2006

Casco Bay Plan 2006 Update

Casco Bay Estuary Partnership

Casco Bay Plan

2006 Update

The Casco Bay Estuary Partnership (CBEP, formerly the Casco Bay Estuary Project) is a collaborative effort to preserve and protect the bay's resources. The partners include local, state, and federal agencies and interested citizen groups. In 1990, the U.S. Environmental Protection Agency designated Casco Bay as "an estuary of national significance," leading to the formation of the CBEP. For the past 15 years, CBEP has received significant annual federal funding to develop and implement a plan for the bay's future. Since the Casco Bay Plan was adopted in 1996, the partners have been working together to meet the five goals stated in the plan:

- Minimize the loading of pathogens, toxics, nutrients, and sediments from stormwater and combined sewer overflows.
- Open and protect shellfish and swimming areas impacted by water quality.
- Minimize adverse environmental impacts to ecological communities from the use and development of land and marine resources.
- Reduce toxic pollution.
- Promote responsible stewardship on the part of the Casco Bay community members to protect Casco Bay and its watershed.

To learn more abut CBEP and our work, please visit www.cascobayestuary.org

Casco Bay Estuary
PARTNERSHIP

Casco Bay Plan Update 2006

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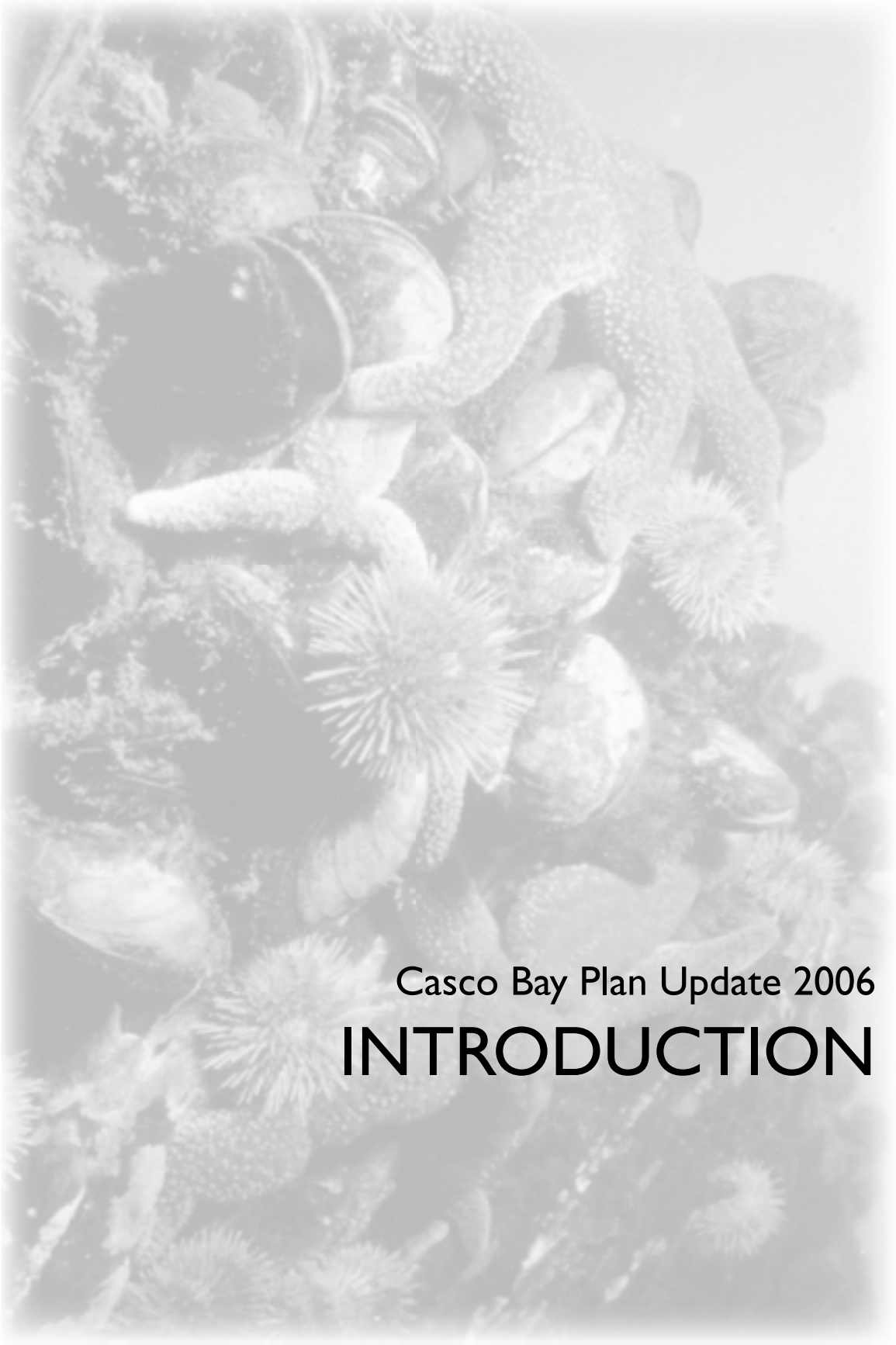


Casco Bay Plan Update 2006

INTRODUCTION

I. Introduction

The Need for an Update to the *Casco Bay Plan*

In the Fall of 2004, the Casco Bay Estuary Partnership (CBEP) embarked on a process to review and update the core of the 1996 *Casco Bay Plan (Plan)*: the set of thirty-three recommended action items in five topic areas which guide the CBEP's work. Nine years of implementation of the original *Plan* resulted in a remarkable amount of progress toward restoration and protection of Casco Bay. However, new issues and threats to the Bay, such as marine invasive species, emerged since the original *Plan* development. In addition, new science, technologies, programs, political climates, regulatory frameworks, and partnerships now existed.

Nine years of implementation of the original Plan resulted in a remarkable amount of progress toward restoration and protection of Casco Bay.

However, new issues and threats to the Bay, such as marine invasive species, emerged since the original Plan development.

CBEP's activities continually evolved within the existing *Plan* framework of its five priorities and goals to try to meet these changing needs and resources, but the action items in the *Plan* had not been updated to reflect this evolution. Thus, CBEP decided that it was time to bring the *Plan* up-to-date and consider new opportunities and needs.

Background

The 1996 *Plan* was developed using a local stakeholder process in accordance with the model used around the country as the foundation for the U.S. Environmental Protection Agency (EPA) National Estuary Program (NEP). A detailed description of this planning process and its use at the twenty-eight NEP sites nationwide can be found in the EPA document titled "Community-Based Watershed Management: Lessons from the National Estuary Program." This document can be downloaded at http://www.epa.gov/owow/estuaries/nepprimer/handbook.htm.

The Casco Bay Estuary Project (now, Casco Bay Estuary Partnership, CBEP), one of the twenty-eight NEPs, was established in 1990 with the EPA designation of Casco Bay as an "estuary of national significance" in response to a nomination by the Maine Department of Environmental Protection. This initiated the planning process to develop a Comprehensive Conservation and Management Plan (CCMP) for Casco Bay, the *Casco Bay Plan*.

The *Plan* development process was based on a foundation of scientific research and spanned over five years, involving hundreds of stakeholders including citizens, government representatives, businesspeople, technical experts, non-profit organizations, and others. Organizations providing letters of support and endorsement for the 1996 *Plan* include six federal agencies, nine state agencies, six regional non-profit organizations, and all twelve municipalities abutting the Bay. For a detailed description of the development of the *Plan*, including the steps and individuals involved, please see Chapter eleven in the 1996 *Plan* document.

Casco Bay Plan Structure

The 1996 *Plan* includes an overview of the state of the bay (Chapter one) as well as five more detailed chapters on the state of the bay relative to each of the five priority topic areas: stormwater, clam flats and swimming areas, habitat protection, toxic pollution, and stewardship (Chapters two through six, respectively).

Chapter seven of the *Plan* detailed the thirty-three action items to be taken to address issues in each of the five priority areas. In the 1996 *Plan*, the action items fall into four types of activity: Public Education (PE), Technical Assistance (TA), Regulatory/ Enforcement (RE), and Planning and Assessment (PA). The action items are organized by the type of action to be taken (e.g. PA#1, PA#2, etc.) rather than by the priority topic they address.

Chapter eight provides an overview of the strategy for monitoring progress in the Bay. Chapter nine outlines the strategy for implementation and financing for the first five years (1996-2001) of *Plan* implementation. Chapter ten discusses the coordination of this federally-funded *Plan* with other federal programs, and Chapter eleven outlines the process used to develop the *Plan*.

This "2006 Casco Bay Plan Update" (2006 Update) document is intended to replace Chapter seven of the 1996 *Plan*, the detailed descriptions of actions to be taken in each of the five priority topic areas. As discussed below, **the action items in the 2006 Update are organized by priority topic area (e.g. Stormwater #1, Stormwater #2) rather than by the type of action to be taken (e.g. Technical Assistance Action #1).**

The 2006 Update is a companion to several related documents:

1) The "State of the Bay 2005" which provides an overview of the state of the Bay at the time this Update was written to supplement Chapters one through six of the1996 *Plan*;

2) The "2004 Casco Bay Monitoring Plan" which is an updated detailed monitoring plan for Casco Bay to supplement Chapter eight of the 1996 *Plan;* and

3) CBEP's annual workplans which outline the yearly priorities for implementation and budget in place of Chapter nine.

Guiding Principles and Scope of Work

A strongly held feeling of CBEP and a guiding view for this 2006 Update, was the desire to honor the hard work and broad stakeholder input involved in the original development of the *Plan* between 1990 and 1996. In addition, because CBEP and partner resources to implement the *Plan* are limited, a focus was placed on ensuring that the action items in the *Plan* were realistically defined and complementary to existing efforts and regulatory frameworks. After nearly ten years of implementation, CBEP recognizes that some of the action items in the *Plan* require ongoing long-term effort and may never be fully 'completed', yet these actions are important to retain in the 2006 Plan Update because they establish a direction for our future work in these areas.

With these ideas in mind, the following guiding principles and scope of work for the 2006 Update were established:

Guiding Principles:

- Honor the past (i.e., the original *Plan* development process); and
- Balance need and vision with achievability and practicality.

2006 Plan Update Scope

■ The scope of work was prioritized into three major categories, to be addressed in sequence:

Primary: The primary scope of work for the 2006 Update was to review each of the 33 action items in the *Plan* to determine whether they should be 1) kept as is with work to continue, 2) dropped from the *Plan*, or 3) revised to reflect current needs and activities. Action items were dropped from the *Plan* if they met one of the following criteria:

- Fully completed;
- Institutionalized through the ongoing activities of another entity;
- Combined with another action item for greater effect; or
- No longer relevant, effective, or feasible.

Secondary: The secondary scope of work was to explore the need for new action items within the existing five priority topic areas of the *Plan* (stormwater, clam flats and swimming areas, habitat protection, toxic pollution, and stewardship). In addition, the need for additional priority topic areas for action beyond these five was explored based on new threats to the Bay.

