

## What Is the Overall State of Casco Bay?



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Based on the fourteen indicators presented in this report, significant changes have taken place over the last decade in the Casco Bay watershed. Indicator 1, population growth, is at the heart of many of the other changes observed in this report. The Casco Bay watershed, home to approximately 25% of the state's population, has seen a soaring growth in population and an outward expansion of population density from the greater Portland area to the suburban and rural areas to the west. This growth in population has had an impact on the environment that can be measured using several of the other indicators. The development of new homes, commercial centers, roads and other manmade structures is evident all around us. As illustrated in Indicator 2, impervious surface, the percentage of land covered by impervious surfaces exceeds the threshold for impacts to streams in many of the Casco Bay subwatersheds. The pat-

tern of areas with less development also generally follows the distribution of large areas of undisturbed habitat remaining available for wildlife. Indicator 7, unfragmented blocks of habitat, reveals that nine of the forty-one municipalities in the Casco Bay watershed have no unfragmented blocks of habitat larger than 2,000 acres left and thirteen other towns have less than 5,000 acres of land left in blocks this size. Many of these municipalities are the same ones with the highest percentage of impervious surface and the greatest rate of population growth. These changes generally reflect trends in the growing population centers and coastal areas of Maine, New England and the nation. However, rapid growth and development is a relatively new phenomenon in Maine. There is still time to reverse many of the adverse impacts associated with growth and to plan wisely to minimize the environmental impacts of future development.

Several indicators in this report reveal a mixture of “good news” and “bad news” for the bay. Levels of toxic chemicals found in both sediments and blue mussels in Casco Bay (Indicators 10 and 11, respectively) either decreased or stayed the same for the majority of chemicals analyzed. Toxic chemicals are elevated at some sites in the bay. For example, polycyclic aromatic hydrocarbons (PAHs) are highly elevated in both the sediments and the tissues of mussels from the Fore River. As discussed in Indicator 5, with the initiation of the new Maine Healthy Beaches program, public education about the importance of beach water quality is reaching a broad audience; however, only two of Casco Bay’s beaches are currently monitored for the safety of their waters for swimming. Finally, Indicator 13 reveals that, while the majority of rivers, streams, and coastal areas in the Casco Bay watershed meet the water quality standards expected for their use (e.g. fishing, swimming, shellfish harvest), there are some areas that have degraded water quality and do not meet the minimum state standards.



There is a significant amount of positive news in the *State of the Bay 2005*. Our knowledge and management of environmental impacts has increased and numerous entities from municipalities to school teachers are working to mitigate their impact through on-the-ground action, policy, and education, among other means. Indicator 3 shows that municipalities have dramatically reduced the volume of combined sewer overflows (CSOs) to the bay. These and other improvements to water quality are reflected in indicators 4 and 9 with the increased acreage of soft-shell clam flats open to harvest and the increase in acreage of eelgrass beds. The broader view of water quality in the bay (Indicator 12) reveals that, overall, water quality in the bay is good with some trouble spots where there is low dissolved oxygen. In the watershed, while the number of large unfragmented blocks of habitat (Indicator 7) is declining, much pristine and undisturbed habitat remains, providing a home for a wealth of species. Land conservation organizations, citizens, municipalities, and the state are working hard to protect the most important of these parcels for habitat values, recreation, and aesthetics and the acreage of protected land has increased by 50% since 1997 (Indicator 6). Finally, we find hope and commitment to protecting the environment in the active citizens around the bay. Stewardship (Indicator 14) opportunities abound and hundreds of dedicated volunteers are working to protect Casco Bay and its watershed. To learn more about volunteer opportunities and how to get involved, visit [www.cascobayestuary.org](http://www.cascobayestuary.org).

