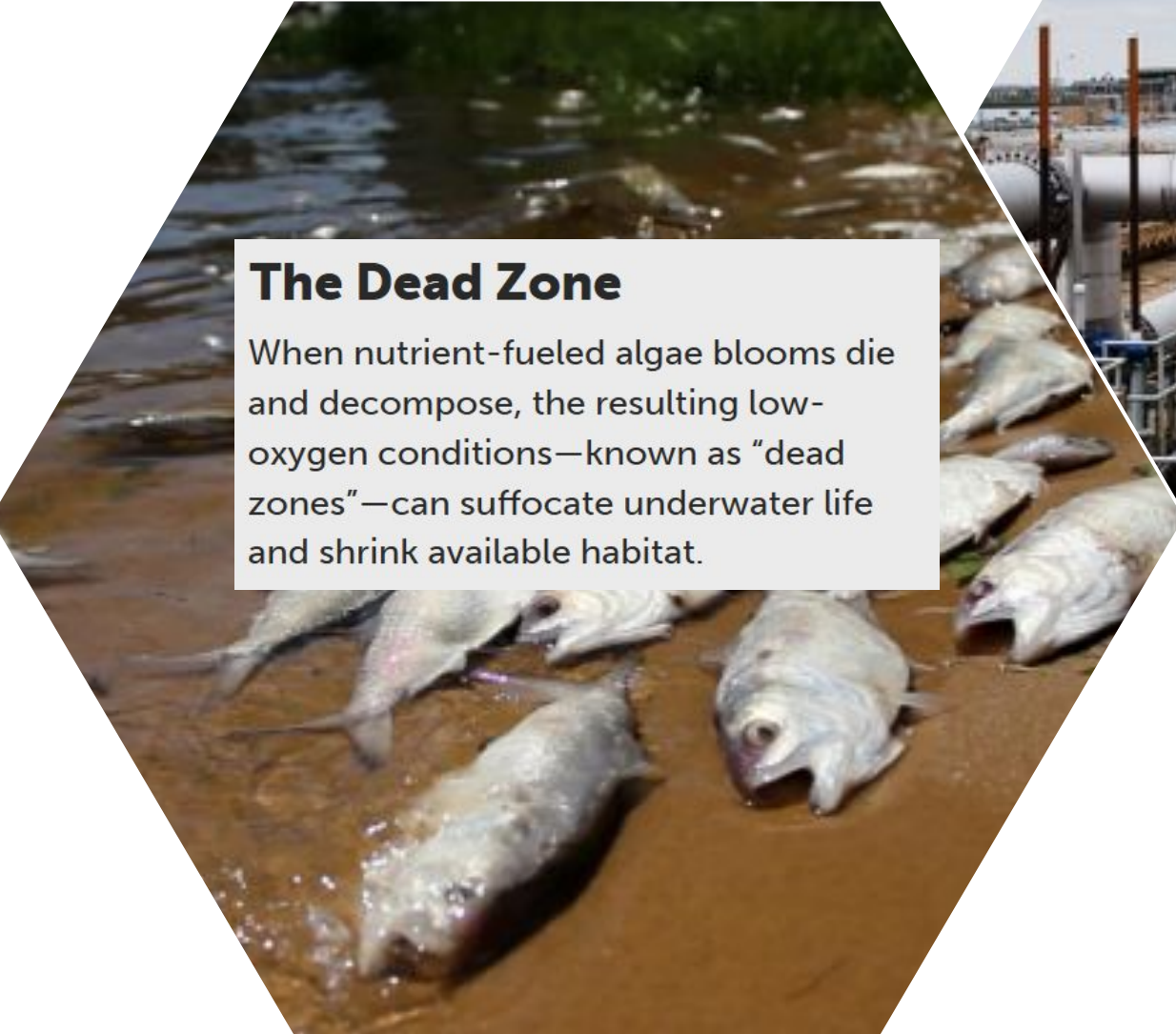
Sediment Runoff

Sand, silt and clay are a natural part of the Chesapeake Bay. But in excess amounts, sediment can cloud the waters of the Bay and its tributaries, harming underwater life.



