



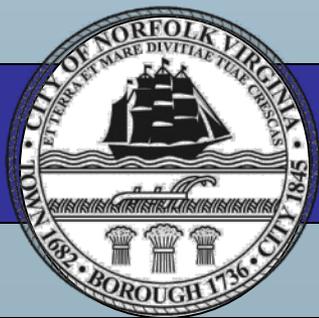
Promoting Living Shorelines: Recognizing Barriers and Identifying Solutions



Kevin R. Du Bois, PWS, PWD, CFM
City of Norfolk, VA
December 11, 2013

Barrier: Fear of the Unknown:

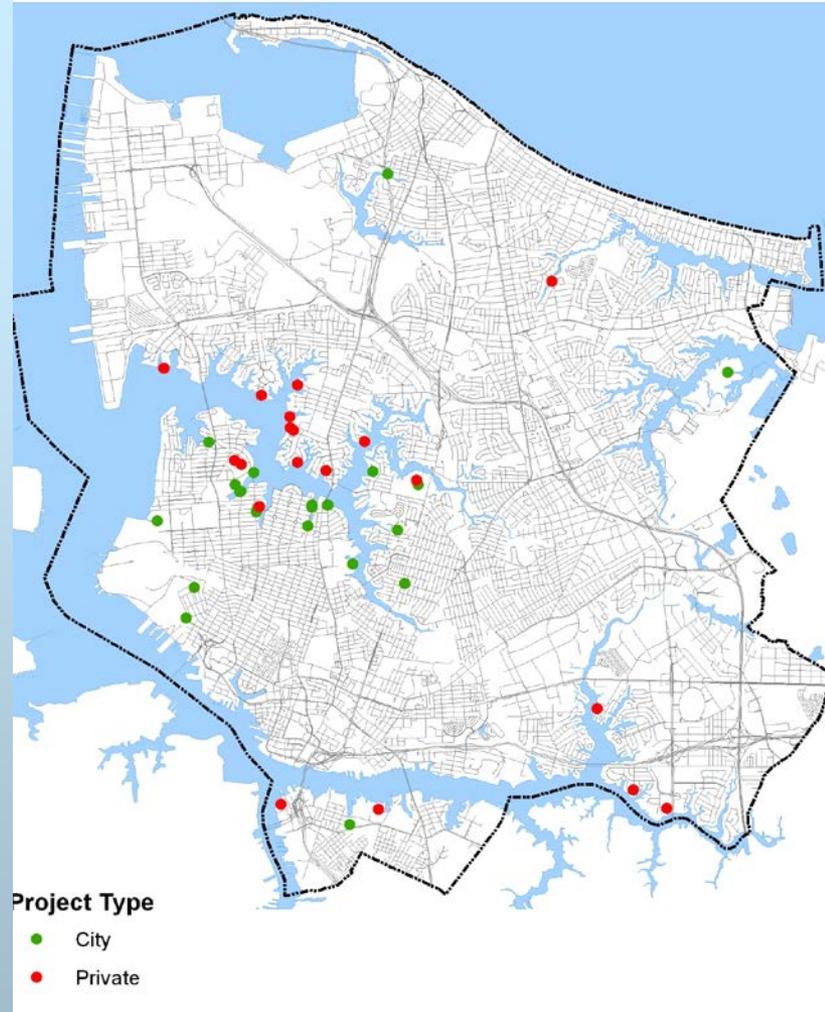
- What does it Look Like?
- How Long Will It Last?



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Solution:

Build Demonstration Projects on Public And Private Property



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Solution: Build Demonstration Projects



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Solution:

Point Out The Longevity Of Public Projects



1997

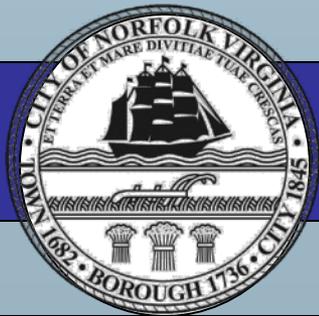


2008



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Barrier: Lack of a VA Living Shoreline Requirement: (State Preference Only)



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Solution: Fairfax leads the way in VA

Environmental Stewardship and Permitting Information for Waterfront Property Owners

Prepared by the Planning Division of the Fairfax County
Department of Planning & Zoning, February 2013

As an owner of waterfront property in Fairfax County, you can be a steward of the environment as well as an important member of a partnership to protect our natural resources. This partnership includes the Fairfax County government and other state and federal agencies. Our mutual goal is to preserve the quality of our waterways by preventing erosion and protecting wildlife and vegetation.



