Monitoring and Assessing Wetlands Condition: National Program Perspectives

EMAP Symposium 2007
Wetlands Survey Methods and Influencing Policy
April 12, 2007

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Photo by Jennie Sauer
Monitoring and Assessment Goals: EPA’s Wetlands Program

• Work with States and Tribes to build capacity to implement comprehensive wetlands monitoring and assessment programs

• Establish a baseline of ambient wetland condition across the nation
Wetlands Program Toolbox

- CWA 104(b)(3) Wetlands Program Development Grants (WPDG)
- National Wetlands Monitoring and Assessment Work Group (NWMAWG)
- Regional Monitoring Councils
- Technical and Policy Guidance

Photo by Jennie Sauer
Desired Outcomes from NWCA
National Assessment Objectives

1. Produce a national report that describes the quality of the nation’s wetlands

2. Help States and Tribes implement wetland monitoring and assessment programs that will guide policy development and aid project decision-making

3. Advance the science of wetlands monitoring and assessment
Baseline Assessment of Wetland Condition

• First-ever assessment of wetland condition
  – Eventually, track trends in wetland condition
  – Greater national focus on wetland quality

• Support national goals
  – SP 4.3.1 – net gain in wetland quantity AND quality

• President’s Initiative – Earth Day 2004
  – move beyond "no net loss" of wetlands to attain an overall “net gain” in the quantity AND quality of wetlands
FWS Status and Trends

• 1956: First report on wetland status and classification

• Remotely sensed imagery for about 4,500 sample plots throughout conterminous US

• Important long-term information about wetland change

• Measure progress toward national policy goal of “net gain” in wetland acreage
Figure 020-1. Average annual change in wetland acreage, 1954-2004

Net change (acres)

-500,000
-458,000
-290,000
-58,600
0
+32,000

### Change in Wetland Area for Selected Wetland Categories, 1998-2004

<table>
<thead>
<tr>
<th>Category</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>FW Ponds</td>
<td>+ 12.6%</td>
</tr>
<tr>
<td>FW Emergent</td>
<td>- 0.5%</td>
</tr>
<tr>
<td>FW Shrub</td>
<td>- 4.9%</td>
</tr>
<tr>
<td>FW Forested</td>
<td>+ 1.1%</td>
</tr>
<tr>
<td>Estuarine intertidal vegetated</td>
<td>- 0.7%</td>
</tr>
<tr>
<td>Estuarine intertidal non-vegetated</td>
<td>+ 1.0%</td>
</tr>
</tbody>
</table>

What does this Mean?

- Wetland acreage trends may not be the best indicator of overall wetland health
  - Need for corresponding quality information

- Vegetated wetlands many be transitioning to open water.

- Restoration and compensatory mitigation projects not successful (yet)

- Wetland acreage ↑; wetland functions and values ↓
Collaboration with FWS

• EPA will collaborate with FWS in designing NWCA
  – ensure the national condition assessment most effectively complements the Service’s Wetlands Status and Trends Study.

• NWI Status and Trends documents trends in wetlands acreage
  – Valuable long-term information, foundations well documented

• NWCA will evaluate the ambient condition of the nation’s wetlands resources.

• Together these reports will offer the most comprehensive ecological evaluation

• Provide valuable information to support policy and resource management decisions.
State and Tribal Capacity

• “Turn key” protocol for states and tribes
  – Indicators, assessment methods, expertise, equipment
  – Institutional knowledge to implement comprehensive wetlands monitoring

• Greater Integration with “traditional” WQ monitoring programs
  – Leverage resources/expertise
  – Identify sustainable funding sources
State and Tribal Capacity

• Demonstrate the utility of ambient monitoring data to support decision making
  – Prioritize wetlands restoration in a watershed context
  – SAMPs, ADIDs

• Utilization of ambient monitoring tools to support administration of CWA 404 program
  – Compensatory mitigation bank performance standards
  – ID jurisdictional waters
States and Tribal Capacity

• Intensification Studies

  – Intensify sampling in “focus states/watersheds” throughout country

  – Smaller-scale assessment that inform state-level management and policy needs

  – Capture “rare” wetlands of interest not included in the national draw (e.g. vernal pools)
Wetland Assessment Science

- Advance Condition Assessment Paradigm
  - Beyond HGM/IBI Assessments
- RAM calibration
- Continue to Develop/Refine Reference Network
- Water Quality Standards for wetlands
- Wetland TALUs
Take Home Message

• NWCA is an opportunity to advance wetland monitoring *Elements*

• Unique challenges for wetlands

• Benefit of going last