Tertiary: The tertiary scope of work was to identify and describe goals, objectives and recommended actions for additional priority topic areas (if any) and to re-assess the prioritization of the priority topic areas (currently stormwater and habitat are considered higher priority among the five areas).

■ The items deemed to be outside the scope of the 2006 Update were:

- The goals and objectives outlined in each of the five priority action areas;
- The organizational structure and operations of the Casco Bay Estuary Partnership; and
- The "Casco Bay Monitoring Program" document which was reviewed and updated by a technical advisory committee in August 2004.

The Process

CBEP hired an independent contractor to facilitate the 2006 Update process. The majority of the facilitator's time was funded directly by U.S. Environmental Protection Agency (EPA) headquarters through the National Estuary Program in the Ocean and Coastal Protection division of the Office of Water. CBEP provided the balance of funding for his time through its EPA grant.

The CBEP staff and nine-member Executive Committee served as the Steering Committee for the 2006 Update process. The twenty-three member CBEP Board of Directors outlined the scope and guidance for this process and conducted the initial review of *Plan* action items to identify those to be dropped, modified, or kept. The CBEP Board includes members from state and federal agencies, regional quasi-governmental organizations, non-profit environmental organizations, municipalities, business and citizens.

Plan action items needing to be modified were carefully reviewed and discussed by sub-groups of individuals familiar with the most relevant topic area (stormwater, clam flats and swimming areas, habitat, toxic pollution, or stewardship), and by CBEP's relevant Committees (Stormwater, Habitat Restoration, Habitat Protection, Clam Team, Outreach) for detailed input on the substantive changes needed. Based on this review, volunteers from each group drafted proposed changes to the action and one-page descriptions for each action item including the need, action to be taken, and partners involved. These draft one-page descriptions were reviewed by the topic sub-groups and then presented to the full CBEP Board for feedback.

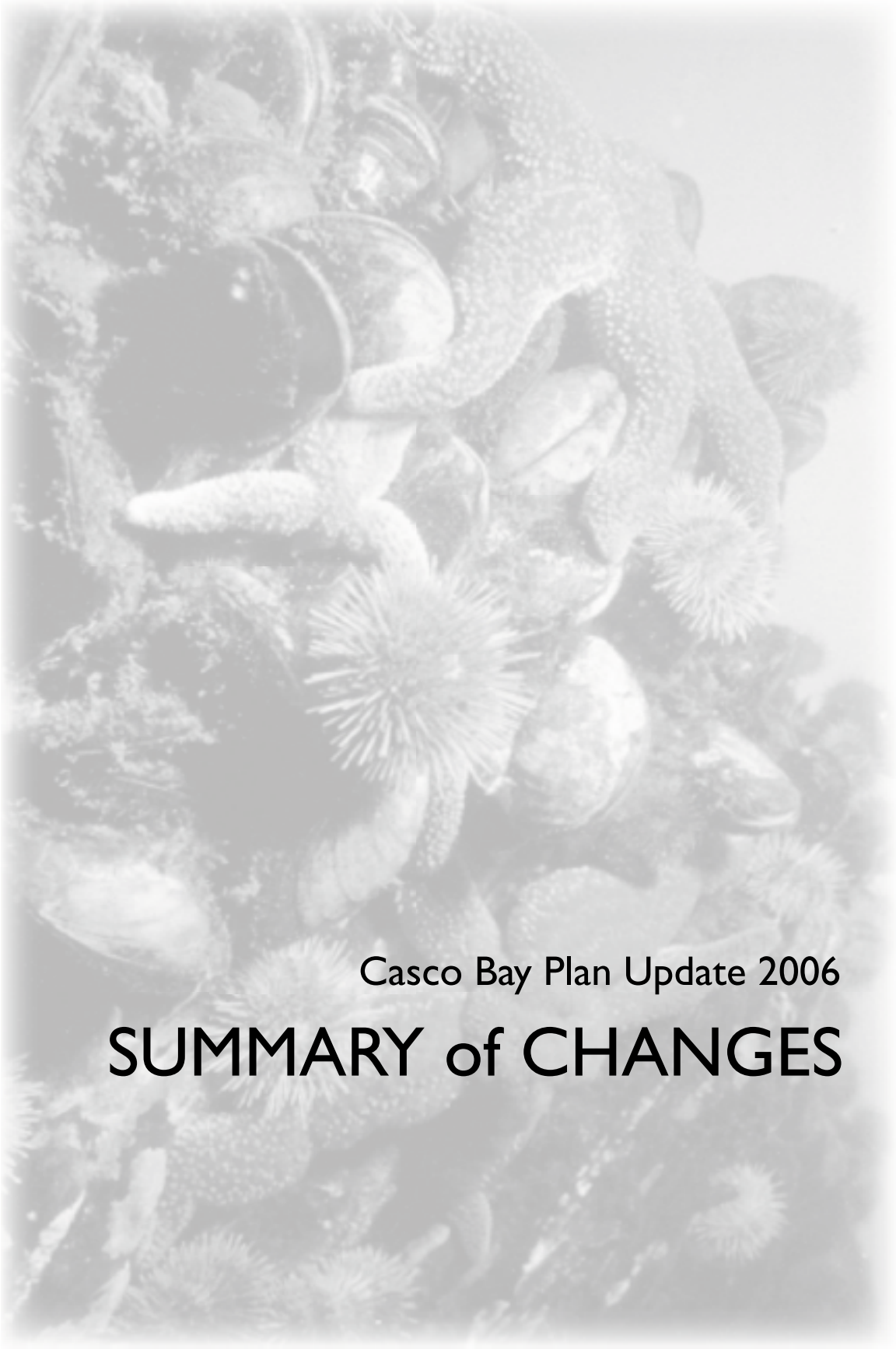
A draft *Plan* Update resulted from this process and was circulated for public review in late Fall, 2005. Outreach efforts to the public included:

- Distribution of the draft Update to all attendees of the State of the Bay 2005 conference held on November 3, 2005;
- Mailing of letters to each signatory of the 1996 *Plan* and each of the municipalities within the watershed inviting their comments and directing them to an electronic version of the 2005 Update on CBEP's website;
- Circulation of an electronic announcement of the public comment period for the 2005 Update to be circulated via email to all CBEP partners and posted on the web; and
- Distribution of a press release to all major media outlets in the Casco Bay region announcing the release of the Draft *Plan* Update.

Comments from any member of the public were strongly encouraged and were accepted until January 13, 2006. All comments received during the public comment period were reviewed and discussed by the CBEP staff, Board, and Committees, as needed, and appropriate changes were made to the 2006 Update to reflect these comments *(see Appendix A, page 45)*.

The "Casco Bay Plan" as an Evolving Plan

The 2006 *Plan* update process reaffirmed CBEP's belief that the *Plan* should continually evolve and be periodically revisited to address the changing needs of Casco Bay's environment and the development of new technologies and information.



Casco Bay Plan Update 2006

SUMMARY of CHANGES

II. Summary of Changes in the 2006 *Plan* Update

Overview

(The table on pages 16 and 17 provides a '2006 Plan Update at-a-glance' overview of these changes.)

- ***Primary Goal — Review and assessment of all action items:***

The 1996 *Plan* contained thirty-three action items in the five priority topic areas.

- Of these original actions, through the 2006 Update process:
  - Twelve action items were dropped;
  - Twenty actions were modified;
  - One action was kept as is; and
  - Three new action items were added.

- Of the action items that were dropped:
  - Four were completed;
  - Three were institutionalized and are ongoing;
  - Three address needs that are being met through other approaches; and
  - Two were combined into other action items.

- ***Themes in the Modifications to the Action Items:***

The modifications to twenty of the action items fall into three general categories of changes:

- A shift in approach, particularly from a regulatory/enforcement approach to the promotion of public education and stakeholder involvement;
- The next phase of work needed, building on work to date; or
- Bringing the action item up to date with current programs, partners, laws, science, needs, and opportunities.

- ***Secondary Goal — Need for new action items or new priority topic areas:***

Three new action items were added, one each in the Stormwater, Habitat Conservation, and Toxic Pollution priority areas. Although no new priority topic areas were added, the titles of two of the original five priority topic areas were modified to reflect the full scope of activities within that area.

The 'Habitat Protection' topic was re-named 'Habitat Conservation' to reflect CBEP's work with both land/open space protection and habitat restoration. The 'Clam Flats and Swimming Areas' topic was re-named 'Shellfish and Swimming Areas' to encompass work not only with clams but with other shellfish as well.

• ***Tertiary Goal — identify and describe goals, objectives and recommended actions for additional priority topic areas (if any) and re-assess the prioritization of the priority topic areas (currently stormwater and habitat):***

Although no new priority topic areas were added to the existing five as part of this process, land use/smart growth was identified as an issue which may merit designation as a sixth topic area at some point in the future.

CBEP already works indirectly on land use issues through watershed planning, stormwater management, habitat conservation, and stewardship activities. There was interest expressed during the 2006 Update process in adding additional action items in this area beyond the current activities. However, numerous entities in the Casco Bay watershed are already working on land use issues and since the addition of a new priority topic area could require a significant reallocation of CBEP resources, this proposal was tabled until more research could be done on existing efforts and any unmet needs.

The proposed approach to this research is to host a facilitated Casco Bay Land Use Summit with invitations to members of all active organizations working on land use planning and smart growth in the watershed. The goals of the Summit would be to: 1) understand the scope of all partners' current and planned land use planning/smart growth activities; 2) identify whether or not unmet needs or gaps in the cumulative approach exist; and 3) outline action items that would make sense for CBEP to address. Based on the outcome of this summit, CBEP would consider land use/smart growth and the identified action items as a potential new priority topic area in the *Plan*. The process to decide whether to add this new topic and actions to the *Plan* would be similar to that used for this 2006 *Plan* Update.

Since no new priority topic areas were added to the 2006 Update, the current identification of stormwater and habitat conservation as the priority topics remains.

Structural Changes

The organization of action items in the 2006 Update changed from the 1996 *Plan*. Action items in the original *Plan* were organized by the four types of actions to be taken:

- technical assistance (TA)
- public education (PE)
- regulatory/enforcement (RE)
- planning and assessment (PA)

In this 2006 Update, the **action items are organized by the five priority topics they primarily address (Stormwater, Shellfish and Swimming Areas, Habitat Conservation, Toxic Pollution, and Stewardship) and re-numbered accordingly.**

Substantive Changes

The table on the pages 16 and 17 provides an overview of the 2006 *Plan* Update. In addition, a brief summary of the changes made to action items within each of the five priority topics is provided below. The detailed one-page descriptions of each action item begin on page 20.

