

Local Economic Effects of Impaired Recreation Water Quality: Summary Report  
on Great Lakes for the International Joint Commission

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## Local Economic Effects of Impaired Recreation Water Quality

### **Executive Summary**

This report provides a summary of economic estimates related to beach and recreation water quality. The information is intended to provide guidance for evaluating the economic benefits from clean and safe Great Lakes beaches. Further, the report summarizes recent estimates of water quality in other areas for comparison and for use in identifying areas for economic research for the Great Lakes.

This report is divided into sections summarizing estimates of economic impacts, economic welfare, property values and human health impacts associated with recreational water quality. The final section offers conclusions and recommendations for Great Lakes economic research.

The most significant Great Lakes economic work comes from several studies of Lake Erie, one of which estimates economic impacts of beach visitors of up to \$8 million and another \$8 million in economic welfare for two beaches. A study for Lake Michigan shows economic welfare of nearly \$1 billion for visitors to Chicago beaches, with substantial welfare to be gained by reducing swim advisories. In another study of Lake Michigan, economic welfare losses associated with swim closures at Indiana Dunes State Park are estimated to be as high as \$43,000 per swim-area closure.

A study of property values along Lake Erie shows that housing prices increase by \$22 for each centimeter increase in water clarity. Extrapolating this number to the Great Lakes region, a study by the Brookings Institute finds the total present value of benefits from water clarity to be worth over \$2.5 billion.

Human health costs associated with swimming-related illnesses in the Great Lakes have not been widely estimated and reported however, a study in Southern California finds public health losses of nearly \$62 million in Los Angeles and Orange Counties.

While this report does not address recreational benefits from other activities such as fishing and boating, references are given for a wide range of economic estimates of these activities. Additionally, references for the economic value of ecological services and biodiversity from coastal areas are provided.

The information in this report can be used to conduct additional economic analyses, similar to what was done in the Brookings study. In addition, it can be used to provide guidance for policy making and to make recommendations for future research needs.