Healthy Wetlands, Healthy Watersheds: leveraging state wetland restoration and protection programs to improve watershed health

Marla J. Stelk
Association of State Wetland Managers

May 22, 2019
Association of State Floodplain Managers Annual Conference
Cleveland, Ohio

Funded by: EPA Wetland Program Development Grant and the McKnight Foundation
Project Team

- Brenda Zollitsch, PhD, ASWM Senior Policy Analyst
- Starsha Schiller, ASWM Policy Intern
- Sean Seary, ASWM Policy Intern
- William Dooley, ASWM Policy Analyst
Project Advisory Workgroup

- Julia Anastasio, Association of Clean Water Administrators
- Rebecca Arvin-Colon, Water Environment Foundation
- Tom Ballestero, University of New Hampshire Stormwater Center
- Stacia Bax, Missouri Department of Natural Resources
- Rebecca Dils, U.S. EPA Office of Water
- David Fowler, Association of State Floodplain Managers
- Joel Freudenthal, Yakima County Public Services Water Resources Division
- Lisa Hair, U.S. EPA Office of Water
- Tina Heath, Vermont Department of Environmental Conservation
- Jennifer Henaghan, American Planning Association
- Jennifer Johnson, New England Water Environmental Association
- Marisa Mazzotta, U.S. EPA Atlantic Ecology Division
- Nicholas Miller, The Nature Conservancy
- Jack Morgan, National Association of Counties
- Ken Murin, Pennsylvania Department of Environmental Protection
- Doug Norris, Minnesota Department of Natural Resources
- Jim Pendergast, ASWM Advisor(former EPA Wetlands Division Deputy Director)
- Andrew Robertson, Saint Mary’s University of Minnesota
- Jessica Turba, Iowa Homeland Security and Emergency Management Division
- Brian Wolff, Indiana Department of Environmental Management
#5: Separation of Wetland & Stream Restoration

- Wetland and stream restoration are still largely addressed separately.
- Wetland projects determined to be a “success” by all wetland scientists can have serious negative impacts on stream and floodplain function - the same occurs for stream restoration projects.
Healthy Wetlands as Part of Healthy Watersheds

STARTING POINT

- Wetlands provide essential ecosystem services
- Roles for wetland protection, restoration, enhancement and creation in improving overall watershed health
- Roles for both traditional and innovative projects
- Increasing use of hybrid systems
- Need for integrated approaches
- Need to “Lift up the hood” on integration successes
Association of State Wetland Managers’
HWHW Project

- Developed Eight State Program Integration Case Studies
- Completed Nine Watershed Project Data Inventories and One Page Fact Sheets
- Delivered 7 Webinars via NFFA
- External Watershed Project Planning Resources
- Coming Soon: Additional Resource on Considerations for Measures of Integration Value
Selection Criteria for HWHW Case Studies

- State wetland programs actively integrating with one or more additional resource management programs operating within their state.

- Watershed projects including wetlands; involving multiple partners; at least 50 acres in size; addressing a regional or statewide watershed issue; designed to achieve multiple benefits

- Demonstrable direct or indirect impacts of integration on planning/implementation
- Outcomes documented using formal or informal performance measures.
- Preference for ability to provide cost-benefit insights
### Distribution of State Program Integration Case Studies

<table>
<thead>
<tr>
<th>State</th>
<th>Type of Wetland Program Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>Cross-Agency Planning to Include Wetlands</td>
</tr>
<tr>
<td>Nebraska</td>
<td>Wetland Restoration as Part of Basin Rehabilitation for Fisheries</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Wetlands in Watershed Planning: Minnesota’s One Watershed, One Plan</td>
</tr>
<tr>
<td>New Mexico</td>
<td>Wetlands Integrated into NPS Planning and 319 Projects</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Groundwater Appropriations and Surface Water Permitting</td>
</tr>
<tr>
<td>Vermont</td>
<td>Wetland Restoration as Part of TMDL/319 Work</td>
</tr>
<tr>
<td>Vermont</td>
<td>Statewide Integrated Water Quality Monitoring Program</td>
</tr>
<tr>
<td>Indiana</td>
<td>Stormwater-Wetland Joint Permitting</td>
</tr>
</tbody>
</table>

