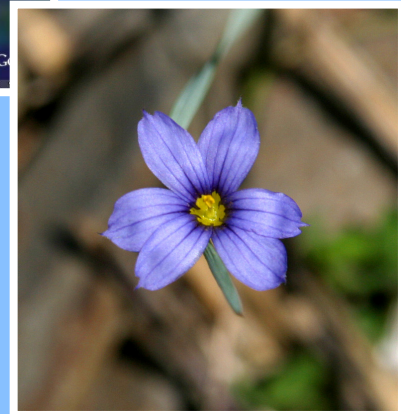
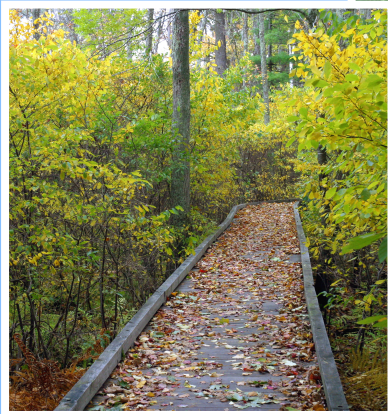
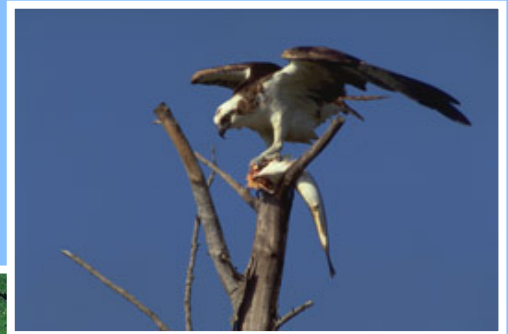


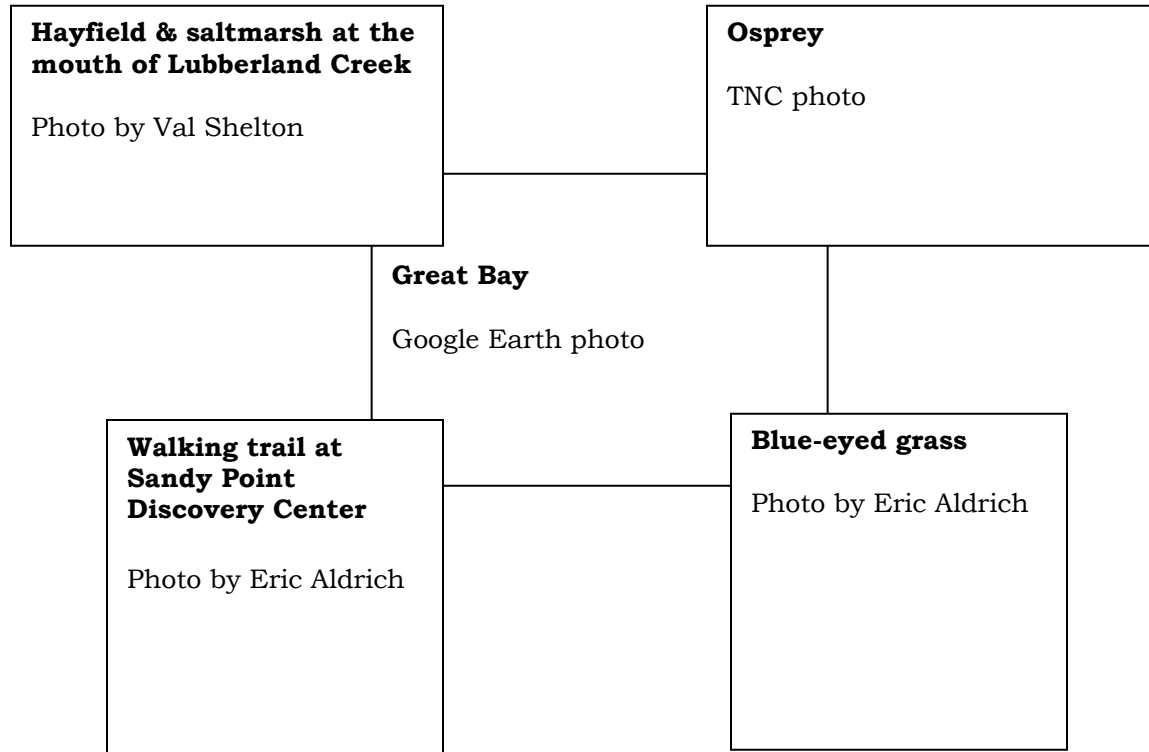
The Land Conservation Plan For New Hampshire's Coastal Watersheds