Action items in the original Plan were organized by four types:
- technical assistance (TA)
- public education (PE)
- regulatory/enforcement (RE)
- planning and assessment (PA)

In this 2006 Update, the action items are organized by the five priority topics they primarily address and re-numbered accordingly:
- Stormwater
- Shellfish and Swimming Areas
- Habitat Conservation
- Toxic Pollution
- Stewardship

Stormwater

❖***Stormwater Action #1; (****formerly, TA#4****): Provide Training in Best Management Practices for Contractors, Farmers, Public Works Crews, Road Commissioners, and Municipal Boards and Staff.***

Change: **MODIFIED** to broaden the target audience and re-named *Provide Training in Stormwater Best Management Practices for Appropriate Target Audience.*

❖***Stormwater Action #2; (****formerly, TA#6****): Develop and Implement Action Plans for Subwatershed Areas.***

Change: **MODIFIED** to focus on smaller watersheds, address watersheds with immediate impact to Casco Bay (below Sebago Lake), target impaired and threatened waterbodies, and to focus on dialogue and stakeholders and re-named *Promote Subwatershed Management, Planning, Implementation, and Evaluation.*

❖ ***Stormwater Action #3; (****formerly, RE#2****): Monitor Enforcement of Combined Sewer Overflow Reduction Plans in Portland, South Portland, and Westbrook.***

Change: **MODIFIED** to monitor CSO abatement progress rather than enforcement and re-named *Monitor Progress of Combined Sewer Overflow Reduction Plans in Portland, South Portland, and Westbrook.*

❖ ***Stormwater Action #4; (****formerly, RE#3****): Adopt Minimum Standards for Stormwater Quality in State and Municipal Regulatory Programs.***

Change: MODIFIED to reflect the work of and to offer continued support to the Interlocal Stormwater Working Group and ongoing NPDES Phase II efforts; also, to modify municipal ordinances to be consistent with new state regulations. The action item has been re-named *Assist Interlocal Stormwater Working Group and Municipalities with Meeting Requirements in Maine's Stormwater Management Law and the Federally-Mandated MEPDES Stormwater Program.*

❖ **(***former PE#6****):*** ***Create an Educational Site Demonstrating How Vegetation Reduces Stormwater Runoff.***

***Change*: DROPPED** because the action was completed with the construction of a vegetated riparian buffer demonstration site on Back Cove.

❖ **NEW (*Stormwater Action #5*): *Promote the Use of Vegetated Buffers and Other Low Impact Development (LID) Technologies to Reduce Stormwater Runoff.***

Shellfish and Swimming Areas

This priority topic area was re-named 'Shellfish and Swimming Areas' from its original 'Clam Flats and Swimming Areas' to encompass work not only with clams but with other shellfish as well.

- ***Shellfish/Swimming Areas Action #1;*** *(formerly, TA#1)*: ***Provide Technical Assistance to Help Reopen Clam Flats.***

  Change: **MODIFIED** to update the action to show progress and work to-date and the added focus on sustainable management, and re-named ***Provide Technical Assistance to Help Reopen and Manage Shellfish Areas.***

- ***Shellfish/Swimming Area Action #2;*** (*formerly, TA#2*)***: Provide Technical Assistance to Monitor and Open Public Swimming Areas.***

  Change: **MODIFIED** to support ongoing bacterial monitoring; explore monitoring of additional areas; educate the public and municipalities about monitoring; and update to focus on the Maine Healthy Beaches Program and their work to date. The action item was re-named *Provide Technical Assistance to Monitor and Open Swimming Areas.*

- ***Shellfish/Swimming Area Action #3;*** (*formerly, TA#3*)***: Train Installers and Pumpers of Septic Systems.***

  Change: **MODIFIED** to improve the information supplied by septic pumpers to homeowners.

- ***Shellfish/Swimming Area Action #4; (****formerly, RE#4****): Comply with the Pumpout Law.***

  Change: **MODIFIED** to support compliance with the pumpout law through support for maintenance of pumpout systems and re-named *Support Compliance with the Pumpout Law.*

- (former **RE#5): Improve Local Enforcement of the Subsurface Wastewater Disposal Rules.**

  Change: **DROPPED** because this action was combined into other action items.

- ***Shellfish/Swimming Area Action #5; (****formerly, RE#6****): Require Proof of Legal Waste Disposal Upon Transfer of Property.***

  Change: **MODIFIED** to shift from requiring proof of legal waste disposal upon transfer of property to support voluntary inspections; and support delivery of existing outreach materials to homeowners upon property transfer. The action item was re-named *Support efforts to prevent septic system malfunction through voluntary inspection programs during property transfers and education of key stakeholder groups.*

- ***Shellfish/Swimming Area Action #6; (****formerly, PA#1****): Develop Municipal Programs to Protect Water Resources and Clam Flats from Septic System Discharges.***

  Change: **MODIFIED** to expand the City of Brunswick contractor partnership model (automatic notification of homeowners about scheduled maintenance and pumping needs) to other municipalities. The action item was re-named *Expand Cooperative Programs between Commercial Pumpers and Installers and Municipalities to Protect Shellfish Areas from Septic System Discharges.*

Action items in the original Plan were organized by four types:
- technical assistance (TA)
- public education (PE)
- regulatory/enforcement (RE)
- planning and assessment (PA)

In this 2006 Update, the action items are organized by the five priority topics they primarily address and re-numbered accordingly:
- Stormwater
- Shellfish and Swimming Areas
- Habitat Conservation
- Toxic Pollution
- Stewardship

❖ ***(former PA#3): Review Implementation of the National Shellfish Sanitation Program.***

Change: **DROPPED** because this item has been completed.

❖ ***(former PA#9): Research Whether State Subsurface Wastewater Disposal Rules Adequately Prevent Coastal Pollution.***

Change: **DROPPED** because this item has been completed with research by a USM graduate student; further investigation was not feasible.

Habitat Conservation

This priority topic area was re-named 'Habitat Conservation' from its original 'Habitat Protection' to reflect CBEP's work with both land/open space protection and habitat restoration.

❖ **Habitat Conservation Action #1*; (****formerly, TA#7****): Provide Technical Assistance Necessary for Habitat Protection****.*

Change: **MODIFIED** to add support for the *Beginning with Habitat* program.

❖ ***(former RE#1): Clarify the Use of the Natural Resource Protection Act for Habitat Protection.***

Change: **DROPPED** because different non-regulatory approaches are being used to advance habitat protection.

❖ ***(former PA#4): Research the Impact of Tax Codes on Habitat Conservation.***

Change: **DROPPED** because this action item was completed through research by a USM Muskie School graduate student.

❖ ***Habitat Conservation Action #2; (****formerly, PA#5****): Develop a Plan to Restore Degraded Habitat in Casco Bay.***

Change: **MODIFIED** to reflect the activities and goals of the Casco Bay Habitat Restoration Program and Committee and re-named *Develop and Implement Plans to Restore Degraded Habitat in Casco Bay*.

❖ ***Habitat Conservation Action #3; (****formerly, PA#8****): Develop a Grant Program to Support Local Habitat Protection Activities.***

Change: **MODIFIED** to reflect the ongoing CBEP funding programs for both protection (CBEP Habitat Protection Fund) and restoration activities (CBEP Habitat Restoration Fund) and re-named *Continue a Grant Program to Support Local Habitat Protection and Restoration Activities.*

❖ **NEW: Habitat Conservation Action #4: *Participate in Efforts to Address the Impacts of Invasive Marine Organisms in Casco Bay***

Toxic Pollution

- ***(former TA#5): Establish a Reduction and Management Program for Toxic Pollutants in Casco Bay Communities and Small Businesses.***

  Change: **DROPPED** because this action item was combined with Stewardship #3 (Conduct a comprehensive campaign to promote sound household practices).

- ***(former TA#8): Conduct Pollution Prevention Audits for Businesses/Industries that Affect Casco Bay.***

  Change: **DROPPED** because this action item has been institutionalized with the Maine Department of Environmental Protection Pollution Prevention audits.

- ***Toxics Action #1; (****formerly, PA#2:****) Develop a Comprehensive Management Strategy for Dredged Material.***

  Change: **MODIFIED** to provide support rather than develop the management strategy; CBEP-specific activities will include reviewing existing data, updating "Alternatives for Dredge Disposal in Portland Harbor," and developing layperson-friendly guidance material for dredgers. This action item was re-named *Support Efforts to Develop a Comprehensive ManagementStrategy for Dredged Material.*

- ***Toxics Action #2; (****formerly, PA#6****): Develop Biological/Environmental Indicators.***

  Change: **MODIFIED** to reflect the availability of recent monitoring data and the participation of additional partners, to focus specifically on biological indicators in marine waters, and re-named *Develop Biological Indicators for Marine Waters.*

- ***Toxics Action #3; (****formerly, PA#7****): Develop Sediment Quality Criteria and Sediment Quality Discharge Limits that Apply to Casco Bay.***

  Change: **MODIFIED** to shift from the development of standards to the development of non-regulatory thresholds and re-named *Develop Sediment Quality Thresholds for Assessment of Contaminated Sediments.*

- ***(former PA#10): Research the Contribution of Deposition of Pollutants from the Air.***

  Change: **DROPPED** because this action item has been completed with the establishment of an air monitoring site in Freeport by CBEP and subsequent analysis of data collected there. In addition, this action has been institutionalized through its adoption as part of the Maine DEP air monitoring program statewide.

- **NEW: Toxics Action #4:** ***Research the Feasibility of and Best Approach to Monitoring New Environmental Analytes.***

Action items in the original Plan were organized by four types:
- technical assistance (TA)
- public education (PE)
- regulatory/enforcement (RE)
- planning and assessment (PA)

In this 2006 Update, the action items are organized by the five priority topics they primarily address and re-numbered accordingly:
- Stormwater
- Shellfish and Swimming Areas
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- Toxic Pollution
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Stewardship

❖ ***Stewardship Action #1; (****formerly, PE#1****): Fund High School Students' Research.***

Change: MODIFIED to expand the audience from high school to K-12 and to expand the focus from funding research to supporting educational programs including CBEP's ongoing support for the Children's Water Festival, Envirothon, and Americorps volunteer promoting environmental education in Casco Bay watershed schools, among other things. This action item was re-named *Support K-12 Educational Activities Related to Casco Bay.*

❖ ***Stewardship Action #2; (****formerly, PE#2****): Focus Post-Secondary Educational Programs on Casco Bay.***

Change: **MODIFIED** to acknowledge the many service learning opportunities through the region's colleges and Universities.

❖ ***Stewardship Action #3; (****formerly, PE#3****): Conduct a Comprehensive Campaign to Promote Sound Household Practices.***

Change: **MODIFIED** to reflect current educational activities targeted at household practices including the *Bayscaping* and *Yardscaping* programs and the "Think Blue Maine" and "It's All Connected" stormwater education campaigns, among other things and re-named *Support Educational Campaigns to Promote Sound Household Practices.*

❖ ***(former PE#4): Educate Boaters about Low-Impact Practices, Non-toxic Boat Products, and the Need to Protect Sensitive Habitats.***

Change: **DROPPED** because this action was completed. CBEP worked with partners to publish and distribute several clean boating guides and brochures. CBEP also helped launch the Casco Bay Clean Boatyards & Marinas Program which was a pilot in the region and has now expanded statewide and been institutionalized as the Maine Clean Boatyards & Marinas Program.

