Lessons Learned Reports

In an annual report, document the successes or failures of implemented adaptation principles for wetland protection, restoration and management actions

Adaptive management is a commonly recommended approach when there is uncertainty about either management effectiveness or ecosystem function. In the case of adaptation principles for wetland protection, restoration and management, there is general uncertainty about the effectiveness of habitat management as well as the impacts of climatic changes on those practices, making this an essential component of an adaptive approach. Annual success and failure reports, or lessons learned reports, have been identified as one approach to help inform adaptive management.

To maximize learning, a systematic approach is required to assess what works, what does not work, and why. Thus, when developing a plan or a project, goals, objectives and expectations should be described explicitly. Project plans should not only identify tasks or activities, but also provide a rationale for the selected action and some description of what the expected outcomes or results will be. This shifts the learning potential from a somewhat passive mode into an active hypothesis-testing approach. This systematic approach is needed to ensure the best assessment of optimal approaches to wetland restoration in a changing climate.

Lessons learned reports provide the opportunity on a regular basis, to take stock of how well different projects performed, noting whether they were implemented as planned and whether they performed as expected. Rather than approaching reporting in an ad-hoc way, a template should be used that allows systematic tracking with standardized categories of information (e.g., project objectives and actions, expected outcomes and why project actions are expected to achieve those outcomes, key uncertainties about climate change impacts and action effectiveness). Reports and their results should be used to guide the next steps in the conservation of coastal wetland management. Further, reports should be made available to others to encourage communication and technology transfer, and the synthesis of such reports as they apply to common geographies or management practices. Annual reports should be produced, and the results should be presented and communicated.

Case Example | Great Lakes Restoration Initiative Projects

Wetlands restoration projects carried out under the Great Lakes Restoration Initiative (GLRI) have the potential to provide insight on this practice, through the Great Lakes Accountability System (GLAS). U.S. EPA requires inclusion of detailed information on all GLRI-funded projects into GLAS, including: the nature of the project, the responsible organization and point of contact, amount of GLRI funding, project location, and a measure of progress linked to the GLRI Action Plan.

Although GLRI does not specifically require reporting on lessons learned, the requirement to link to metrics identified in the Action Plan compels those doing the reports to provide a rationale for their approach and to account for whether selected actions and approaches achieved stated outcomes.

Old Woman Creek National Estuarine Research Reserve, Ohio, United States

One potential avenue to explore is reporting on wetland mitigation efforts, given that mitigation would typically entail regular reporting by permittees to state agencies. Examples are provided in *Protecting and Restoring the Kidneys of the Great Lakes: An Assessment of Wetlands Programs in Michigan, Minnesota, Ohio and Wisconsin (2009)*, referenced below. The state (or an outside party having access to the mitigation reports) could summarize any progress on incorporating adaptation measures into wetland mitigation projects. Such reporting could also indicate the potential need for regulatory changes (e.g., the need for permittees to incorporate adaptation planning and implementation into mitigation projects, if most project teams are not already doing so).

Other efforts have examined adaptation in individual case studies. One example is the recent effort involving the National Wildlife Federation and EcoAdapt (working with NOAA) involving seven restoration project case studies that provide advice on incorporating climate change considerations in restoration planning and implementation. Subsequent assessments of outcomes at these (and similar projects) could be carried out in the future to assess progress on implementing climate-smart practices in the restoration projects. Such assessments would require development of criteria with which to assess successful adoption of practices incorporating climate change considerations.