Executive Summary



August 2006

Cover Photos:



Cite plan as: Zankel, M., C. Copeland, P. Ingraham, J. Robinson, C. Sinnott, D. Sundquist, T. Walker, and J. Alford. 2006. The Land Conservation Plan for New Hampshire's Coastal Watersheds. The Nature Conservancy, Society for the Protection of New Hampshire Forests, Rockingham Planning Commission, and Strafford Region Planning Commission. Prepared for the New Hampshire Coastal Program and the New Hampshire Estuaries Project, Concord, NH.



Executive Summary

Spanning 990 square miles and 46 towns, New Hampshire’s coastal watersheds harbor exceptional and irreplaceable natural, cultural, recreational and scenic resources (Figure 1). To advance the long-term protection of these resources, the State of New Hampshire, acting through the NH Coastal Program and the NH Estuaries Project, sought to develop a comprehensive, science-based land conservation plan for our coastal watersheds. The State engaged a partnership of The Nature Conservancy, Society for the Protection of New Hampshire Forests, Rockingham Planning Commission, and Strafford Regional Planning Commission to develop the plan. The New Hampshire Charitable Foundation’s Piscataqua Region supported this effort as a regional approach to setting land conservation priorities and strategies, and provided substantial matching funds.

Southeastern New Hampshire is changing before our eyes. The region’s forests, wildlife habitat, clean water, and scenic vistas are increasingly threatened by sprawling development, roads, and other irreversible land use changes. Over the past 36 years, in Rockingham and Strafford Counties, an average of 2,230 acres per year has been converted from undeveloped land to a developed condition. And there is no indication that the pace of development will slow in the foreseeable future. The two Counties are projected to add more than 100,000 new residents from 2000 to 2025, and land values continue to rise steeply.

With this conversion comes the loss of important natural resource values provided by undeveloped land, especially for plant and wildlife habitat, clean water, and other “ecological services.” To ensure a healthy environment into the future, it is essential that communities identify, retain, and protect the remaining undeveloped lands and waters that support the most important of these natural resource values and functions.

Fortunately, it is not too late to protect the essential natural resources of Great Bay, Hampton Harbor, and the many important watersheds feeding into New Hampshire’s coastline. Thanks to the foresight and dedicated efforts of communities, citizens, conservation organizations and public agencies, more than nine percent of our coastal watersheds are permanently conserved. Many municipalities and communities have embraced land conservation through open space bonds, master plans, and local ordinances. New federal funds, such as the Coastal and Estuarine Land Conservation program, are available for conservation in the coastal watersheds. These protected lands and waters form the basis of a network of conservation areas that will help to safeguard our most critical natural resources over time.

