

- A.B. Chance Company. The Chance Encyclopedia of Anchoring, section A: Principles and applications of Earth anchors.
- Abbe, T.B., and D.R. Montgomery. 1996. Large woody debris jams, channel hydraulics and habitat formation in large rivers. *Regulated Rivers: Res. and Manage.* 12. pp. 201–221.
- Abbe, T.B., D.R. Montgomery, and C. Petroff. 1997. Design of stable in-channel wood debris structures for bank protection and habitat restoration: an example from the Cowlitz River, WA. *In* Management of landscapes disturbed by channel incision, stabilization, rehabilitation, and restoration. S.Y. Wang, E. Langendoen, and F.D. Shields, Jr., eds. Center for Computational Hydroscience and Engineering, Univ. of Mississippi. Oxford, MS. pp. 809–815.
- Abrahams, A.D., G. Li, and J.F. Atkinson. 1995. Step-pool streams: adjustment to maximum flow resistance. *Water Resour. Bull. J. of Am. Water Resour. Assoc.* 31(10):2593–2602.
- Abt, S.R., and T.L. Johnson. 1991. Riprap design for overtopping flow. *J. of Hydraul. Eng., Amer. Soc. of Civil Eng.* 117(8):959–972.
- Abt, S.R., G.B. Hamilton, C.C. Watson, and J.B. Smith. 1994. Riprap sizing for modified ARS-type basin. *J. of Hydraul. Eng., Amer. Soc. of Civil Eng.* 120(2):260–267.
- Abt, S.R., M.S. Khattak, J.D. Nelson, J.F. Ruff, A. Shaikh, R.J. Wittler, D.W. Lee, and N.E. Hinkle. 1987. Development of riprap design criteria by riprap testing in flumes: Phase 1. NUREG/CR-4651, U.S. Nuclear Regulatory Commission. Washington, DC. 111 pp.
- Ahola, H. 1989. Vegetated buffer zone examination of the Vantaa River Basin. *Aqua Fennica* 20:65–69.
- Ahrens, J.P. 2000. A fall-velocity equation. *J. of Waterway, Port, Coastal, and Ocean Engineering* 126(2):99–102.
- Alaska Department of Transportation, and Alaska Department of Fish and Game. 2001. Memorandum of agreement for the design, permitting, and construction of culverts for fish passage. Juneau, AK.
- Allan, J.D., and A.S. Flecker. 1993. Biodiversity conservation in running waters. *BioScience* 43:32–43.
- Allen, H.H. 1978. Role of wetland plants in erosion control of riparian shorelines. *Proc. of the National Symposium on Wetlands, Amer. Water Resour. Assoc. Minneapolis, MN.*
- Allen, H.H., and J.R. Leech. 1997. Bioengineering guidelines for streambank erosion control. Environmental Impact Research Program Technical Report EL-97-8. U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Alonso, C.V. 2004. Transport mechanics of stream-borne logs. *In* Riparian vegetation and fluvial geomorphology: hydraulic, hydrologic, and geotechnical interactions. S.J. Bennett, and A. Simon, eds. American Geophysical Union. Washington, DC.
- American Association of State Highway Transportation Officials (AASHTO). 2000. Geotextile specification for highway applications. AASHTO M 288-00. Washington, DC.
- American Association of State Highway and Transportation Officials (AASHTO). 2002. Standard specifications for highway bridges. Washington, DC.
- American Society for Testing and Materials (ASTM) International. 1996. Annual book of ASTM standards, Vol. 04.09. Soil and rock, standard test method for particle size analysis of natural and man-made riprap materials, ASTM D5519-94. West Conshohocken, PA. pp. 331–336.
- American Society for Testing and Materials (ASTM) International. Standard classification of soils for engineering purposes (Unified Soil Classification System), ASTM D2487. West Conshohocken, PA.

- American Society for Testing and Materials (ASTM) International. Standard test method for particle size analysis of natural and man-made riprap materials, ASTM D5519. West Conshohocken, PA.
- American Society for Testing and Materials (ASTM) International. Standard practice for assembly and placement of double-twisted wire mesh gabions and revet mattresses, ASTM D7014. West Conshohocken, PA.
- American Society for Testing and Materials (ASTM) International. Standard guide for placement of riprap revetments, ASTM D6825. West Conshohocken, PA.
- American Society for Testing and Materials (ASTM) International. Standard practice for specifying rock to fill gabions, revetment mattresses, and gabion mattresses, ASTM D6711. West Conshohocken, PA.
- American Society for Testing and Materials (ASTM) International. Standard specification for materials and manufacturing of articulating concrete block (ACB) revetment systems, ASTM D6684. West Conshohocken, PA.
- American Society for Testing and Materials (ASTM) International. Standard specification for steel sheet piling, ASTM D328, West Conshohocken, PA.
- American Society for Testing and Materials (ASTM) International. Standard terminology for geosynthetics, ASTM D4439. West Conshohocken, PA.
- American Society of Civil Engineers (ASCE). 1997. Guidelines for the design and installation of pile foundations, Standard 20–96. Reston, VA.
- American Society of Civil Engineers (ASCE). 1998. River width adjustment. *In* Processes and mechanisms. *J. of Hydraul. Eng.* 124(9):881–902. Reston, VA.
- American Society of Civil Engineers (ASCE). 2006. Sedimentation Engineering. Manuals and Reports of Engineering Practice, No. 54. Vito A. Vanoni, ed., ISBN# 0784408238. Reston, VA.
- American Wood Council. 2005. National Design Specifications for wood.
- Amoco Fabrics and Fibers Company. 1991. Amospec user's manual. Atlanta, GA.
- Amoskeag Hydro. 2007. Facts at a glance. Public Service Company of New Hampshire. Manchester, NH. <http://www.psnh.com>.
- Anderson, A.G., A.S. Paintal, and J.T. Davenport. 1970. Tentative design procedure for riprap lined channels. Report No. 108. Highway Research Board, National Academy of Sciences, National Academy of Engineering. Washington, DC. 75 p.
- Anderson, J.R. 1999. Development of the classification system for urban streams. Dr. John R. Anderson Center for Coastal Management. LWRRDC occasional paper. Report No. 1. Southern Cross Univ., Australia.
- Andrews, E.D. 1980. Effective and bankfull discharges of streams in the Yampa River basin, Colorado and Wyoming. *J. of Hydrol.* 46:311–330.
- Andrews, E.D. 1983. Entrainment of gravel from naturally sorted riverbed material. *Geol. Soc. of Amer. Bull.* 94(10):1225–1231.
- Andrews, E.D. 1984. Bed-material entrainment and hydraulic geometry of gravel-bed rivers in Colorado. *Geol. Soc. of Amer. Bull.* 95:371–378.
- Andrews, E.D., and D.C. Erman. 1986. Persistence in the size distribution of surficial bed material during an extreme snowmelt flood. *Water Resour. Res.* 22(2):191–197.
- Andrews, E.D., and J.M. Nankervis. 1995. Effective discharge and the design of channel maintenance flows for gravel-bed rivers. Natural and anthropogenic influences in fluvial geomorphology. *Geophysical Monograph* 89:151–164.
- Annable, W.K. 1996. Database of morphological characteristics of water courses in Southern Ontario. Ministry of Natural Resources. Ontario, Canada.

- Arcement, G.J., and V.R. Schneider. 1990. Guide for selecting Manning's roughness coefficients for natural channels and flood plains. U.S. Geological Survey Water supply paper 2339. Washington, DC.
- Armour, C.L., R.J. Fisher, and J.W. Terrell. 1984. Comparison of the use of the habitat evaluation procedures (HEP) and the instream flow incremental methodology (IFIM) in aquatic analyses. U.S. Dept. of Interior, Fish and Wildlife Service. FWS/OBS-84/11. Washington, DC. 30 p.
- Arnett, E.B. 2003. Advancing science and partnerships for the conservation of bats and their habitats. *Wildlife Soc. Bull.* 31:2-5.
- Arnett, E.B., and J.P. Hayes. 2000. Bat use of roosting boxes installed under flat-bottomed bridges in western Oregon. *Wildlife Soc. Bull.* 28:890-894.
- Aspen Institute. 2002. Dam removal: a new option for a new century. The Aspen Institute Program on Energy, Environment, and the Economy. Washington, DC.
- Assessment Methodology. 2001. Seventh Federal Inter-agency Sedimentation Conference.
- Ayres Associates. 2004. Contract work for U.S. Department of Transportation, Federal Highway Administration—not yet published.
- Bailey, R.R., and O.L. Copeland. 1961. Vegetation and engineering structures in flood and erosion control. U.S. Dept. of Agric., Forest Service, Intermountain Forest and Range Experiment Station, Ogden, UT. Paper presented at thirteenth Congress of International Union of Forest Research Organizations. Vienna, Austria.
- Balch, P. 2004. Personnel communication.
- Barclay, R.M.R. 1991. Population structure of temperate zone insectivorous bats in relation to foraging behavior and energy demand. *J. of Animal Ecology* 60:165-178.
- Barnes, H.H. 1967. Roughness characteristics of natural channels. U.S. Geological Survey Water-Supply paper 1849. U.S. Government Printing Office. Washington, DC.
- Bat Conservation International. 2000. Bat facts. <http://www.batcon.org>.
- Bat Conservation International. 2002. Bat species: Natural History, U.S. Bats. <http://www.batcon.org>.
- Bates, K.M. 1992. Fish passage design guidelines for Pacific Salmon. Washington Dept. of Fish and Wildlife. Olympia, WA.
- Bathurst, J.C. 1997. Chapter 4: Environmental river flow hydraulics. Applied fluvial geomorphology for river engineering and management. C.R. Thorne, R.D. Hey, and M.D. Newson, eds. John Wiley and Sons. Chichester, United Kingdom. pp. 69-93.
- Bauer, G.E., D.H. Shields, J.D. Scott, and J.E. Gruspier. 1981. Bearing capacity of footings in granular slopes. Proc. 10th International Conf. on Soil Mechanics and Foundation Engineering. Balkema, Rotterdam, The Netherlands. 2:33-36.
- Bayley, P.B. 1991. The flood pulse advantage and the restoration of river-floodplain systems. *Regulated Rivers: Res. and Manage.* 6:75-86.
- Beard, L.R. 1962. Statistical methods in hydrology. U.S. Army Corps of Engineers. Sacramento, CA.
- Bedient, P.B., and W.C. Huber. 1988. Hydrology and Floodplain Analysis. Addison-Wesley Publishing Company. Reading, MA.
- Bednarek, A.T. 2001. Undamming rivers: a review of the ecological impacts of dam removal. *J. of Environ. Manage.* 27:803-14
- Beechie, T., and S. Bolton. 1999. An approach to restoring salmonid habitat-forming processes in Pacific Northwest watersheds. *Fisheries* 24(4):6-15.

