

Management of shoreline stabilization activities for the protection of fish and fish habitat in the St. Mary's River watershed estuary

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The St. Mary's River Watershed and estuary in Nova Scotia is currently being explored by Dept. Fisheries and Oceans Canada (DFO) as a case study for a potential designation as an Ecologically Significant Area (ESA). This watershed is being considered because of the high levels of aquatic and terrestrial biodiversity, multiple COSEWIC listed species, and low levels of industrial activity. An ESA provides proactive protection for fish and fish habitat by establishing a lower risk tolerance for any works, undertakings, or activities conducted in the watershed beyond the DFO published standard codes of practices. In this research project, shoreline stabilization techniques in the St. Mary's River watershed estuary will be explored through a risk analysis to produce a decision-making tool for proponents. The risk analysis will be conducted in the ESA context, where a set of criteria are used to establish a lower tolerance for negative impacts to fish and fish habitat. Recommendations will be made from the analysis on prohibitions or prescribed conditions that proponents will need to adhere to when planning a shoreline stabilization activity. Further, the decision-making tool will provide support to proponents by suggesting the appropriate technique for their site and provide alternative options that may reduce their risk of causing negative impacts to fish and fish habitat.

Keywords: estuary, shoreline stabilization, fish and fish habitat, risk analysis