

From River to Sea:

Why Clean Rivers Matter to the Outer Banks



Outer Banks, North Carolina

From River to Sea: Why Clean Rivers Matter to the Outer Banks

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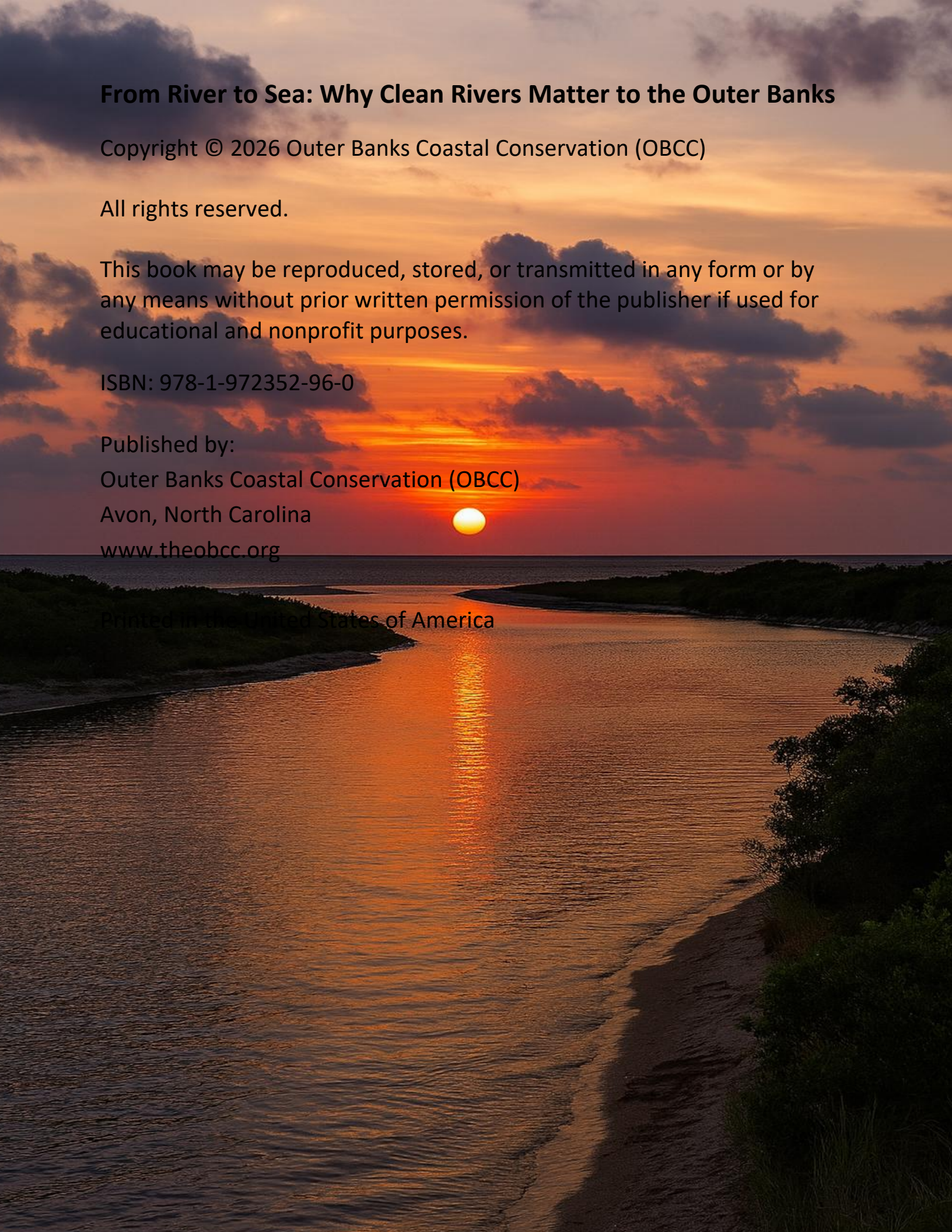
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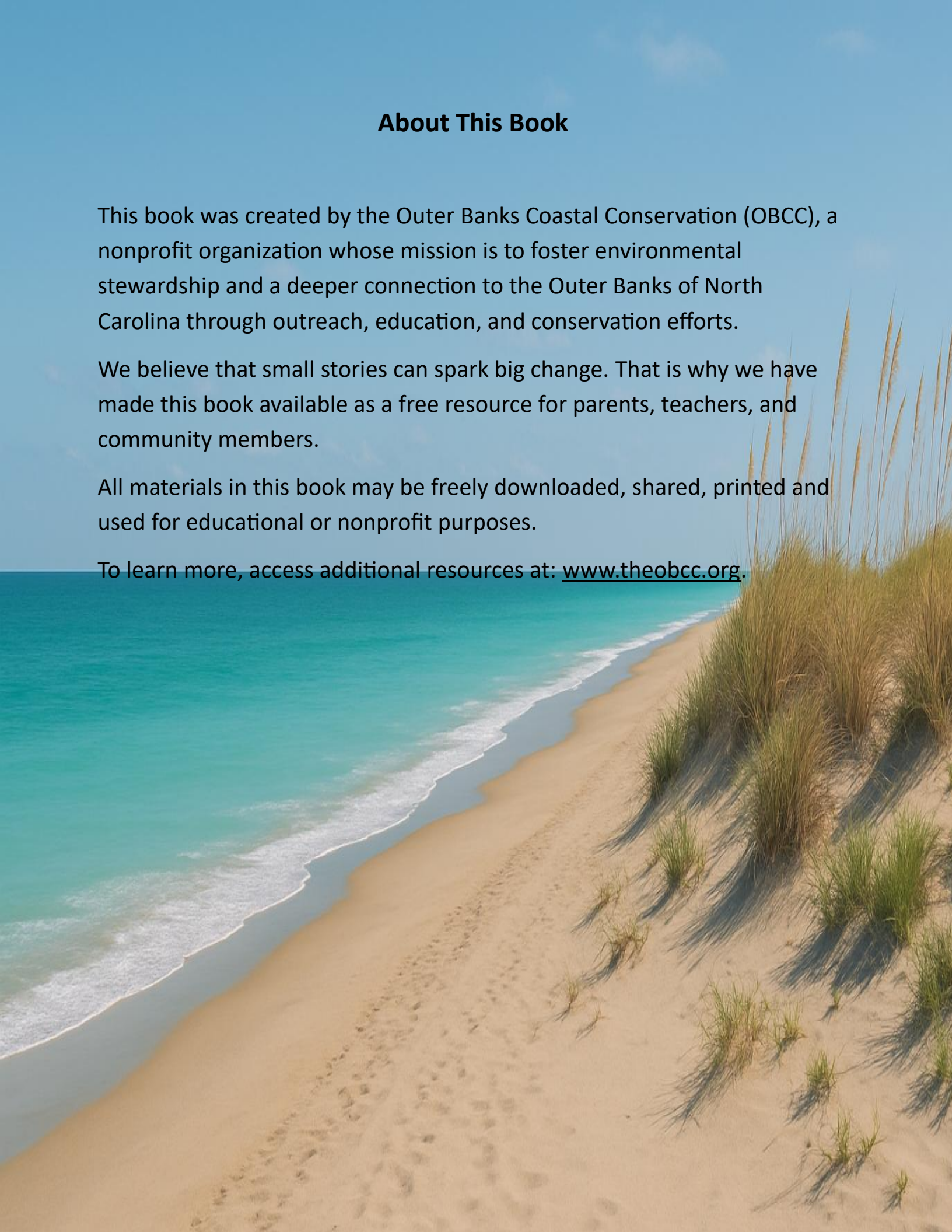
About This Book