- Bell, G.O. 1980. Habitat use and response to patches of prey by desert insectivorous bats. *Canadian J. of Zoology* 58:1876–1878.
- Bell, M.C., ed. 1990. Fisheries handbook of engineering requirements and biological criteria. Fish Passage Development and Evaluation Program. U.S. Army Corps of Engineers, North Pacific Division. Portland, OR.
- Benke, A.C., T.C. Van Arsdall, Jr., D.M. Gillespie, and F.K. Parrish. 1984. Invertebrate productivity in a subtropical blackwater river: the importance of habitat and life history. *Ecological Monographs* 54:25–63.
- Bentrup, G., and J.C. Hoag. 1998. The practical streambank bioengineering guide: a user's guide for natural streambank stabilization techniques in the arid and semi-arid Great Basin and Intermountain West. Interagency Riparian/Wetland Project, Plant Materials Center, U.S. Dept. of Agric., Natural Resources Conservation Service. Aberdeen, ID. 151p.
- Bernard, R.S. 1993. STREMR; numerical model of depth-averaged incompressible flow. Tech. Report REMR-HY-11, U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Biedenharn, D.S., C.M. Elliott, and C.C. Watson. 1997. The WES stream investigation and streambank stabilization handbook. U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS. <http://chl.erdc.usace.army.mil/Media/2/8/7/StreambankManual.pdf>.
- Biedenharn, D.S., C.R. Thorne, P.J. Soar, R.D. Hey, and C.C. Watson. 2001. Effective discharge calculation guide. *International J. of Sediment Research* 16(4):445–459.
- Biedenharn, D.S., R.R. Copeland, C.R. Thorne, P.J. Soar, R.D. Hey, and C.C. Watson. 2000. Effective discharge calculation: a practical guide. U.S. Army Corps of Engineers, Engineer Research and Development Center, ERDC/CHL TR-00-15. Vicksburg, MS.
- Bilby, R.E., and R.J. Naiman, eds. 1998. The Pacific coastal ecoregion. Springer-Verlag, Inc. New York, NY.
- Biron, P.M., C. Robson, M.F. Lapointe, and S.J. Gaskin. 2004. Deflector designs for fish habitat. *J. of Environ. Manage.* 33(1):25–35.
- Bishop, A.W. 1955. The use of the slip circle in the stability analysis of slopes. *Geotechnique* 5:7–17.
- Bitner, C.J. 2003. Selection and design of porous low drop grade control structures. M.S. Thesis. Dept. of Civil Eng., Colorado State Univ. Fort Collins, CO.
- Bjerrum, L., and N.E. Simons. 1960. Comparison of shear strength characteristics of normally consolidated clays. *Proc. Research Conference on Shear Strength of Cohesive Soils*. Amer. Soc. of Civil Eng. Boulder, CO. pp. 711–726.
- Bjornn, T.C., and D.W. Reiser. 1979. Habitat requirements of anadromous salmonids. *In* Influence of forest and rangeland management on anadromous fish habitat in the western United States and Canada. W.R. Meehan, tech. ed. U.S. Dept. of Agric., Forest Service GTR PNW-96.
- Bjornn, T.C., and D.W. Reiser. 1991. Habitat requirements of salmonids in streams. *In* Influences of forest and rangeland management on salmonid fishes and their habitats. W.R. Meehan, ed. Amer. Fisheries Soc. Special Publication 19. Bethesda, MD. pp. 83–138.
- Blaisdell, F.W. 1948. Development and hydraulic design, Saint Anthony Falls stilling basin. *Trans. Amer. Soc. of Civil Eng.* 113(2342):483–561.
- Blaisdell, F.W. 1973. Model test of box inlet drop spillway and stilling basin proposed for Tillatoba Creek, Tallahatchie County, MS. U.S. Dept. of Agric., Agric. Research Service, ARS-NC-3. 50 pp.
- Blench, T. 1970. Regime theory design of canals with sand beds. *J. of the Irrigation and Drainage Division*. Amer. Soc. of Civil Eng., 96, IR2. Proc. paper no. 7381. pp. 205–213.

- Blevins, R.D. 1984. Applied fluid dynamics handbook. Van Nostrand Reinhold Publishing Company. New York, NY.
- Blodgett, J.C. 1981. Floodflow characteristics of the Sacramento River in the vicinity of Gianella Bridge, Hamilton City, California. U.S. Geological Survey, Open File Rep. 81-328, 33 pp.
- Blodgett, J.C. 1986. Rock riprap design for protection of stream channels near highway structures, Vol. 1—Hydraulic characteristics of open channels. U.S. Geological Survey. Water-Resources Investigations Report 86-4127. Denver, CO.
- Bolton, S.M., and J. Shellberg. 2001. Ecological issues in floodplains and riparian corridors. Washington State Transportation. Seattle, WA.
- Bolton, S., A. Watts, T. Sibley, and J. Dooley. 1998. A pilot study examining the effectiveness of engineered large woody debris (ELWD TM) as an interim solution to lack of LWD in streams. EOS, Trans. of the Amer. Geophysical Union 79(45): F346.
- Borah, D.K. 1989. Scour-depth prediction under armoring conditions. J. of Hydrol. Eng. 115(10):1421-1425.
- Bowles, J.E. 1996. Foundation analysis and design. McGraw-Hill. New York, NY. pp. 219-263.
- Boyer, K.L., D.R. Berg, and S.V. Gregory. 2003. Riparian management for wood in rivers. In The ecology and management of wood in world rivers. S.V. Gregory, K.L. Boyer, and A. Gurnell, eds. Amer. Fisheries Soc. Bethesda, MD. pp. 407-420
- Bras, R.L. 1990. Hydrology: an introduction to hydrologic science. Massachusetts Institute of Technology. Addison-Wesley Publishing. Reading, MA.
- Brater, E.F., and H.W. King. 1976. Handbook of hydraulics, Sixth ed. McGraw-Hill Inc. New York, NY.
- Braudrick, C.A., and G.E. Grant. 2000. When do logs move in rivers? Water Resour. Res. 36(2):571-583.
- Bray, D.I. 1972. Generalised regime-type analysis of Alberta rivers. Univ. Alta. Dep. Civil Eng. Ph.D. thesis. 234 pp.
- Bray, D.I. 1973. Regime relations for Alberta gravel-bed rivers. Fluvial processes and sedimentation, Proc. Hydrology Symposium, Univ. of Alberta, Edmonton, National Research Council of Canada. Ottawa, Canada. pp. 440-452.
- Bray, D.I. 1982. Regime equations for gravel-bed rivers. In Gravel-bed rivers. R.D. Hey, J.C. Bathurst, and C.R. Thorne, eds. John Wiley and Sons. Chichester, United Kingdom. pp. 517-542.
- Brice, J.C. 1975. Airphoto interpretation of the form and behavior of alluvial rivers. Final report to the U.S. Army Research Office, Durham, under Grant Number DA-ARD-D-31-124-70-G89. Washington Univ. St Louis, MO.
- Brice, J.C. 1984. Planform properties of meandering rivers. In River Meandering, C.M. Elliott, ed. New York, NY. pp. 1-15.
- Brice, J.C., J.C. Blodgett, P.J. Carpenter, M.F. Cook, G.S. Craig, Jr., D.A. Eckhardt, M.S. Hines, K.L. Lindskov, D.O. Moore, R.S. Parker, A.G. Scott, and K.V. Wilson. 1978. Countermeasures for hydraulic problems at bridges. Vol. 1. Analysis and assessment. Report No. FHWA-RD-78-163, Federal Highway Administration. Washington, DC.
- Brigham, R.M. 1991. Flexibility in foraging and roosting behavior by the big brown bat (*Eptesicus fuscus*). Canadian J. of Zoology. 69:117-121.
- Brinson, M.M., F.R. Hauer, L.C. Lee, W.L. Nutter, R.D. Rheinhardt, R.D. Smith, and D. Whigham. 1995. A guidebook for application of hydrogeomorphic assessments to riverine wetlands. Technical Report WRP-DE-11. U.S. Army Corps of Engineers, Waterways Experiment Station. NTIS No. AD A308 365. Vicksburg, MS.
- British Columbia Ministry of Environment, Lands, and Parks. 1996. A guide to photo documentation for aquatic inventory. British Columbia, Canada.

