



Wetland Training Needs Assessment Findings

A Product of the Association of State Wetland Managers'
Increasing Access to High Quality Wetland Training Project

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The content of the list has been compiled by the Association of State Wetland Managers (ASWM) from ASWM's Stream Study, ASWM's State Summary Project, ASWM's State Wetland Program Status and Trends Report, the ASWM Wetland Restoration Project, National Wetland Training Project Workgroup input, partner input and webinar series participant feedback.

In addition to basic training needs, training topics on this list are broken down by the EPA's ESTP four Core Elements (wetland restoration, wetland monitoring and assessment, wetland water quality standards, and wetland and stream regulation). Training is needed for both program implementation and specialized skill building (e.g. restoration skills).

Bold = Strongest Need

A. Basic Training on Wetlands

- **What is a watershed/what is a wetland?**
- **Wetland hydrology**
- **Hydric soils**
- **Wetland Vegetation/Plant Identification**
- Wetland biology/ecology
- Wetland hydro-bio connections

B. Wetland Restoration Training

- **Training on components of restoration success and how to measure success (performance)**
- **How to incorporate wetland restoration into larger watershed planning**
- **How to connect wetland restoration with floodplain and hazard management**

(Wetland Restoration Training, continued)

- How to develop performance standards for restoration projects
- How to prioritize restoration site selection
- How to read the landscape for restoration potential
- How to select the right wetland restoration team
- How to prepare a good wetland restoration plan
- How to access and use comprehensive GIS data layers for restoration planning and design
- Training on restoration techniques; Examples include:
 - How to design a wetland
 - How to develop a water budget
 - How to manage invasive species
 - How to restore specific wetland types

C. Wetland Monitoring and Assessment Training

- **Training on targeted monitoring and assessment tools**
- **Guidance on how to adapt targeted monitoring and assessment tools for their state (RAMs, IBIs)**
- **How to effectively use monitoring and assessment tools to measure success (performance)**
- Mapping and other technology
- QA/QC for wetland mapping
- Training on how and when to use Hydrogeomorphic Assessments (HGM)
- Measuring functional uplift
- How to target data collection to support program goals
- Field-based training to see and test on real-world examples

D. Wetland Water Quality Standards Training

- **Training for states that rely on 401 certifications on how wetland water quality standards can strengthen their protection of wetlands**
- What makes WQ standards for wetlands unique from other standards
- Sharing of models, templates and lessons learned

E. Wetland and Stream Regulation Training

- **Training on strategies to strengthen 401 certification programs**
- **Orientation to the Clean Water Act and Section §404 Program**
- **Basics – hydrology, soils, plants, biology, hydro-bio connections, etc.**
- **Training on wetland-specific regulatory topics** (especially for junior staff), such as what is a wetland regulatory program, when to deny a permit, how to integrate requirements into permits; how to develop, implement and evaluate mitigation requirements; and how to evaluate outcomes.
- How to review a restoration permit application
- Training on in lieu fee programs and mitigation bank development/financial and legal planning
- Training on energy project wetland impacts and permitting considerations
- How to use functional uplift measures in mitigation assessment

F. Other Wetland Training Topics

- **Trainings on how to successfully use and develop tools to assist with communications**
- **Trainings on specific technical tools and topics (e.g. scenario based planning, adaptation planning processes; ecosystem services valuation)**
- **Training on EPA's four core elements and how to strengthen them (planning and implementation)**
- Trainings that further explore the impacts to wetlands from climate change and/or the value of wetlands to ameliorate some of the impacts of climate change (flooding, drought, sea level rise, etc.)
- Consideration of challenges and barriers to climate change work when seeking to attract participants from all states (including terminology used to advertise and address key issues) Sharing of integration case studies, models, templates and lessons learned from states that have successfully integrated their wetland program work with other state programs

For More Information

For more information about this needs assessment or the Association of State Wetland Managers' Increasing Access to High Quality Wetland Training Project, please contact Brenda Zollitsch, ASWM Policy Analyst via email at brenda@aswm.org or by calling the ASWM Office at (207) 892-3399.