❖ ***(former PE#5): Develop an Environmental Habitat Kit and Guide Maps to Casco Bay for the General Public.***

Change: **DROPPED** because the need is being met by other organizations.

❖ ***Stewardship Action #4; (****formerly, PE#7****): Hold "State of the Bay" Conferences.***

Change: **MODIFIED** to indicate that conferences will be held every 2-3 years as appropriate.

❖ ***(former PE#8): Extend the State Planning Office's New "Marine Volunteer Program" to Casco Bay.***

Change: DROPPED because the need to engage volunteers around Casco Bay in stewardship activities is being met through other volunteer programs.

❖ ***Stewardship Action #5; (****formerly, PE#9****): Continue Friends of Casco Bay's Successful Volunteer Water Quality Monitoring Program.***

Change: NO SUBSTANTIVE CHANGE was made to this action item.


PORTLAND
TRAILS

Updated Action Items (note: strike throughs indicate change in language; "X" indicates removed from Plan)

STORMWATER

STORMWATER ACTION #1
(formerly, TA #4)

Provide Training in Stormwater Best Management Practices for ~~Contractors, Farmers, Public Works Crews, Road Commissioners, and Municipal Boards and Staff~~ Appropriate Target Audiences.

STORMWATER ACTION #2
(formerly, TA #6)

~~Develop and Implement Action Plans for Subwatershed Areas.~~ Promote Subwatershed Management, Planning, Implementation, and Evaluation.

STORMWATER ACTION #3
(formerly, RE #2)

Monitor ~~Enforcement~~ Progress of Combined Sewer Overflow (CSO) Reduction Plans in Portland, South Portland, and Westbrook.

~~Clam Flats/Swimming Areas~~ SHELLFISH/SWIMMING AREAS

SHELLFISH / SWIMMING AREAS ACTION #1 (formerly, TA #1)

Provide Technical Assistance to Help Re-open and Manage ~~Clam Flats~~ Shellfish Areas.

SHELLFISH / SWIMMING AREAS ACTION #2 (formerly, TA #2)

Provide Technical Assistance to Monitor and Open ~~public~~ Swimming Areas.

SHELLFISH / SWIMMING AREAS ACTION #3 (formerly, TA #3)

Train Installers and Pumpers of Septic Systems.

SHELLFISH / SWIMMING AREAS ACTION #4 (formerly, RE #4)

Support Compliance~~y~~ with the Pumpout Law.

~~**Regulatory/Enforcement Action #5**~~

~~Improve Local Enforcement of the Subsurface Wastewater Disposal Rules.~~

~~Habitat Protection~~ HABITAT CONSERVATION

HABITAT CONSERVATION ACTION #1 (formerly, TA #7)

Provide Technical Assistance Necessary for Habitat Protection.

~~**Regulatory/Enforcement Action #1**~~

~~Clarify Use of the Natural Resource Protection Act for Habitat Protection.~~

~~**Planning & Assessment Action #4**~~

~~Research the Impact of Tax Codes on Habitat Conservation.~~

HABITAT CONSERVATION ACTION #2 (formerly, P&A #5)

Develop and Implement ~~a plan~~ Plans to Restore Degraded Habitats in Casco Bay.

HABITAT CONSERVATION ACTION #3 (formerly, P&A #8)

~~Develop~~ Continue a Grant Program to Support Local Habitat Protection and Restoration Activities.

HABITAT CONSERVATION ACTION #4

(NEW ACTION) — Participate in Efforts to Address the Impacts of Invasive Marine Organisms in Casco Bay.

TOXIC POLLUTION

~~**Technical Assistance Action #5**~~

~~Establish a Reduction and Management Program for Toxic Pollutants in Casco Bay Communities and Small Businesses.~~

~~**Technical Assistance Action #8**~~

~~Conduct Pollution Prevention Audit for Businesses/Industries that Affect Casco Bay.~~

TOXIC POLLUTION ACTION #1
(formerly, P&A #2)

Support efforts to Develop a Comprehensive Management Strategy for Dredged Material.

TOXIC POLLUTION ACTION #2
(formerly, P&A #6)

Develop Biological~~/Environmental~~ Indicators for Marine Waters.

TOXIC POLLUTION ACTION #3
(formerly, P&A #7)

Develop Sediment Quality ~~Criteria and Sediment Quality Discharge Limits that Apply to Casco Bay~~. Thresholds for Assessment of Contaminated Sediments.

STEWARDSHIP

STEWARDSHIP ACTION #1
(formerly, PE #1)

~~Fund High School Students' Research.~~

Support K-12 Educational Activities Related to Casco Bay.

STEWARDSHIP ACTION #2
(formerly, PE #2)

Focus Post-Secondary Education Programs on Casco Bay.

STEWARDSHIP ACTION #3
(formerly, PE #3)

~~Conduct a Comprehensive Campaign to~~ Support Educational Campaigns to Promote Sound Household Practices.

~~**Public Education Action #4**~~

~~Educate Boaters about Low-Impact Practices, Non-toxic Boat Products, and the Need to Protect Sensitive Habitats.~~

~~**Public Education Action #5**~~

~~Develop an Environmental Habitat Kit and Guide Maps to Casco Bay for the General Public.~~

STEWARDSHIP ACTION #4
(formerly, PE #7)

Hold "State of the Bay" Conferences.

Updated Action Items (note: strike throughs indicate change in language; "X" indicates removed from Plan)

STORMWATER

STORMWATER ACTION #4
(formerly, RE #3)

~~Adopt Minimum Standards for Stormwater Quality in State and Municipal Regulatory Programs.~~

Assist Interlocal Stormwater Working Group and Municipalities with Meeting Requirements in Maine's Stormwater Management Law and in the Federally-mandated MEPDES Stormwater Program.

~~**Public Education Action #6**~~
~~Create an Educational Site Demonstrating How Vegetation Reduces Stormwater Runoff.~~

STORMWATER ACTION #5

(NEW ACTION) – Promote the Use of Vegetated Buffers and Other Low Impact Development (LID) Technologies to Reduce Stormwater Runoff.

~~Clam Flats/Swimming Areas~~ SHELLFISH/SWIMMING AREAS

SHELLFISH / SWIMMING AREAS ACTION #5 (formerly, RE #6)

~~Require Proof of Legal Waste Disposal upon Transfer of Property.~~

Support Efforts to Prevent Septic System Malfunction through Voluntary Inspecton Programs during Property Transfers and Education of Key Stakeholder Groups.

SHELLFISH / SWIMMING AREAS ACTION #6 (formerly, P&A #1)

~~Develop Municipal Programs to Protect Water Resources and Clam Flats from Septic System Discharge.~~

Expand Cooperative Programs between Commercial Pumpers and Installers and Municipalities to Protect Shellfish Areas from Septic System Discharges.

~~**Planning & Assessment Action #3**~~
~~Review Implementation of the National Shellfish Sanitation Program.~~

~~**Planning & Assessment Action #9**~~
~~Research whether the Subsurface Wastewater Disposal Rules Adequately Prevent Coastal Pollution.~~

~~Habitat Protection~~ HABITAT CONSERVATION

TOXIC POLLUTION

~~**Planning & Assessment Action #10**~~
~~Research the Contribution of Deposition of Pollutants from the Air.~~

TOXIC POLLUTION ACTION #4

(NEW ACTION) – Research the Feasibility of and Best Approach to Monitoring New Environmental Analytes.

STEWARDSHIP

~~**Public Education Action #8**~~
Extend the State Planning Office's New "Marine Volunteer Program" to Casco Bay.

STEWARDSHIP ACTION #5
(formerly, PE #9)

Continue Friends of Casco Bay's Successful Volunteer Water Quality Monitoring Program.

Casco Bay Plan Update 2006

UPDATED ACTION ITEMS

III. Updated Action Items

Stormwater Action #1 *(formerly, Technical Assistance Action Item #4)*

Provide Training in Stormwater Best Management Practices to Appropriate Target Audiences

- **NEED:** Best management practices (BMPs) are effective techniques for reducing stormwater runoff and erosion from developed and agricultural landscapes. In addition to a number of BMP manuals available from the state, the Casco Bay Estuary Partnership and the Interlocal Stormwater Working Group have developed a *Guidelines and Standard Operating Procedures Manual* for municipal stormwater program managers and on-the-ground staff in Maine Stormwater Phase II communities. Municipal employees and others have limited training on these BMPs and need ongoing technical assistance to implement them properly. Additional assistance may be needed to update training materials and develop training activities.
- **HOW:** Technical assistance and training will be provided to target audiences who conduct or review land use activities that result in erosion, stormwater runoff, and sedimentation (e.g. municipal road crews, public works crews, contractors, farmers, loggers, marinas/boatyards, and municipal staff and boards). BMP trainings will be conducted in partnership with the Maine Department of Environmental Protection's Nonpoint Source Training Center and other organizations on erosion/sedimentation, illicit discharge, pollution prevention and good housekeeping practices, and marina BMPs.
- **WHEN:** Year 11 and ongoing.
- **WHERE:** Casco Bay watershed municipalities.
- **WHO:** Maine Department of Environmental Protection Nonpoint Source Training Center, Cumberland County Soil and Water Conservation District, Casco Bay Estuary Partnership, Maine Department of Agriculture, Maine State Planning Office, Maine Nonpoint Education for Municipal Officials, Maine Department of Transportation, and others will work directly with municipalities or indirectly through the Interlocal Stormwater Working Group and Casco Bay Stormwater Committee.
- **COST**: Low - Medium
- **PRIORITY ISSUES ADDRESSED:** √ Stormwater
  √ Clam Flats and Swimming Areas
  √ Toxics

Stormwater Action #2 *(formerly, Technical Assistance Action Item #6)*

Promote Subwatershed Management, Planning, Implementation, and Evaluation

▲ **NEED**: In general, people do not connect their local activities with impacts to Casco Bay. Locally developed and implemented subwatershed action plans are needed to prevent and control nonpoint source pollution. Subwatershed plans are a vital piece of the puzzle in protecting not only Casco Bay, but also smaller, local areas of importance. There is substantial documentation of the effectiveness of local action. The trend toward localization builds capacity to address sustainability by facilitating action that is tailored to the unique social, ecological, and economic conditions of each place. This will enable partnerships to be forged that respond to local needs in addressing the economic, social, and environmental challenges of sustainable development.

▲ **HOW**: Subwatershed action plans will be developed, with threatened or impaired waterbodies such as those listed on the State's Section 303(d) Priority Waterbodies list, as a priority. Subwatershed plans will be tailored to tributary needs and local issues, and provide detailed guidance on site-specific water resource planning issues, while addressing broader goals and actions of the *Casco Bay Plan*. (Examples include: *The New Meadows River Watershed Management Plan* and *A Plan for the Future of the Presumpscot River.*) The subwatershed plans will be readable, concise documents that present methodology, assumptions, findings and recommendations, and identify parties responsible for implementation. Subwatershed plans are intended for wide readership and to be used by resource managers, elected officials, landowners and developers.

