



Coastal Lifestyle for Clean Water

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November 29th, 2023


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Calling the Coast Home

Course Series:

- Living with Water
- The Land Water Connection
- Tidelands, Water & Beach: Regulations & Rebuilding
- Coastal Lifestyle for Clean Water

Instructors:
South Carolina Sea Grant Consortium, Clemson University, ACE Basin National Estuarine Research Reserve, South Carolina Department of Natural Resources, North Inlet-Winyah Bay National Estuarine Research Reserve, University of South Carolina, Coastal Waccamaw Stormwater Education Consortium, Coastal Carolina University, South Carolina Department of Health and Environmental Control





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South Carolina Coastal Information Network

<https://www.sccoastalinfo.org/>

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Agenda

Coastal Lifestyle for Clean Water

- Overview: Why This Matters
- Coastal Life Support: The Saltmarsh and Tidal Creek Ecosystem
- Coastal Lifestyle for Clean Water Guide
 - Aquatic Life and Wildlife
 - Tool: SC Watershed Atlas
 - Recreation
 - Tools: SC Beach Guide, Swim Guide
 - Seafood
 - Tools: SC Fish Consumption Advisory App, SCDNR Shellfish Mapper




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Objectives

Coastal Lifestyle for Clean Water

- Understand how clean water and a healthy saltmarsh supports favorite coastal lifestyle activities
- Understand how to use online tools to investigate water quality in communities
- Provide clients with resources and tips to stay safe and healthy while living the coastal lifestyle
- Encourage clients to reduce sources of water pollution, especially bacteria



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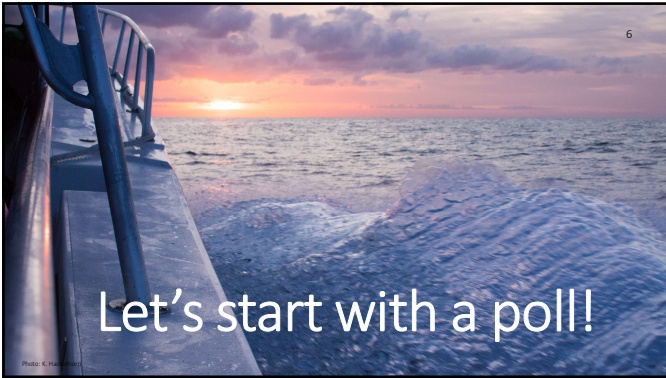
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Yes! We will share slides and links to all resources!



