Southeast Watershed Alliance
Strategic Plan

April 30, 2013

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1.0 Introduction

The Coastal Watershed of New Hampshire consists of those lands that ultimately drain into the Atlantic Ocean along the New Hampshire coast (Figure 1). The major estuarine waters of the watershed include Hampton Harbor, Great Bay, and Little Bay. Several major rivers including the Piscataqua, Winnicunnet, Exeter, Squamscott, Bellamy, Oyster, Cocheco, Lamprey and Salmon Falls Rivers along with all of their tributaries are also part of the Coastal Watershed. Forty-two towns are situated in the watershed covering a land area of 546 square miles and home to 289,562 persons as of 2008. This represents 22% of the population of the entire state.

To improve and protect water quality throughout the Coastal Watershed, the NH Legislature created the Southeast Watershed Alliance (SWA) in 2009. Each of the 42 cities and towns in the Coastal Watershed is eligible to participate and appoint a representative to the SWA. Of those 42 communities, twenty-seven have appointed a representative, so far.

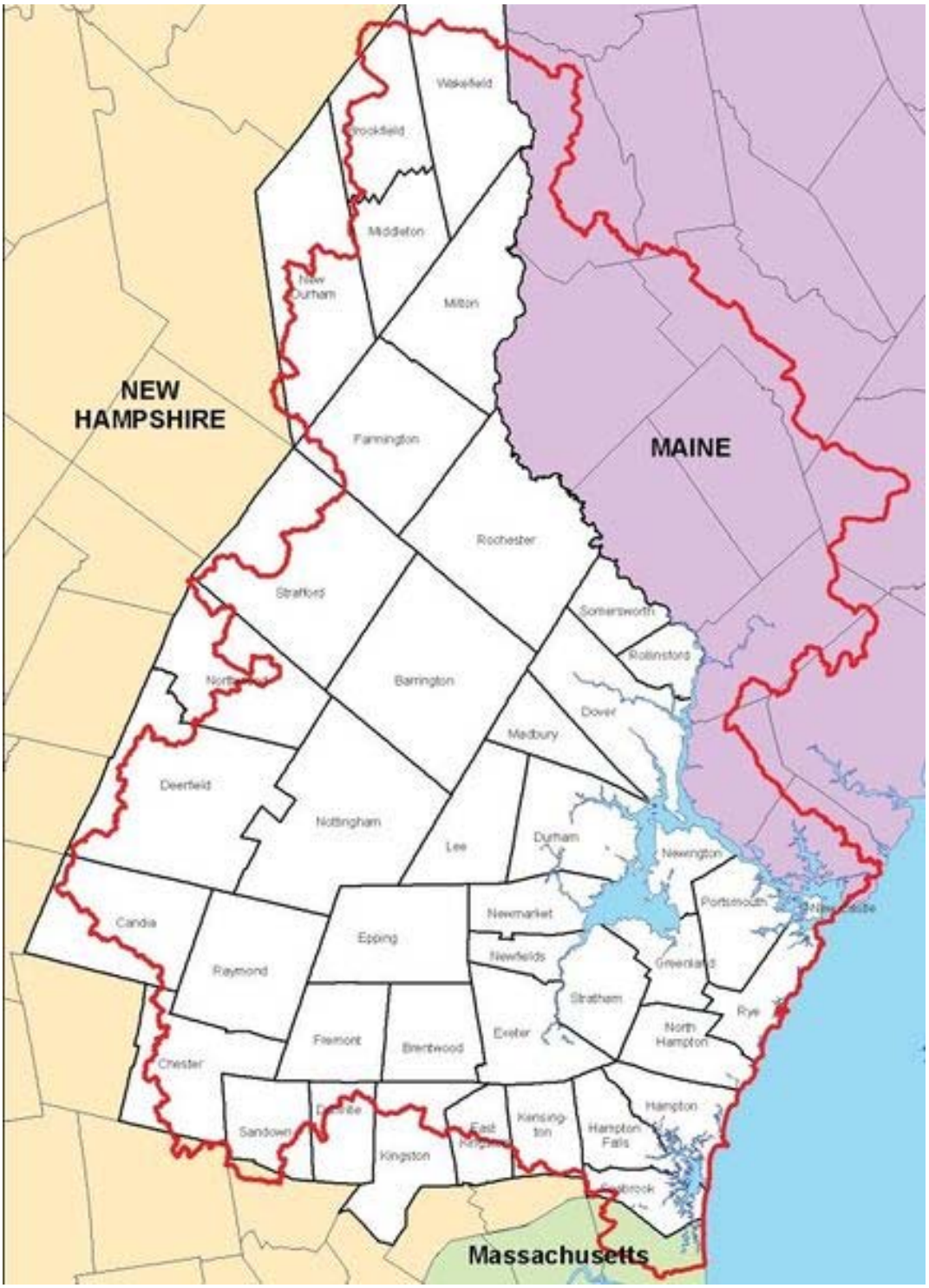

Figure 1 : Map of the New Hampshire Coastal Watershed

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Table 1: The Southeast Watershed Alliance

The Southeast Watershed Alliance includes the following 42 Communities and appointed Representatives as of October 4, 2012. An updated list is online at http://www.southeastwatershedalliance.org/members.

Municipality	Representative
Barrington	Steve Conklin
Brentwood	Emily Schmalzer
Brookfield	
Candia	Richard Snow
Chester	Michael Trainque
Danville	Walter Fries
Deerfield	
Dover	Dean Peschel
Durham	George Rief
East Kingston	
Epping	Chris Albert
Exeter	Jennifer Perry
Farmington	Dale Sprague
Fremont	
Greenland	Maurice Sodini
Hampton	
Hampton Falls	Candace Dolan
Kensington	
Kingston	
Lee	Robin Collins
Madbury	Eric Fiegenbaum
Middleton	
Milton	
New Castle	Bill Stewart
New Durham	
Newfields	Alison Watts
Newington	Tom Morgan
Newmarket	William Arcieri
North Hampton	
Northwood	Shelley Frost
Nottingham	
Portsmouth	Peter Rice
Raymond	Mike Kappler
Rochester	David Green
Rollinsford	Michael Lapoint
Rye	
Sandown	Mark Traeger
Seabrook	Sue Foote