Shoreline Erosion, Mason Neck, Fairfax County

Photo by Beth Rado

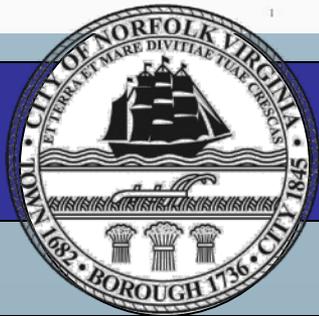
When are permits required?

- You will need permits to conduct any construction on the shoreline or at the water's edge before you begin work. *For help determining if you need a permit, call 703-324-1380.*
- Make certain that the contractor you choose to help you with your project is licensed to work in the County.

The following activities may result in land disturbance. Land disturbances and related construction activities often require a permit if done in an area that is a *tidal wetland* or is in an area adjacent to a *tidal wetland*. The following types of land disturbing activities and construction projects will require permits:

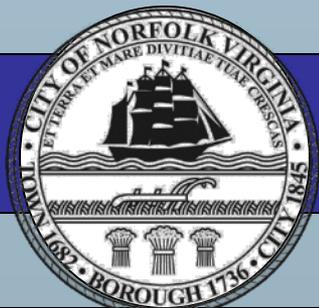
- Any construction project on, over or adjacent to a tidal body of water.
- Any project in which fill material is placed in or near wetlands such as riprap.
- Construction of bridges, tunnels or roads which may have an impact on wetlands, either tidal or non-tidal.
- Projects designed to protect shorelines in order to minimize erosion such as bulkheads.

“Living Shorelines”: Among all the options, applicants must consider a design that maintains or creates a living shoreline, as an approach for shoreline stabilization, and demonstrate to the Board why a living shoreline approach would not achieve your goals. Properly sited and designed living shorelines will be preferentially permitted over hardened shoreline approaches.



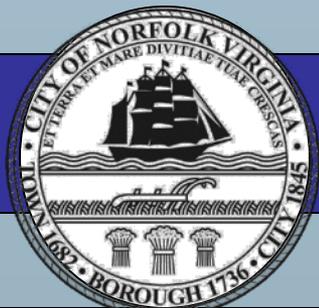
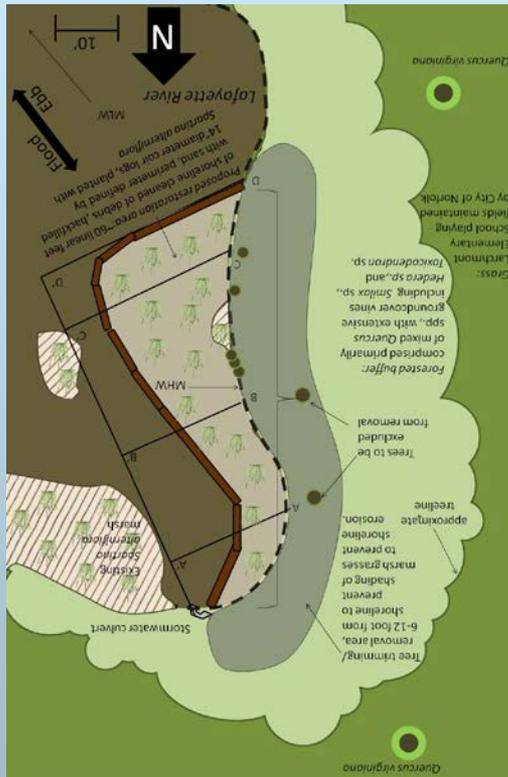
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Barrier: Local Wetlands Board Level of Comfort in Approving LS Projects



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Solution: Follow up Presentations to WBs Showing Successes



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Barrier: Living Shoreline Projects Are Uncommon



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Solution: Engage NGOs and Citizens to Build LS Projects In All Communities



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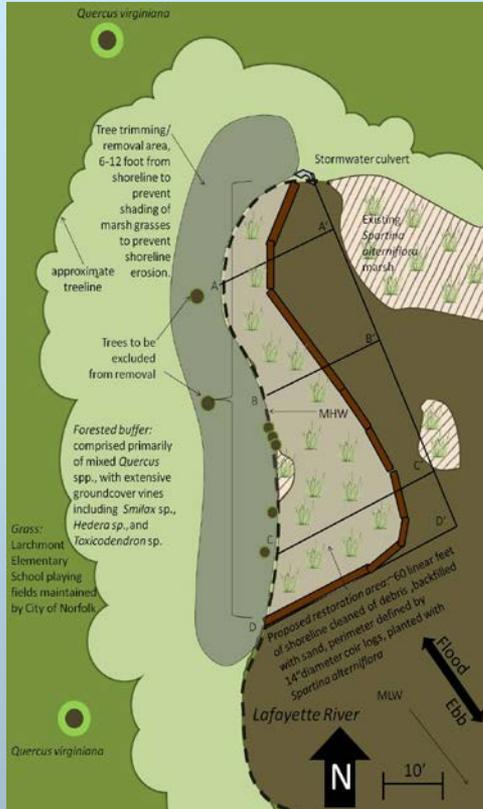