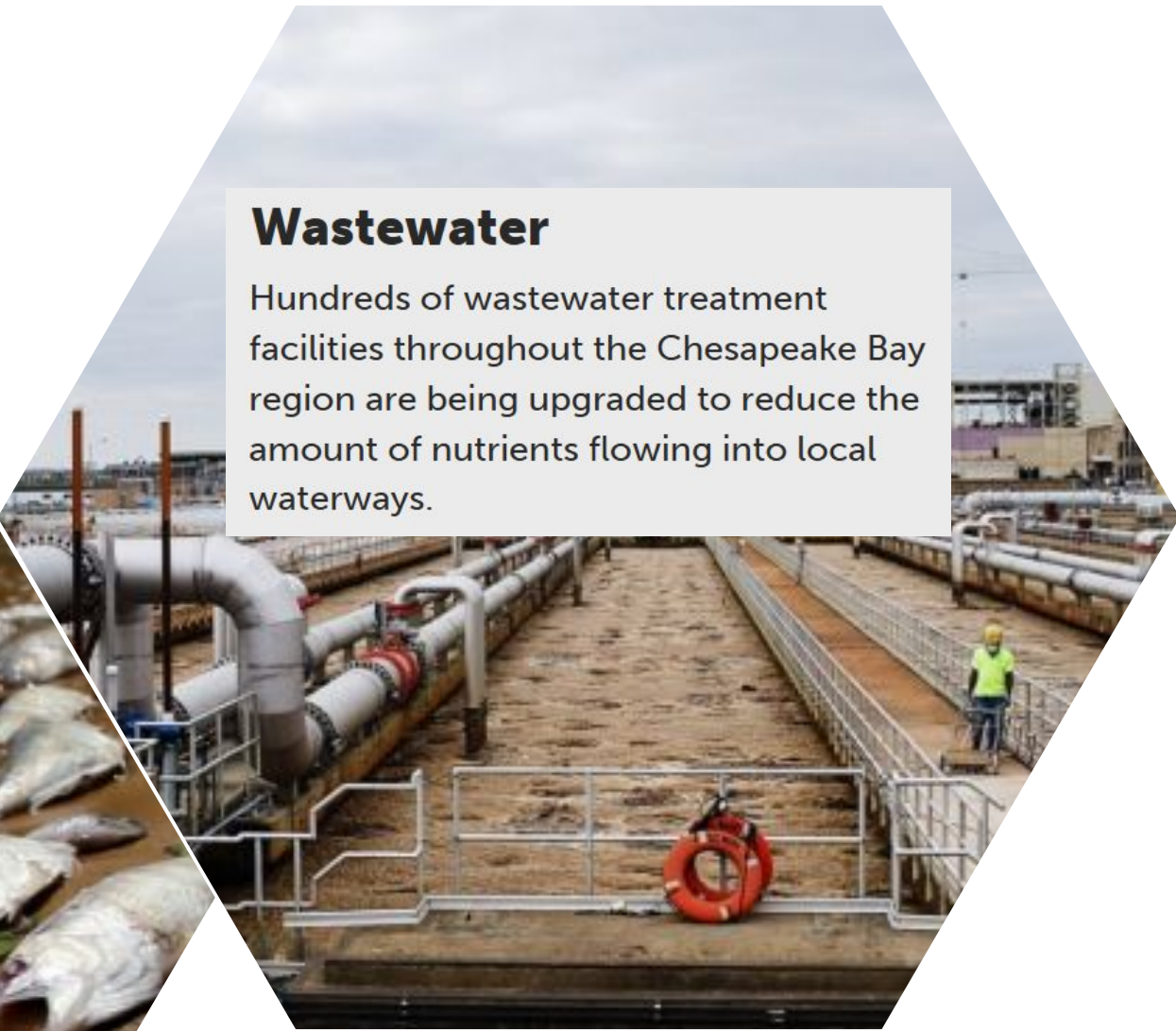
Stormwater Runoff

When precipitation falls on roads, streets, rooftops and sidewalks, it can push harmful pollutants like fertilizer, pet waste, chemical contaminants and litter into the nearest waterway.

A photograph showing several dead fish floating in murky, brown water. The fish are silver and appear to be dead, with some showing signs of bloating. The water is very turbid, and the background is dark and indistinct.

The Dead Zone

When nutrient-fueled algae blooms die and decompose, the resulting low-oxygen conditions—known as “dead zones”—can suffocate underwater life and shrink available habitat.

A photograph of a wastewater treatment facility. Large white pipes run along a concrete walkway. A worker in a yellow safety vest and hard hat is visible in the distance. A red life preserver is hanging on a railing in the foreground. The sky is overcast.