▲ **WHEN**: Year 11 and ongoing.

▲ **WHERE**: All subwatersheds, with special consideration given to those watersheds with immediate impact on Casco Bay.

▲ **WHO**: Local community representatives, in partnership with Maine Department of Environmental Protection, Maine State Planning Office, Cumberland County Soil and Water Conservation District, Casco Bay Estuary Partnership, municipalities, non-governmental organizations, and other stakeholders. It is important to engage all stakeholders in the process of preparing the subwatershed plans, including environmental groups, business and industry, government agencies, farmers and individual citizens. Finding effective ways to facilitate dialogue and to forge partnerships among these diverse groups is the most important step to sustainable management of the subwatershed, since ultimately, the future of the resources rests in the hands of the people who live and work within the watershed.

▲ **COST**: Medium

▲ **PRIORITY ISSUES ADDRESSED**:

- √ Stormwater
- √ Clam Flats and Swimming Areas
- √ Habitat Conservation
- √ Toxics
- √ Stewardship

Stormwater Action #3 *(formerly, Regulatory/Enforcement Action Item #2)*

Monitor Progress of Combined Sewer Overflow Reduction Plans in Portland, South Portland, and Westbrook

- **NEED:** Portland, South Portland, Westbrook, and the State of Maine all have combined sewer overflows that reduce water quality in the Bay. Given that each is under a consent agreement with the U.S. Environmental Protection Agency and/or Maine Department of Environmental Protection to minimize sources of stormwater and sewage, their progress should be monitored to ensure that implementation of plans remains on schedule. In addition, progress should be communicated to the public.
- **HOW:** Each municipality has prepared a Combined Sewer Overflow Reduction/ Treatment Plan that outlines a schedule for implementation. Although Maine's Department of Environmental Protection and the U.S. Environmental Protection Agency will be enforcing these plans, a non-governmental group should also monitor and highlight progress in the *State of the Bay* reports or through other means.
- **WHEN:** Ongoing.
- **WHERE:** Portland, South Portland, and Westbrook.
- **WHO:** Casco Bay Estuary Partnership, Friends of Casco Bay, Maine Department of Environmental Protection, U.S. Environmental Protection Agency
- **COST:** Low
- **PRIORITY ISSUES ADDRESSED**:
  - √ Stormwater
  - √ Clam Flats and Swimming Areas
  - √ Habitat Conservation
  - √ Toxics
  - √ Stewardship

Stormwater Action #4 *(formerly, Regulatory/Enforcement Action Item #3)*

Assist Interlocal Stormwater Working Group and Municipalities with Meeting Requirements in Maine's Stormwater Management Law and the Federally-Mandated MEPDES Stormwater Program

- **NEED**: Municipalities need assistance with meeting federal and state stormwater regulations to improve water quality in Maine. The Maine Stormwater Law and Regulations became effective in 1997 and established water quality and quantity standards based on a project's location. Until 2005, water quality standards applied only in "most at risk" and "sensitive or threatened" watersheds. Beginning in 2005, the geographic area subject to stormwater quality regulations will increase to include the entire organized portion of the State. Significant changes will also be made to the standards required for development projects. Existing municipal stormwater ordinances may conflict with the updated stormwater law or fall short of additional requirements. In addition, fourteen municipalities in the Casco Bay watershed are subject to regulation under the Maine Pollutant Discharge Elimination System (MEPDES) Stormwater Program for their Municipal Separate Storm Sewer System (MS4) discharges. The MEPDES program requires that municipalities have a plan for meeting six required management measures.
- **HOW**: Casco Bay Estuary Partnership and others will assist municipalities with meeting stormwater regulations by continuing support of the Interlocal Stormwater Working Group. The Maine Department of Environmental Protection and Maine State Planning Office will provide assistance to municipalities with review and update of ordinances, if necessary, and will make a model municipal stormwater ordinance available to municipalities following the adoption of current changes. The Interlocal Stormwater Working Group will continue a collective approach to developing and implementing plans to meet MEPDES program requirements for the MS4 communities.
- **WHEN**: Years 11 and ongoing.
- **WHERE**: Casco Bay watershed municipalities.
- **WHO**: The Casco Bay Estuary Partnership, municipal representatives (including Interlocal Stormwater Working Group members), Cumberland County Soil and Water Conservation District, Maine Nonpoint Education for Municipal Officials, Maine Department of Environmental Protection, U.S. Environmental Protection Agency, Maine State Planning Office, and others.
- **COST**: Low – High, depending on activity and cost-sharing
- **PRIORITY ISSUES ADDRESSED**: √ Stormwater
  √ Clam Flats and Swimming Areas
  √ Habitat Conservation
  √ Toxics

Stormwater Action #5 ***(NEW Action)***

Promote the Use of Vegetated Buffers and other Low Impact Development Technologies to Reduce Stormwater Runoff

- **NEED:** The objective of stormwater treatment is to compensate for hydrological and water quality changes caused by watershed development or, more specifically, impervious cover. Most communities must look to stormwater treatment to solve many different problems caused by runoff. Low Impact Development (LID) technologies such as porous pavement and green roofs can be employed to maintain groundwater recharge and purity, reduce stormwater pollutant loads, protect stream channels from eroding, prevent increased flooding and other things including education. Generally, LID technologies are engineered to capture, store, treat, or infiltrate stormwater runoff produced by new development using structural and nonstructural practices.
- **HOW:** A public education campaign on LID technologies will be conducted targeting audiences who regulate, plan, develop, landscape, design, construct, and employ LID technologies. The campaign will utilize demonstration projects, mass media education and outreach techniques, and professional training opportunities during the campaign.
- **WHEN:** Year 11 and ongoing.
- **WHERE:** Initially, the Interlocal Storm Water Working Group communities. As funds become available, expand the program to additional Casco Bay watershed municipalities.
- **WHO:** Casco Bay Estuary Partnership staff, Interlocal Storm Water Group Coordinator, Cumberland County Soil and Water Conservation District, Maine Department of Environmental Protection, Maine Nonpoint Education for Municipal Officials, Maine State Planning Office, municipalities, and other environmental organizations.
- **COST:** Low - Medium
- **PRIORITY ISSUES ADDRESSED:** √ Stormwater
  √ Stewardship
  √ Toxics

Shellfish and Swimming Areas Action #1

(formerly, Technical Assistance Action #1)

Provide Technical Assistance to Help Reopen and Manage Shellfish Areas

▲ **NEED:** In 1995, shellfish harvesting was estimated to contribute between $11.6 and $15.7 to the regional economy. At that time, 37% of Casco Bay's clam flats were closed to harvest. The Casco Bay Estuary Partnership has helped re-open over 300 acres of actual clam flat resources to harvest, but, in 2005, approximately 10% percent remain closed. Additional work is needed to open additional closed shellfish areas and to maintain water quality in areas that are open. Further, in 2005, Casco Bay experienced a severe red tide bloom which closed most flats during peak harvest. Research and management support are needed to help address harmful algal blooms that cause closures. When provided with information on the causes of closure and the costs and benefits of reopening shellfish areas, municipalities, municipal boards, and volunteers can play a pivotal role in reopening areas closed to shellfishing.

▲ **HOW:**

- Enhance communication among the Maine Department of Marine Resources, Maine Department of Environmental Protection, municipalities, and other partners on issues pertaining to shellfish resources and management;
- Continue the work of the Maine Department of Marine Resources and summarize its work in training volunteers to conduct shoreline surveys and water quality monitoring;
- Support municipal efforts to correct pollution sources by demonstrating the value to the town of opening shellfish areas and helping to identify non-point sources of pollution;
- Conduct research to support the sustainable management of shellfish resources; and
- Work at providing a continuing funding source for these actions.

▲ **WHEN:** Ongoing.

▲ **WHERE:** Municipalities around Casco Bay, particularly those with the largest acreage of closed shellfish areas.

▲ **WHO:** The Maine Department of Marine Resources will conduct shoreline surveys, provide technical assistance in shellfish area management, and train volunteers to conduct shoreline surveys and water quality monitoring. Department of Marine Resources will request that municipal plumbing inspectors be actively involved in surveys and correcting sources of wastewater pollution.

The Maine Department of Environmental Protection will provide information on funding for overboard discharge removal and the Small Community Grant Program. The Maine State Planning Office, Maine Department of Health and Human Services, and local soil and water conservation districts will provide training programs on septic system management and developing treatment options.

The Casco Bay Estuary Partnership will facilitate communication between agencies and municipalities and research possible funding sources as well as coordinate research on sustainable management and pollution source identification. The University of Maine Cooperative Extension/Sea Grant will provide information on improving shellfish management practices. The Friends of Casco Bay will work with communities as needed to reopen shellfish areas.

▲ **COST:** Low-Medium

▲ **PRIORITY ISSUE ADDRESSED:** √ Shellfish and Swimming Areas

Shellfish and Swimming Areas Action #2

(formerly, Technical Assistance Action #2)

Provide Technical Assistance to Monitor and Open Swimming Areas

▲ **NEED:** Bacterial pollution of coastal swimming areas poses a potential public health risk. Currently, two public swimming areas on the Casco Bay mainland and three swimming areas on Peaks Island are monitored for bacterial pollution. Although municipalities are responsible for issuing swimming advisories when beaches are polluted, many do not have beach management programs in place or knowledge of ambient water quality.

▲ **HOW:** To improve municipal management of public swimming areas in Casco Bay, it is necessary to:

- Conduct ongoing bacterial monitoring at publicly accessible swimming areas;
- Explore the possibility of monitoring additional swimming areas;
- Educate the public and municipalities about the need for monitoring and the status of current monitoring efforts;
- Encourage municipalities to enter the Maine Healthy Beaches Program; and
- Eliminate pollution sources as necessary.

A coordinated technical assistance program will assist municipalities in gathering this information and establishing ongoing management programs where appropriate.

▲ **WHEN:** Ongoing.

▲ **WHERE:** Coastal communities with public swimming areas.

▲ **WHO:** The Maine Coastal Program/State Planning Office, University of Maine Cooperative Extension, Maine Island Trails Association, Maine Department of Environmental Protection, Friends of Casco Bay, Maine Department of Marine Resources, Casco Bay Estuary Partnership, U.S. Environmental Protection Agency, Portland Water District, Maine Department of Health and Human Services, Friends of Casco Bay, and others.

▲ **COST:** Low

▲ **PRIORITY ISSUES ADDRESSED:** √ Shellfish and Swimming Areas

√ Stewardship

Shellfish and Swimming Areas Action #3

(formerly, Technical Assistance Action #3)

Train Installers and Pumpers of Septic Systems

▲ **NEED:** Improper installation and maintenance of on-site waste disposal systems can result in septic-system failure, prompting closure of nearby shellfish beds and swimming areas. Focus groups organized by the Casco Bay Estuary Partnership identified the need for local contractors to receive training in septic-system installation.