- Brittingham, M.C., and L.M. Williams. 2000. Bat boxes as alternative roosts for displaced maternity colonies. *Wildlife Soc. Bull.* 28:197–207.
- Brookes, A. 1988. Channelized rivers: Perspectives for environmental management. John Wiley and Sons. Chichester, United Kingdom.
- Brookes, A. 1989. Alternative channelization procedures. *In Alternatives in regulated rivers management.* J.A. Gore, and G.E. Petts, eds. CRC press. Boca Raton, FL. pp. 139–162
- Brookes, A., J. Baker, and C. Redmond. 1996. Flood-plain restoration and riparian zone management. *In River channel restoration: guiding principles for sustainable projects.* A. Brookes, and F.D. Shields, eds. John Wiley and Sons. Chichester, United Kingdom. pp. 201–228
- Brookes, A., S.S. Knight, and F.D. Shields, Jr. 1996. Habitat enhancement. *In River channel restoration: guiding principles for sustainable projects.* A. Brookes and F.D. Shields, Jr. eds. John Wiley and Sons. Chichester, United Kingdom. pp. 103–126.
- Brown, A.V. 1998. Impacts of gravel mining on gravel bed streams. *Trans. of the Amer. Fisheries Soc.* No. 6. pp. 979–994.
- Brown, A., F. Petit, and A. James. 2003. Archaeology and human artifacts. *In Tools in fluvial geomorphology.* M. Kondolf, and H. Piegay, eds. John Wiley and Sons. Chichester, United Kingdom. pp. 59–75.
- Brown, C., and G. Decker. 1999. Non-traditional bank stabilization on the Bitterroot River. *In Land and Water* 43(5):15–17.
- Brown, L.C., and T.O. Barnwell. 1987. The enhanced stream water quality models QUAL2E and QUAL2E-UNCAS: documentation and user manual. U.S. Environmental Protection Agency EPA/600/3–87/007. Athens, GA.
- Brown, M.T., J. Schaefer, and K. Brandt. 1990. Buffer zones for water, wetlands, and wildlife in east central Florida. *Center for Wetlands Publ.* 89–07. Univ. of Florida. Gainesville, FL.
- Brownlie, W.R. 1981. Prediction of flow depth and sediment discharge in open channels. Report No. KH-R-43A. California Inst. of Tech. W.M. Keck Lab. of Hydrol. and Water Resourc. Pasadena, CA.
- Brunner, G.W. 2002. HEC-RAS applications guide, ver. 3.1. U.S. Army Corps of Engineers. Hydrologic Engineering Center. Davis, CA.
- Bryant, M.D. 1980. Evolution of large, organic debris after timber harvest: Maybeso Creek. Pacific Northwest Forest and Range Experiment Station, U.S. Dept. of Agric., Forest Service, General Technical Report PNW-GTR-101. Portland, OR.
- Bryce, S.A., and S.E. Clarke. 1996. Landscape-level ecological regions: linking state-level ecoregion frameworks with stream habitat classifications. *J. of Environ. Manage.* 20:297–311.
- Buffington, J.M., and D.R. Montgomery. 1997. A systematic analysis of eight decades of incipient motion studies, with special reference to gravel-bedded rivers. *Water Resour. Res.* 33(8): 1993–2029.
- Buffington, J.M., and D.R. Montgomery. 1999. Effects of sediment supply on surface textures of gravel-bed rivers. *Water Resour. Res.* 35(11): 3523–3530.
- Bunte, K., and S.R. Abt. 2001. Sampling surface and subsurface particle-size distributions in wadable gravel-and cobble-bed streams for analyses in sediment transport, hydraulics, and streambed monitoring. U.S. Dept. of Agric., Forest Service, Rocky Mountain Research Station. Gen. Tech. Rep. RMRS-GTR-74. Fort Collins, CO. 428 p.
- Burke, H.S., Jr. 1999. Maternity colony formation in *Myotis septentrionalis* using artificial roosts the rocket box, a habitat enhancement for woodland bats? *Bat Research News* 40(3):77–78.
- Burkham, D.E., and D.R. Dawdy. 1976. Resistance equation of alluvial-channel flow. *J. of the Hydrol. Div. Amer. Soc. of Civil Eng.* 102, HY10. pp. 1479–1489.

- Burns, M. 1998. Limitations of hydraulic geometry techniques in stream restoration design. Amer. Soc. of Civil Eng. Wetlands Engineering and River Restoration Conference.
- Butzer, K.W. 1964. Environment and archeology: an introduction to pleistocene geomorphology. Univ. of Chicago, Dept. of Geography. Chicago, IL.
- Butzer, K.W. 1971. Recent history of an Ethiopian delta. Univ. of Chicago, Dept. of Geography. Research paper 136. Chicago, IL.
- Butzer, K., B. Collins, and D. Montgomery. 2001. Importance of archival and process studies to characterizing pre-settlement riverine geomorphic processes and habitat in the Puget Lowland. *In* Geomorphic Processes and Riverine Habitat. J. Dovora, D. Montgomery, B. Palsak, and F. Fitzpatrick, eds. Water Science and Application 4. Amer. Geophysical Union. Washington, DC. pp. 227–246.
- CALFED Bay Delta Program. 2003. Reviving central valley rivers. <http://science.calwater.ca.gov/pdf/Sci-in-Act-07-2003ff.pdf>.
- Calow, P., and G. Petts. 1994. The rivers handbook: hydrological and ecological principles. Vol. 2. Blackwell Scientific Publ. Boston, MA.
- Carlston, C.W. 1965. The relation of free meander geometry to stream discharge and its geomorphic implications. Amer. J. of Sci. 263:863–865.
- Castro, J. 1999. Design of rock weirs. U.S. Dept. of Agric., Natural Resources Conservation Service E-24. Boise, ID.
- Castro, J., and R. Sampson. 2001. Incorporation of large wood into engineering structures. Tech. Note No. 15, U.S. Dept. of Agric., Natural Resources Conservation Service. Boise, ID.
- Cayan, D.R., M. Kammerdiener, D. Dettinger, J.M. Caprio, and D. H. Peterson. 2001. Changes in the onset of spring in the western United States. Bull. Am. Met. Soc. 82(3):399–415.
- Cedergren, H.R. 1977. Seepage, drainage, and flow nets. 2nd ed., John Wiley and Sons. New York, NY.
- Cederholm, C.J., R.E. Bilby, P.A. Bisson, T.W. Bumstead, B.R. Fransen, W.J. Scarlett, and J.W. Ward. 1997. Response of juvenile coho salmon and steelhead to placement of large woody debris in a coastal Washington stream. J. of Fisheries Management. 17(4):947–963.
- Chang, H.H. 1980. Stable alluvial canal design. J. of Hydraul. Div. Amer. Soc. of Civil Eng. 106, HY5:873–891.
- Chang, H.H. 1988. Fluvial processes in river engineering. John Wiley and Sons. New York, NY.
- Charlton, F.G., P.M. Brown, and R.W. Benson. 1978. The hydraulic geometry of some gravel rivers in Britain. Report IT 180. Hydr. Res. Sta. Wallingford, United Kingdom.
- Chen, Y.H., and G.K. Cotton. 1988. Design of roadside channels with flexible linings. Hydrol. Eng. Circ. No. 15, Pub. No. FHWA-IP-87-7, Federal Highway Administration. Washington, DC.
- Cherry, D.S., P.R. Wilcock, and M.G. Wolman. 1996. Evaluation of methods for forecasting planform change and bankline migration in flood-control channels. Final report to U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Chervet, A., and H.W. Weiss. 1990. Near-natural development of small streams: stabilization of stream beds by using block ramps. Schweizer Ingenieur und Architekt, 42; Translated by the U.S. Dept. of the Interior, Bureau of Reclamation, International Affairs Technical Services Office, Code D-2000, Translation No. 2209 (June 1992).
- Chester, C.W., B.L. Van Zanten, and S. Apt. 1995. Stream classification. Proc. from Integrated Water Resources Planning 22nd Annual Conference. Cambridge MA.
- Chinese National Committee on Large Dams. 1979. Dam Construction by the Chinese People.

- Chitale, S.V. 1970. River channel patterns. *J. of Hydrol., Amer. Soc. of Civil Eng.* 96. pp. 201–221.
- Chow, V.T. 1959. *Open channel hydraulics*. McGraw-Hill. New York, NY.
- Church, M. 1995. Geomorphic response to river flow regulation: case studies and time-scales. *Regulated Rivers: Res. and Manage.* 11:3–22.
- Church, M., and R. Kellerhals. 1978. On the statistics of grain size variation along a gravel River. *Can. J. Earth Sci.* 15:1151–1160.
- Clay, C.H. 1961. *Design of fishways and other fish facilities*. Dept. of Fisheries and Oceans, Queen's Printer. Ottawa, Canada.
- Clopper, P.E. 1989. Hydraulic stability of articulated concrete block revetment systems during overtopping flow. Office of Engineering and Highway Operations R&D. FHWA–RD–89–199. McLean, VA.
- Clopper, P.E. 1991. Protecting embankment dams with concrete block systems. *Hydro Review*.
- Clopper, P.E., and Y. Chen. 1988. Minimizing embankment damage during overtopping flow. Office of Engineering and Highway Operations R&D. FHWA–RD–88–181. McLean, VA.
- Cohen, M. 1994. Land reclamation efforts in Israel. Presentation, U.S. Dept. of Agric., Forest Service. Watershed Assessment and Restoration Workshop. Marana, AR.
- Colby, B.R. 1964a. Discharge of sands and mean velocity relationships in sand-bed streams. U.S. Geological Survey professional paper 462–A, U.S. Government Printing Office. Washington, DC.
- Colby, B.R. 1964b. Practical computation of bed material discharge. *J. of the Hydraul. Div., Amer. Soc. of Civil Eng.* 90(HY2). pp. 217–246.
- Collins, B., and D. Montgomery. 2001. Importance of archival and process studies to characterizing pre-settlement riverine geomorphic processes and habitat in the Puget Lowlands. *In Geomorphic Processes and Riverine Habitat, Water Science and Application 4*. J. Dovora, D. Montgomery, B. Palsak, and F. Fitzpatrick, eds. Amer. Geophysical Union. Washington, DC. pp. 227–246.
- Collins, B.D., D.R. Montgomery, A.J. Sheikh. 2002. Reconstructing the historical riverine landscape of the Puget lowland. *In Restoration of Puget Sound Rivers*. D.R. Montgomery, S. Bolton, D.B. Booth, and L. Wall, eds., Univ. of Washington Press. Seattle, WA.
- Colorado School of Mines. 2004. Web site posting discussing hydraulic screen design. <http://www.mines.edu/Academic/envsci/courses/esgn453/lecturenotes/Topic4a.pdf>.
- Colyer, W.T., J.L. Kershner, and R.H. Hilderbrand. 2005. Movements of fluvial Bonneville cutthroat trout in the Thomas Fork of the Bear River, Idaho-Wyoming. *North Amer. J. of Fisheries Manage.* 25:954–963.
- Comiti, F. 2003. Local scouring in natural and artificial step pool systems. *Univerita' Delgi Studi Di Padova, Italy*.
- Constantine, D.G. 1966. Ecological observations on lasiurine bats in Iowa. *J. of Mammalogy* 39:64–70.
- Convention on Biological Diversity. 1999. Assessment of the status and trends and options for conservation and sustainable use of terrestrial biological diversity: dryland, mediterranean, arid, semi-arid, grassland and savannah ecosystems. UNEP/CBD/SBSTTA/4/7.
- Cooke, R.U., and J.C. Doornkamp. 1990. *Geomorphology in environmental management*. Clarendon Press. Oxford, United Kingdom.
- Cooper, C.M., and S.S. Knight. 1987. Fisheries in man-made pools below grade-control structures and in naturally occurring scour holes of unstable streams. *J. of Soil and Water Conserv.* 42(5):370–373.