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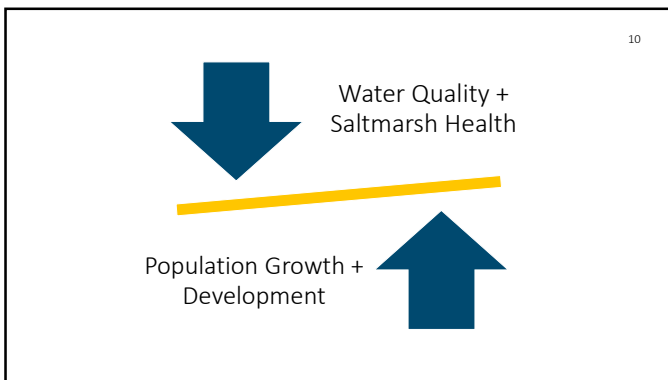
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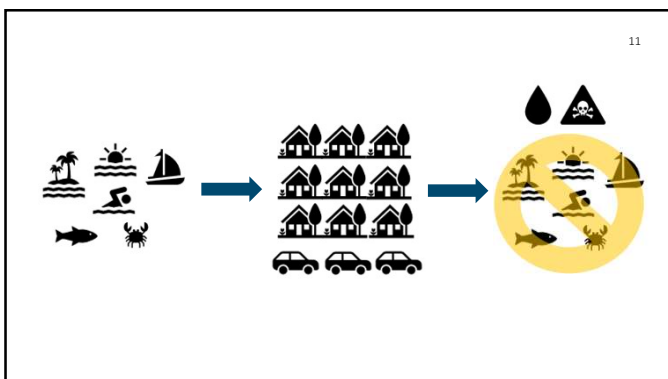
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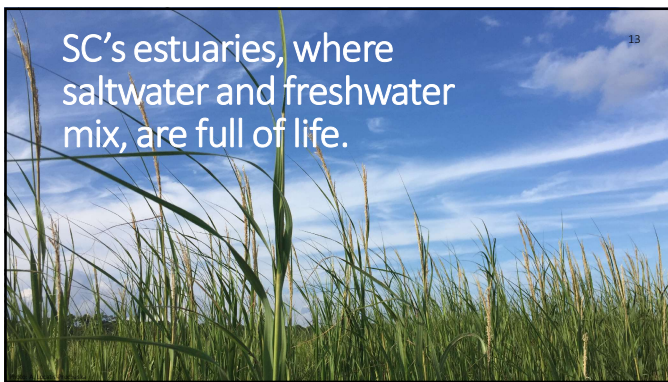
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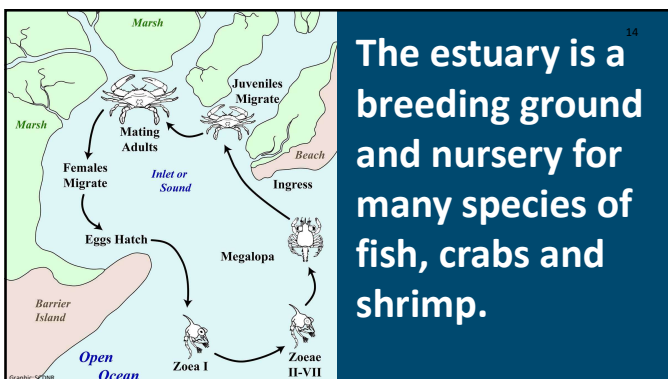
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How does a marsh get dirty?

<https://coast.noaa.gov/elearning/estuaries/>

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A 3D perspective diagram of a coastal marsh system. It shows a cross-section of the landscape with green marsh grasses, blue water channels, and brown sediment. A road and some buildings are visible on the land side, illustrating the interface between human development and the natural environment.

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How does a marsh get clean?

Oysters + Marsh Grass + Pluff Mud = Filter and trap pollutants
Tides = Flush excess nutrients

Three small photographs arranged horizontally. The first shows a gloved hand holding a large, dark, textured shell (likely an oyster). The second shows a close-up of tall, green marsh grasses against a blue sky. The third shows a wide, shallow tidal channel with white foam from the water's edge.

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How much pollution can the marsh handle?

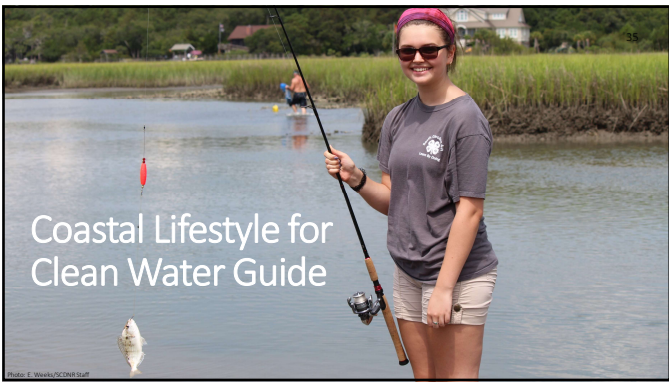
SCDHEC has a water quality monitoring program for that.

There are practical steps residents can take to reduce pollution and protect creeks and salt marshes.

There are practical steps residents can take to reduce personal risks from pollution.

Residents can also help protect wildlife that live in creeks and saltmarshes.

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Coastal Lifestyle for Clean Water Guide

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Water needs to be clean to support aquatic life.

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Aquatic Life Water Quality Indicators

- Dissolved Oxygen
- pH
- Turbidity
- Nutrients
- Heavy Metals
- Temperature
- Salinity

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Dead

Ok

Just Right

Ok

Dead

The Range for Aquatic Life

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Clean water supports lots of life.

