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Simulated application for Pennsylvania
Summary of accomplishments
(Figure 1)

Acknowledgements

I. New Approaches for Wetlands Monitoring and Assessment
   A. Background
      Brooks, Robert P., and Doreen Vetter. Wetlands Protection: Evolving from Quantity to Quality
      (Submitting: National Wetlands Newsletter)

   B. Rationale for the Cooperative Agreement – Brooks, Robert P.

   C. Wetlands Monitoring Matrix
      Brooks, Robert P., Denice Heller Wardrop, and C. Andrew Cole.
      Monitoring wetlands for inventory, condition assessment, and restoration potential on a watershed basis; a case study from the Spring Creek watershed, Pennsylvania, USA.
      (Submitted: Environmental Management)

II. Methods, Results, and Products
   A. Reference Wetlands and Hydrogeomorphic Classification
      Concepts of Reference Wetlands
      Use of Reference in the Hydrogeomorphic (HGM) Approach
      Selection of Reference Wetlands in Pennsylvania
      Classification of Reference Wetlands in Pennsylvania
      Recommended Steps for Establishing a Regional Set of Reference Wetlands
      Terminology and Definitions
      HGM Wetland Classification Key for Pennsylvania
      (Figures 1-7, Summary Table)

   B. Wetlands Monitoring Matrix - Levels 1, 2, and 3
      1. Level 1 – Remote Inventory and Condition Assessment
         a. Level 1 - Synoptic Watershed Assessments

         b. Level 1 - Pennsylvania Wetlands Assessment
2. Level 2 Enhanced Inventory and Rapid Condition Assessment

   b. **Level 2 – Rapid Condition Assessment**
      Brooks, Robert P., Denice Heller Wardrop, and Joseph A. Bishop. (Figure 1, Figures 2 & 3)

3. Level 3 – Intensive Condition Assessments (HGM and IBI)

   b. **Hydrogeomorphic Functional Assessment Models (HGM)**

      2. **Hydrogeomorphic Model Building Process**. Rubbo, Jennifer M., and Robert P. Brooks. (Ecoregion Table)


   d. **Indices of Biological Integrity (IBIs) - Flora and Fauna**
      1. **Flora**
         a. Vascular Plants


b. Greenhouse Experiments on Wetland Stressors


2. Fauna - Macroinvertebrates
   a. Wetland Macroinvertebrates
      Laubscher, Susan E., and Angela M. Conklin. Wetland Macroinvertebrates in Pennsylvania: Level 3 Condition Assessment using Indices of Community Integrity (ICIs)
      Introduction
      Methods
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      Slope Wetlands
      (Table 4.2, Figures 4.2-4.5, Figures 4.6-4.7)
      Riverine Wetlands
      (Tables 5.2-5.11, Figs. 5.1-5.14, Figs. 5.15-5.18, Figs. 5.19-5.21, Figs. 5.22-5.25, Figs. 5.26-5.28, Figs 5.29-5.32)
      Fringe Wetlands (available at a later date)
      Conclusions (Tables, Figures)
      (Appendix A) (Appendix B) (Appendix C) (Appendix D)


3. Fauna - Vertebrates

c. Wetland Birds IBI. Brooks, Robert P. and Timothy J. O’Connell (available at a later date)

III. Recommendations
Suggestions for implementation in Pennsylvania

IV. Summary of Presentations, Workshops, Meetings, and Outreach Activities

V. Summary of Publications (Articles, Reports, Theses)

VI. Appendices (available at a later date)
CD with data
CD of photographs
Site ownership and access

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