This book was created by the Outer Banks Coastal Conservation (OBCC), a nonprofit organization whose mission is to foster environmental stewardship and a deeper connection to the Outer Banks of North Carolina through outreach, education, and conservation efforts.

We believe that small stories can spark big change. That is why we have made this book available as a free resource for parents, teachers, and community members.

All materials in this book may be freely downloaded, shared, printed and used for educational or nonprofit purposes.

To learn more, access additional resources at: www.theobcc.org.



When we think about protecting the beautiful beaches of the Outer Banks, North Carolina, most of us picture the ocean—waves, dunes, and sea life. But did you know the health of the Outer Banks begins far inland, with rivers that flow from hundreds of miles away?

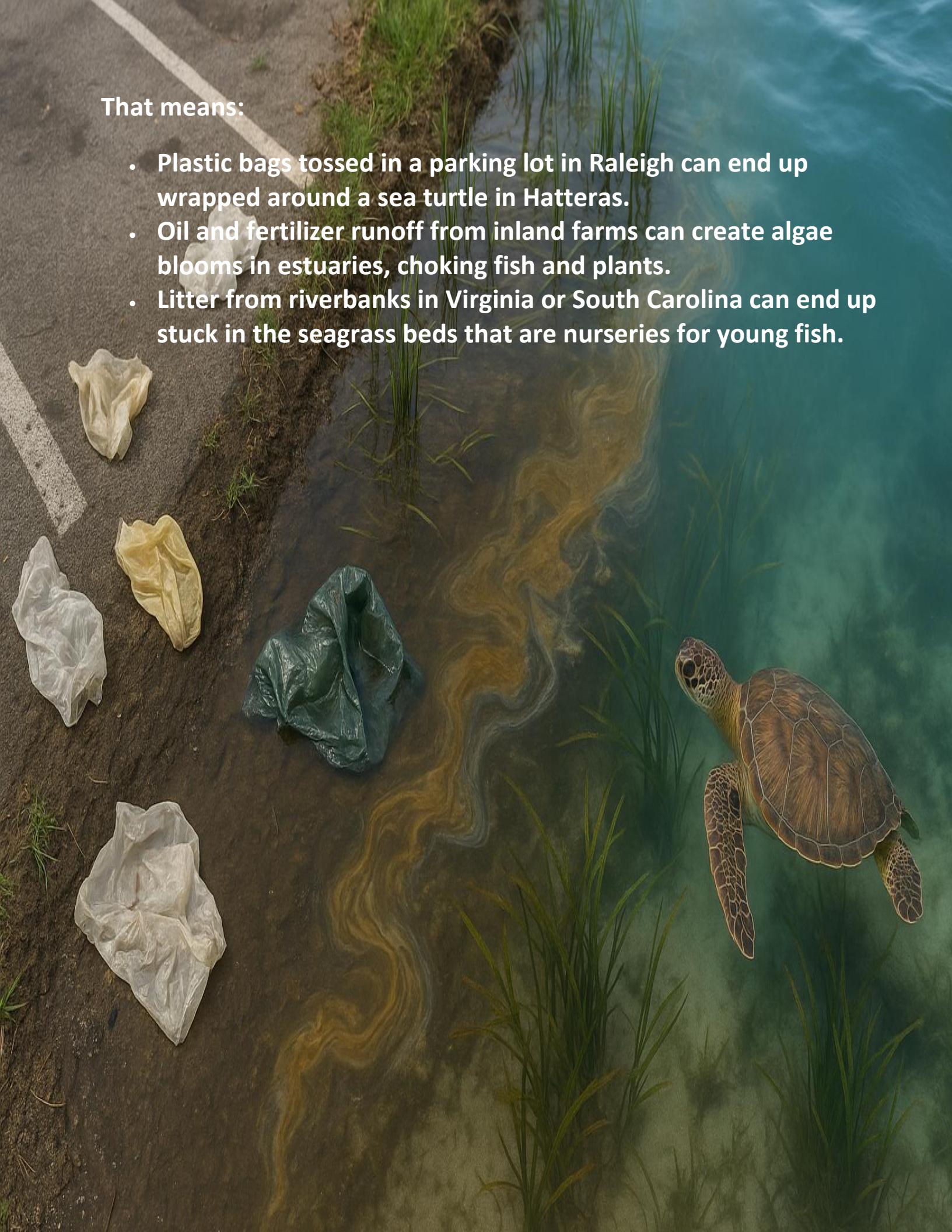
Rivers don't just carry water—they carry everything in it. And unfortunately, that often includes trash, chemicals, and debris that eventually make their way to the coast.