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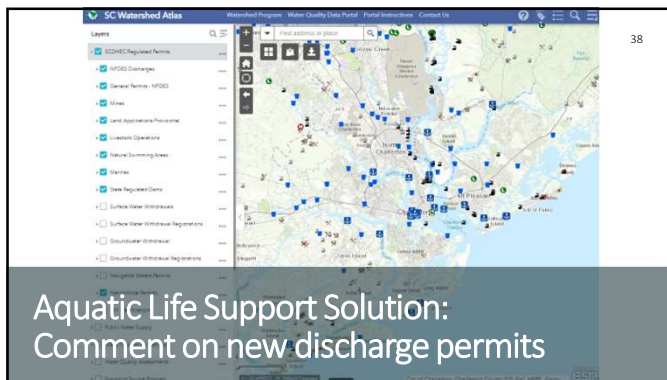
Slide 26

ALPO Maeve had a note for this slide about threshold. May need to redesign

Abigail Locatis Prochaska, 2022-09-08T17:13:55.938

Threat: development activities can result in water pollution.

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Practice Time!

SC Watershed Atlas

<https://gis.dhec.sc.gov/watersheds/>
 Google "SC Watershed Atlas"

Suggested layers to check out:

 SCDHEC Regulated Permits – any sublayer
 Water Quality Assessments - 2018 Use Support and Trends sublayer, Impaired Waters – 303(d)2018
 Nat'l Watershed Boundaries – any sublayer



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SCDHEC chemical spill, oil spill and fish kill hotline:

1-888-481-0125

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File a pollution complaint with local SCDHEC Environmental Affairs Office

<https://www.scdhec.gov/ea-regional-offices>

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Threat:
Litter and
Microplastics



Photo: E. Woods/SCDNR staff

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Solution: Dispose of garbage
properly



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Solution:
Report littering
1-800-922-5431

