

APPENDIX II

RESOURCE INFORMATION ON NATURAL STREAM CHANNEL DESIGN

Guidebooks, Manuals and Software

- The Reference Reach Field Book
Wildland Hydrology, Inc. Research and Educational Center for River Studies, Pagosa Springs, CO 81147; 970-731-6100; www.wildlandhydrology.com
- The River Field Book
Available from Lee Silvey, Western Hydrology; 303-986-9200; email at hlsilvey@msn.com
- River Restoration and Natural Channel Design Field Book
(only available through Rosgen training coursework)
- Stream Corridor Restoration Principles, Processes, and Practices
*Federal Interagency Stream Restoration Working Group; 10/09
www.usda.gov/stream_restoration*
- Maryland's Guidelines to Waterway Construction
www.mde.state.md.us/wetlands/guide/html
- Channel Restoration Design for Meandering Rivers
*(US Army Corps of Engineers)
Philip J. Soar and Colin R. Thorne
<http://libweb.wes.army.mil/uhtbin/hyperion/CHL-CR-01-1.pdf>*
- Hydraulic Design of Stream Restoration Projects
*(US Army Corps of Engineers)
Ronald R. Copeland, Dinah N. McComas, Colin R. Thorne, Philip J. Soar
<http://libweb.wes.army.mil/uhtbin/hyperion/CHL-TR-01-28.pdf>*
- River Engineering for Highway Encroachments
*- a major rewrite of Highways in the River Environment
HDS 6, FHWA-NHI-01-004
www.fhwa.dot.gov/bridge/hydpub/htm*
- Maryland's Streams - Take A Closer Look
*Maryland Department of Natural Resources, Watershed Restoration Division,
Tawes Building, E2, Annapolis, MD 21401; 410-260-8799*
- Restoring Streams in Cities: A Guide for Planners, Policy Makers, and Citizens
Ann L. Riley, Island Press, 1998
- Montana Stream Management Guide for Landowners, Managers and Stream Users
*- a 33-page, full-color document that provides basic information on stream characteristics, stream types, and steps to stream restoration.
Department of Environmental Quality, PO Box 200901, Helena, MT 59620-0901; 406-444-2406*
- Stream Restoration in Pennsylvania: Ten Case Studies
Delaware Riverkeeper Network, 2001; 215-369-1188
- Penn State University's AVStrEAMS
Kenneth Corradini, 814-865-6966, kjc139@psu.edu
- RIVERMorph: Stream Restoration Software, George Athanasakes,
1901 Nelson Miller Pkwy, Louisville, KY 40223. 502-212-5061 www.rivermorph.com

Helpful Websites

- North Carolina Stream Restoration Institute
www5.bae.ncsu.edu/bae/programs/extension/wqg
- Greene County Soil & Water Conservation District, NY www.gcswcd.com/stream
- Wildland Hydrology, Inc., 1481 Stevens Lake Road, Pagosa Springs, CO 81147; (970)264-7120;
www.wildlandhydrology.com
- Urban Stream Restoration Video
 - highlights six urban stream restoration sites; order at
http://www.noltemedia.com/nm/urbanstream/index2_nf.html
- FGM Projects in Pennsylvania
www.dep.state.pa.us
- Pennsylvania Prevailing Wages and PA Prevailing Wage Act
www.dli.state.pa.us
www.dli.state.pa.us/landi/CWP/view.asp?a=185&Q=58229
(Davis-Bacon Act) www.dol.gov/dol/esa/public/programs/dbra/index.html
- NRCS Watershed Science Institute
 - Stream Corridor Inventory & Assessment Techniques
www.wcc.nrcs.usda.gov/watershed/products.html >> Planning Tools
- NRCS National Water & Climate Center
 - Stream Visual Assessment Protocol
www.wcc.nrcs.usda.gov >> Water Quality & Quantity Sciences >> Water Quality Assessment & Monitoring >> Guidance Documents
- American Rivers
 - River Restoration in our Nation: A Scientific Synthesis to Inform Policy, Grassroots Actions, and Future Research
<http://www.americanrivers.org/feature/riverrestoration1.htm>
- US Fish and Wildlife-Chesapeake Bay Office-Stream Restoration
 - Bankfull Discharge and Channel Characteristics of Streams in the Piedmont Hydrologic Region is available for download. Download a copy of the Maryland Stream Survey in .pdf format (8.8 megabytes). You will need a copy of Adobe's Acrobat Reader in order to view and print this document. The second report of the Maryland Stream Survey is available: Bankfull Discharge and Channel Characteristics of Streams in the Allegheny Plateau and Valley and Ridge Hydrologic Regions (10.3 megabytes). The Coast Plain report is out to the Advisory Panel for review.
<http://www.fws.gov/r5cbfo/stream.htm>
- USGS PA Water Resource
 - Development of Regional Curves of Bankfull-Channel Geometry and Discharge for Streams in the Non-Urban, Piedmont Physiographic Province, Pennsylvania and Maryland, Water Resources Investigations Report 03-4014
<http://pa.water.usgs.gov/reports/wrir03-4014.pdf>
- USDA-NRCS National Water Management Center-Regional Hydraulic Geometry Curves
<http://wmc.ar.nrcs.usda.gov/proj.dir/geomorph/index.html>