Wastewater

Hundreds of wastewater treatment facilities throughout the Chesapeake Bay region are being upgraded to reduce the amount of nutrients flowing into local waterways.



Bald Eagles

After widespread pesticide use devastated the region's bald eagle population, a ban on DDT and the active management of eagle habitat helped the region become home to one of the nation's highest concentrations of these iconic birds.



Blue Crabs

The Bay's signature crustacean supports important commercial and recreational fisheries. But pollution, habitat loss and harvest pressures threaten blue crab abundance.



Environmental Justice

Environmental hazards such as extreme heat and poor water quality adversely effect low-income communities and people of color.



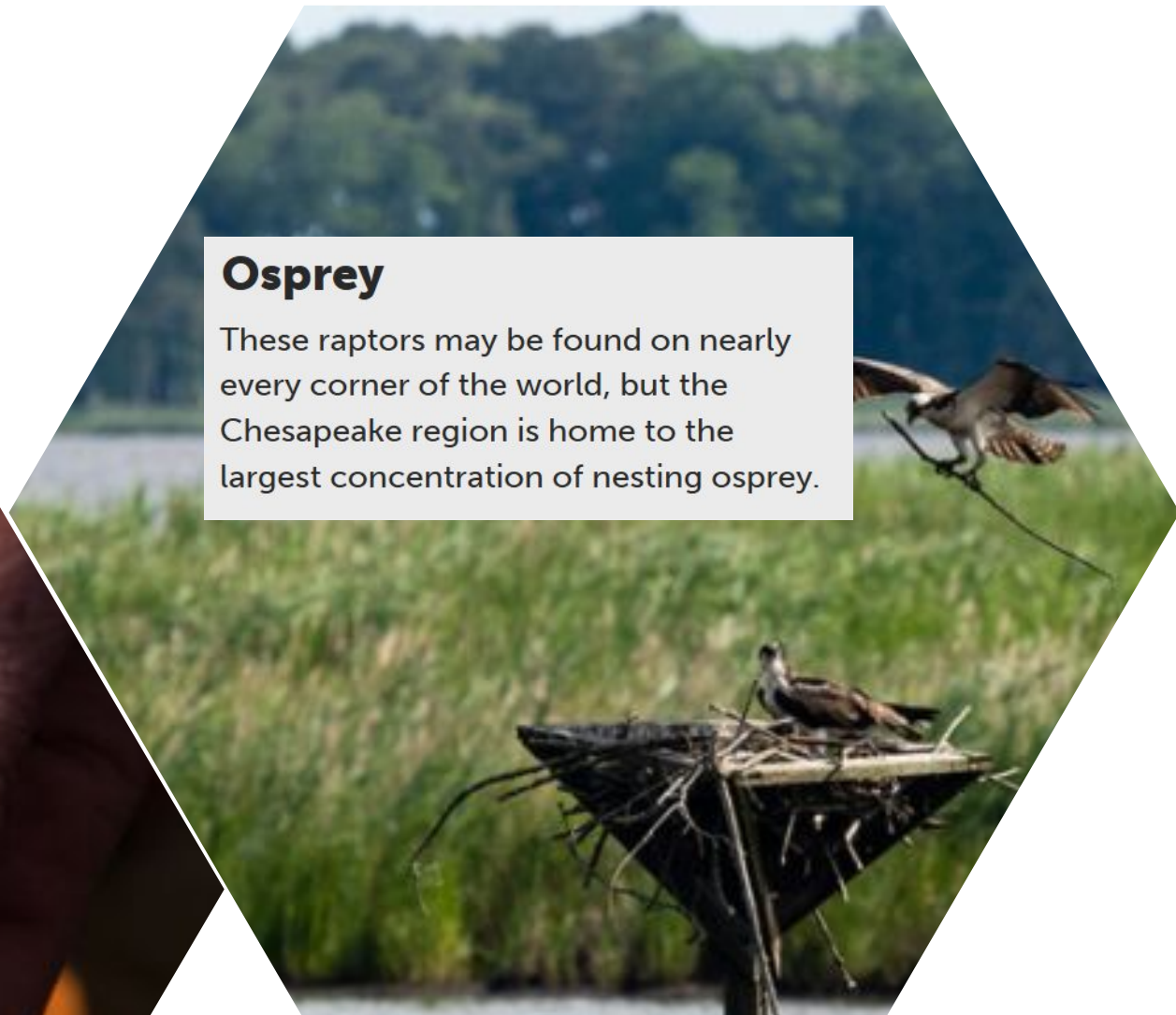
Forest Health

Forests are critical to the health of the Chesapeake Bay—but human activities have altered the region's forests, reducing tree cover and fragmenting forests that still exist.