- Cooper, J., R. Rediske, M. Northup, M. Thogerson, J.V. Denend, and R.B. Annis. The agricultural water quality index. WRI Publication MR-98-1. Muskegon, MI.
- Cooperative Extension Service. 1994. The Clemson beaver pond leveler. AFW Leaflet 1. Dept. of Aquaculture, Fisheries, and Wildlife, Clemson Univ. Clemson, SC.
- Copeland, R.R. 1994. Application of channel stability methods—case studies TR HL-94-11. U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Copeland, R.R. 1995. Sediment impact assessment, Carlsbad, New Mexico. Misc. paper HL-95-7. U.S. Army Corps of Engineer Waterways Experiment Station. Vicksburg, MS.
- Copeland, R.R., D.N. McComas, C.R. Thorne, P.J. Soar, M.M. Jonas, and J.B. Fripp. 2001. Hydraulic design of stream restoration projects. Technical report ERDC/CHL TR-01-28. U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS.
- Coppin, N.J., and I.G. Richards. 1990. Use of vegetation in civil engineering. Construction Industry Research and Information Association. London, United Kingdom.
- Correll, D.L., and D.E. Weller. 1989. Factors limiting processes in freshwater wetlands: an agricultural primary stream riparian forest. *In* Freshwater Wetlands and Wildlife, R.R. Sharitz, and J.W. Gibbons, eds. USDOE Symposium Series 61. pp. 9-23.
- Coulomb, C.A. 1776. Essai sur une application des règles des maximis et minimis à quelques problèmes de statique relatifs à l'architecture (An attempt to apply the rules of maxima and minima to several problems of stability related to architecture). *Memoires de l'Academie Royale des Sciences*. Paris, France. 7:343-382.
- Covich, A.P. 1993. Water and ecosystems. *In* Water in crisis: a guide to the World's fresh water resources. P.H. Gleick, ed. Oxford University Press. New York, NY. pp. 40-55.
- Cowan, W. 1956. Estimating hydraulic roughness coefficients. *Agric. Eng.* 37(7):473-475.
- CPS. 2000. Request for Proposal: Grand Forks Country Club Cart Bridge. CPS. Grand Forks, ND.
- Cramer, M., K. Bates, D. Miller, K. Boyd, L. Fotherby, P. Skidmore, T. Hoitsma, B. Heiner, K. Buchanan, P. Powers, G. Birkeland, M. Rotar, and D. White. 2002. Integrated streambank protection guidelines. Washington State Aquatic Habitat Guidelines Program. Washington State Dept. of Fish and Wildlife. Seattle, WA.
- Cross, S.P. 1985. Responses of small mammals to forest riparian perturbations. *In* Riparian ecosystems and their management: reconciling conflicting land uses. U.S. Dept. of Agric., Forest Service. General tech. report RM-120. Fort Collins, CO.
- Cryan, P.M., M.A. Bogan, and J.S. Altenbach. 2000. Effect of elevation on distribution of female bat species in the Black Hills, South Dakota. *J. of Mammalogy* 81:719-725.
- Dabney, S.M., F.D. Shields, E.J. Langendoen, and D.M. Temple. 2004. Grass hedge effects on gully hydraulics and erosion. International Symposium on Gully Erosion Under Global Change Proceedings, publication pending, Univ. of Mississippi. Oxford, MS.
- D'Agostino, V., and V. Ferro. 2004. Scour on alluvial bed downstream of grade-control structures. *J. of Hydraul. Eng.* 130(1):24-37.
- Danish Hydraulic Institute. 2004. Mike21 Software Information.
- D'Aoust, S.G., and R.G. Millar. 1999. Large woody debris fish habitat structure performance and ballasting requirements. Watershed Restoration Manage. Report No. 8. Univ. of British Columbia. Vancouver, BC.
- D'Aoust, S.G., and R.G. Millar. 2000. Stability of ballasted woody debris habitat structures. *J. of Hydraul. Eng.* 126(11):810-817.

- Davis, W.M. 1909. Geographical essays, (republished 1954, Dover, NY.). Ginn. Boston, MA.
- Davis, M.L., and D.A. Cornwell. 1999. Introduction to environmental engineering, 3rd ed. McGraw-Hill. New York, NY.
- DeAngelis, D.L., W.M. Post, and C.C. Travis. 1986. Positive feedback in natural systems. Springer-Verlag. New York, NY. 290 p.
- Derrick, D.L. 1997. Twelve low-cost, innovative, landowner financed, streambank protection demonstration projects. *In* Management of landscapes disturbed by channel incision, stabilization, rehabilitation, and restoration. S.Y. Wang, E. Langendoen, and F.D. Shields, Jr., eds. Center for Computational Hydroscience and Engineering, Univ. of Mississippi. University, MS. pp. 446–451.
- Derrick, D.L. 2001. USACED–WES, unpublished research. Vicksburg, MS.
- Dettinger, M.D., D.R. Cayan, G.J. McCabe, and J.A. Marengo. 2000. Multiscale streamflow variability associated with El Nino/southern oscillation. *In* El Nino and the Southern Oscillation. H.F. Diaz, and V. Markgraf, eds. Cambridge University Press. New York, NY. pp. 114–147.
- Di Pietro, P., and G. Brunet. 2002. Design considerations related to the performance of erosion control products combined with soil bioengineering techniques. *Geotechnical Testing J.* 25(2):142–147.
- Diplas, P., and A.J. Southerland. 1988. Sampling techniques for gravel sized sediments. *J. of Hydraul. Eng.*, 114(5), 484–501.
- Diplas, P., and J.B. Fripp. 1992. Properties of various sampling procedures. *Amer. Soc. of Civil Eng. J. of Hydrol. Eng.* 118(7).
- Downs, P.W., and C.R. Thorne. 1996. The utility and justification of river reconnaissance surveys. *Trans. of the Institute of British Geographers, New Series.* 21:455–468.
- Doyle, M.W., and F.D. Shields, Jr. 2000. Incorporation of bed texture into a channel evolution model. *Geomorphology* 34(2000):291–309.
- Doyle, M.W., E.H. Stanley, and J.M. Harbor. 2003. Channel adjustments following two dam removals in Wisconsin. *Water Resour. Res.* 39(1):1011, doi:10.1029/2002WR001714, 2003.
- Drew, C. 1985. Personal communications on application of the super pan in moving gravel and other supplies for watershed improvements on the Tyger Ranger District. Union, SC.
- Dunne, T., and L.B. Leopold. 1978. Water in environmental planning. W.H. Freeman and Co. New York, NY. 818 pp.
- Dunster, J., and K. Dunster. 1996. Dictionary of natural resource management. Univ. of British Columbia. Vancouver, Canada.
- Dury, G.H. 1965. Theoretical implications of underfit streams. U.S. Geological Survey professional paper 452C. Washington, DC.
- Edminster, F.C., W.S. Atkinson, and A.C. McIntyre. 1949. Streambank erosion control on the Winoski River, Vermont. Report No. 837. U.S. Dept. of Agric., Soil Conservation Service. Washington, DC.
- Egan, D., and E. Howell. 2001. The historical ecology handbook. Island Press. Covelo, CA.
- Einstein, H.A. 1950. The bed-load function for sediment transport in open channel flows, Tech. Bull. No. 1026, U.S. Dept. of Agric., Soil Conservation Service. Washington DC.
- Emmett, W.W. 1972. The hydraulic geometry of some Alaskan streams south of the Yukon River. U.S. Geological Survey. Open-File Report 72–108. Washington, DC.
- Emmett, W.W. 1975. The channels and waters of the Upper Salmon River area, Idaho. U.S. Geological Survey professional paper 870A. Washington, DC.
- Emmett, W.W. 2003. Personal communication.

