

Barrington, S. et al (2003) Pollution and Coastal Zone Management: a Case Study of Shellfish Bed Closures in St. Margaret's Bay, Nova Scotia , Dalhousie School for Resource and Environmental Studies, Halifax, NS.

Abstract

Current research attributes land-based development as the major cause of marine pollution. Shellfish, with their ability to filter large amounts of water, are considered an indicator species for declining water quality due to chemical and bacterial contamination from point and non-point source pollution.

The Head of St. Margaret's Bay has experienced an overwhelming increase in the size of its shellfish closure area in the past two years. Yet between 1995 and 2001, the closure area essentially remained unchanged. It is unknown whether this dramatic increase is the result of cumulative environmental impact and / or a significant pollution event occurring sometime in 2002.

The report was presented to the Halifax Regional Municipality (HRM) in July, 2003, by graduate students from Dalhousie's School for Resource and Environmental Studies as part of a joint project in collaboration with HRM, Environment Canada (EC), and the Department of Fisheries and Oceans (DFO). The report concerns the recent exponential increase in shellfish closures in the St. Margaret's Bay area. Although the report concludes that there is reason to believe that leaking septic tank systems in older residential developments are the likely source of increased levels of fecal coliform, the report expands the scope of probable causes by investigating other contributing factors from both land and water use practices. Accordingly, the report examines a variety of land and water use activities that may be linked to fecal coliform-related shellfish closures in the St. Margaret's Bay area. It also explores a broad range of issues pertaining to coastal zones that are applicable to St. Margaret's Bay, including legislation, marine environmental quality indicators, community involvement and education, and integrated coastal zone management.