SCDNR Tips App

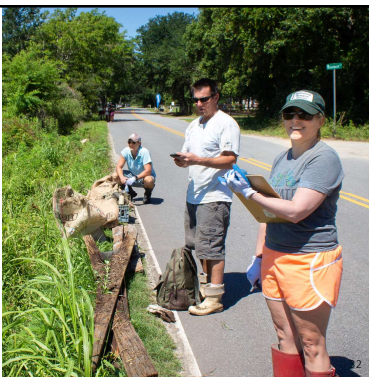


Photo: E. Woods/SCDNR staff

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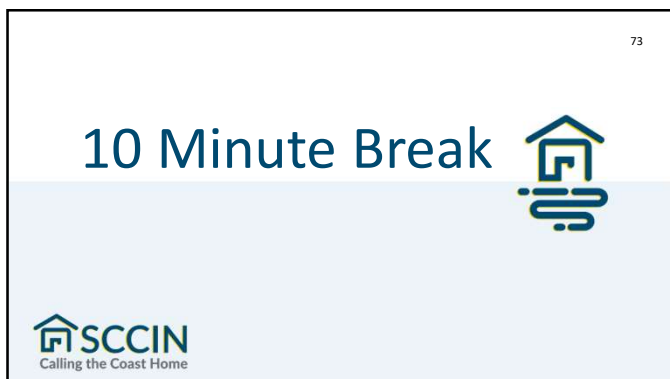
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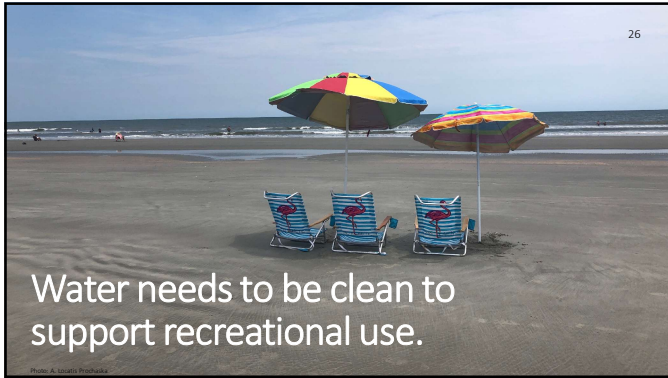
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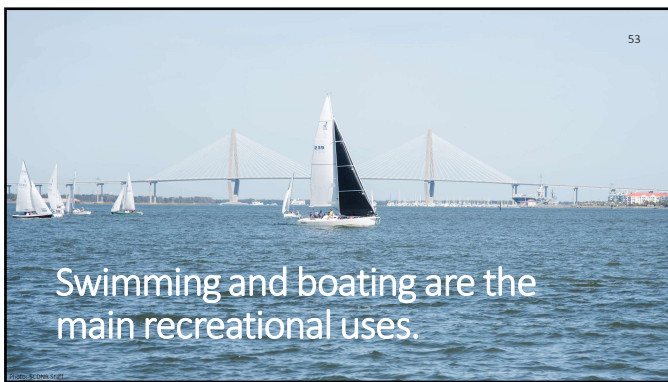
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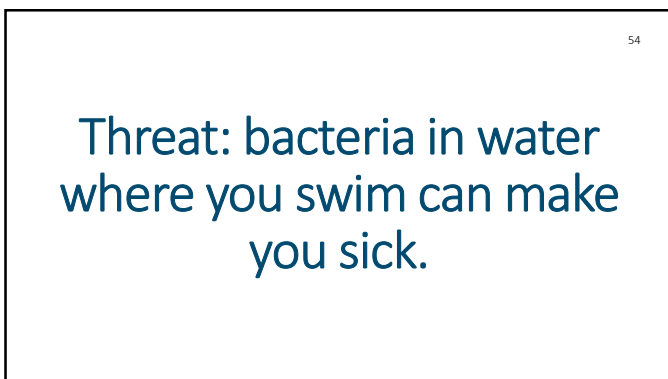
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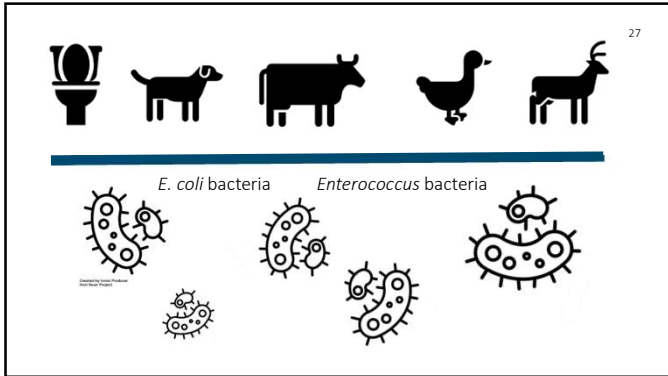
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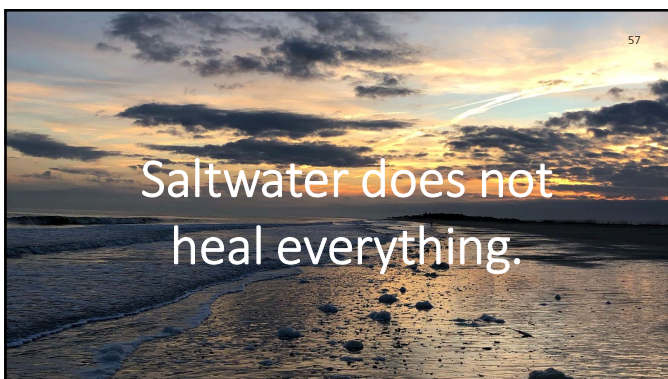
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VS

[130 shark attacks worldwide in 2018](#)

[80,000 cases of vibriosis annually in the US](#)

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Threat: irresponsible boaters pollute and destroy marsh habitat.