Somersworth	John Jackman
Strafford	
Stratham	Michael Perfit
Wakefield	

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2.0 Vision Statement

Our vision is a healthy coastal water resource that provides a balance between social, environmental, and economic benefits, in keeping with State and Federal regulations.

3.0 Mission Statement

The General Court of the State of New Hampshire defined our mission in our enabling legislation, RSA 485-E:

- Create better municipal, inter-municipal, and regional planning and coordination relative to wastewater and storm water management, water quality and water supply planning and land use;
- Establish a regional framework for coastal watershed communities, regional planning commissions, the state, and other stake holders to collaborate on planning and implementation measures to improve and protect water quality and more effectively address the challenges of meeting clean water standards, particularly with respect to nutrients pollution;
- Encourage coastal watershed municipalities, the state, and other stakeholders, individually and in collaboration with one another, to plan, implement, and invest in wastewater, storm water, and land use planning and management approaches that protect the water quality, natural hydrology, and habitats of the state's coastal resources and associated waters and that advance the state's economic growth, resource protection, and planning policy, established in RSA 9-B; and
- Seek innovative solutions to reducing pollution and enhancing water quality.

4.0 Problems & Contaminants

Many tributary river segments and large portions of the estuarine waters within the watershed are classified as “impaired” as indicated on Figure 2. Everyone who lives in the watershed lives within ten miles of an impaired river, stream, or body of water.

Reported* changes within the Watershed include the following:

- PAH's have increased by 51% in Portsmouth Harbor and by 218% in the Piscataqua River over the past 16 years.
- Dissolved inorganic nitrogen has increased 44% over 28 years.
- Suspended solids have increased 123% over 28 years.
- Chlorophyll-a has increased 28% over 28 years.
- Dissolved Oxygen (DO) often falls below the State Standards in tidal rivers.