▲ **HOW:**

- Provide training to contractors on correct septic-system installation methods.
- Provide training to pumpers on septic-system inspection techniques.
- Improve communication from septic pumpers to homeowners on septic system care and feeding.

▲ **WHEN:** Yearly — ongoing.

▲ **WHERE:** Casco Bay watershed.

▲ **WHO:** The Maine Department of Health and Human Services Division of Health Engineering, the Maine Department of Environmental Protection Nonpoint Source Training Center, the Maine State Planning Office, Casco Bay Estuary Partnership and the Cumberland County Soil and Water Conservation District will continue annual training programs for the installation, inspection, and maintenance of septic systems in the Casco Bay watershed.

▲ **COST:** Low

▲ **PRIORITY ISSUE ADDRESSED:** √ Shellfish and Swimming Areas

Shellfish and Swimming Areas Action #4

(formerly, Regulatory/Enforcement Action #4)

Support Compliance with the Pumpout Law

▲ **NEED:** Maine's Pumpout Law (MRSA Title 38, section 423-B) was passed in 1989, requiring some marinas to provide pumpouts for boaters. Nearly all marinas within Casco Bay have since installed pumpout facilities. Although the Maine Department of Environmental Protection provides 75% funding for maintenance of pumpout facilities through the Clean Vessel Act, maintenance of these facilities is not always done in a timely manner. This results in periods of time when individual pumpout facilities are not available for use, which increases the likelihood of inappropriate discharges by boaters. An improved system of maintenance is needed.

▲ **HOW:** The Casco Bay Estuary Partnership, Maine Department of Environmental Protection and Friends of Casco Bay, in partnership with trade organizations and/or other appropriate groups, will engage in dialogue with the marina operators and boaters to:

• Identify improvements needed to increase the efficacy and utilization of pumpout facilities in Casco Bay (such as the development of a shared pumpout inspection and repair worker to improve pumpout facility maintenance).

• Assess the feasibility of implementing identified improvements. Feasible improvements would be considered for inclusion as future actions in the *Casco Bay Plan*, as appropriate.

▲ **WHEN:** Year 11 and ongoing.

▲ **WHERE:** Casco Bay.

▲ **WHO:** Casco Bay Estuary Partnership, Maine Department of Environmental Protection, Friends of Casco Bay, and others.

▲ **COST:** Low

▲ **PRIORITY ISSUE ADDRESSED:** √ Shellfish and Swimming Areas

√ Stewardship

Shellfish and Swimming Areas Action #5

(formerly, Regulatory/Enforcement Action #6)

Support Efforts to Prevent Septic System Malfunction through Voluntary Inspection Programs during Property Transfers and Education of Key Stakeholder Groups

▲ **NEED:** Many septic systems in the municipalities surrounding Casco Bay were installed before the State Plumbing Code was updated in 1974. As a result, some septic systems do not provide adequate treatment of sewage. Given their potential deleterious effect on water quality, these systems must be updated if shellfish areas and swimming areas are to be kept open or be reopened. Further, all septic systems need to be properly maintained on an ongoing basis and homeowners, particularly those who have not previously owned a septic system, need to be educated about proper maintenance.

▲ **HOW:**

- Support and monitor participation in the Maine Department of Health and Human Services Division of Health Engineering's voluntary property transfer septic inspection program. If needed, support a property transfer disclosure requirement to increase the inspection rate;
- Promote distribution of existing fact sheets that describe the costs associated with on-site waste disposal system replacement and recommend a septic test at the time of property transfer; and
- Utilize other existing outreach materials to provide education about legal waste disposal requirements and proper maintenance to bankers, realtors, neighborhood associations, homeowners, and other key targeted audiences.

▲ **WHEN:** Ongoing.

▲ **WHERE:** Shoreland Zones throughout the Casco Bay watershed, particularly those that impact shellfish areas and swimming areas.

▲ **WHO:** Casco Bay Estuary Partnership, Maine State Planning Office, Maine Department of Environmental Protection, Maine Department of Health and Human Services, and others.

▲ **COST:** Low

▲ **PRIORITY ISSUES ADDRESSED:** √ Shellfish and Swimming Areas

√ Stewardship

Shellfish and Swimming Areas Action #6
(formerly, Planning and Assessment Action #1)

Expand Cooperative Programs between Commercial Pumpers and Installers and Municipalities to Protect Shellfish Areas from Septic System Discharges

- **NEED:** Septic system failure stemming from improper maintenance and feeding can pollute shellfish areas and swimming areas and degrade water quality. Several municipalities have identified septic system/sewer pollution issues in their comprehensive plans, but few programs exist to help municipalities regularly inspect and manage residential septic systems.
- **HOW:** The Casco Bay Estuary Partnership funded a study in Brunswick to assess methods for providing regular inspection and maintenance of septic systems. Following the study, the Town of Brunswick developed a partnership with pumping contractors to automatically notify septic owners of maintenance and pumping needs. The Brunswick model for managing septic system maintenance to other municipalities will be extended to other municipalities.
- **WHEN:** Ongoing.
- **WHERE:** Municipalities around Casco Bay, prioritized according to immediacy of impact to shellfish areas.
- **WHO:** Municipalities, with assistance provided by the Maine State Planning Office, Casco Bay Estuary Partnership, Maine Department of Health and Human Services Division of Health Engineering, and others.
- **COST:** Low
- **PRIORITY ISSUES ADDRESSED:** √ Shellfish and Swimming Areas
  √ Stewardship

Habitat Conservation Action #1

(formerly, Technical Assistance Action #7)

Provide Technical Assistance Necessary for Habitat Protection

▲ **NEED:** With only a small percentage of Maine's land protected and the pace of development increasing, local governments and non-governmental organizations need assistance in pursuing protection of habitat and information about high-value habitat in their jurisdictions.

▲ **HOW:**

• Support the activities of the Maine Beginning with Habitat Program, a landscape approach to assessing wildlife and plant conservation needs and opportunities that provides towns with maps and accompanying information describing various habitats of statewide and national significance. Individualized presentations to towns include suggested conservation strategies to help protect valuable habitat in the midst of growth and development. Maps available to towns include undeveloped habitat blocks, public and conservation lands, wetland maps, impervious surface coverage, and U.S. Fish and Wildlife Service Gulf of Maine habitat maps.

• Encourage Casco Bay communities to undertake informed local conservation planning and implementation, including sprawl prevention and protection of riparian habitat.

• Develop a coordinated approach that encourages landowners to protect valuable habitat through voluntary conservation activities.

▲ **WHEN**: Ongoing.

▲ **WHERE**: Casco Bay watershed communities.

▲ **WHO**: The Casco Bay Estuary Partnership, in conjunction with the Beginning with Habitat Program, municipalities and regional land conservation groups, U.S. Fish and Wildlife Service, U.S. National Marine Fisheries Service, Maine Department of Marine Resources, Maine Department of Inland Fisheries and Wildlife, and others.

▲ **COST**: Low

▲ **PRIORITY ISSUES ADDRESSED:** √ Habitat Conservation

√ Stewardship

Habitat Conservation Action #2

(formerly, Planning and Assessment Action #5)

Develop and Implement Plans to Restore Degraded Habitat in Casco Bay

▲ **NEED:** Ecological restoration could reverse some damage done to habitats by past development, recreational, and other activities around Casco Bay. To restore the Bay's health, more information is needed on the location and nature of degraded habitats, the type and cost of restoring these areas, and possible funding sources. Further, once detailed plans are developed, there is a need to facilitate the implementation of these projects through fundraising, coordination, and outreach to local stakeholders.

▲ **HOW:** In 2002, the Casco Bay Estuary Partnership established the Casco Bay Habitat Restoration Program, guided by a partnership that includes the Maine Coastal Program/State Planning Office, Maine Department of Environmental Protection, National Oceanographic and Atmospheric Administration, U.S. Fish and Wildlife Service Gulf of Maine Program, U.S. Environmental Protection Agency, Friends of Casco Bay, Natural Resources Conservation Service, and others. The CBEP Habitat Restoration Program provides technical assistance and seed funding to local groups seeking to plan, develop and/or implement restoration activities. Priority is given to local groups seeking to implement restoration activities described in a subwatershed management plan. In addition, the CBEP Habitat Restoration Program is developing an inventory of potential restoration sites in the watershed, starting with the lower Presumpscot River, its tributaries and estuary. The Casco Bay Habitat Restoration partners will continue to identify restoration needs, facilitate detailed planning for projects, seek funding for projects, coordinate restoration efforts, and conduct outreach to local stakeholders.

▲ **WHEN:** Ongoing.

▲ **WHO**: Casco Bay Habitat Restoration Program partners.

▲ **COST:** Medium

▲ **PRIORITY ISSUES ADDRESSED:** √ Habitat Conservation

√ Stewardship

Habitat Conservation Action #3

(formerly, Planning and Assessment Action #8)

Continue a Grant Program to Support Local Habitat Protection and Restoration Activities

▲ **NEED:** Local groups need funding and technical support to successfully protect and restore important habitat. With growing development pressure in the Casco Bay watershed, the most populated part of the state, habitat conservation activities are becoming increasingly important and available funds are in high demand.

▲ **HOW:** The Casco Bay Estuary Partnership has established small grant programs focused on habitat protection and habitat restoration. To date, the Casco Bay Estuary Partnership Habitat Protection Fund has helped to protect over 3,000 acres of high value habitat in the Casco Bay watershed. The funds assist land trusts and municipalities with conservation easements, fee acquisition of property, appraisals, transaction costs and other services necessary for land protection. The Casco Bay Estuary Partnership Habitat Restoration Fund provides seed funding to assist with the implementation of habitat restoration activities in the watershed. The funds have been used, for example, to support restoration of terns on Outer Green Island and improvement of stream habitat and fish passage at Highland Lake dam on Mill Brook in Westbrook. CBEP will continue to administer and fund these grant programs as funding is available.

▲ **WHEN:** Ongoing.

▲ **WHERE:** Watershed-wide. Priority habitats for restoration include the waters and islands of the Bay, rivers, streams, freshwater wetlands, shoreline, salt marsh and riparian habitats.

▲ **WHO:** Casco Bay Estuary Partnership Habitat Protection Committee partners, including the Casco Bay Estuary Partnership, Maine Coast Heritage Trust and the U.S. Fish and Wildlife Service, and the Casco Bay Habitat Restoration Program partnership, which includes the Casco Bay Estuary Partnership, Maine Coastal Program/State Planning Office, Maine Department of Environmental Protection, National Oceanographic and Atmospheric Administration, U.S. Fish and Wildlife Service Gulf of Maine Program, U.S. Environmental Protection Agency, Friends of Casco Bay, Natural Resources Conservation Service, and others.

