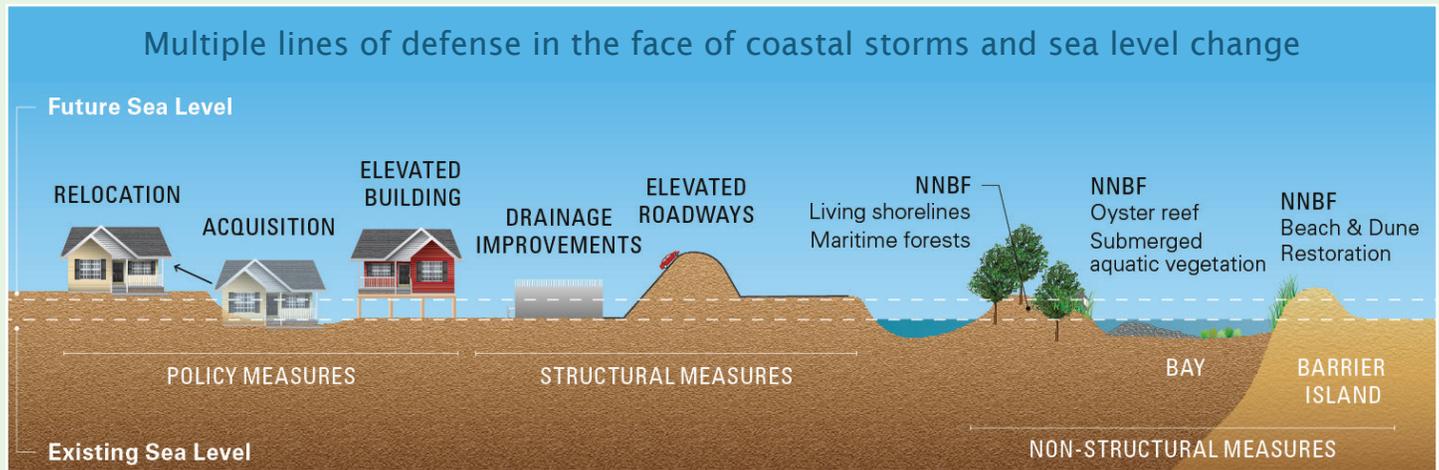


Nature-Based Solutions

Natural and Nature-Based Features (NNBF) in the coastal landscape reduce inland flood risks, while also providing economic, environmental, and social benefits to the surrounding area.

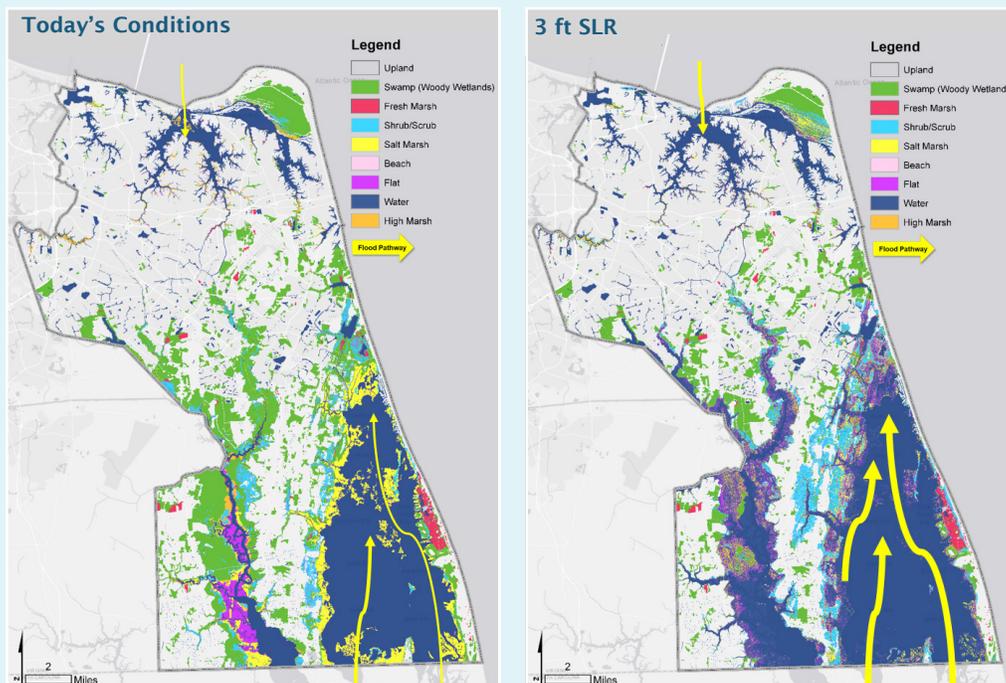
Multiple Lines of Defense

NNBF are considered a complimentary flood risk management strategy, providing redundancy in flood protection, increasing resiliency, and enhancing the performance and durability of structural measures.