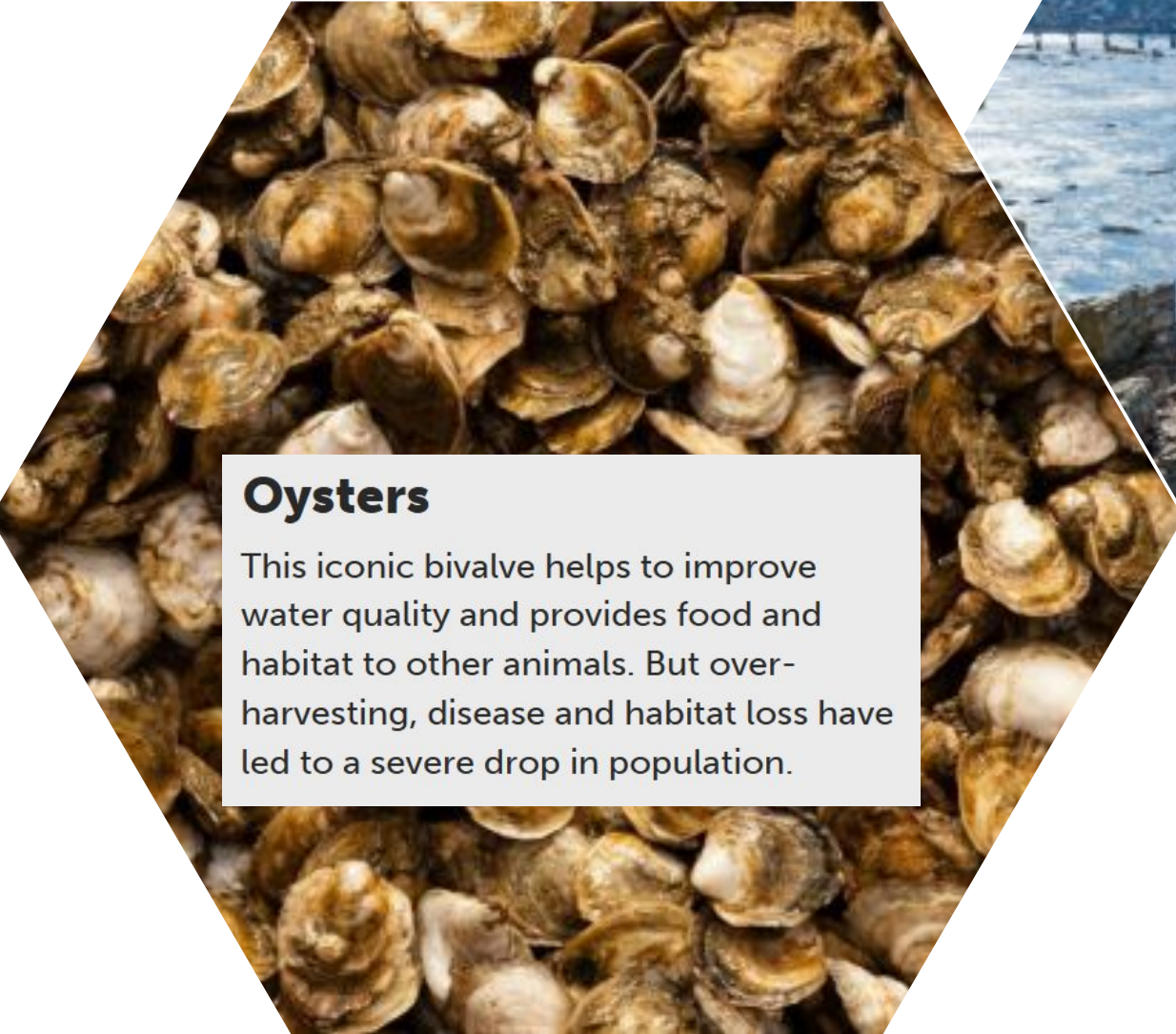
Menhaden

These small fish form an important link in the Chesapeake Bay food web, which is why fisheries managers have placed a cap on the amount of menhaden that can be harvested from the Bay.