▲ **COST:** Medium - High

▲ **PRIORITY ISSUE ADDRESSED:** √ Habitat Conservation

Habitat Conservation Action #4 ***(New Action)***

Participate in Efforts to Address the Impacts of Invasive Marine Organisms in Casco Bay

▲ **NEED:** Marine "invasive species" are marine animals and plants that are not native to Maine's coast and which may spread into, or 'invade', the existing ecosystem, overtaking native species and their habitat. These organisms can prey on and outcompete native species for space and resources, altering habitats and spreading new diseases. Socioeconomic impacts also include clogging fishing gear and aquaculture pens, fouling boats, piers, and other man-made structures. Once they are established, they can impose costly control, research, and monitoring costs. Research indicates that there are already over thirty introduced marine species established in Maine waters. Potential paths of introduction include ballast water, aquaculture, bait and seafood transport, pet industries, research and education facilities, intentional introductions, and Internet trade. There is a need for leadership and coordination of marine invasive species issues in Maine.

▲ **HOW**: Once established, invasive species are difficult, if not impossible, to control, making prevention the key to minimizing impacts. The Maine Marine Invasive Species Working Group (MMIWG) is working to identify tools and resources that will help to address marine invasives in Maine. The Casco Bay Estuary Partnership has already played a significant role by bringing a team of scientists to marinas in Portland, South Portland and South Freeport in August 2003 where they conducted a "rapid assessment" of biota on floating docks and piers, searching for invading organisms. In May 2004, the Casco Bay Estuary Partnership hosted *Maine's Marine Invasion: A Forum on the Impact of Non-native and Other Invasive Species on Maine's Coastal Ecosystems*.

Actions recommended by forum speakers included identifying which vectors are important to the region; understanding the dynamics of importation; adopting vector-specific best management practices; educational outreach; precautions to prevent release; monitoring; and the implementation of rapid response and detection systems. The Casco Bay Estuary Partnership will continue to participate in the Working Group, helping to identify ways to implement the forum recommendations and other projects prioritized by the MMIWG.

▲ **WHEN:** Ongoing.

▲ **WHERE:** Casco Bay.

▲ **WHO:** Casco Bay Estuary Partnership and the federal, state, academic and citizen groups that make up the Maine Marine Invasive Species Working Group as well as others.

▲ **COST:** Low – Medium

▲ **PRIORITY ISSUES ADDRESSED**: √ Habitat Conservation

√ Stewardship

Toxics Action #1

(formerly, Planning and Assessment Action #2)

Support Efforts to Develop a Comprehensive Management Strategy for Dredged Material

▲ **NEED:** Maintenance dredging and, at times, improvement dredging, of rivers and harbors in Casco Bay are needed to sustain the economic and maritime heritage values of harbors. However, disposal of dredged material can be expensive and disposal options more limited in cases where dredged materials contain contaminants. Alternatives for disposal of dredged materials have been identified and sampling and survey work has been done in Portland Harbor but needs to be updated to remain a useful source of information for future dredging efforts. The Maine Department of Transportation, the Maine State Planning Office, and the Maine Department of Environmental Protection all play roles in state policy issues to address dredging concerns throughout the state.

▲ **HOW:** The Casco Bay Estuary Partnership will support efforts to develop a comprehensive approach to management of dredged materials by providing input to policy dialogues of state and federal governments and by working in partnership with other groups and agencies, including members of the Portland Waterfront Alliance and the Portland Harbor Dredge Committee, to:

√ Update the *Alternatives for Dredge Disposal in Portland Harbor* report;

√ Develop layperson-friendly guidance material for dredgers in Casco Bay outlining requirements, costs (such as sediment testing), and costs of alternative disposal techniques; and

√ Investigate other approaches to improve dredging management, including those described in the Maine Department of Transportation Dredging Management Action Plan (2002).

▲ **WHEN:** Year 11 and ongoing.

▲ **WHERE:** Casco Bay.

▲ **WHO:** The Casco Bay Estuary Partnership, working with the Portland Harbor Waterfront Alliance, Friends of Casco Bay, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, U.S. National Marine Fisheries Service, Maine State Planning Office, Maine Department of Environmental Protection, Maine Department of Marine Resources, Maine Department of Conservation, Maine Department of Transportation, U.S. National Marine Fisheries Service, and the U.S. Fish and Wildlife Service

▲ **COST:** Medium - High

▲ **PRIORITY ISSUES ADDRESSED:** √ Toxics

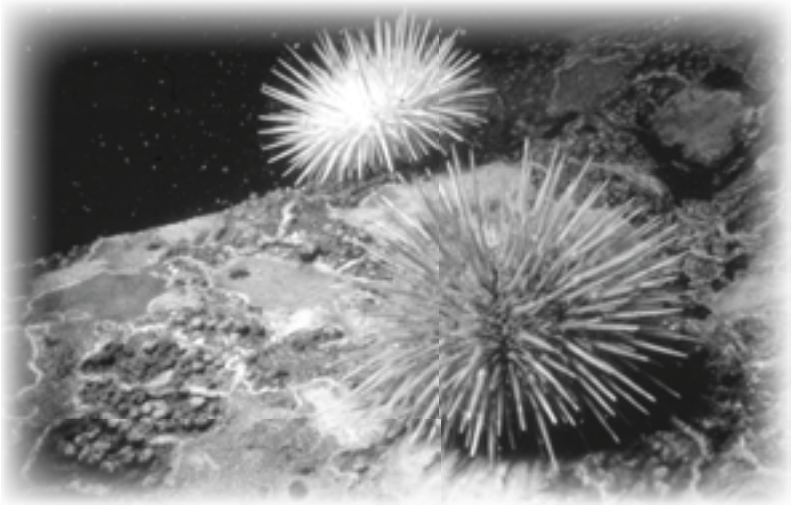
√ Habitat Conservation

Toxics Action #2

(formerly, Planning and Assessment Action #6)

Develop Biological Indicators for Marine Waters

- **NEED**: Water quality influences the types of plants and animals that will live in a lake, stream, river, or estuary. Alterations of the biological community can indicate both acute and chronic water quality impacts, while chemical water quality measures provide only a snapshot of current conditions. State water quality regulations provide for use of biological criteria in determining whether a waterbody meets its designated criteria. Freshwater criteria have already been developed. Criteria for marine and estuarine waters, however, still need to be established for assessing conditions and trends, communicating complex issues, and supporting performance management activities.
- **HOW:** Biological indicators will be researched and tested in Maine so that marine biological standards can be developed. For example, building on bottom-dwelling (benthic) animal community data collected in Maine as part of the National Coastal Assessment effort and others, a multi-metric index is being developed as an indicator of benthic community condition.
- **WHEN:** Year 11 and ongoing.
- **WHERE:** Marine and Estuarine Waters of the Coast of Maine.
- **WHO:** Maine Department of Environmental Protection, Casco Bay Estuary Partnership, U.S. EPA National Coastal Assessment Program, National Estuary Programs, Gulf of Maine Council, local Universities, and others will work in partnership towards the development of marine bioindicators.
- **COST:** High
- **PRIORITY ISSUES ADDRESSED:**
  - √ Stormwater
  - √ Toxics
  - √ Habitat Conservation



Toxics Action #3

(formerly, Planning and Assessment Action #7)

Develop Sediment Quality Thresholds for Assessment of Contaminated Sediments

▲ **NEED:** There is a need for statewide sediment quality thresholds that apply to Casco Bay and that reflect numerical limits that the Maine Department of Environmental Protection, U.S. Army Corps of Engineers, and U.S. Environmental Protection Agency use when making regulatory decisions. At present, there are some water quality standards that are published in the U.S. Environmental Protection Agency "Gold Book", however, toxic contaminant levels in the water do not adequately predict or relate to sediment quality. Since it is cheaper to treat potential contamination prior to discharge, toxins in effluents and stormwater should be reduced to avoid contaminating sediment.

The sediment thresholds will be used to interpret sediment quality data and to report on contamination levels in the *State of the Bay Report,* and to help inform other agencies and partners in their development of thresholds as well.

▲ **HOW:** Sediment quality thresholds will be developed by building on Casco Bay Estuary Partnership and National Coastal Assessment monitoring data and will be used to assess monitoring data. An advisory panel will explore existing approaches, including the Effects Range Low and Effects Range Medium (ERL/ERM) method for correlating sediment chemical concentrations with biological responses, and the derivation of Equilibrium Sediment Partitioning Benchmarks (ESBs) for the protection of benthic organisms.

▲ **WHEN:** Year 11 and ongoing.

▲ **WHERE:** Casco Bay.

▲ **WHO:** U.S. Environmental Protection Agency/National Coastal Assessment Program, Casco Bay Estuary Partnership, Maine Department of Environmental Protection, and others.

▲ **COST:** Medium

▲ **PRIORITY ISSUE ADDRESSED:** √ Toxics

Toxics Action #4 *(New Action)*

Research the Feasibility of and Best Approach to Monitoring New Environmental Analytes

- **NEED:** Scientific studies over the past few years have begun to indicate that trace amounts of previously unsuspected substances may be present in the nation's waters. These "emerging contaminants" include pharmaceuticals and personal care products, (such as antibiotics, steroids, hormones and other "endocrine mimics"), and a variety of chemicals such as caffeine, cholesterol, fire retardant and insect repellents. Some experts have suggested that these micro-contaminants may potentially impact the function of aquatic ecosystems, so they may be a threat to Casco Bay.
- **HOW:** Literature research on potential environmental indicators for emerging contaminants has begun and will continue until suitable indicators are developed. The list of analytes monitored in Casco Bay by CBEP and others will be broadened to include indicators for emerging pollutants (i.e., hormones, steroids, antibiotics, endocrine disruptors, brominated flame retardants, etc.). Suitable methodologies, detection limits, and quality assurance plans will be developed.
- **WHEN:** Years 11 and 12 and ongoing as needed.
- **WHERE:** Casco Bay and Casco Bay watershed.
- **WHO:** The Casco Bay Estuary Partnership, Maine Department of Environmental Protection, U.S. Environmental Protection Agency/National Coastal Assessment, and others.
- **COST: Low**
- **PRIORITY ISSUES ADDRESSED:** √ Stormwater
  √ Toxics

Stewardship Action #1

(formerly, Public Education Action #1)

Support K-12 Educational Activities Related to Casco Bay

- **NEED:** There is a need to encourage schools within the watershed to conduct educational activities and research related to Casco Bay. A growing number of K-12 schools are studying bay- and watershed-related science curricula and many more opportunities exist.
- **HOW:** Several programs exist which facilitate K-12 education and research activities related to Casco Bay and the Casco Bay watershed. Local high schools participate in the annual Maine Envirothon, a natural-resource problem solving competition. The annual Children's Water Festival, organized by the Maine Department of Environmental Protection in partnership with numerous other groups, is attended by middle school students from throughout the state and provides a broad range of educational activities related to natural resources, including some focused on Casco Bay. Maine's School-Based Service-Learning program presents additional hands-on learning opportunities while providing assistance to projects that benefit the Bay and watershed. CBEP annually provides funding for Cumberland County Soil and Water Conservation District to host an Americorps volunteer to bring environmental education to area schools. These and other activities should be encouraged and continued, and used to foster bay and watershed-focused education activities and research by schools located within the watershed.
- **WHEN:** Ongoing.
- **WHERE:** Casco Bay watershed.
- **WHO:** Cumberland County Soil and Water Conservation District, U.S. Environmental Protection Agency, Maine Department of Environmental Protection, Casco Bay Estuary Partnership, Friends of Casco Bay and other partners, in conjunction with area schools.
- **COST:** Low
- **PRIORITY ISSUES ADDRESSED:**
  - √ Stormwater
  - √ Shellfish and Swimming Areas
  - √ Habitat Conservation
  - √ Toxics
  - √ Stewardship

Stewardship Action #2

(formerly, Public Education Action #2)

Focus Post-Secondary Educational Programs on Casco Bay

▲ **NEED:** Area colleges and universities are increasingly focusing their studies and research on Casco Bay. These institutions can contribute greatly to the study and stewardship of Casco Bay from science, policy, and legal perspectives.