- Emmett, W.W., and M.G. Wolman. 2001. Effective discharge and gravel-bed rivers. *Earth surface processes and landforms*. 26:1369–1380.
- Engstrom, M.D., and F.A. Reid. 2003. What's in a name? Bats Spring. pp. 1–5.
- Eubanks, C.E., and D. Meadows. 2002. A soil bioengineering guide for streambank and lakeshore stabilization. FS–683, U.S. Dept. of Agric., Forest Service, San Dimas Technology and Development Center. San Dimas, CA.
- Evelyn, M.J., D.A. Stiles, and R.A. Young. 2004. Conservation of bats in suburban landscapes: roost selection by *Myotis yumanensis* in a residential area in California. *Biological Conservation* 115:463–473.
- Faskin, G.B. 1963. Guide for selecting roughness coefficients, U.S. Dept. of Agric., Soil Conservation Service. Lincoln, NE.
- Fausch, K.D., C.L. Hawkes, and M.G. Parsons. 1988. Models that predict standing crop of stream fish from habitat variables: 1950–85. Gen. Tech. Report. PNWGTR–213. U.S. Dept. Agric., Forest Service. Pacific Northwest Research Station. Portland, OR. 52 p.
- Fausch, K.D., C.E. Torgerson, C.V. Baxter, and H.W. Li. 2002. Landscapes to riverscapes: bridging the gap between research and conservation of stream fishes. *BioScience* 52(16):483–498.
- Fayang, Chen. 2004. Soil and water conservation measures in China compiled for FAO on contour cultivation, ditch, and ridge tillage, Pit Planting www.fao.org/docrep/X5670E/x5670e06.htm.
- Federal Interagency Stream Restoration Working Group. 1998. Stream corridor restoration: principles, processes and practices. U.S. Government Printing Office Item No. 0120–A; SuDocs No. A 57.6/2:EN 3/PT.653. http://www.nrcs.usda.gov/technical/stream_restoration/.
- Fenton, M.B. 1997. Science and the conservation of bats. *J. of Mammalogy* 78:1–14.
- Fifield, J.S. 2002. Field manual on sediment and erosion control best management practices for contractors and inspectors. Forester Press. Santa Barbara, CA.
- Findley, J.S. 1995. Bats: a community perspective. Cambridge University Press. Cambridge, United Kingdom. 179 p.
- Finlayson, B.L., and S.O. Brizga. 1995. The oral tradition, environmental change and river management: case studies from Queensland and Victoria. *Australian Geographical Studies*. 33(2):180–192.
- Finney, K. 1993. History of soil bioengineering. Eleventh Annual California Salmonid Restoration Federation Conference. Eureka, CA.
- Fischenich, C. 2000. Boulder clusters as adapted from P. Julien 1995. Ecosystem Management and Restoration Research Program. U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS.
- Fischenich, C. 2001a. Impacts of stabilization measures. U.S. Corps of Army Engineers, Engineer Research and Development Center. Vicksburg MS. <http://el.erdc.usace.army.mil/elpubs/pdf/sr32.pdf>.
- Fischenich, C. 2001b. Stability thresholds for stream restoration materials. EMRRP Tech. Notes Collection ERDC TN–EMRRP–SR–29. U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS.
- Fischenich, C., and J. Morrow, Jr. 2000. Streambank habitat enhancement with large woody material, EMRRP Tech. Notes Collection ERDC TN–EMRRP–SR–13. U.S. Corps of Army Engineers, Engineer Research and Development Center. Vicksburg, MS.
- Fischenich, C., and R. Seal. 1999. Boulder clusters. EMRRP Tech. Notes Collection (ERDC TN–EMRRP–SR–11). U.S. Corps of Army Engineers, Engineer Research and Development Center. Vicksburg, MS.

- Fischenich, J.C. 1996. Velocity and resistance in densely vegetated floodways. Ph.D. dissertation. Colorado State Univ. University Press. Fort Collins, CO.
- Fischenich, J.C., and H. Allen. 2000. Stream management. ERDC/EL SW 00-1. U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS.
- Fischer, R.A. 2004. Using soil amendments to improve riparian plant survival in arid and semi-arid landscapes. U.S. Army Corps of Engineers, Engineer Research and Development Center. Tech. Note EMRRP-SR-44. Vicksburg, MS.
- Fisher, S.G. 1990. Recovery processes in lotic ecosystems: limits of successional theory. *J. of Environ. Manage.* 14: 725-736
- Florineth, F. 1982. Begrünungen von Erosionszonen im Bereich über der Waldgrenze, *Zeitschrift für Vegetationstechnik* 5, S. pp. 20-24 (in German).
- Florsheim, J., and R.N. Coats. 1997. Dynamic equilibrium as a model for restoration in rivers and wetlands. *In* Proceedings of the Sixth Biennial Watershed Management Conference. S. Sommarstrom, ed. Univ. of California. Davis, CA. pp. 69-82
- Flosi, G., S. Downie, J. Hopelain, M. Bird, R. Coey, and B. Collins. 1998. California salmonid stream habitat restoration manual. 3rd ed. California Dept. of Fish and Game, Inland Fisheries Division. Sacramento, CA.
- Food and Agriculture Organization of the United Nations. 2002. Fish passes—design, dimensions and monitoring. Rome, Italy.
- Foresight Products, LLC. 2001. Manta ray and stingray Earth anchors. Civil Engineering Applications Handbook, rev. 2. Commerce City, CO.
- Forsythe, P. 1985. Performance of a grade control structure system during extreme floods. Amer. Soc. of Civil Eng. Winter Meeting. Chicago, IL.
- Fortier, S., and F.C. Scobey. 1926. Permissible canal velocities. *Trans. Amer. Soc. of Civil Eng.* 89. pp. 940-956.
- Fragomeli, L.F. 1987. Personal notes.
- Fread, D.L. 1982. National Weather Service Operational Dynamic Wave Model. U.S. Dept. of Commerce, National Oceanic and Atmospheric Agency, National Weather Service. Washington, DC.
- Fread, D.L. 1983. Applicability criteria for kinematic and diffusion routing models. *Am. Water Resour. Conf. San Antonio, TX.*
- Fresh, K.L., E. Warner, R. Tabor, and D. Houck. 1999. Migratory behavior of adult Chinook salmon spawning in the Lake Washington watershed in 1998 as determined with ultrasonic telemetry (draft). Washington Dept. of Fish and Wildlife. Olympia, WA.
- Fripp, A.L., J.B. Fripp, and M.L. Fripp. 2003. Just in time math for engineers. Elsevier Science. Burlington, MA.
- Fripp, J.B., and P. Diplas. 1993. Surface sampling in gravel bed streams. *Amer. Soc. of Civil Eng. J. of Hydrol. Engr.* 119(4).
- Fripp, J.B., J.W. Webb, and S. Bhamidipaty. 1996. Application of corps sedimentation computer models. Presented at the 6th Federal Interagency Sedimentation Conference. Las Vegas, NV.
- Frissell, C.A., and R.K. Nawa. 1992. Incidence and causes of physical failure of artificial habitat structures in streams of western Oregon and Washington. *North Amer. J. of Fisheries Manage.* 12:182-197.
- Frissell, C.A., W.J. Liss, C.E. Warren, and M.D. Hurley. 1986. A hierarchical framework for stream habitat classification: viewing streams in a watershed context. *J. of Environ. Manage.* 10(2):199-214.
- Galli, Sr., J. 1996. Rapid stream assessment protocol (RSAT) field methods—appendix a. Dept. of Environmental Programs. Washington, DC.

- Ganguillet, E., and W.R. Kutter. 1869. Versuch zur Augstellung einer neuen allgeneinen Formel für die gleichformige Bewegung des Wassers in Canälen und Flüssen. *Zeitschrift des Österreichischen Ingenieur-und Architekten-Vereines* 21, (1), 6–25 and (2) 46–59. Translated into English by R. Hering, and J.C. Trautwine. 1888 and 1991. A general formula for the uniform flow of water in rivers and other channels. John Wiley and Sons. New York, NY.
- Garcia, M.H. 1999. Sedimentation and erosion hydraulics. In press. Chapter 6 in sedimentation engineering. 2nd ed. Manual 54. Amer. Soc. of Civil Eng. Reston, VA.
- Garcia, M.H., L. Bittner, and Y. Nino. 1994. Mathematical modeling of meandering streams in Illinois: a tool for stream management and engineering. Dept. of Civil Engineering, Univ. of Illinois at Urbana-Champaign. Urbana, IL.
- Gerstgraser, C. 1998. Bioengineering methods of bank stabilization. *Garten & Landschaft*. pp. 35–37.
- Gerstgraser, C. 1999. The effect and resistance of soil bioengineering methods for streambank protection, *Proc. of 30th Annual Conference, IECA*. Nashville, TN.
- Gessler, J. 1971. Beginning and ceasing of sediment motion. Chapter 7, Aggradation and degradation. Chapter 8, River mechanics, Vol. 1, Hsieh W. Shen, ed. and publ. Fort Collins, CO.
- Gilbert, G.K. 1914. The transportation of debris by running water. U.S. Geological Survey professional paper 86. Washington, DC.
- Gilbert, G.K. 1917. Hydraulic mining debris in the Sierra Nevada. U.S. Geological Survey professional paper 105. Washington, DC.
- Gillilan, S. 1996. Use and misuse of channel classification schemes. U.S. Dept. of Agric., Forest Service, Rocky Mountain Research Station, Stream Systems Technology Center. Fort Collins, CO.
- Gippel, C.J., I.C. O'Neill, B.L. Finlayson, and I. Schnatz. 1996. Hydraulic guidelines for the re-introduction and management of large woody debris in lowland rivers. *Regulated Rivers: Res. and Manage.* 12:223–236.
- Goff, K. 1999. Designer linings. *Erosion Control*, 6. No. 5.
- Goitom, T.G., and M.E. Zeller. 1989. Design procedures for soil-cement grade control structures. *In Proc. of the National Conference on Hydraul. Eng.* Amer. Soc. of Civil Eng. New Orleans, LA.
- Goldsmith, W. 1996. Soil reinforcement by river plants: progress results. *Proceedings of the Conference on Wetlands Engineering and River Restoration*. Amer. Soc. of Civil Eng. Reston, VA.
- Goldsmith, W., M. Silva, and C. Fischenich. 2001. Determining optimal degree of soil compaction for balancing mechanical stability and plant growth capacity. ERDC TN-EMRRP-SR-26. U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS.
- Goodwin, C. 1999. Fluvial Classification: Neanderthal necessity or needless normalcy. *In Wildland Hydrology*, D.S. Olsen, and J.P. Potyondy, eds. Amer. Water Resour. Assoc. TPS-99-3. Nerndon, VA. p. 229–236.
- Gore J.A., and G.E. Petts, eds. 1989. Alternatives in regulated river management. CRC Press, Inc. Boca Raton, FL.
- Governor's Watershed Enhancement Board. 1993. A guide to establishing points and taking photographs to monitor watershed management projects. Salem, OR.
- Graf, W.L. 1999. Dam nation: a geographic census of American dams and their large-scale hydrologic impacts. *Amer. Water Resour. Res.* 35:1305–1311.
- Grant, D.M. 1992. ISCO Open channel flow measurement handbook. 3rd Edition. ISCO Environmental Division. Lincoln, NE.

