

# A VERY SPECIAL PLACE TO LIVE

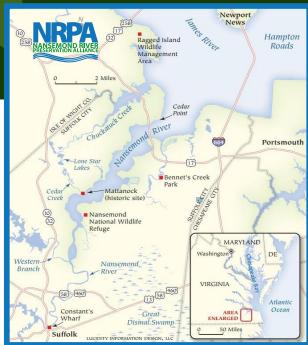
Suffolk's beautiful River and creeks are home to a variety of marine life and wildlife and a paradise for children and adults to fish, swim, kayak, canoe and also enjoy the magnificent water views.

- Over 400 square miles of landmass with over 30 square miles of waterways.
- 259 miles of tidal shoreline includes Nansemond River and eight creeks
- · 27,000 acres of tidal wetlands
- The majority of the shoreline is privately held.

# **CONCERN**

The health of the River and creeks continues to be a concern.

- Non point source pollution (stormwater, etc.) contributes to high bacteria levels adversely impacting the waterways.
- Over 60% of the Nansemond River is closed to shellfish harvesting because of high bacterial levels, which at times is extended to 80% after heavy rains
  - According to reports the Lafayette River, Norfolk and the Elizabeth River, Portsmouth have shown improvement. However, the health of the Nansemond River is declining.



#### www.NansemondRiverPreservationAlliance.org

The mission of the Nansemond River Preservation Alliance is to raise public awareness and encourage environmental stewardship of the Nansemond River, Chuckatuck Creek, Bennett's Creek and their tributaries and wetlands by developing and implementing programs and initiating collaborative actions with individuals, businesses, civic organizations and governmental agencies.

For in-depth information about Living Shorelines and Riparian Buffers please see the NRPA Resource Center:

www.NansemondRiverPreservationAlliance.org/resource-center/



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Riparian buffer and shoreline photos and some informational content provided by Karen Duhring, Virginia Institute of Marine Science







# INTERESTED IN HELPING OUR RIVER & CREEKS?



# Citizens Can Help Solve The Problem

Planting Living Shorelines and Riparian Buffer with Native Plants, Shrubs and Trees are Proven Solutions!

#### LIVING SHORELINES



Nansemond River living shoreline project. K. Duhring, VIMS

**LIVING SHORELINES** are nature-based approaches for shoreline protection. These stabilization techniques not only protect shorelines and infrastructure, they also conserve, create or restore natural shoreline habitats and ecosystem services.

# **Living Shoreline Benefits**

- · Filter stormwater runoff and groundwater
- · Reduce erosion
- · Improve marine habitat and spawning areas
- · Provide attractive natural appearance
- · Improve River and creek water quality
- Property owners still have shoreline access. Whereas hardened shorelines with bulkheads restrict access.

#### What to do!

Preserve the natural connection between water, shoreline, and uplands through the strategic placement of:

- Plants
- Sand fill
- Structural and organic materials

#### **RIPARIAN BUFFER**



Ideal shoreline conditions with marsh and riparian buffer. K. Duhring, VIMS

**RIPARIAN BUFFERS** are areas of native plants, trees, shrubs, and other vegetation located next to rivers, creeks and streams. They are modeled on local natural communities such as bottomland hardwood forest, coastal scrub, and upland oakhickory-pine forests. Citizens can create or enhance the riparian buffer area on their property.



Riparian buffer in Suffolk. Photo by CCRM-VIMS

The Chesapeake Bay Preservation Act was enacted to protect the waterways by requiring a 100 foot vegetated buffer.

Note: The 100 foot buffer is measured from the landward edge of tidal shoreline features at Mean High Water or the jurisdictional limit of tidal marshes.

# Riparian Buffer Benefits

- Filters stormwater runoff, removing excess nutrients, harmful bacteria/viruses, and toxins.
- Native plants, shrubs and trees located in the buffer areas control the rate and volume of stormwater flowing into the River, creeks and streams.
- Buffer areas can intercept and reduce the destructive energy of storm surge flooding and precipitation driven flooding; this is something many property owners value.
- Buffer areas help stabilize the bank and reduce erosion.
- Buffer areas provide organic material as food for birds, butterflies, etc.
- Buffer areas create a tree canopy that provides shade and controls water temperature, which is essential for instream organisms.

The combination of the Living Shoreline and the Riparian Buffer is a one-two punch that decreases the flow of stormwater runoff into the River, creeks and streams; provides a rich habitat for marine life and birds; restores natural processes and ensures that current and future generations will have the opportunity to enjoy natural waterways.

Visit the NRPA – Suffolk Parks & Recreation Riparian Buffer Demonstration Site located at Sleepy Hole Park, near the pier, for native shrubs and trees ideas.