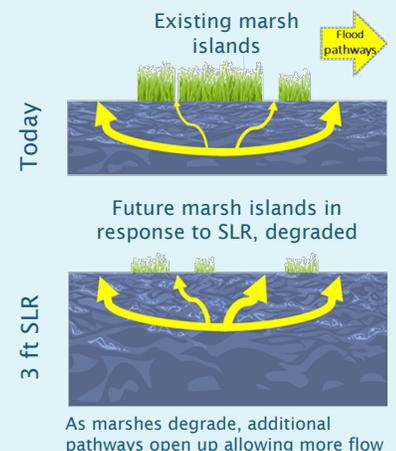


Marsh Response to Sea Level Rise

Marshes play an important flood attenuation role during storm events as they act as a sponge, slowing down the movement of water. As part of the CSLRRF study, the City of Virginia Beach analyzed marsh response to future flooding conditions. Wetland changes were simulated and evaluated to understand what marsh types are most vulnerable or resilient to sea level rise, and to identify areas in the city that are projected to experience marsh loss or gain.



No Action Scenarios



Nature-Based Solutions

www.vbgov.com/pwSLR
slr-comments@vbgov.com

Non-Structural Strategies

Non-structural methods focus on creating or enhancing the dominant natural features already present and contributing to flood risk reduction.



Beach Nourishment



Wetland Restoration, Enhancement, or Creation



Forest Restoration, Enhancement, or Creation



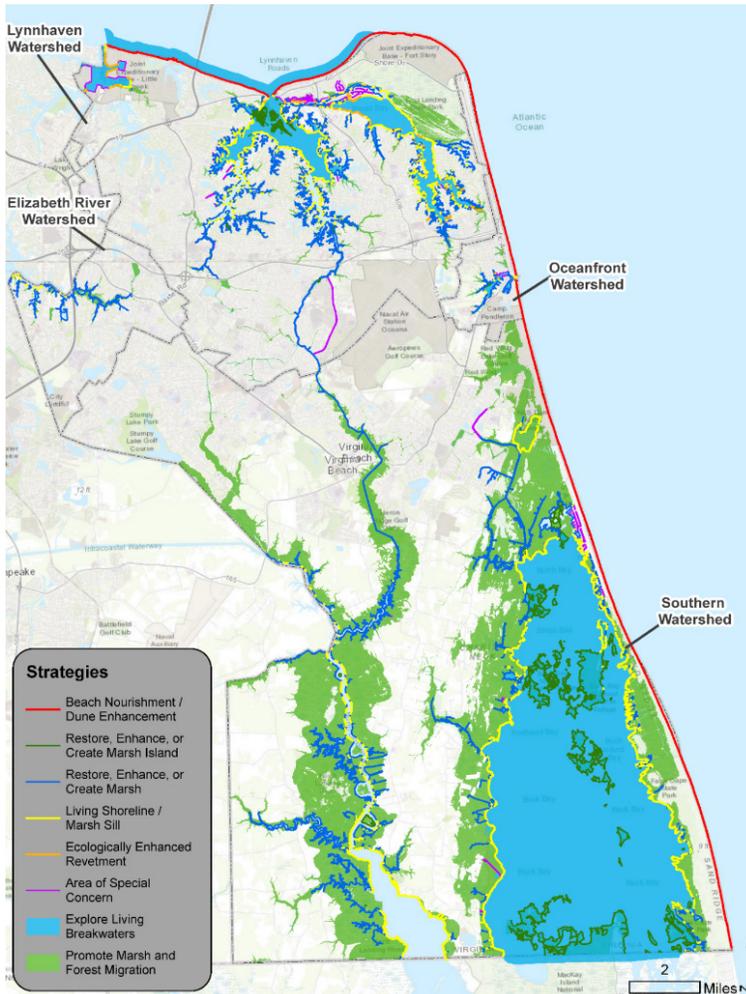
Submerged Aquatic Vegetation (SAV) Restoration



Shellfish Reefs/Oyster Restoration

Strategy Set

A set of potential NNBF strategies will be an important component of both the City-wide and watershed action plans for strategy implementation.



Hybrid Strategies

Non-structural methods focus on creating or enhancing the dominant natural features already present and contributing to flood risk reduction.



Living Shorelines



Living Breakwaters



Ecologically-Enhanced Revetments

The suitability of different types of NNBF strategies were evaluated within each of the watersheds.

The proposed strategies will need to be evaluated along with policy measures, and neighborhood and City-wide structural solutions to help identify the most effective and practical solution set.