- Grant, G.E. 1997. Critical flow constrains flow hydraulics in mobile-bed stream: a new hypothesis. *Amer. Water Resour. Res.* Vol. 33(2):349–358.
- Grant G.E. 2001. Dam removal: panacea or pandora for rivers? *Hydrol. Proc.* 15:1531–32.
- Grant, G.E., J.C. Schmidt, and S.L. Lewis. 2003. A geological framework for interpreting downstream effects of dams on rivers. *In A peculiar river.* J.E. O'Connor, and G.E. Grant, ed. *Water Sci. and Appl.* 7. Am. Geophysical Union. pp. 209–225
- Gray, D.H. 1977. The influence of vegetation on slope processes in the Great Lakes Region. *Proc. Workshop on the role of vegetation in stabilization of the Great Lakes Shoreline.* Great Lakes Basin Commission. Ann Arbor, MI.
- Gray, D.H. 2003. Forces and moments on a log embedded in a streambank. Personal communication. Univ. of Michigan. Ann Arbor, MI.
- Gray, D.H., and A.T. Leiser. 1982. Biotechnical slope protection and erosion control. Van Nostrand Reinhold Co. New York, NY.
- Gray, D.H., and R.B. Sotir. 1996. Biotechnical and soil bioengineering slope stabilization: a practical guide for erosion control. John Wiley and Sons. New York, NY.
- Great Lakes Information Network. 2004. Great Lakes fish and fishing. Fish Anatomy 101. http://www.great-lakes.net/teach/envt/fish/fish_3.html.
- Greenway, D.R. 1987. Vegetation and slope stability. *In Slope stability.* F. Anderson, and K.S. Richards, eds. John Wiley and Sons. New York, NY.
- Gregory, K.J. 1987. River channels. *In Human activity and environmental processes,* K.J. Gregory, and D.E. Walling, eds. John Wiley and Sons. London, United Kingdom. pp. 207–235.
- Gregory K.J., and D.E. Walling. 1973. Drainage basin form and process: a geomorphological approach. Halstead Press, John Wiley and Sons. New York, NY.
- Gregory, K.J., and D.E. Walling. 1979. Man and environmental processes: a physical geography perspective. Folkestone: Dawson. Westview Press. Boulder, CO.
- Gregory, S.V., K.L. Boyer, and A. Gurnell. 2003. The ecology and management of wood in World rivers. *Am. Fisheries Soc.* Bethesda, MD.
- Gregory, S.V., M.A. Meleason, and D.J. Sobota. 2003. Modeling the dynamics of wood in streams and rivers. *In The ecology and management of wood in World rivers.* Amer. Fisheries Soc. Bethesda, MD. pp. 315–335
- Gregory, S.V., F.J. Swanson, A. McKee, and K.W. Cummins. 1991. Ecosystem perspectives of riparian zones. *BioScience* 41(8):540–551.
- Griffiths, G.A. 1981. Stable channels with mobile gravel beds. *J. of Hydrol.* 52, 291–305.
- Grove, J.M. 1988. The little ice age. Routledge. London, United Kingdom.
- Gurnell, A., J.L. Peiry, and G. Petts. 2003. Using historical data in fluvial geomorphology. *In Tools in fluvial geomorphology,* G. Kondolf, and H. Piegay, eds. John Wiley and Sons. Chichester, United Kingdom. pp.77–101.
- Gurnell, A.M., H. Piegay, F.J. Swanson, and S.V. Gregory. 2002. Large wood and fluvial processes. *Freshwater Biology* 47:601–619.
- Haan, C.T. 1986. Statistical methods in hydrology. Iowa State Univ. Press. Ames, IA.
- Haan, C.T., B.J. Barfield, and J.C. Hayes. 1994. Design hydrology and sedimentation for small catchments. Academic Press. San Diego, CA.
- Hadish, G.A. 1997. The use of aerial videography and a geographic information system for stream channel stabilization planning in the Deep Loess Region of western Iowa. *Proc. of the Conf. on Management of Landscapes Disturbed by Channel Incision.* pp. 747–752.

- Hadish, G.A., M. Braster, R.A. Lohnes, and C.P. Baumel. 1994. Stream stabilization in western Iowa. DOT-HR-352. Golden Hills Resource Conservation and Development. Oakland, IA. 240 pp.
- Haefner, J.W. 1996. Modeling biological systems: principles and applications. Chapman and Hall. New York, NY.
- Hagerty, D.J. 1991. Piping/sapping erosion. I: basic considerations, and Piping/sapping erosion. II: identification-diagnosis. Amer. Soc. of Civil Eng. J. of Hydraul. Eng. 117(8):991–1025.
- Hall, F.C. 2001. Ground-based photographic monitoring. General Technical Report PNW-GTR-503. U.S. Dept. of Agric., Forest Service. Portland, OR.
- Hansen, J.B. 1970. A revised and extended formula for bearing capacity. Danish Geotechnical Institute Bulletin No. 2. Lyngby, Denmark.
- Hansen, W.F. 1991. Land rehabilitation on the Sumter National Forest. *In* Proc. of the 5th Federal Interagency Sedimentation Conference. Drs. Shou-Shan Fan and Yung-Huang Kuo, eds. Fed. Energy Reg. Com. pp. 3–110–3–117.
- Hansen, W.F. 1995. Gully treatments. *In* Proc. of Watershed Assessment and Restoration. U.S. Dept. of Agric., Forest Service. National Advanced Resource Technology Center. Marana, AZ.
- Hansen, W.F. 2001. Identifying stream types and management implications. *Forest Ecology and Manage.* Vol. 143. pp. 39–46.
- Hansen, W.F., and D.L. Law. 1996. Watershed restoration after calamity. *In* Symposium Proc. on Watershed Restoration Management, Syracuse, NY. Am. Water Resour. Assoc. Tech. Pub. Series TPS-96-1. Herndon, VA. pp. 187–198.
- Hansen, W.F., and D.L. Law. 2002. Mitigation partnership opportunities with the Forest Service and examples from South Carolina. *In* Proc. of the 5th National Mitigation Conf. Terrene Inst. Washington, DC.
- Hansen, W.F., and D.L. Law. 2004. Sediment from a small ephemeral gully in South Carolina. International Symposium on Gully Erosion Under Global Change Proceedings. Univ. of Mississippi. Oxford, MS. Publication pending.
- Hanson, G.J., R.A. Lohnes, and F.W. Klaiber. 1986. Gabions used in stream grade-stabilization structures: a case study. *Transp. Resourc. Rec.* p. 35–42.
- Happ, S.C., G. Rittenhouse, and G.C. Dobson. 1940. Some principles of accelerated stream and valley sedimentation. U.S. Dept. of Agric., Tech. Bull. 695.
- Harmon, M.E., J.F. Franklin, F.J. Swanson, P. Sollins, S.V. Gregory, J.D. Lattin, N.H. Anderson, S.P. Cline, N.G. Aumen, J.R. Sedell, G.W. Lienkaemper, K. Cromack, Jr., and K.W. Cummins. 1986. Ecology of coarse woody debris in temperate ecosystems. *Advances in Eco. Res.* 15:133–302.
- Harrelson, C.C., C.L. Rawlins, and J.P. Potyondy. 1994. Stream channel reference sites: an illustrated guide to field technique. U.S. Dept. of Agric., Forest Service. GTR RM-245. Fort Collins, CO. 62 pp.
- Harris County Flood Control District. 2001. Design manual for articulating concrete block systems. Houston, TX.
- Harris, K.L., S.R. Moran, and L. Clayton. 1974. Late quaternary stratigraphic nomenclature, Red River Valley, North Dakota, and Minnesota. *North Dakota Geological Survey Miscellaneous series* 52. 47 p.
- Harvey, J.W., and K.E. Bencala. 1993. The effect of streambed topography on surface-subsurface water exchange in mountain catchments. *Water Resour. Res.* 29:89–98.
- Harvey, M.J. 2001. Review of the status of the gray bat (*Myotis grisescens*). Sixth Annual Meeting of the Southeastern Bat Diversity Network. Memphis, TN.

- Harvey, M.J., J.S. Altenbach, and T.L. Best. 1999. Bats of the United States. Arkansas Game and Fish commission. Little Rock, AR.
- Haur, F.R., and G.A. Lambert, eds. 1996. Methods in stream ecology. Academic Press. San Diego, CA.
- Hawkes, H.A. 1975. River zonation and classification. *In* River Ecology. B.A. Whitton, ed. Univ. of California Press. Berkeley, CA. pp 312–374
- Hawkins, C.P., R.H. Norris, J.N. Hogue, and J.W. Feminella. 2000. Development and evaluation of predictive models for measuring the biological integrity of streams. *Ecological Applications* 10:1456–1477.
- Heede, B.H. 1976. Gully development and control—the status of our knowledge. U.S. Dept. of Agric., Forest Service. Rocky Mountain Forest and Range Experiment Station. Research paper RM–169. Fort Collins, CO. 42 pp.
- Heede, B.H. 1982. Gully control: determining treatment priorities for gullies in a network. *Environ. Manage.* Vol. 6, no. 5. Published by Springer-Verlag. New York, NY. pp. 441–451.
- Heede, B.H., and J.G. Mulich. 1973. Functional relationships and a computer program for structural gully control. *J. of Environ. Manage.* 1:321–324.
- Helfield, J.M., and R.J. Naiman. 2003. Effects of salmon-derived nitrogen on riparian forest growth and implications for stream productivity. *Ecology* 82:2403–2409.
- Henderson, F.M. 1966. Open channel flow. The MacMillan Company. New York, NY.
- Henderson, J.E. 1986. Environmental designs for streambank protection projects. *Water Resour. Rec. Bull.* 22(4):549–558.
- Henderson, J.E., and L.J. O’Neil. 2005. Conceptual models to support environmental planning and operations. ERDC/TN SMART–04–9. U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS. <http://el.ercd.usace.army.mil/elpubs/pdf/smart04-9.pdf>.
- Henderson, J.E., and F.D. Shields. 1984. Environmental features for streambank protection projects. Tech. Report E–84–11. U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Hey, R.D. 1975. Design discharge for natural channels. *In* Science, Technology and Environmental Management. R.D. Hey, and T. D. Davies, eds. Saxon House. Farnborough, United Kingdom. pp. 73–88.
- Hey, R.D. 1976. Geometry of river meanders. *In* Nature 262:482–484.
- Hey, R.D. 1979. Flow resistance in gravel-bed rivers. *J. of the Hydraul. Div., Amer. Soc. of Civil Eng.* 105, HY4. pp. 365–379.
- Hey, R.D. 1982. Gravel-bed rivers: form and processes. *In* Gravel-bed rivers: fluvial processes, engineering, and management. R.D. Hey, J.C. Bathurst, and C.R. Thorne, eds. John Wiley and Sons. New York, NY.
- Hey, R.D. 1988. Mathematical models of channel morphology. *In* Modeling Geomorphological Systems. M.G. Anderson, ed. John Wiley and Sons. New York, NY. pp. 99–126.
- Hey, R.D. 2002. Natural rivers: mechanisms, morphology, and management. Course notes.
- Hey, R.D., and C.R. Thorne. 1986. Stable channels with mobile gravel-beds. *J. of Hydraul. Eng. Amer. Soc. of Civil Eng.* 112(8):671–689.
- Hey, R.D., and D. Rosgen. 2001. Fluvial geomorphology for engineers. Wildland Hydrology, Inc. Silverthorne, CO.
- Hilderbrand, R.H., D.A. Lemly, A.C. Dolloff, and K.L. Harpster. 1998. Design considerations for large woody debris placement in stream enhancement projects. *North Amer. J. of Fisheries Manage.* 18:161–167.
- Hite, J.W., and G.A. Pickering 1982. South Fork Tillatoba Creek drop structures, Mississippi; hydraulic model investigation. Technical Report HL–82–22. U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.