Increasing level of integration
Distribution of Watershed Integration Projects

- Iowa (Beaver Creek Watershed) 11k acres
- Oregon (Johnson Creek Watershed)
- Maryland (Anacostia Watershed)
- Florida (Upper St. John’s River Basin)
- Minnesota (Vermillion River Watershed)
- Texas (Lewisville Lake Watershed)
- New Mexico (Jemez River Watershed)
- Washington State (Yakima River Basin)
- New York/New Jersey/ Pennsylvania/ Delaware (Delaware River Basin) 8m acres
Initial Findings

- Wetlands frequently not the driver
- Wetlands often not the priority
- Wetlands get in on the fringe
- Add value to other projects and initiatives
- Importance of policy, administrative and regulatory supports to create context for integration to occur
- Look for places to add on wetlands
Capturing the Benefits of Integration

- Improved environmental outcomes
  - Improved habitat, water quality, abundance and size of species, biodiversity
  - Increased water quality, reduced impairment (nitrates, stormwater)
- Flood/drought control and improved hydrologic conditions
- Improved restoration potential and ability to more accurately identify high need areas for protection or restoration
- Increased use of public resources and recreational activity
Additional Benefits

- Increased ability to achieve agency/watershed goals
  - More efficient and effective shared permitting processes
  - Greater resource sharing → larger quantities/higher quality projects/greater reach/impact
- Increased access to expertise
- Greater efficiency in use of field staff
- Shared learning leading to professional development and career opportunities
- Innovation
- Increased public/stakeholder awareness and appreciation for watershed issues
# Understanding the Return on Investment

## Costs
- Start-up and meeting costs
- Staff time reallocation
- Creation of shared or complementary systems
- Cross-training
- Incentives or paying into shared funds for integrated activities

## Benefits
- Environmental outcomes
- Improved efficiency
- Better products/services
- Increased reach/depth
- Ability to address larger, watershed-level goals
- Increased access to resources
- More buy-in
- Stronger relationships, resiliency
- Increased public awareness of and appreciation for watershed-level work
- Innovations
- Economic activity
HWHW Project Findings

Common Barriers to Integration

1. Need for programmatic accommodation of integration

2. Regulatory compliance systems not structured for integration activities

3. Challenges of conducting BCA for integration and nature-based solutions

4. Scientific uncertainty
Best Practices/
Lessons Learned

- Adopt an integration mindset
- Develop necessary legislative/administrative supports
- Invest in partnership building
- Start small, build on successes
- Take the time to conduct careful planning (short- and long-term)
- Maintain regular and coordinated communications
- Engage stakeholders early and often
  - Social component
- Identify/secure sustainable funding for life of the integration project
- Secure funding from multiple sources
Best Practices/ Lessons Learned

- Provide formalization and structure to fit the scope of the project
- Develop formal systems for prioritization decisions
- Build-in programmatic adaptability and flexibility
- Invest in creating public understanding
- Manage expectations
- Build in strong evaluation
- Work towards greater understanding and use of benefit-cost analysis
- Use formal measures of integration to demonstrate value
HWHW Project

Project Products on ASWM Website

1. HWHW White Paper
2. State integration case studies (8)
3. One-page watershed project integration intro factsheets (9)
4. Datasheets for each watershed project in the study (9)
5. Capturing the Value of Integration Document (Soon)
6. Links to watershed project planning resources

www.aswm.org/watersheds
Questions?

For more information:

Marla J. Stelk
Executive Director
Association of State Wetland Managers
marla@aswm.org
(207) 892-3399