How Dirty Rivers Impact the Outer Banks

The Outer Banks sits between the Atlantic Ocean and a network of sounds and estuaries, including the Albemarle and Pamlico Sounds. These waters are fed by rivers like the Roanoke, Neuse, and Cape Fear. What enters those rivers upstream—from cities, farms, and highways—eventually flows down into the sounds and out into the ocean.



The image is a composite. The left side shows a paved road with white lane markings. Several crumpled plastic bags are scattered along the edge of the road, some on the pavement and some partially in a shallow, muddy area. The bags are mostly white and yellow, with one dark green bag. The right side of the image shows a sea turtle swimming in clear, blue water. The turtle has a brown and tan patterned shell and flippers. The background of the water side is a deep blue, suggesting a larger body of water. The overall image illustrates the impact of land-based pollution on marine life.

That means:

- Plastic bags tossed in a parking lot in Raleigh can end up wrapped around a sea turtle in Hatteras.
- Oil and fertilizer runoff from inland farms can create algae blooms in estuaries, choking fish and plants.
- Litter from riverbanks in Virginia or South Carolina can end up stuck in the seagrass beds that are nurseries for young fish.

Ocean Currents Carry Trash to the Outer Banks

A map of the Eastern United States coastline, from Florida up to New England. A thick red arrow, labeled 'Gulf Stream', originates from the Gulf of Mexico and points north along the coast. A thick blue arrow, labeled 'Labrador Current', originates from the north and points south along the coast. The two arrows converge near Cape Hatteras, which is marked with a black arrow and the text 'Outer Banks'. Various pieces of marine debris, including plastic bottles, a green cap, a white crumpled bag, and a rock, are scattered in the ocean area, particularly near the convergence point of the currents.

The Outer Banks sits at a crossroads of powerful ocean currents, including the Gulf Stream and the Labrador Current. These currents act like underwater highways, transporting warm and cold water—and floating debris—along the coast.

The Gulf Stream flows northward from Florida, picking up trash and plastics from the southeastern U.S., the Caribbean, and even South America.

The Labrador Current moves south from Canada and the northeastern U.S., bringing pollution from cities like New York and Boston.

These two currents meet near Cape Hatteras, making the Outer Banks a hotspot for marine debris.

That's why locals and visitors sometimes find unexpected litter on otherwise pristine beaches—items that clearly didn't come from the Outer Banks.

Gulf Stream

Labrador Current

Outer Banks

Why It Matters

Marine debris doesn't just look bad—it hurts wildlife and damages ecosystems:

- Sea turtles mistake plastic bags for jellyfish and swallow them.
- Birds and fish become entangled in fishing lines or plastic rings.
- Microplastics are eaten by small creatures and travel up the food chain—even to humans.

The Outer Banks relies on clean, healthy waters for tourism, fishing, and recreation. Protecting rivers is key to protecting the coast.



What Can You Do?

