

# An adaptive management and ecohealth approach to build sustainable communities

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There is a real sense of pessimism about the future of our planet, while at the same time our collective understanding of the factors that affect the sustainability of ecosystems never been greater. This presentation describes a vision for developing more sustainable and resilient communities by employing the adaptive management approach and technology to empower citizens, managers and business leaders with information to help with the decision making process. The project is based on the assumption that the key to the adaptive management process is providing access to monitoring, reporting, science and predictive modeling that creates a transparent process that resonates with the public and politicians. Implementing such a vision requires:

- integrated monitoring that utilizes rapid and standard sampling methods;
- shared databases with summary and reporting capabilities that enable access by multiple organizations;
- strong science development that supports better understanding of causal pathways and can provide state of the resource condition on key indicators;
- predictive modeling to enable scenario testing (e.g., changes in land or water use, climate change); and
- an understanding of scales of effects that enables decision makers to evaluate the effects of site based decisions at multiple spatial and temporal scales from the smallest headwater to the Great Lakes
- a means to integrate and share this information with all stakeholders so as to provide the same information to all participants in the decision making process.

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In Ontario, a concerted effort has been underway to develop the components of this approach to managing ecosystems. Examples of the current state of each component, as well as plans to improve and integrate the various components will be described. Finally, a provocative vision of how this collaboration might be implemented so as to re-engage society as true partners to make their communities sustainable will be presented.