





# THE ROLE OF PRACTITIONERS IN DECISION SUPPORT SYSTEM (DSS) FORMULATION

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Problem Definition



Decision Support System



Practitioners role in DSS



## PROBLEM DEFINITION

- Complex decision-making for management of algal bloom issue in Lake Erie.
  - Collaborative water resources governance requires that planning and management activities consider a broad set of sectors.
  - Involvement of numerous stakeholders and decision makers with conflicting priorities and different value preferences.
- Humans are poorly equipped to solve "wicked problems".
- Need for a systematic methodology and holistic approach for options analysis and timely decisions.
  - Collaboration and early practitioners input/

## OBJECTIVE

Development of a decision support system (DSS) at the scale of the Great Lakes basins to explicitly improve the quality of decision-making to achieve better manage eutrophication and nuisance algal growth.

## DECISION SUPPORT SYSTEM

#### Data/Document

Provides data manipulation and analysis capabilities and provides access to review an analyze various documents including policies, guidelines, procedures and specifications

Communication

Provides effective communication tools such as e-mails, bulletin boards, chat systems, web portal and interactive videos. Components of DSS

#### Knowledge

Provides scientific and technical information and/or engineering knowledge.

#### Tools

Provides various tools such as project management, tracking, auditing, quantitative, qualitative and, cost-benefit analysis tools



### BENEFITS OF DSS

Making decision-making transparent, documented, reproducible, robust

Identifying, assessing and addressing potential risks, uncertainties

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Establishing clear communication between stakeholders for timely decisions

Knowledge Mobilization Steering Committee

Understanding the needs of the Practitioners

Engaging Practitioners from start to end of the project

Practitioners involvement in DSS Formulation

## PRACTITIONERS ROLE

- Development of the DSS will follow the best practices and establish trust and credibility with government and public agencies through close and sustained knowledge co-production.
- All developments will benefit from early practitioner input on the design of DSS:
  - Improve the likelihood that the agencies and endusers act on the scientific knowledge
  - Implement adaptive monitoring systems to gauge the success of actions taken.

### SUMMARY

