Helping Michigan communities meet their water use needs through collaborative water resource management



CORE QUESTION: What resources can help Michigan communities collaboratively manage large-scale water use?

WATER, WATER EVERYWHERE?

Even in a state where water feels abundant, deciding who gets to use that water can be a source of conflict. Disputes over large-scale water use can lead to political upheaval, financial costs, litigation, and harm to a community's social fabric. Having adaptive and collaborative processes for allocating water resources can help ensure sustainable use while minimizing or avoiding these drawbacks.

In Michigan, the Department of Environment, Great Lakes, and Energy (EGLE) monitors and manages large withdrawals from water bodies or groundwater sources. A 2008 law authorized local water users to create Water User Committees (WUCs) to work with EGLE through withdrawal requests, make collaborative management decisions, and develop shared water-use solutions that prevent or resolve water use conflicts and adverse resource impacts. No WUCs, however, have been formed to date in Michigan. Helping WUCs gather momentum could empower Michigan communities and water users to meet the hydrological, economic, and social needs unique to their local context.

ENHANCING COMMUNITY AUTONOMY

Starting in 2022, Michigan Sea Grant and EGLE are supporting a research team that will use a stakeholderdriven participatory modeling approach to pave the way for future WUCs. Their goal is to create a WUC guide that incorporates the diverse perspectives of state water users and builds capacity among Michiganders toward local collaborative governance of water resources.

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Adam Zwickle, an associate professor in the Michigan State University Department of Community Sustainability and the Environmental Science and Policy Program, will lead this effort. Zwickle and his team will start with surveys and focus groups to assess barriers and knowledge gaps that have prevented WUCs from convening so far. They will use these insights to develop a WUC user manual that provides a basic primer on Michigan's water resources and laws, a step-by-step process for assembling and managing a WUC, and a list of potential tools and resources. Finally, the team will test and refine the manual by convening Michigan's first WUCs.

An advisory board with representation from state agencies, agricultural sector and other water intensive industries, environmental non-profits, Michigan Sea Grant Extension, tribal governments, and local government will provide guidance to the project team.

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Michigan Sea Grant helps to foster economic growth and protect Michigan's coastal, Great Lakes resources through education, research, and outreach. A collaborative effort of the University of Michigan and Michigan State University and its MSU Extension, Michigan Sea Grant is part of the NOAA-National Sea Grant network of 34 university-based programs.