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Boater Solutions:
Clean Vessels

Larger boats – use pumpouts
Smaller boats – clean waste bags




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Boater Solutions: Slow Down

- Obey no wake zones
- Don't wake oyster reefs
- Watch out for manatees and sea turtles



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Report boating, fishing or
hunting violations.
Operation Game Thief
hotline:1-800-922-5431

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Coastal Lifestyle: Recreation Checklist for New Residents

- Register your boat with SCDNR
- Review the Handbook! Of SC Boating Laws and Responsibilities
- Take a boater education course
- Study the tides in your area
- Watch your wake – slow down to protect oysters, people, property and wildlife
- Find your local nautical chart
- Check for swim advisories at your favorite beach
- Decide on a boat waste disposal strategy

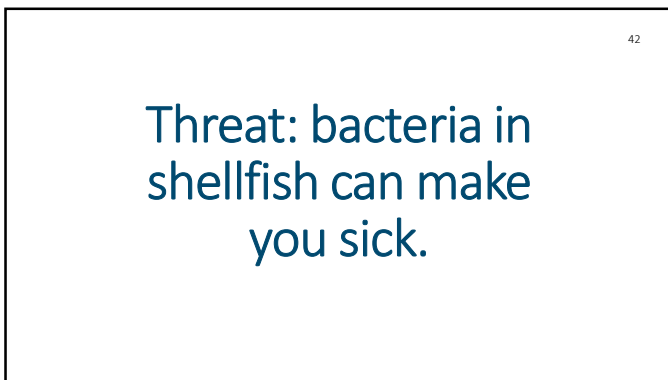


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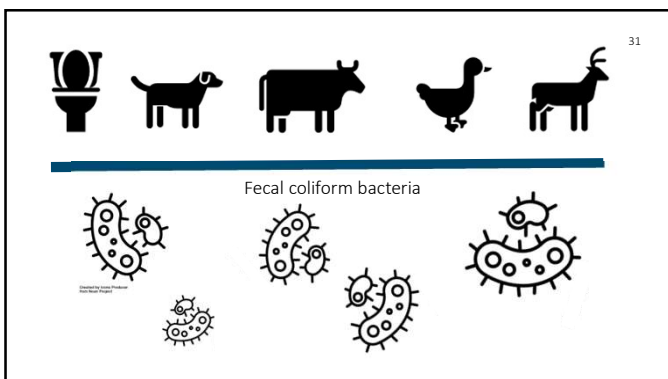
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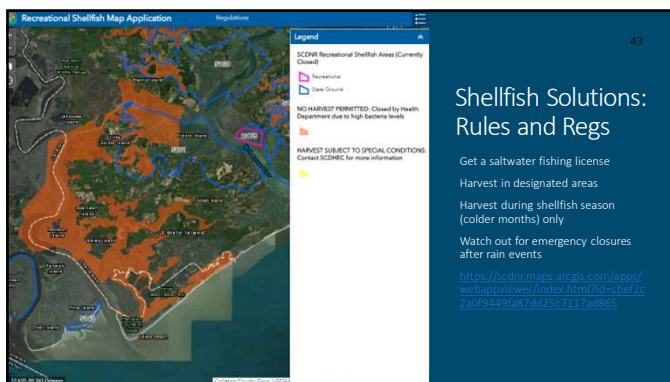
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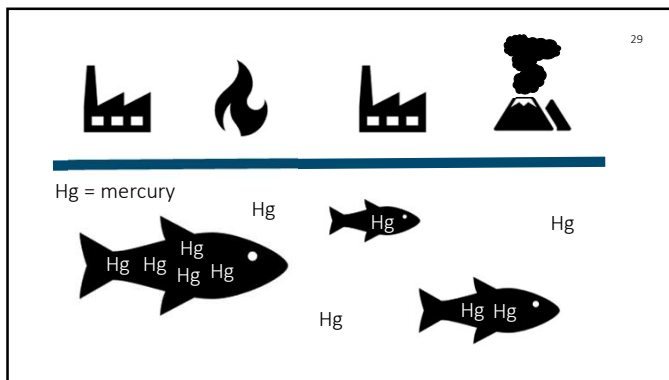
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Threat: pollutants
in fish can be
harmful if eaten.