* 2011 PREP State of Estuaries Report (update to 2013 Report)

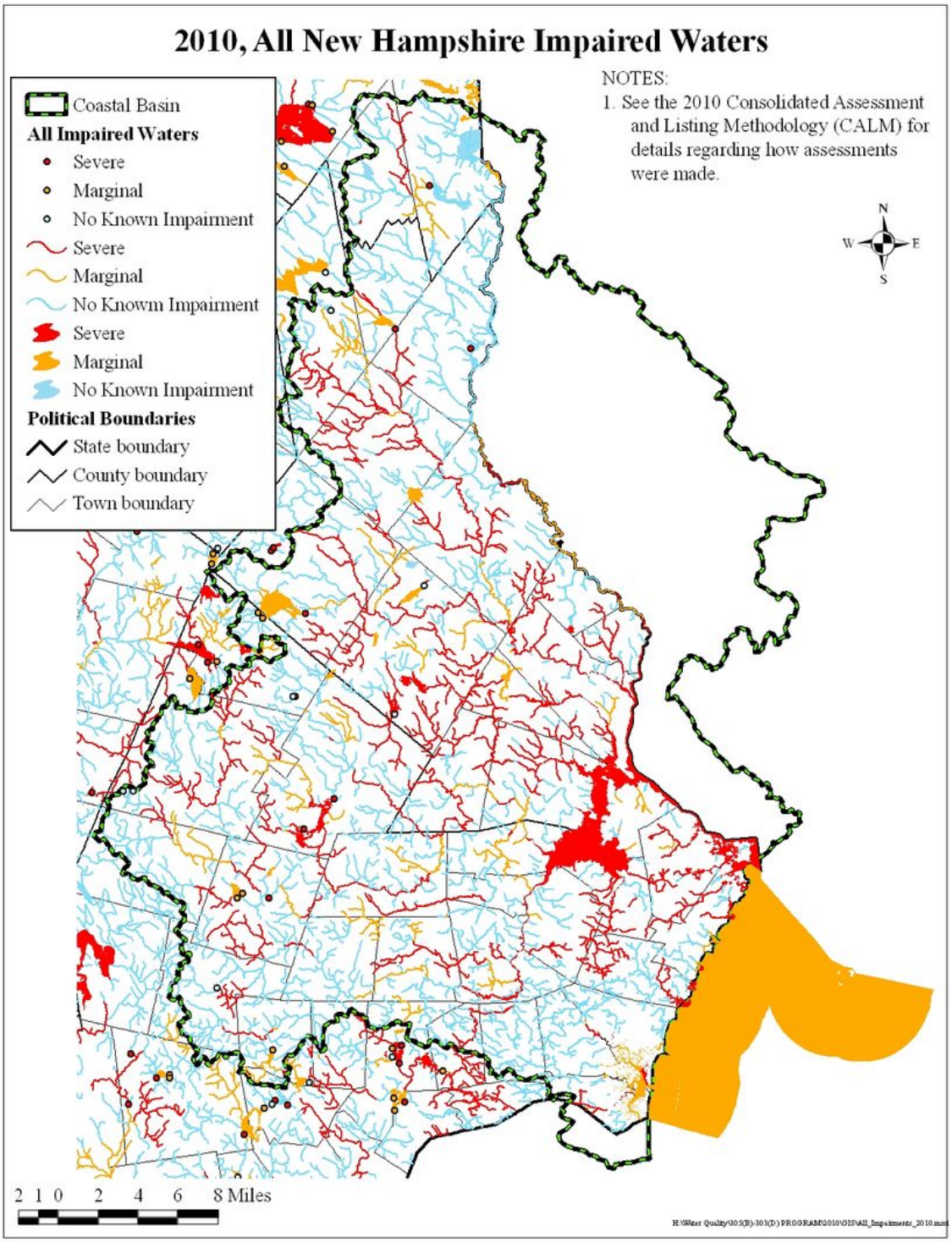

Figure 2 – New Hampshire Impaired Waters

5. O Action Philosophy

It is recognized that to resolve these impairments and improve water quality, numerous efforts on multiple fronts will be required with some efforts requiring considerable more time and study than others. To maximize our effectiveness, it is crucial that we work collaboratively along parallel paths.

