INTRODUCTION

The implementation of Annex 2 (Remedial Action Plans and Lakewide Management Plans) of the Great Lakes Water Quality Agreement (GLWQA) in 1987 has resulted in many significant efforts to restore, protect, and conserve environmental conditions at Areas of Concern (AOCs). Within the Canadian portion of the Great Lakes, accomplishments such as “delisting” the Collingwood and Severn Sound AOCs, and the recognition of the Spanish Harbour AOC as an “area in recovery,” are direct results of multi-stakeholder actions directed by the GLWQA. A review of Stage 2 Remedial Action Plan (RAP) updates and progress reports reveal that there have been numerous successful projects implemented at various AOCs with the expectation of improved environmental conditions. However, despite this progress, there are 15 Canadian sites that remain designated as AOCs, and in many cases RAP partners can only provide qualitative descriptions as to how close they are to restoring the Beneficial Use Impairments (BUIs) responsible for their AOC designation.

“Continuous improvement” may be an admirable guiding principle for environmental management when water quality and wildlife habitat is severely degraded. However, as environmental conditions improve, RAP partners must start thinking more quantitatively about what remains to be accomplished before BUIs can be reported as restored. In this context, continuous improvement is no longer sufficient; it describes the journey, but fails to establish the destination. The fundamental question that needs to be answered by RAP partners is, “How will we know when our actions are sufficient to designate a BUI as restored?”

A well informed discussion and consensus among technical staff and local stakeholders regarding how far conditions must shift to be deemed acceptable cannot be achieved without first agreeing on how conditions should be measured. There is a need for technical consistency and rigor in monitoring across all Canadian AOCs. Clarification of specific monitoring requirements requires consensus regarding quantitative delisting criteria for the various BUIs. Achieving this consensus requires a clear understanding of the fundamental principles that guide the development of the delisting criteria and recognition that the linkage between the delisting criteria and monitoring must be made in a scientifically sound manner. In light of the current International Joint Commission’s (IJC) GLWQA review process, these concepts, along with a critical examination of the BUIs themselves, will be discussed.

DISCUSSION

Beneficial Use Impairment Delisting Criteria Principles

Beneficial use impairment delisting guidelines or criteria are environmentally based targets or benchmarks that serve as indicators of the impairment for Areas of Concern (AOC), and are used to assess progress toward restoration of BUIs (IJC 1991). In 1991, the IJC provided general listing/delisting criteria (guidelines) for each BUI (Table 1). These cri-