▲ **HOW:** Numerous possibilities exist for research and educational programs, including service learning programs such as internships and volunteer activities. The University of Southern Maine has an undergraduate environmental science and policy major. Graduate level economic and environmental research has been pursued by the Casco Bay Estuary Partnership through the University of Southern Maine's Muskie School and the University of Maine Law School. Bowdoin College has developed a Center for Marine Studies, and Southern Maine Community College has several marine programs. Local groups and agencies can benefit from the work of student interns. Summer interns from Bates College work with the Lakes Environmental Association and Bowdoin students work closely with the New Meadows River Watershed Project. CBEP and other partners will continue to host graduate or other students as funding is available and will help promote student involvement in conferences, stewardship activities, and research.

▲ **WHEN:** Ongoing.

▲ **WHERE:** Casco Bay watershed.

▲ **WHO:** The Casco Bay Estuary Partnership will coordinate with area colleges and universities including the University of Southern Maine, Southern Maine Community College, Bowdoin College, Bates College, University of New England, University of Maine, the Sea Grant Program at the University of Maine, the Casco Bay Interlocal Stormwater Working Group, Saint Joseph's College, and others.

▲ **COST:** Low-Medium

▲ **PRIORITY ISSUES ADDRESSED**

√ Stormwater

√ Shellfish and Swimming Areas

√ Habitat Conservation

√ Toxics

√ Stewardship

Stewardship Action #3

(formerly, Public Education Action #3)

Support Educational Campaigns to Promote Sound Household Practices

- **NEED:** Individual actions and attitudes play a major role in protecting Casco Bay. Many citizens would like to "do the right thing" but are not sure what that is. Other citizens are not aware of the impacts caused by simple household practices. Continued educational campaigns to promote sound household practices are needed to reduce domestic sources of water pollution.
- **HOW:** Numerous campaigns have been developed to educate the public about sound household practices from an environmental perspective. Several good examples include the Friends of Casco Bay Bayscaping Program, the Maine Bureau of Pesticide Control Yardscaping Program, the Think Blue stormwater education campaign, and related educational efforts by the Casco Bay Interlocal Stormwater Working Group. These and other educational programs raise public awareness about domestic causes of water pollution and promote lawn and garden care, household chemical disposal, vehicle maintenance, septic system maintenance, vegetative planting, and other everyday practices that reduce non-point sources of pollution. In addition, coastal-focused public service "Sea and Shore" announcements developed by the Maine Coastal Program, Maine Sea Grant and the Wells National Estuarine Research Reserve are broadcast on public radio and educate the public about sound household practices and other issues related to coastal water quality. These and other partners, including the Casco Bay Estuary Partnership, will continue support to promote and support educational campaigns to promote sound household practices throughout the Casco Bay watershed.
- **WHEN:** Ongoing.
- **WHERE:** Casco Bay watershed.
- **WHO:** Casco Bay Estuary Partnership, University of Maine Cooperative Extension, Maine Sea Grant, Wells National Estuarine Research Reserve, Friends of Casco Bay, Maine Bureau of Pesticide Control, Maine Coastal Program/State Planning Office, Maine Department of Environmental Protection, U.S. Environmental Protection Agency, Casco Bay Interlocal Stormwater Working Group, television and radio stations, and others.
- **COST:** Low - Medium
- **PRIORITY ISSUES ADDRESSED:**
  - √ Stormwater
  - √ Shellfish and Swimming Areas
  - √ Habitat Conservation
  - √ Toxics
  - √ Stewardship

Stewardship Action #4

(formerly, Public Education Action #7)

Hold "State of the Bay" Conferences

- **NEED:** Prior to the biennial State of the Bay conferences hosted by Casco Bay Estuary Partnership, information sharing about environmental management and science related to Casco Bay and its watershed took place in a piecemeal manner among a wide variety of groups. The State of the Bay conferences allow for regular exchange of monitoring and scientific information, support ongoing dialogues and problem-solving, promote networking and new partnerships, foster technology transfer, and encourage further action to protect the Bay and its watershed.
- **HOW:** Plan and hold conferences (to include identifying key discussion issues, scientific data to be presented, and speakers).
- **WHEN:** Every 2-3 years or as needed.
- **WHERE:** Casco Bay watershed, likely in the greater Portland area.
- **WHO:** Casco Bay Estuary Partnership.
- **COST:** Low - Medium
- **PRIORITY ISSUES ADDRESSED:**
  - √ Stormwater
  - √ Shellfish and Swimming Areas
  - √ Habitat Conservation
  - √ Toxics
  - √ Stewardship

Stewardship Action #5

(formerly, Public Education Action #9)

Continue Friends of Casco Bay's Successful Volunteer Water Quality Monitoring Program

- **NEED:** Friends of Casco Bay has conducted a successful volunteer water quality monitoring program in Casco Bay since 1992. Hundreds of volunteers have been involved in the program, which includes program planning and coordination, training the volunteers in quality assurance/quality control procedures, data management, and reporting of the results. These volunteers have become true stewards of the Bay and provide valuable information about the health of the Bay through both sampling and observation.
- **HOW:** The Friends of Casco Bay will continue to administer the volunteer monitoring program for Casco Bay.
- **WHEN:** Annually – ongoing.
- **WHERE:** Casco Bay.
- **WHO:** Friends of Casco Bay.
- **COST:** Medium
- **PRIORITY ISSUES ADDRESSED:** √ Stewardship
  √ Habitat Conservation

APPENDIX A

Summary of Comments Received on Draft Plan Update

Maxine Beecher, Mayor, City of South Portland:

Sent a letter reiterating South Portland's support for CBEP's work and congratulating CBEP on 15 years of great work.

Bob Varney, U.S. EPA Region I Administrator:

Sent a letter congratulating CBEP on its success so far and commenting that the Plan Update clearly involved a lot of thought and hard work. He included a hand-written note, "Keep up the good work! Much appreciated!"

Wayne Munroe, USDA Natural Resources Conservation Service:

Sent an email stating his support for the changes and clarifying that the proper reference for NRCS is USDA Natural Resources (plural) Conservation Service (needs to be changed on pps. 62 and 65).

Forrest Bell, Presumpscot River Watch:

Sent an email expressing support for the Update and requesting that PRW be included as a partner on action items relevant to their work, particularly water quality monitoring.

Casco Bay Clam Team:

Discussed the Update at its January, 2006 meeting and would like to be sure that the Shellfish action items are broadly scoped enough to include work with harmful algal blooms.

Sam Merrill, EPA New England Environmental Finance Center:

Karen Young discussed the Update with Sam in person and he commented on the possibility of a Land Use Summit to determine whether or not there is a role for CBEP in that issue. He noted that stormwater is a smart growth issue so we are already involved. He also pointed out that we should clarify whether we are thinking about land use planning or land use issues. Finally, the EFC conducted 6 meetings throughout New England in the past few years to solicit local needs for smart growth and has a summary of those meetings that we could use as a starting point for reference.

Ed Benedict, Bath resident and former New Meadows River Watershed Project steering committee member and New Meadows Lakes Association president: sent an email with the following comments:

Inclusion of an action item on marine invasive species is "an excellent decision and long overdue". He would like to see priorities for that action item based on the risk and potential economic impact of an invasive species. It a "serious omission" that grey water discharge monitoring and advocacy for expanded on-site sewage treatment for gray water was not included. He appreciates being informed about the Plan Update and wishes the public had an opportunity to comment on the August, 2004 update to the Casco Bay Monitoring Plan.

John Hart, US Coast Guard:

Phoned Karen Young to say that he would like to meet to explore potential opportunities for collaboration, particularly on education. He does not have comments on the Plan Update language.

Jane Laughlin, Casco Bay Island Development Association:

Sent an email requesting a meeting with Karen Young to discuss potential opportunities for collaboration with CBIDA, particularly on education.

Acknowledgements

We greatly appreciate the involvement of everyone who contributed to this Plan Update.
In particular, we would like to acknowledge the support of the following:

Facilitator: Jeff Edelstein, Edelstein Associates

Casco Bay Estuary Partnership Staff:

Karen Young, Director
Beverly Bayley-Smith, Assistant to the Director
Matt Craig, Program Coordinator
Deb Arbique, Administrative Assistant

Casco Bay Estuary Partnership Honorary Staff:

Diane Gould, CBEP Coordinator, EPA Region 1
Lee Doggett, Marine Scientist, Maine DEP

Casco Bay Estuary Partnership Board of Directors:

Jacki Cohen, Citizen, Board Chair*
Phil Boissonneault, Portland Water District
Don Card, Maine DMR
Jim Cloutier, City of Portland Councilor-at-Large
Patrick Cloutier, South Portland Water Resource Protection*
Mel Cote, U.S. EPA*
Jean Dyer, Casco Bay Island Development Association
Dusti Faucher, Friends of Presumpscot River
Stewart Fefer, U.S. F&WS, Gulf of Maine Program*
Michael Feldman, New Meadows River Watershed Project*
Ed Gilfillan, Citizen
Jack Kartez, USM Muskie School*
Caroline Kurrus, Freeport Conservation Commission
Kathleen Leyden, Maine Coastal Program, Maine State Planning Office
David Littell, Maine DEP
Betty McInnes, Cumberland County Soil and Water Conservation District*
Brooks More, City of Westbrook
Joe Payne, Friends of Casco Bay*
Rick Seeley, Greater Portland Council of Governments
Phineas Sprague, Portland Yacht Services
Steve Timpano, Maine Department of Inland Fisheries and Wildlife
Don Witherill, Maine DEP*

** Executive Board member*

Design: J. Motherwell, Graphics Communications
Photo Credits: cover: Helen McAlpin; pgs. 1, 7, 19, pg. 37, inside back cover: Sonny McAlpin; pg. 3: Christopher Ayres; pg. 15: Julie Motherwell; pgs. 28, 39, 46: Karen Young; pg. 33: Rich Obrey; pgs. 26, 43: John Snow; pg. 44: Mike Bradley; pgs. 22, 31: Friends of Casco Bay.