Osprey

These raptors may be found on nearly every corner of the world, but the Chesapeake region is home to the largest concentration of nesting osprey.



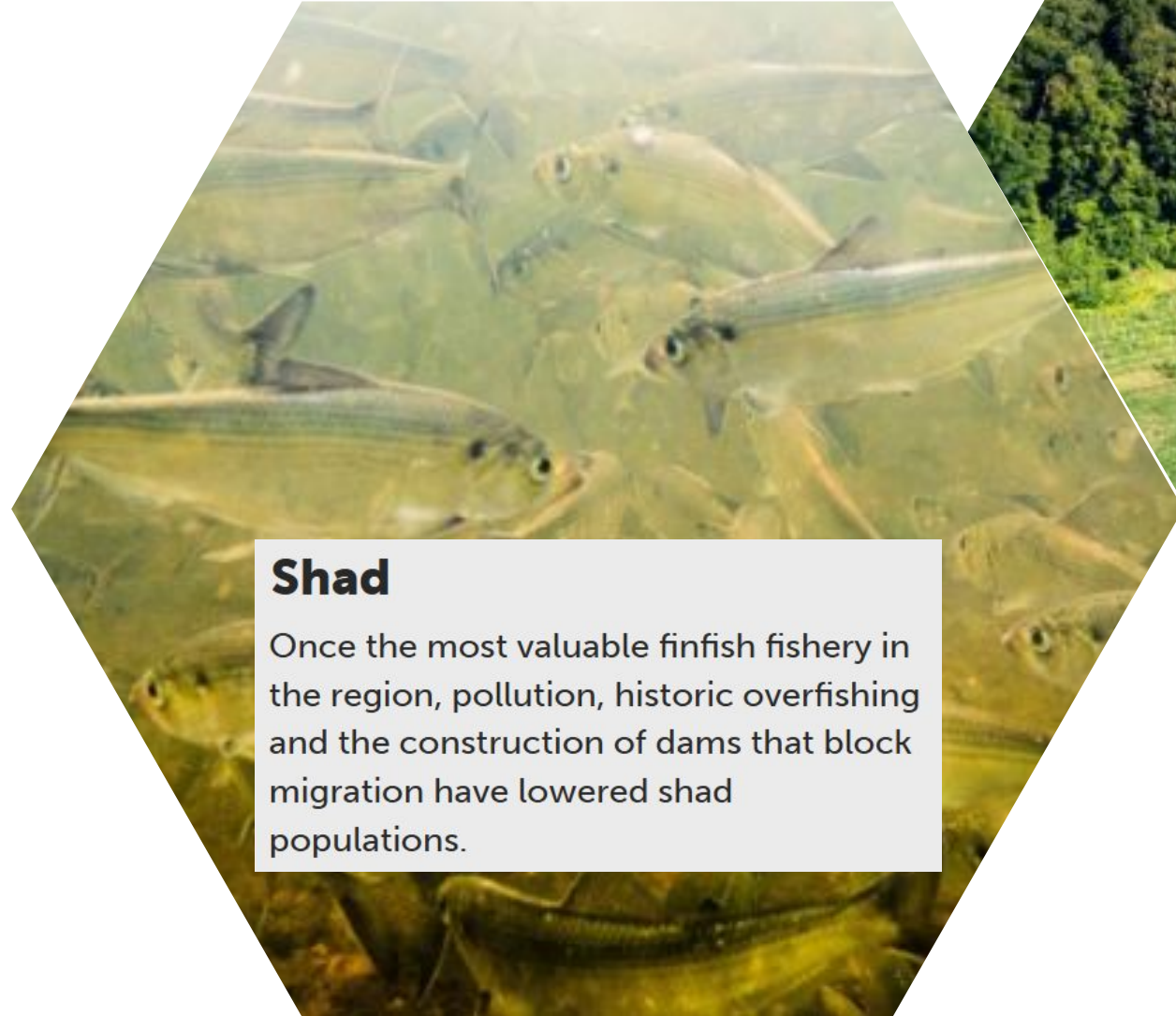
Oysters

This iconic bivalve helps to improve water quality and provides food and habitat to other animals. But over-harvesting, disease and habitat loss have led to a severe drop in population.