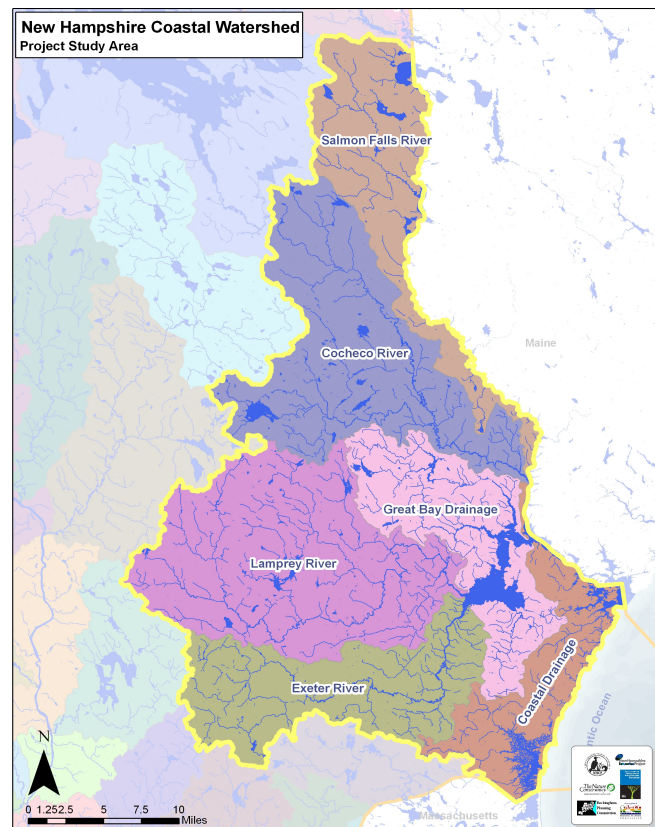


Figure 1. New Hampshire’s coastal watersheds.

Now, more than ever, coastal New Hampshire communities need to ensure that they are making smart, enduring conservation investments in land protection and other effective local and regional strategies to have the greatest and most long-lasting beneficial impact on coastal resource conservation. By considering natural resources information in planning and decision-making, citizens in the coastal watersheds can make a meaningful contribution toward maintaining a high quality of life for residents, and can help to preserve New Hampshire's irreplaceable natural heritage.

Goal Statement

The overarching goal of this land conservation plan is to focus conservation on those lands and waters that are most important for conserving **living resources** - native plants, animals, and natural communities - and **water quality** in the coastal watersheds.

The Land Conservation Plan for New Hampshire's Coastal Watersheds prioritizes coastal watershed areas and offers regional strategies for maintaining diverse wildlife habitat, abundant wetlands, clean water, productive forests, and outstanding recreational opportunities into the future. It was created with public input from a range of stakeholders including citizens, scientists, conservation organizations, and natural resource agencies. Our hope is that the plan will serve as a valuable guide, tool, and information resource for landowners, communities, land trusts, and public agencies that are interested in land conservation.

Purposes of this Plan

This plan attempts to respond to three central land conservation questions: *where*, *why*, and *how*? From a watershed perspective, *where* are the most significant areas for focusing conservation resources? *Why* are these areas so important? And, *how* can communities conserve these areas? Specifically, the plan is intended to achieve the following purposes:

1. Identify and describe a portfolio of areas that represent the best remaining opportunities to conserve the critical ecological, biological, and water resources of New Hampshire's coastal watersheds.
2. Identify and describe a set of voluntary and regulatory land conservation strategies available for protecting the important areas.

This conservation plan is unique. It provides a systematic, science-based approach to identify critical conservation areas and strategies *at the very large scale of New Hampshire's entire collection of coastal watersheds*. The plan enables communities, land trusts, and agencies to better understand how local and regional conservation activities can add up to a functional network of conservation land and waters – a whole that really is greater than the sum of the parts. This plan is not intended to supplant other plans that address conservation and natural resource issues in the region, but rather to augment and complement. As a practical measure, the plan includes a table summarizing all known conservation plans that exist in the coastal watershed region, and cross-references watershed-scale, regional, and local priorities.

Identifying Conservation Priorities

Given advances in conservation planning methodology, local natural resource inventories, and GIS data and mapping tools, we now have the ability to develop a comprehensive land conservation plan that operates at the *watershed scale* and leverages land protection activities of multiple entities in the service of permanently protecting important areas for plants, wildlife, ecosystems, and water quality.

To identify significant resources in the coastal watersheds, we used the following approach:

- Employ a science-based approach using existing data.
- Develop criteria to highlight the most significant natural resource features.
- Incorporate *documented* natural resource features and *predictive* GIS modeling.
- Analyze data at the spatial scale of multiple large watersheds.
- Synthesize information to identify focal areas for conservation attention.
- Solicit review by local experts and general public.
- Cross reference results with existing conservation plans.

Four principal resource analyses and maps were developed that capture key natural resource features. The resource maps reflect the best remaining opportunities to conserve: (1) **Forest Ecosystems**, (2) **Freshwater Systems**, (3) **Irreplaceable Coastal and Estuarine Resources**, and (4) **Critical Plant and Wildlife Habitat**. These resource maps, in turn, were integrated into what is known as a **Resource Co-Occurrence Model**. The goal of a resource co-occurrence mapping model is to aid in identifying areas where several resource values coincide and overlap, thus signaling locations with multiple conservation values and potentially higher priority for protection.

