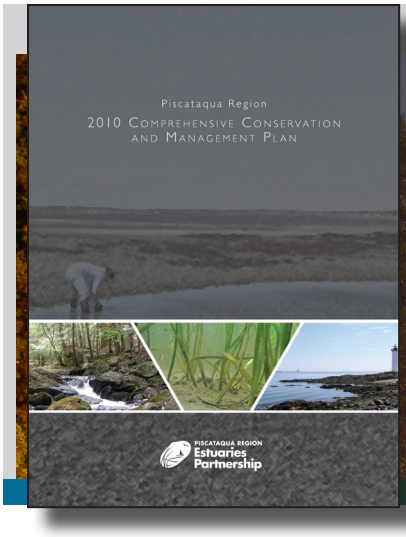
2010

2010 Piscataqua Region Comprehensive : Executive Summary

Piscataqua Region Estuaries Partnership



EXECUTIVE SUMMARY

2010 PISCATAQUA REGION COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN (CCMP)

Long-term environmental data suggests that Piscataqua Region estuaries are in decline. This new plan lays the foundation for work to be done over the next 10 years in both the Maine and New Hampshire portions of the Great Bay and Hampton-Seabrook estuaries. Successful implementation of this plan will improve the Region's estuaries and coastal watersheds, so that they can continue to sustain our economy, environment and quality of life.

Plan URL = www.prep.unh.edu/plan.pdf

In the fall of 2010, the Piscataqua Region Estuaries Partnership (PREP) completed an 18-month effort to understand current and future environmental issues affecting the Region's estuaries, to establish realistic goals and objectives for the next 10 years, and to create effective action plans to systematically achieve the shared environmental goals of a broad base of Regional stakeholders.

With input from more than 150 individuals, representing 82 organizations, PREP compiled the 2010 Piscataqua Region Comprehensive Conservation and Management Plan (CCMP) that lays the foundation for work over the next decade to protect and restore the Region's estuaries and associated watersheds.

TROUBLING TRENDS POINT TO DECLINING ESTUARIES

In 2009, PREP published its fourth State of the Estuaries Report, showing that the environmental quality of the Piscataqua Region estuaries is declining. Eleven of the twelve environmental indicators established by PREP show negative or cautionary trends (see table on back of this sheet). In the previous State of the Estuaries Report released in 2006, only seven of the twelve indicators were classified this way.

The most pressing problems for the estuaries relate to population growth and associated increases in polluted runoff from developed areas, especially near surface waters.

A BLUEPRINT FOR IMPROVING THE ESTUARIES

After the 2009 State of the Estuaries Report demonstrated the measured decline of the environmental quality of the Piscataqua Region, many stakeholder groups and citizens became aware of the problems facing our estuaries and began seeking solutions. For most, the CCMP process answered the question "what needs to be done?". Now, groups and citizens can be part of the solution by helping to implement this comprehensive blueprint for protecting and restoring the Region's estuaries and watersheds.

THE CCMP IS . . .

- A 10-year strategy to improve the environmental health of the Region's estuaries and watersheds that includes 82 action plans to be implemented by more than 200 organizations.
- The only watershed-scale plan to address issues in Maine and New Hampshire that affect the Great Bay and Hampton-Seabrook estuaries.
- Based on sound science from the research and resource management communities.
- The synthesis of public meetings and peer reviews over 18 months, involving more than 80 organizations.
- The forum for all stakeholders to coordinate efforts and to improve efficiency of environmental work.

The Piscataqua Region encompasses 42 New Hampshire communities and 10 Maine communities.

THIS 10-YEAR PLAN TO IMPROVE THE REGION'S ESTUARIES TAKES A WATERSHED-WIDE, BI-STATE APPROACH TO RESOURCE MANAGEMENT OF THE GREAT BAY AND HAMPTON-SEABROOK ESTUARIES AND ASSOCIATED WATERSHEDS.

SUMMARY OF ENVIRONMENTAL INDICATORS FROM THE 2009 STATE OF THE ESTUARIES REPORT

Indicator	Question	Answer	Trend
Dry weather bacteria concentrations	Have fecal coliform bacteria levels in the Great Bay Estuary changed over time?	Yes. Fecal coliform bacteria concentrations in Great Bay decreased significantly in the 1990s, but have not changed in the past 10 years. Water quality standards for swimming and shellfishing are not being met in all areas.	⚠
Toxic contaminants in shellfish tissue	Have concentrations of toxic contaminants in the tissues of shellfish changed over time?	Yes. The concentrations of polycyclic aromatic hydrocarbons, a component of petroleum products, have increased by 51% in Portsmouth Harbor and by 218% in the Piscataqua River over the past 16 years. The concentrations of other contaminants are declining.	⚠
Toxic contaminants in sediment	Do sediments in the estuaries contain toxic contaminants that might harm benthic organisms?	Yes. Contamination was found in 24% of estuarine sediment. However, organisms living in the sediments might be adversely affected by toxic contaminants in only 2.8% of the estuaries.	⚠
Nitrogen in Great Bay	Have nitrogen concentrations in Great Bay changed significantly over time?	Yes. The total nitrogen load to the Great Bay Estuary increased by 42% in the past five years. Dissolved inorganic nitrogen concentrations have increased in Great Bay by 44% in the past 28 years.	⊖
Dissolved oxygen	How often do dissolved oxygen levels in the Great Bay Estuary fall below state standards?	Rarely in the bays and harbors, but often in the tidal rivers.	⚠
Eelgrass	Has eelgrass habitat in the Great Bay Estuary changed over time?	Yes. Eelgrass cover in the Great Bay itself has declined by 37% between 1990 and 2008 and has completely disappeared from the tidal rivers, Little Bay, and the Piscataqua River.	⊖
Oysters	Has the number of adult oysters in the Great Bay Estuary changed over time?	Yes. The number of adult oysters fell by 95% in the 1990s. The population has increased slowly from a low point in 2000.	⊖
Clams	Has the number of adult clams in Hampton-Seabrook Harbor changed over time?	Yes. The current number of adult clams is 64% of the average level from 1971 to 2000.	⚠
Anadromous fish	Has the number of anadromous fish returning to Piscataqua Region coastal rivers changed over time?	Returning anadromous fish populations are limited by various factors including water quality, passage around dams, and flooding.	⚠
Habitat restoration	Are habitats being restored?	Yes for salt marsh, though oyster and eelgrass habitats have been restored at a slower rate.	⚠
Impervious surfaces	How much of the Piscataqua Region watershed is covered by impervious surfaces?	In 2005, 7.5% of the land area of the entire watershed was covered by impervious surfaces, and 9 subwatersheds had greater than 10% impervious surface cover.	⊖
Land conservation	How much of the Piscataqua Region watershed is protected from development?	At the end of 2008, 76,269 acres in the Piscataqua Region watershed were protected, which amounted to 11.3% of the land area.	⊕

⊕ Positive
The trend or status of the indicator demonstrates improving conditions, generally good conditions, or substantial progress relative to the management goal.

⚠ Cautionary
The trend or status of the indicator demonstrates possibly deteriorating conditions; however additional information or data are needed to fully assess the observed conditions or environmental response.

⊖ Negative
The trend or status of the indicator demonstrates deteriorating conditions, generally poor conditions, or minimal progress relative to the management goal.

PISCATAQUA REGION Estuaries Partnership
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