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WAYS CONSERVATION COMMISSIONS CAN

Protect Coastal Land and Water Resources in a Changing Climate

New Hampshire's coastal watershed has experienced rapid development in recent decades, resulting in threats to our water resources. When combined with the impacts of climate change -- sea-level rise, more extreme precipitation, increased drought -- the threats to water quality and natural resources are amplified.

The **Land Conservation Priorities for the Protection of Coastal Water Resources (2016)** project identifies land areas in NH's coastal watershed that provide benefits for water quality, flood risk reduction, and public water supply protection. It shows conservation focus areas associated with these benefits to help in prioritizing key areas for land protection.

Here are a few ideas for how your conservation commission can use the data:

#1 Develop land conservation criteria that incorporate these climate-related benefits



#2 Use the data to identify strategic conservation and restoration priority areas

#3 Match priorities with potential funding sources and reference the data when applying for funding for conservation and restoration projects

#4 Incorporate information about these benefits into your Natural Resource Inventory, conservation plan, and other documents

#5 Emphasize these benefits when communicating about the importance of natural resource protection



AVAILABLE MAPS AND ASSOCIATED ACTIONS

MAP 1. Flood Risk Reduction Opportunity Areas

Natural areas that attenuate flood waters (from both extreme precipitation events and rising sea levels) provide dual benefits: they reduce flooding impacts and they keep people and infrastructure out of harm's way. The areas identified on this map show where green infrastructure should persist to maximize ecosystem services and reduce flood risks.

- **Flood Storage Opportunity Areas (yellow):** low-lying areas associated with riparian systems; the analysis identified the areas that provide the most flood storage capacity – these are located upstream of valuable infrastructure (e.g., densely developed areas, major transportation systems)
- **Salt Marsh Migration Opportunity Areas (purple):** undeveloped areas where there is potential for marsh habitat to migrate (projected, based on a prediction of 2-meters of sea-level rise by 2100)

This map can be used to:

- Proactively protect high-capacity flood storage lands
- Create salt marsh restoration plans and protect low-lying lands to allow for future salt marsh migration
- Identify high risk areas for building due to flood risk

MAP 2. Buffers for Water Quality

This map identifies riparian buffer protection and/or restoration priorities to maintain and improve water quality in our rivers, lakes, ponds and estuaries.

- **Protection Priorities (orange):** natural buffers (e.g., forest cover) that, if converted to development, would lose their natural protection functions and water quality benefits
- **Restoration Priorities (yellow):** open spaces (e.g., fields, lawns) that were altered but largely lack structures, providing an opportunity to restore natural functions (note: working agriculture and certain types of field habitat provide other benefits to communities and wildlife, so the restoration priorities identified on this map must be ground-truthed)

This map can be used to:

- Identify land protection and restoration projects targeted specifically to improve water quality
- Create and prioritize riparian buffer protection and restoration plans

MAP 3. Single & Multiple Benefits

This map highlights areas that provide one or more of the following benefits:

- **Water Quality (pollutant attenuation):** 1) riparian buffer protection opportunities to intercept stormwater runoff and minimize pollution going INTO a water body, and 2) high-functioning wetlands and their buffers, which help remove pollutants already IN the water body (i.e. certain wetland types that are known to have high nitrogen removal benefits)
- **Flood Risk Reduction:** this combines both the flood storage and salt marsh migration opportunity areas from Map 1
- **Public water supply:** lands that safeguard surface and/or groundwater resources for human consumption, including: groundwater of high value for present or future drinking water, favorable gravel wells, stratified drift aquifers, and wellhead protection areas (excluding private wells)

This map can be used to:

- Create buffer protection and restoration plans, and land conservation plans
- Identify the most efficient use of resources and effort
- Inform review of site plans

LEARN MORE:

Buffer Options for the Bay: bufferoptionsnh.org
NH Coastal Program: <https://tinyurl.com/nhdescp>
NH Coastal Viewer: nhcoastalviewer.org

For more information or assistance, contact:
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POTENTIAL FUNDING SOURCES:

“Moose Plate” Grant Program
NHDES Aquatic Resource Mitigation (ARM) Fund
NHDES Drinking Water & Groundwater Trust Fund
NH Land & Community Heritage Investment Program (LCHIP)
Great Bay Resource Protection Partnership (transaction grants)