Articles / Publications of Interest

- *A Geomorphological Approach to the Restoration of Incised Rivers* (provides an overview of Dave Rosgen's four levels of priorities for incised river restoration)
David L. Rosgen, Director, Wildland Hydrology, 1481 Stevens Lake Road, Pagosa Springs, CO 81147
- *A Classification of Natural Rivers*
David L. Rosgen, Wildland Hydrology, Inc. 1481 Stevens Lake Road, Pagosa Springs, CO, 81147; 970-731-6100 (http://www.wildlandhydrology.com/html/references_.html)
- *Regional Curve Development and Selection of a Reference Reach in the Non-Urban, Lowland Sections of the Piedmont Physiographic Province, Pennsylvania and Maryland* (USGS in cooperation with PA DEP)
Water Resources Investigations Report 01-4146; USGS Branch of Information Services, Box 25286, Denver, CO 80225-0286; 1-888-ASK-USGS
- *The Impact of Afforestation on Stream Bank Erosion and Channel Form*
A.L. Murgatroyd, J.L. Ternan, 1983, *Earth Surface Processes and Landforms*, Vol. 8, 357-369.
- *Streamside Forests and the Physical, Chemical, and Trophic Characteristics of Piedmont Streams in North America*
Bernard W. Sweeney, 1992, *Wat.Sci.Tech.* Vol. 26, No. 12, pp 2653-2673.
- *Natural Channel Design: How Does Rosgen Classification-Based Design Compare with Other Methods?*
Dale E. Miller and Peter B. Skidmore, Inter-Fluve, Inc., 2001 ASCE River Restoration Conference, Reno, NV, (Dale Miller - 406-586-6926)
- *Urban Stream Restoration Practices: An Initial Assessment*
Kenneth Brown, Center for Watershed Protection, 8391 Main Street, Ellicott City, MD 21043, October 2000
- *The Cross-Vane, W-Weir and J-Hook Vane Structure: Their Description, Design and Application for Stream Stabilization and River Restoration*
David L. Rosgen, 2001, In proceedings of ASCE Conference, August 2001, Reno, Nevada. (http://www.wildlandhydrology.com/html/references_.html)
- *The Reference Reach – A Blueprint for Natural Channel Design*
David L. Rosgen, ASCE Conference March 1998. (http://www.wildlandhydrology.com/html/references_.html)
- *A Practical Method of Computing Streambank Erosion Rate*
David L. Rosgen, Proceedings of the Seventh Federal Interagency Sedimentation Conference, Vol. 2, pp.II – 9-15, March 25-29, 2001, Reno, NV (http://www.wildlandhydrology.com/html/references_.html)
- *A Stream Channel Stability Assessment Methodology*
David L. Rosgen, Proceedings of the Seventh Federal Interagency Sedimentation Conference, Vol. 2, pp.II – 18-26, March 25-29, 2001, Reno, NV (http://www.wildlandhydrology.com/html/references_.html)
- *A Hierarchical River Stability/Watershed-Based Sediment Assessment Methodology*
David L. Rosgen, Proceedings of the Seventh Federal Interagency Sedimentation Conference, Vol. 2, pp.II – 97-106, March 25-29, 2001, Reno, NV (http://www.wildlandhydrology.com/html/references_.html)