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Fish Solutions: Rules and Regs

Follow fish consumption advisories.
Check for advisories in your favorite fishing areas.
Remember that advisories are different for different groups of people.

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SC Fish Consumption Advisory APP and SCDNR Shellfish Mapper Live Demo

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Practice Time! Seafood Consumption⁸⁰

South Carolina Fish Consumption Advisory App
<https://gis.dhec.sc.gov/gisportal/apps/webappviewer/index.html?id=c71943bc743b4ca196e0ef0406b1d7ab>

• SCDNR Recreational Shellfish Map Application
<https://scdnr.maps.arcgis.com/apps/webappviewer/index.html?id=cbef2c2a0f9449fa87dd25c7117ad865>

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Threat:
overharvesting

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Avoid
overharvesting

- Get a saltwater fishing license
- Obey size and catch limits
- Learn proper catch and release techniques
- Recycle your oyster shells
- Check out the SC Aquarium's Good Catch program

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Get involved!


- Report any tagged fish you catch to the Marine Game Fish Tagging Program
- Attend a Family Fishing Clinic
- Become a certified DNR Fishing Instructor

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Threat: loss of the marsh itself

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Protect the Marsh

Install living shorelines (with recycled oyster shells)

Slow down in no wake zones

Make room for marsh migration

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Coastal Lifestyle: Seafood Checklist for New Residents

- Buy a saltwater fishing license
- Get a copy of official fishing regulations
- Grab a fish ruler from your local tackle shop
- Check for fish consumption advisories
- Report any tagged fish you catch
- Locate shellfish harvest grounds
- Recycle your oyster shells



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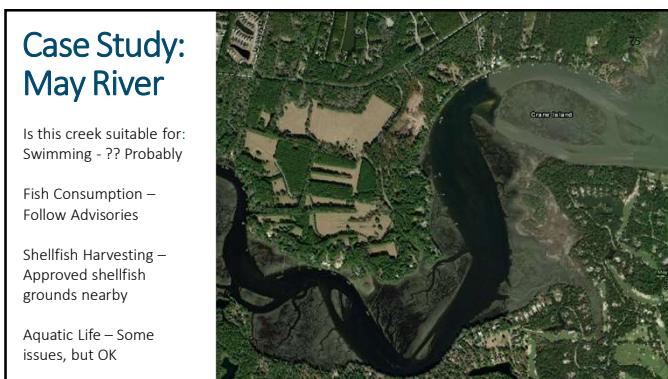
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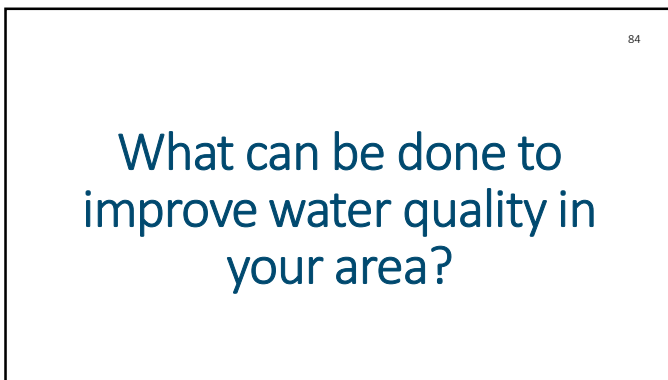
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Summary Coastal Lifestyle for Clean Water

- Our coastal lifestyle is supported by clean water and a healthy saltmarsh
- Rapid development, population growth and careless people can threaten our coastal lifestyle
- SCDHEC monitors water quality to catch problems as they arise
- All coastal residents can follow rules, regs and advisories to stay safe and healthy
- All coastal residents can help keep water clean, especially by reducing bacteria and litter
- Use the SC Watershed Atlas and other online tools to explore water quality in your community

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For more information and course materials

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Information Network
<https://www.sccoastalinfo.org/>


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Please let us know how we can improve this course and the series.

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Course Series:
Living with Water
The Land Water Connection
Tidelands, Water & Beach:
Regulations & Rebuilding.
Coastal Lifestyle for Clean
Water



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