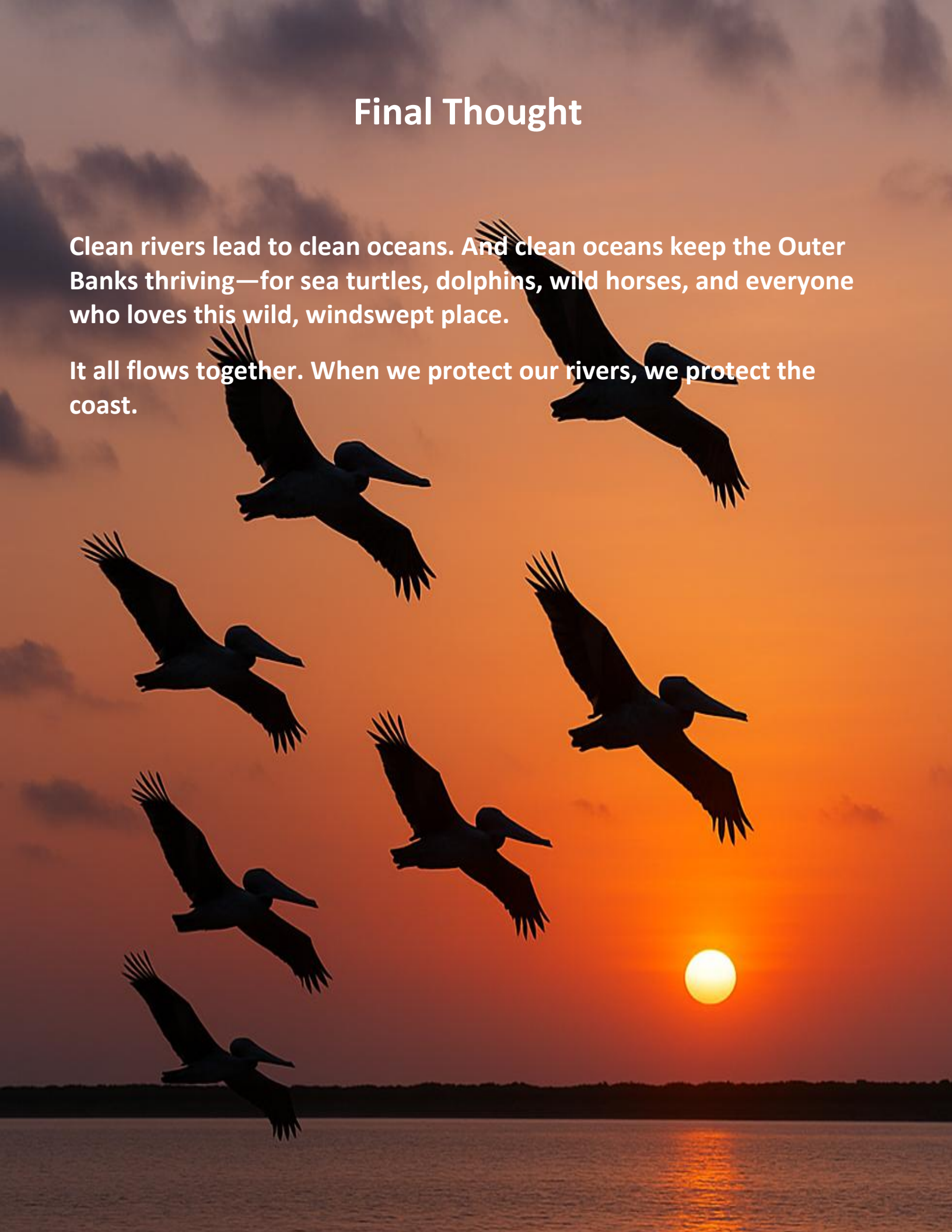
Whether you live inland or at the beach, your actions matter:

- Don't litter—even miles from the coast, trash often ends up in storm drains and rivers.
- Use fewer single-use plastics like straws, bags, and water bottles.
- Participate in river or beach cleanups—even picking up one piece of trash helps.
- Properly dispose of hazardous waste like oil, batteries, and paint—never pour them down the drain.
- Support conservation policies that protect waterways and reduce pollution at the source.

Final Thought

Clean rivers lead to clean oceans. And clean oceans keep the Outer Banks thriving—for sea turtles, dolphins, wild horses, and everyone who loves this wild, windswept place.

It all flows together. When we protect our rivers, we protect the coast.



References

National Oceanic and Atmospheric Administration (NOAA). (2024). *Marine debris program: Impacts and prevention*. U.S. Department of Commerce. <https://marinedebris.noaa.gov>

North Carolina Department of Environmental Quality. (2023). *Protecting North Carolina's rivers and estuaries*. <https://deq.nc.gov>

United States Environmental Protection Agency (EPA). (2024). *Pollution and runoff: How it affects coastal waters*. <https://www.epa.gov/nps>

Ocean Conservancy. (2024). *The impact of marine debris on wildlife*. <https://oceanconservancy.org>



From River to Sea: Why Clean Rivers Matter to the Outer Banks

This book explains how protecting inland rivers directly impacts the health of the Outer Banks' beaches, wildlife, and ecosystems. It emphasizes what happens hundreds of miles inland—such as littering or chemical runoff—eventually affects the coastal environment.

About the Publisher

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