- Hoag, J.C. 1997. Planning a project, selection and acquisition of woody and herbaceous plant species and materials for riparian corridor, shoreline, and wetland restoration and enhancement. Riparian/Wetland Project Information Series No. 2, U.S. Dept. of Agric., Natural Resources Conservation Service, Aberdeen Plant Materials Center. Aberdeen, ID.
- Hoag, J.C. 1999. Riparian planting zones. View from a wetland, No. 5 (1998–1999). Interagency Riparian/Wetland Project, Plant Materials Center, U.S. Dept. of Agric., Natural Resources Conservation Service, Aberdeen Plant Materials Center. Aberdeen, ID.
- Hoag, J.C. 2001. Riparian planting zones. rev. U.S. Dept. of Agric., Natural Resources Conservation Service, Aberdeen Plant Materials Center, Riparian/Wetland Project Information Series No. 16. Aberdeen, ID.
- Hoag, J.C., and J. Fripp. 2002. Streambank soil bioengineering field guide for low precipitation areas. U.S. Dept. of Agric., Natural Resources Conservation Service, Aberdeen Plant Materials Center and the National Design, Construction, and Soil Mechanics Center. Aberdeen, ID. 64p.
- Hoag, J.C., and T.D. Landis. 1999. Plant materials for riparian revegetation. Western Forest and Conservation Nursery Association annual meeting. Ames, IA.
- Hoag, J.C., and D.G. Ogle. 1994. Technical supplement 6: the stinger—a tool to plant unrooted hardwood cuttings of willow and cottonwood species for riparian or shoreline erosion control or rehabilitation. ID-TS6. U.S. Dept. of Agric., Natural Resources Conservation Service. Boise, ID. 7p.
- Hoag, J.C., G.L. Young, and J.L. Gibbs. 1991. Planting techniques for vegetating riparian areas. Paper presented at the 45th Annual Meeting of the Society for Range Management. Spokane, WA. 6 p.
- Hoag, J.C., F.E. Berg, S.K. Wyman, and R.W. Sampson. 2001. Riparian/wetland project information Series No. 16: Riparian planting zones in the intermountain West. U.S. Dept. of Agric., Natural Resources Conservation Service, Aberdeen Plant Materials Center. Aberdeen, ID. 24 p.
- Hooke, J.M., and R.J.P. Kain. 1982. Historical change in the physical environment. Butterworth Scientific. London, United Kingdom.
- Hoover, M.D. 1949. Hydrological characteristics of South Carolina Piedmont Forest soils. Proc. of the Soil Science Society. pp. 353–358.
- Hopkins, T.C., D.L. Allen, and R.C. Deen. 1974. Effects of water on slope stability. Division of Research, Bureau of Highways, Dept. of Trans., Kentucky. Presented to Ohio River Valley Soils Seminar. Fort Mitchell, KY. p. 20
- Horton, R.E. 1945. Erosional development of streams and drainage basins: hydrophysical approach to quantitative morphology. Geol. Soc. of Amer. Bull. 56, 275–370.
- House, P.K., R.H. Webb, V.R. Baker, and D.R. Levish. 2001. Ancient floods, modern hazards: principles and practices of paleoflood. Hydrol. Amer. Geophysical Union.
- House, R., and V. Crispin. 1990. Economic analyses of the value of large woody debris as salmonid habitat in coastal Oregon streams. U.S. Dept. of the Interior, Bureau of Land Management, Oregon State Office. Portland, OR.
- Huang, Y.H. 1983. Stability analysis of Earth slopes. Van Nostrand Reinhold Company. New York, NY.
- Huggenberger, P., E. Hoehn, R. Beschta, and W. Woessner. 1998. Abiotic aspects of channels and floodplains in riparian ecology. Freshwater Biology 40:407–425.
- Huizinga, R.J., and P.H. Rydlund, Jr. 2001. Simulation of flow and evaluation of bridge scour at Horse Island Chute Bridge near Chester, Illinois. U.S. Geological Survey. Water-Resources Investigation Report 01–4176. Rolla, MO.

- Hunt, R.L. 1993. Trout stream therapy. The University of Wisconsin Press. Madison, WI. 84 pp.
- Hupp, C.R. 1992. Riparian vegetation recovery patterns following stream channelization: A geomorphic perspective. *Ecology* 73:1209–1226.
- Hupp, C.R., and W.R. Osterkamp. 1996. Riparian vegetation and fluvial geomorphic processes. *Geomorphology* 14:277–295.
- Hyatt, T.L., and R.J. Naiman. 2001. The residence time of large woody debris in the Queets River. *Ecological Applications* 11, No. 1:191–202.
- Illinois Department of Natural Resources. 2000. Replacement of Upper Batavia dam, Kane County, Illinois. Alternative evaluation report produced by McLaughlin Water Engineers, Patrick Engineering, John Anderson, and Chinook Engineering. Springfield, IL. 73 pp.
- Illinois Environmental Protection Agency. 1998. Field manual of urban stream restoration. Springfield, IL.
- Inglis, C.C. 1941. Digest of answers to the central board of irrigation questionnaire on meandering of rivers with comments on factors controlling meandering and suggestions for future actions. *In* Central Board of Irrigation Annual Report, (Technical) 1939–1940 Session, Publ. 24, A.R.B. Edgecombe, ed. Poona, India. pp. 100–114.
- Institute of Environmental Sciences. 1982. Miami University, a guide to the George Palmiter River restoration techniques. Prepared for U.S. Army Corps of Engineers, Institute for Water Resources. Fort Belvoir, VA. 55 pp.
- Interagency Sedimentation Conference. 2001. Reno, NV.
- International Institute for Land Reclamation and Improvement. 1978. Discharge measurement structures.
- International Union for Conservation of Nature and Natural Resources. 2002. Red list of threatened species. <http://www.iucnredlist.org/>.
- Ippen, A.T., P.A. Drinker, W.R. Jobin, and O.H. Shemdin. 1962. Stream dynamics and boundary shear distributions for curved trapezoidal channels. Report No. 47, MIT Hydrodynamics Laboratory, Contract No. 12–14–100–2590[41].
- Isbash, S. 1936. Construction of dams by depositing rock in running water, Communication No. 3, 2nd Congress on Large Dams. Washington, DC. pp. 123–136.
- ISCO, Inc. 1989. Open channel flow measurement handbook. 3rd edition.
- Jackson B.J. 1974. Stream bed stabilization in Enfield Creek, New York. *New York Fish and Game J.* New York, NY. 21(1):32–46.
- Johns, D.D., S.R. Abt, C.C. Watson, and P.G. Combs. 1993. Riprap sizing for ARS-type low-drop stilling basins. *J. Hydraul. Eng. Amer. Soc. of Civil Eng.* 119(7):864–869.
- Johnson, A.W., and J.M. Stypula. 1993. Guidelines for bank stabilization projects in the riverine environment of King County. King County Dept. of Public Works, Surface Water Management Division. Seattle, WA.
- Johnson, D.H., N. Pittman, E. Wilder, J.A. Silver, R.W. Plotnikoff, B.C. Mason, K.K. Jones, P. Roger, T.A. O'Neil, and C. Barrett. 2001. Inventory and monitoring of salmon habitat in the Pacific Northwest—directory and synthesis of protocols for management/research and volunteers in Washington, Oregon, Idaho, Montana, and British Columbia. Washington Dept. of Fish and Wildlife. Olympia, WA. <http://wdfw.wa.gov/hab/sshiap/inventorymonitor.pdf>.
- Johnson, J.W., and W.L. Minaker. 1944. Movement and deposition of sediment in the vicinity of debris-barriers. *Trans. Amer. Geophysical Union*, Part VI.

