

Cultivating Science-Policy-Practitioner Partnerships in Wetland Restoration

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Understanding water-quality related functions of restored wetlands is challenging due to scientific uncertainty in ecosystem processes and variation in management actions. The H2Ohio Wetland Monitoring Program mobilizes university researchers across Ohio to investigate the effectiveness of state agency-funded wetland projects. This presentation will describe how sustained working relationships with wetland practitioners help capture relevant metrics to assess the impact of wetland design and management decisions. Simply putting scientists and stakeholders in the same room (or same wetland) is a key step in the process of understanding restoration intentions, actions, and outcomes. The Program's annual workshop connects >30 academic scientists and technical staff, along with dozens of agency and management partners for a series of structured activities and informal networking. Likewise, researchers exchange knowledge with land managers through a combination of standardized prompts and unstructured field visits, the latter of which catch insights not always detected in written form. Dialogue in each space grounds the Program's purpose in acquiring actionable data, without sacrificing independent scientific research. The Program maintains workflows and tools for inter-institution communication across the life cycle of a wetland project (i.e., design, construction, present use) and integrates management-related metrics into monitoring design (i.e., sampling locations near water level control structures, avoiding sensitive features upon land manager request). Program documentation provides example aquatic monitoring protocols and practical guidance, which restoration scientists and professionals can draw upon and adapt to other geographies or ecosystems. The first two years of the Program offer emergent themes to frame next steps in the broader space of "science-informed management"; considering how to balance expectations of urgently requested information with the scientific reality of monitoring ecological change. Ultimately, investment in wetland practitioner partnerships can strengthen understanding of wetland nutrient services in human-altered landscapes and human-managed ecosystems.

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