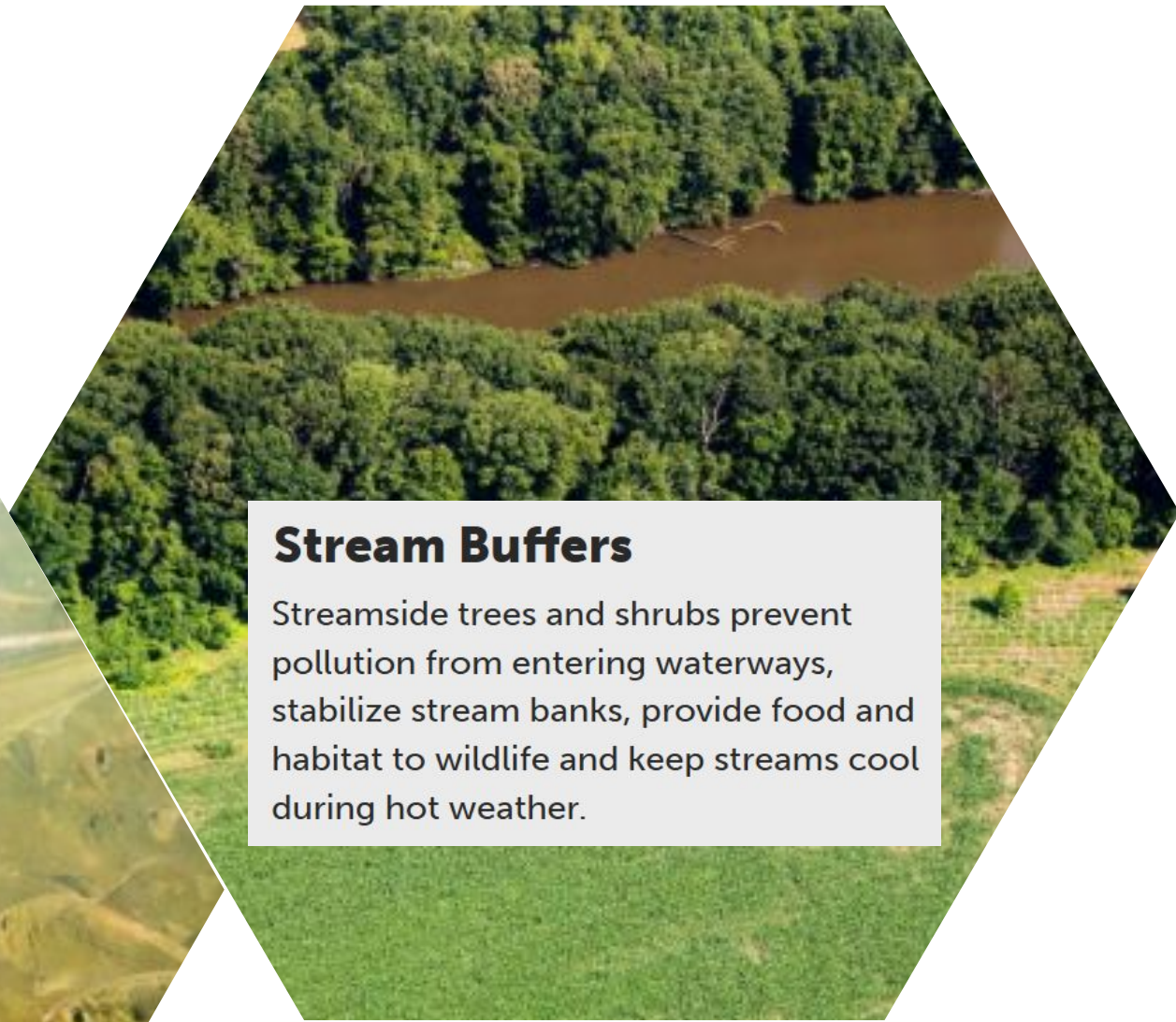
Rivers and Streams

Hundreds of thousands of creeks, streams and rivers flow through the Chesapeake Bay region, sending fresh water to the Bay and providing habitat to aquatic plants and animals.



Shad

Once the most valuable finfish fishery in the region, pollution, historic overfishing and the construction of dams that block migration have lowered shad populations.



Stream Buffers

Streamside trees and shrubs prevent pollution from entering waterways, stabilize stream banks, provide food and habitat to wildlife and keep streams cool during hot weather.