In order to generate immediate momentum and progress, initial efforts should focus on those items that can be done quickly and at a low cost. At the same time, we need to focus our attention on identifying the sequence of tasks and resources needed to achieve overall long-term goals. Additionally, each task should be Specific, Measurable, Achievable, Relevant and Time-bound, or "SMARTened". Moreover, all completed actions and accomplishments by the SWA need to be documented and compared against our goals to measure progress. Every year, we will update this plan, in light of our accomplishments and changing conditions.

6.0 Action Priorities

6.1 Collaboration

There are a significant number of organizations that are all working on various projects to preserve and improve the water quality of our watershed. We believe that by collaborating with these various groups we can reduce duplicate efforts and increase the efficient use of limited resources to assure that we obtain the greatest value for the efforts expended. We will review a list of groups in Appendix A and assign, where appropriate, an "ambassador" from our organization to selected organizations. These ambassadors will represent the SWA in these organizations and will periodically report on their activities to the SWA Board of Directors. In addition, we will establish working relationships with Federal, State, and Regional agencies.

6.2 Outreach & Education

6.2.1 Ongoing

Contact the governing boards of the communities that haven't appointed a representative, and encourage them to do so.

Identify Key target groups and organizations already working with them:

To encourage consideration of watershed health in local planning, ensure that following key groups receive appropriate environmental education:

- State elected officials
- Local elected officials and decision-makers, such as municipal officials, mayors, and councilpersons
- Teachers and students
- Real estate, agricultural, and industrial organizations

Identify which organizations are currently working in these areas and what their constraints / limitations are.

Methods:

- Use social media and multi-media campaigns to enhance education and awareness
- Develop broad partnerships and consistent messages.

- Determine one or two immediate short term objectives to build on success.
- Identify local concerns and assist communities in long range planning to solve local problems.
- Create and fund a circuit rider position to assist communities in the process.
- Provide incentives to prioritize actions within watersheds at a smaller scale.
- Coordinate federal assistance (financial and technical) across existing programs (Appendix B) to maximize improvement opportunities.
- Integrate new and enhanced monitoring and assessment data into planning and prioritization activities
- Develop Message and Materials for each audience: Governing boards, land use boards, land owners, developers, citizens, and others such as high school teachers, trusts, college teachers.
- Identify who can best deliver message to each audience.
- Enlist the help and support of all the organizations with similar goals in our area.
- Generate strong and committed community support for local incentives and tie projects to the larger scale problem.
- Distribute information on successful implementation of projects involving storm water management

6.2.2 Promote Low Impact Development (LID)

Methods:

- Identify constraints/ roadblocks at the town, city and lot level to retrofitting existing areas with LID
- Promote demonstration projects and contractor training in installing stormwater management devices.
- Offer low/no cost assistance in planning and installation
- Develop a watershed wide database to track installations and improvements in local conditions.
- Identify methods to improve construction site requirements to reduce sediment loading
- Promote adoption of consistent inter-municipal regulations for nutrient reduction and water quality protection by supporting the actions of the 2010 PREP Management Plan (http://www.prep.unh.edu/resources/pdf/piscataqua_region_2010-prep-10.pdf)
- Promote low impact and low nutrient commercial and residential landscaping techniques (PREP WR-11).
- Support municipal implementation of Phase II stormwater requirements for MS4 communities and BMP outreach and education for municipal staff in communities that are not required to comply with Phase II regulations (PREP WR-25).
- Promote development and implementation of innovative means to reduce the application of chemical deicers from surfaces in the Piscataqua watershed (PREP WR-18).
- Support the development and implementation of water resource management plans

in sub watersheds to maintain sustainable groundwater and surface water use in the coastal watershed (PREP WR-28).