Challenges and Benefits

Publicly sharing both successes and failures in wetland adaptation can facilitate active learning and adaptive management by asking managers to reflect regularly on what has worked and what has not worked (see Best Practice #10). Documenting and sharing lessons learned includes sharing failures, which can be challenging or politically unacceptable. Because of this, practitioners may seek to overstate their successes and underplay their failures. Conversely, some practitioners may engage in humble-bragging where they focus on "failures" that are really veiled boasts.
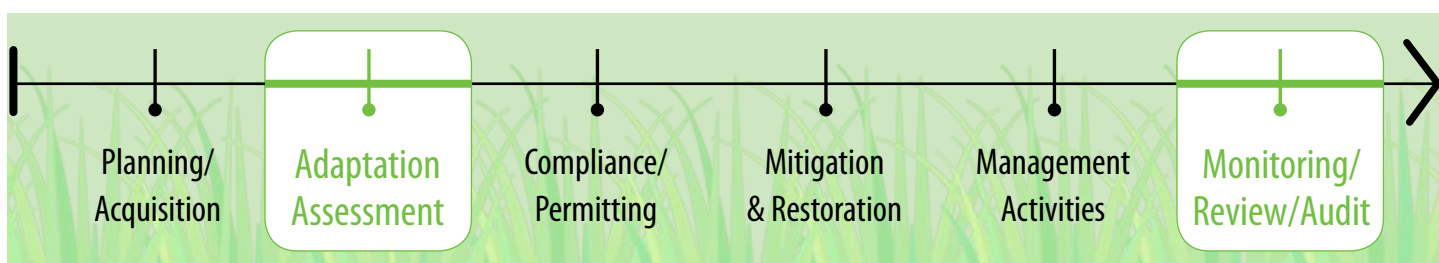
Also, documenting lessons learned is not always part of required reporting, so it takes additional time and energy. A legitimate concern is that such reports may not be read by anyone but the authors and that the production of such reports will become a rote exercise with little useful content. This type of range from thoughtful, useful reflection to more perfunctory reporting can be seen in the "lessons learned" sections of many project reports. Nonetheless, an honest accounting of lessons learned, what worked, what did not work and why can illuminate pitfalls to avoid and areas that merit expanded efforts in the future.

Who should implement the practice?

The practice would likely be implemented by an entity with ongoing ability to carry out a broad review of project implementation. This might be a government agency, NGO, or potentially an academic group, though, in all cases, resource availability over the longer-term would be an issue. An additional consideration is the independence of the assessment, and the potential value to an organization not involved in any of the projects themselves.

To increase collective learning around adaptation principles for wetlands work, an organization or agency should collate and summarize wetland adaptation lessons learned from the annual reports of related work. This could be a professional organization such as the Michigan Wetlands Association, or a government agency such as Michigan Department of Environmental Quality or NOAA.

When should this practice happen?

Planning/ Acquisition	Adaptation Assessment	Compliance/ Permitting	Mitigation & Restoration	Management Activities	Monitoring/ Review/Audit

Tools and Resources

Climate Change Adaptation Plan for Coastal and Inland Wetlands in the State of Michigan (2012) | Report of Association of State Wetland Managers reviews climate change issues relevant to wetland protection and restoration in Michigan. | **www.michigan.gov/documents/deq/Michigan_Wetlands_and_Climate_Change_Report_Final_Final_403251_7.pdf**

Great Lakes Restoration Initiative Accountability System (GLAS), User Guide (2011) | U.S. EPA developed this system for collecting monitoring and reporting information on GLRI-funded projects. | **www.greatlakesrestoration.us/pdfs/GLASv1.1_reporting_guidance.pdf**

National Wildlife Federation and EcoAdapt – Restoring the Great Lakes' Coastal Future: Technical Guidance for the Design and Implementation of Climate-Smart Restoration Projects (2014) | Guidance document that provides an overview of adaptation principles, guidance for climate-smart restoration projects in the Great Lakes, and reviews experience from seven case studies. | **www.nwf.org/~/media/PDFs/Global-Warming/Climate-Smart-Conservation/2014/Restoring-the-Great-Lakes-Coastal-Future-032114.pdf**

Protecting and Restoring the Kidneys of the Great Lakes: An Assessment of Wetlands Programs in Michigan, Minnesota, Ohio and Wisconsin (2009) | Reviews general wetland policies in four Great Lakes states, including a brief review of mitigation policies and procedures. | **online.nwf.org/site/DocServer/Wetlands_Report_July_2009.pdf?docID=10661**

Mitigating Climate Change through Restoration and Management of Coastal Wetlands and Near-shore Marine Ecosystems – Challenges and Opportunities (2011) | This World Bank report underscores the need for protecting coastal wetlands as part of carbon emission reduction strategies and includes recommended improvements in monitoring and reporting under the United Nations Framework Convention on Climate Change. | **portals.iucn.org/library/efiles/documents/2011-009.pdf**

Great Lakes Commission des Grands Lacs

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