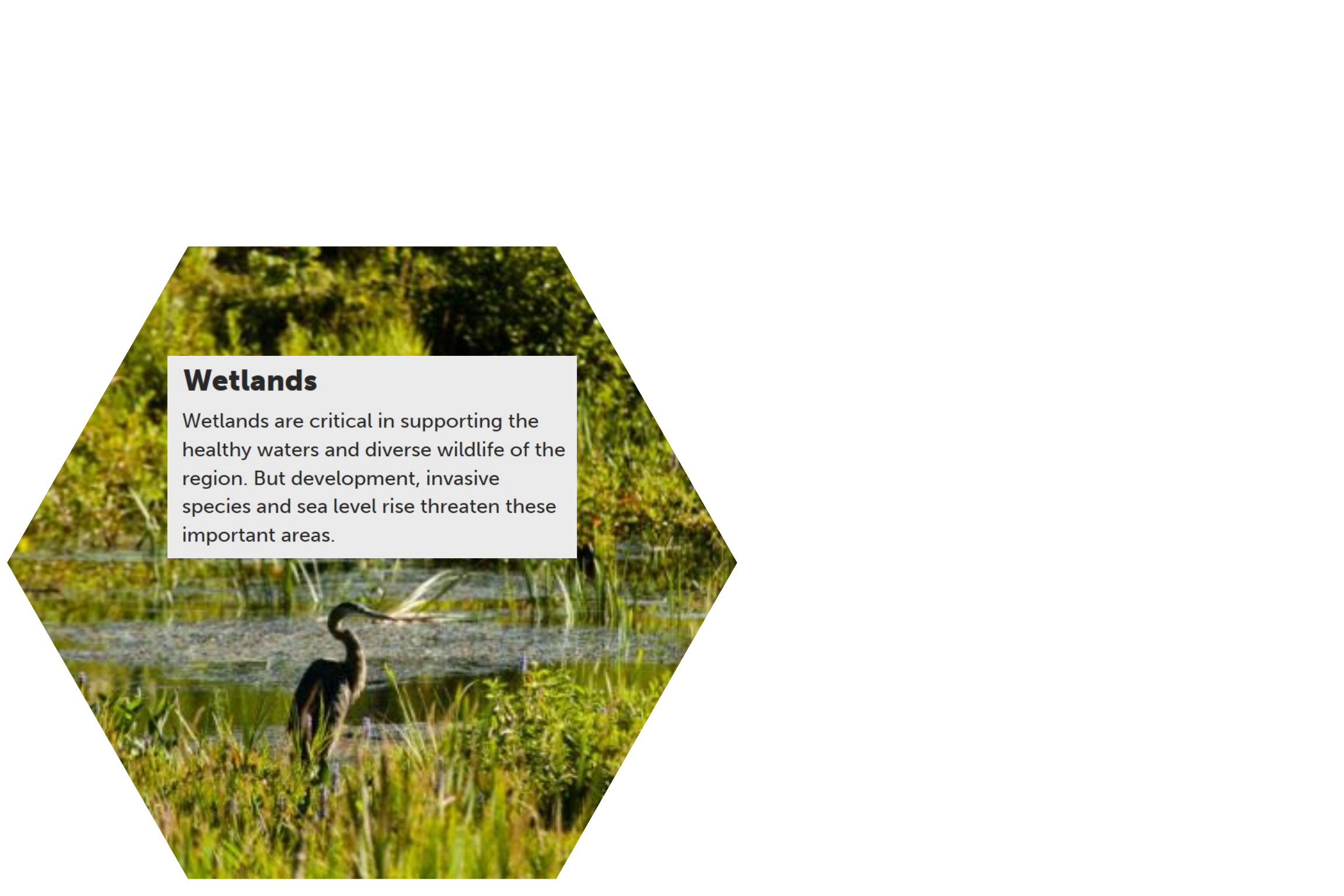
Striped Bass

Also known as rockfish, striped bass are recovering from a severe decline in the 1970s and 80s with the help of fishery management practices and Chesapeake Bay restoration.



Underwater Grasses

Underwater grasses grow in the shallow waters of the Bay and its streams. They provide food and habitat to wildlife, add oxygen to the water and trap sediment and nutrient pollution.



Wetlands

Wetlands are critical in supporting the healthy waters and diverse wildlife of the region. But development, invasive species and sea level rise threaten these important areas.