Community-based Wetland Management

Collaborative Learning and Assessment in Douglas County, Wisconsin

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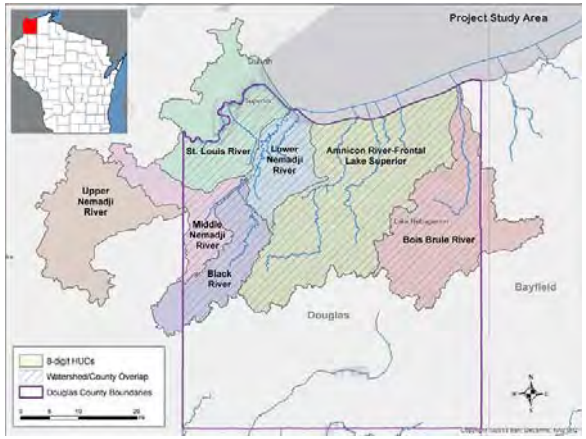
Introduction:
Coastal wetlands provide many essential ecological functions and services to communities including stormwater attenuation, water quality filtration, and shoreline protection. Yet the historic and continued loss of coastal wetlands in the United States presents communities with unprecedented adaptation challenges in the face of a changing climate. To build coastal resilience and overcome these challenges, managers often must interact and collaborate with diverse stakeholder groups. The Lake Superior Wetland Assessment (a National Estuarine Research Reserve Science Collaborative project) aims to accomplish this by connecting the intended users of science with experts in the field of wetland science. This assessment served as a precursor to this project.



Six large sub-watersheds in Douglas County, WI flow into Lake Superior. Source: Wisconsin Coastal Management Program

Coastal Management Challenge: Located along the southern shores of Lake Superior, Douglas County contains rare coastal wetlands not found anywhere else in the Lake Superior Basin (LSB). Changes in land use and loss of wetlands in the LSB threaten the St. Louis River Estuary and other Lake Superior freshwater estuaries by reducing stormwater storage capacity and increasing the volume and velocity of runoff. According to the City of Superior's Special Area Management Plan (SAMP) 80% of the remaining developable land in the City of Superior is wetland. Due to high development pressures in the City, compensatory mitigation is inevitable and often occurs outside of the City's jurisdiction within rural areas of the County.

Objective: To verify and clarify community interests in, attitudes towards and concerns about wetlands and wetland mitigation in Douglas County, WI.

What is collaborative learning?
A technique developed by Steven E. Daniels and Gregg B. Walker in 2001, emphasizes that learning and progress occur through communication and negotiation interaction in a group setting.

Stakeholders engage in a collaborative learning workshop

Methods: This study focused on the first three elements of the assessment phase to collaborative learning:

1. Understanding and clarifying the nature of the problem (through the development of a problem statement)
2. Identifying potential stakeholders and listening to different perspectives on the problem (through semi-structured interviews with 19 stakeholders)
3. Creating and synthesizing situation maps that capture the diversity of stakeholder perspectives

Wetlands fringe Pokegama Bay, part of the St. Louis River Estuary

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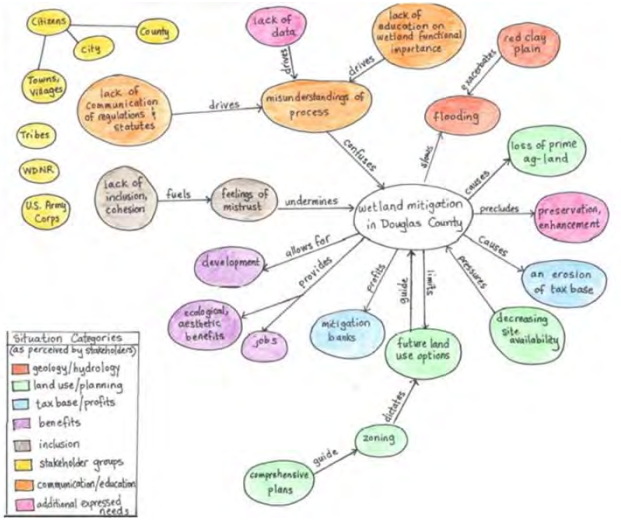
Situation Mapping: Similar to mind mapping, situation maps present complex issues graphically as a way to foster shared and systematic understanding among a group. They typically represent one worldview and are hand-drawn to show that the map is open to editing.



Shared Wetland Situation Map

Summary of Findings: Sixty-eight percent of interview participants believe that a lack of local input into compensatory wetland mitigation projects is a problem in Douglas County. Reasons provided include a lack of communication between regulatory agencies and townships, a loss of "prime" agricultural land to compensatory mitigation projects, and misconceptions surrounding wetlands and their management. The collaborative learning stakeholder meeting demonstrated that misunderstandings exist between stakeholder groups on topical areas such as tax base, wetland rules and regulations, land availability and comprehensive planning.

Next Steps: The science collaborative team is developing and implementing a series of training workshops aimed at increasing stakeholder knowledge on topics of concern. The team also formed a technical advisory committee to conduct a landscape-level functional analysis using the most current wetland inventory for Douglas County. These wetlands will be mapped, prioritized and integrated with local land use and conservation plans. The final product will be a watershed-based plan that provides local input into where future wetland preservation and restoration areas are located.