Barrier: Few Experienced Project Designers



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Solution: Train NGOs & College Students



Neighborhood Wetland Stewardship:
Project Management Manual
3rd Edition

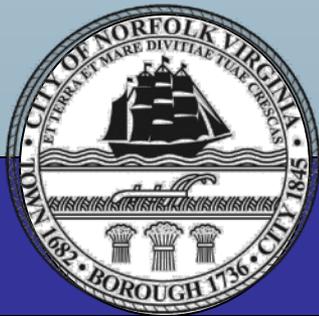


Lafayette Wetlands Partnership



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Barrier: Relatively Few Experienced Contractors



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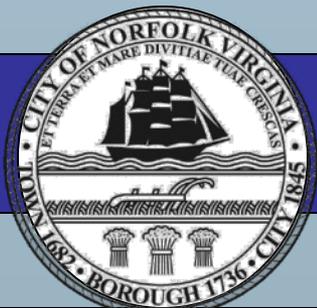
Solution: Spend Time in the Field to Assist Contractors and Troubleshoot



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Barrier: Living Shorelines are Unpopular:

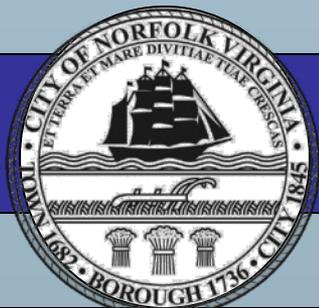
Who's Going to Pay Me to Do
What I Don't Want to Do?



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Solution: Investigate TMDL and FEMA
CRS Credits or Other
Creative Incentives for
Landowners

General Permit – Not Yet
Completed in VA



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Barrier: Living Shorelines, And In Particular Vegetative Wetlands, Are Not Perceived Like Other Types of Landscapes Worthy of Enhancement and Beautification



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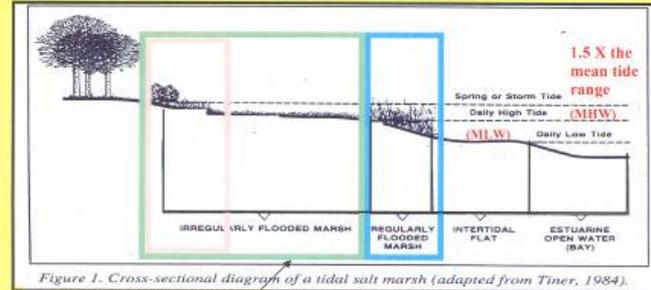
Solution: Citizen Education

Native Plants for Wetland Restoration and Enhancement



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Native Plants For Wetland Restoration And Enhancement: A Source Guide



Vegetated Wetland - Zone Key

- Intertidal Marsh
- High Marsh
- Brackish Marsh

Common Name

Rose Mallow—*Kosteletskya virginica*

Large showy blooms. Plant more for aesthetics than wildlife benefits. Survives well in upland

Sources: 1, 4, 6, 10

Plant Height: 2-4'

Sun/Shade Requirements and Blooming Period: Full sun, Jul-Aug

Salinity Regime: 0-10 ppt, plant above mean high water in irregularly flooded areas.



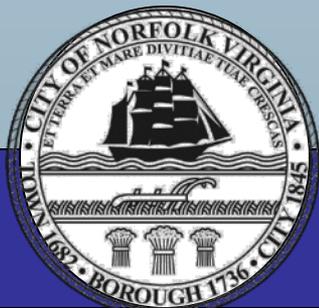
This guide was prepared by Norfolk's Bureau of Environmental Services to provide citizens with information that could be used for wetland restoration or to enhance existing wetlands with native wetlands plants to add beauty and plant diversity.

Updated 8/31/06



Barrier: Common Sense of Purpose
+ Better Coordination Within
the Regulatory Community

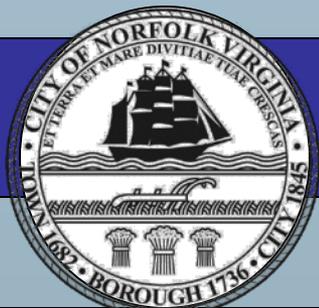
Solution: More Mixers?



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How are LS promoted in Norfolk VA

1. Staff Analysis at Local Wetland Board Permit Hearings
2. Free Wetland Education Workshops
3. Community LS Projects
4. LS Project Signage & Social Media Video
5. CBF VOICES Classes
6. SWS Presentations
7. VAWP Workshops and Presentations
8. ASWM Presentations and Webinars
9. Local Master Gardener and Landscaper Training



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