Provide data and information to improve nutrient removal technology at municipal wastewater treatment facilities in the Coastal Watershed. Provide data and information to facilitate watershed-based permitting for NPDES discharge criteria (PREP WR-23).

6.2.2 Identify Research Needs.

- Public Utilities Transmission line rights of way: support more research on the use of herbicides.
- Provide continued distribution of Low Impact Development (LID) practice improvement information to developers and contractors. Coordinate distribution of ongoing Coastal Watershed improvement research information, including inviting experts to present new findings and recommendations.

6.2.3 Create a Constant Presence

- Use varied methods to communicate the same branded message.
- Newspapers, NPR, WMUR, community cable TV, the SWA website, municipal websites.
- You are entering the NH Coastal Watershed signs.

6.3 Benchmarks and Metrics

- Identify deficiencies in scientific data required for taking action.
- Work with UNH, PREP, high schools and others to consistently collect all necessary data.
- Prepare comprehensive reports on the status of contamination; N, TSS, etc.
- Gather data on sales of fertilizer within the watershed.
- Identify and prioritize locations with high non-point source and stormwater pollutant loads for restoration and retrofit opportunities. (PREP WR-9).
- Regular monitoring to track progress on improving water quality
- Provide links to raw data sets.
- Gather data on emerging contaminates
- Support scientific organizations in collecting data

6.4 Inter-Municipal Cooperation

Develop a process to build consensus among the Coastal Watershed communities on nutrient reduction and water quality protection with the following priorities: storm water management; erosion and sediment control; septic systems; and fertilizer setback restrictions or bans. This would include developing consistent regulations for buffers and setbacks as well as identifying best management practices and how they should be reflected in planning and zoning regulations.

6.5 Address Storm Water Issues

- Identify and remove connections between sanitary sewers and storm sewers.

- Identify storm water treatment showcase sites that remove nutrients and use as educational examples for public works staff, developers, and citizens to model.
- Improve management of agricultural lands to minimize nutrients, bacteria and sediment loading. (PREP WR-5).
- Reduce nutrient loading to the Coastal Watershed from septic systems (PREP WR- 13).
- Improve erosion and sedimentation controls at construction sites in the Coastal Watershed (PREP WR-15).
- Improve implementation of household hazardous waste and pollution prevention programs in the Coastal Watershed and include pharmaceutical and personal care product disposal (PREP WR-20).

6.6 Bio-extraction

Investigate feasibility and procedures for implementing bio-extraction (oyster aquaculture) project in Great Bay including tributaries and Hampton Harbor.

6.7 Drinking Water Protection

Develop and implement drinking water supply protection measures. Measures may include land protection, wellhead/aquifer protection regulations, identification of potential contamination sources, etc.

6.8 Land Conservation

Support efforts to protect erodible undeveloped lands through permanent land conservation and/or development restrictions.

6.9 Secure Funding

In order to expand the efforts contributed by "volunteers", additional funding needed to accomplish the SWA goals and objectives will be pursued as outlined in Appendix B, including the following:

- Operating Grants
- Grants for showcase sites
- Grants for outreach
- Funding for implementation of recommended watershed water quality improvements

6.10 Longer Term Action Items

6.10.1 Inter-Municipal Waste Water Treatment

- Investigate inter-municipal or regional wastewater (sewer) districts and facilities
- Investigate inter-municipal storm water utilities and facilities
- Investigate the feasibility of a nutrients offset or trading program in coordination with NH DES/EPA.
- Explore alternative treatment technologies as they become available.

7. Glossary

A-K

L-Z

TMDL -- Total Maximum Daily Load

TSS -- Total Suspended Solids

8. Appendix A

Coastal Watershed Organizations

Appendix B

State and federal Assistance Programs