This collection of analyses and maps served as the foundation of our information on significant natural resources in New Hampshire's coastal watersheds. Three additional reference data sets and maps were produced to assist in planning efforts: **Landscape Connectivity**, **Agricultural Resources**, and **Important Water Supply Resources**. Although these attributes were not primary targets of this conservation plan, they do represent information that is important and useful to many stakeholders, and the data did inform the final delineation of conservation focus areas.

From this wealth of natural resources data, seventy-five (75) **Conservation Focus Areas** were systematically identified (see Figure 2). A Conservation Focus Area is an area that is considered to be of exceptional significance for the protection of living resources and water quality in the coastal watersheds. Collectively, these areas comprise approximately 190,300 acres, or 36% of the coastal watersheds. They range from landscape-scale areas that span several communities in the northern and western portion of the planning area, to a mosaic of small but extremely high-value open space remnants nearer the seacoast.

Delineation of the conservation focus areas began with the co-occurrence model and the associated resource composites noted above, but moved through a careful refinement process using aerial photos, watershed boundaries, fragmenting feature location, and expert professional judgment. Each Conservation Focus Area is comprised of a **Core Area** that contains the essential natural resources for which the focus area was identified, with the boundary fitted to the real world of roads, forest edges, rivers and wetlands. Some Conservation Focus Areas also include a **Supporting Natural Landscape**, which is comprised of natural lands that buffer and sometimes link core areas and help to maintain habitat and ecological processes.

The plan includes a detailed, data-driven description of each Conservation Focus Area, along with a series of maps illustrating significant ecological resources and Conservation Focus Area boundaries.

Implementation Strategies

The sheer number of acres identified as Conservation Focus Areas points to the need to employ a variety of strategies. A total of 190,300 acres, or slightly more than one-third of the land and water in the study area, are identified as Conservation Focus Areas. Of this total, only 41,387

acres (or about 22%) are currently protected, leaving approximately 150,000 acres of area for which some form of protection is still needed. This is an immense task that will require new thinking and a willingness to do things differently than we have in the past.

This conservation plan recommends that a three part strategy be implemented to protect and minimize development impacts in the Conservation Focus Areas:

1. **Adopt and Use *The Land Conservation Plan for New Hampshire's Coastal Watersheds and its Policies*** at all appropriate levels of government (state, regional, local) and use it to establish the policy framework for land conservation in the coastal watersheds area. To ensure that the Plan becomes the “green print” for action, the Plan should be adopted and actively used by all parties that have a role in its implementation.

2. **Pursue land protection** through acquisition of conservation easements or fee simple ownership, especially the Core Areas identified within the Conservation Focus Areas.

3. **Regulate the location, density and design of development within Conservation Focus Areas** to minimize harmful impacts while allowing for a reasonable level of development. It is safe to assume that there will never be sufficient funding for land protection strategies to acquire conservation easements or ownership for all 150,000 acres of unprotected Conservation Focus Areas. Given growth trends, it is also a reasonable assumption that unprotected areas in the coastal watersheds will face development pressure in the near future. An important component to this Plan’s implementation strategy, therefore, is to provide guidance and tools to limit the impacts of development that does occur in Conservation Focus Areas, with the goal of maintaining important conservation values. To assist communities, a model ordinance called the *Coastal Watersheds Land Conservation Overlay District (COD)* has been developed as a tool intended to help guide development in these especially sensitive areas. The Conservation Overlay District brings together a number of existing planning tools intended to work in concert to achieve a central purpose: to accommodate limited development within Conservation Focus Areas in such a way that maintains, to the extent possible, the ecological functions and natural services supplied by these areas.

The three implementation strategies are further described in the body of the plan.

Public Outreach

In developing the plan, the partners sought input from a variety of people, organizations, and agencies familiar with the coastal watersheds. In addition, we conducted six public and expert outreach meetings about the plan:

- Oct. 2005 1st Public Meeting at Newington Town Hall
- Feb. 2006 1st Local Experts Review Meeting
- May 2006 2nd Local Experts Review Meeting
Land Trust Review Meeting
- June 2006 Review of Implementation Strategies by Planners and Developers
2nd Public Meeting at Newington Town Hall

At each meeting, the partners requested feedback to help inform and improve the final plan