- Johnson, P.A., and S.L. Niezgoda. 2004. Risk-based method for selecting bridge scour countermeasures. *J. of Hydraul. Eng.* 130(2):121–128.
- Johnson, P.A., R.D. Hey, E.R. Brown, and D.L. Rosgen. 2002. Stream restoration in the vicinity of bridges, *Amer. Water Resour. Assoc.* Vol. 38, No. 1. pp. 55–67.
- Johnson, P.A., R.D. Hey, M. Tessier, and D.L. Rosgen. 2001. Use of vanes for control of scour at vertical wall abutments. *J. of Hydraul. Eng.* Vol. 127, No. 9. pp. 772–778.
- Julien, P.Y. 1995. *Erosion and sedimentation*. Cambridge University Press. New York, NY.
- Julien, P.Y. 2002. *River mechanics*. Cambridge University Press. New York, NY.
- Junk, W.J., P.B. Bayley, and R.E. Sparks. 1989. The flood pulse concept in river-floodplain systems. *In Proc. of International Large River Symp.* D.P. Dodge, ed. Canadian Special Publ. of Fisheries and Aquatic Sci. Ontario, Canada. pp. 110–127.
- Jurmu, M.C., and R. Andrie. 1997. Morphology of a wetland stream. *J. of Environ. Manage.* No. 6. pp. 921–941.
- Karr, J.A. 1981. Assessment of biotic integrity using fish communities. *Amer. Fisheries Soc.* 6(6):21–27.
- Karr, J.A., and E.W. Chu. 1997. Biological monitoring and assessment: using multimetric indices effectively. EPA 235–R97–001.
- Karr, J.R., K.D. Fausch, P.L. Angermeier, P.R. Yant, and I.J. Schlosser. 1986. Assessing biological integrity in running waters: a method and its rationale. Special Publ. 5. Illinois Natural History Survey. Champaign, IL.
- Katapodis, C. 1991. *Introduction to fish passage design*. U.S. Fish and Wildlife Service, National Conservation Training Center, Fish Passageways and Bypass Facilities–West.
- Keeley, B.W., M.B. Fenton, and E.B. Arnett. 2003. A North American partnership for advancing research, education, and management for the conservation of bats and their habitats. *Wildlife Soc. Bull.* 31:80–86.
- Kellerhals, R. 1967. Stable channels with gravel-paved beds. *J. of the Waterways and Harbors Division*, Vol. 93, No. 1. pp. 63–84.
- Kellerhals, R., and D. Bray. 1971. Sampling procedures for coarse fluvial sediments. *J. of Hydraul. Div.—Proc. of the Amer. Soc. of Civil Eng.*
- Kenney, T.C. 1959. Discussion of geotechnical properties of Glacial Lake clays. *Proc. of the J. of Soil Mechanics and Foundations*. Amer. Soc. of Civil Eng. Vol. 85, No. SM3. pp. 67–79.
- Keulegan, G.H. 1938. Laws of turbulent flow in open channels. Research paper 1151. *J. of Research of the National Bureau of Standards*, 21. pp. 701–741.
- Kilpatrick, F.A., and H.H. Barnes, Jr. 1964. Channel geometry of Piedmont streams as related to frequency of floods. U.S. Geological Survey professional paper 422–E. Washington, DC.
- Kimball, J.C., and M. Van Dusen. 1996. *Adopt-A-Stream shoreline survey*. Massachusetts Riverways Programs. Dept. of Fisheries, Wildlife and Environmental Law Enforcement. Boston, MA.
- Kimmerer, R.W., and T.F.H. Allen. 1982. The role of disturbance in the pattern of a riparian bryophyte community. *Amer. Midland Naturalist* 107:370–383.
- Klingeman, P.C., and J.B. Bradley. 1976. *Willamette River Basin streambank stabilization by natural means*. U.S. Army Corps of Engineers, Portland District. Portland, OR.
- Knighton, A.D. 1998. *Fluvial forms and processes: a new perspective*. Hodder Arnold Publishers, ISBN 978–0340663134. London, United Kingdom.
- Koerner, R.M. 1998. *Designing with geosynthetics*. Upper Saddle River. Prentice Hall. Englewood Cliffs, NJ.

- Koltun, G.F., and J.W. Roberts. 1990. Techniques for estimating flood-peak discharges of rural, unregulated streams in Ohio. U.S. Geological Survey. Water-Resources Investigative Report 89-4126. Denver, CO.
- Komura, S., and D.B. Simons. 1967. River-bed degradation below dams. *J. of the Hydraul. Div. Amer. Soc. of Civil Eng.* 93(4):1-13.
- Kondolf, G.M. 1995. Geomorphological stream channel classification in aquatic habitat restoration: uses and limitations. *Aquatic Conservation: Marine and Freshwater Ecosystems* 5:127-141.
- Kondolf, G.M., and P.W. Downs. 1996. Catchment approach to planning river channel restoration. *In River Channel Restoration*. A. Brookes, and F.D. Shields, Jr., eds. John Wiley and Sons. Chichester, United Kingdom. pp. 129-148.
- Kondolf, G.M., and H. Piegay. 2003. Tools in fluvial geomorphology. John Wiley and Sons. Chichester, United Kingdom.
- Kouwen, N., T.E. Unny, and H.M. Hill. 1969. Flow retardance in vegetated channels. *J. Irrigation and Drainage Div. Amer. Soc. of Civil Eng.* 95(IR2):329-342.
- Kouwen, N., R.M. Li, and D.B. Simons. 1980. A stability criteria for vegetated waterways. *Proc. International Symp. on Urban Storm Runoff*. Univ. of Kentucky. Lexington, KY. pp. 203-210.
- Kozinksi, P. 1998. P-bank: a program for estimating bank stability. M.S. Thesis, Colorado State Univ. Dept. of Civil Eng. Fort Collins, CO.
- Kraebel, C.J., and A.F. Pillsbury. 1934. Handbook of erosion control in mountain meadows. U.S. Dept. of Agric., Forest Service, California Forest and Range Experiment Station. Berkeley, CA.
- Krochin, S. 1961. *Deseno Hidraulico*. Quito, Ecuador. pp. 266-274.
- Kruys, N., B.G. Jonsson, and G. Stahl. 2002. A stage-based matrix model for decay-class dynamics of woody debris. *Eco. App.* 12(3):773-781.
- Kuhnle, R.A., C.V. Alonso, and F.D. Shields, Jr. 1999. Volume of scour holes associated with 90-degree spur dikes. *J. of Hydraul. Eng.* 125(9):972-978.
- Kuhnle, R.A., C.V. Alonso, and F.D. Shields, Jr. 2002. Local scour associated with angled spur dikes. *J. of Hydraul. Eng.* 128(12):1087-1093.
- Kurta, A., D. King, J.A. Teramino, J.M. Stribley, and K.J. Williams. 1992. Summer roosts of the endangered Indian bat (*Myotis sodalis*) on the northern edge of its range. *Amer. Midland Naturalist* 129:132-138.
- Lacey, G. 1931. Regime diagrams for the design of canals and distributaries. Tech. paper no. 1. United Provinces: Public Works Dept., Irrigation Branch.
- Ladd, C.C., R. Foote, K. Ishihara, F. Schlosser, and H.G. Poulos. 1977. Stress-deformation and strength characteristics. State-of-the-Art report, *Proc. of the Ninth International Conference on Soil Mechanics and Foundation Engineering*. Tokyo, Japan. Vol. 2. pp. 421-494.
- Lagasse, P.F., and E.V. Richardson. 2001. Amer. Soc. of Civil Eng. Compendium of stream stability and bridge scour papers. *J. of Hydrol. Eng.* 127(7):531-533.
- Lagasse, P.F., J.D. Schall, and E.V. Richardson. 2001. Stream stability at highway structures. Office of Technology, Federal Highway Administration. Washington, DC.
- Lagasse, P.F., L.W. Zevenbergen, J.D. Schall, and P.E. Clopper. 2001. Bridge scour and stream instability countermeasures—experience, selection, and design guidance. 2nd ed. Pub. no. FHWA NHI 01-2003, *Hydrol. Eng. Circular No. 23*. FHWA NHI01003, Federal Highway Administration. Washington, DC.
- Lake, P.S. 2000. Disturbance, patchiness, and diversity in streams. *J. of the North Amer. Benthological Society* 19(4):573-592.
- Lambe, T.W., and R.V. Whitman. 1969. *Soil Mechanics*, John Wiley and Sons. New York, NY.

- Landwehr, K., and B. Rhoads. 2003. Depositional response of a headwater stream to channelization, east central Illinois. *River Res. and Applic.* 19:77–100.
- Lane, E.W. 1952. Progress report on results of studies on design of stable channels. U.S. Dept. of Interior, Bureau of Reclamation, Hydraulics Branch. Hydraul. Lab. Report HYD–352.
- Lane, E.W. 1953a. Design of stable channels. *Trans. Amer. Soc. of Civil Eng.* 120:1234–1260.
- Lane, E.W. 1953b. Progress report on studies on the design of stable channels by the Bureau of Reclamation. *Proc. Amer. Soc. of Civil Eng.* 79: Separate No. 280:1–31.
- Lane, E.W. 1955a. Design of stable alluvial channels. *Trans. Amer. Soc. of Civil Eng.* 120(2776):1234–1260.
- Lane, E.W. 1955b. The importance of fluvial morphology in hydraulic engineering. *In J. of the Hydraul. Div.* 81(745):1–17.
- Lane, E.W. 1957. A study of the shape of channels formed by natural streams flowing in erodible material. Missouri River Division Sediment Series no. 9, U.S. Army Corps of Engineers. Omaha, NE.
- Lang G, J. Early, N. Arryove, R. Darnell, G. Martin, G. Stutte. 1985. Dormancy: Toward a reduced, universal terminology. *HortScience* 20:809–812
- Langbein, W.B., and L.B. Leopold. 1966. River meanders—theory of minimum variance. U.S. Geological Survey professional paper 422–H. Washington, DC.
- Langendoen, E.J. 2000. CONCEPTS—Conservational channel evolution and pollutant transport system: Stream corridor version 1.0. Research Report No. 16. U.S. Dept. of Agric., Agriculture Resource Service. National Sedimentation Laboratory, Oxford, MS.
- Large, A.R.G., and G.E. Petts. 1994. Rehabilitation of river margins. *In The Rivers Handbook*, P. Calow, and G. Petts, eds. Blackwell Scientific Publ. Oxford, United Kingdom. pp. 401–418.
- Larinier, M. 1990. Experience in fish passage in France: fish passage design criteria and downstream migration problems. *Proc. in the International Symposiums on Fish passages*. Gifu, Japan.
- Larson, M.G., D.B. Booth, and S.A. Morley. 2001. Effectiveness of large woody debris in stream rehabilitation projects in urban basins. *Ecological Engineering* Vol. 18, No. 2. pp. 211–226.
- Laursen, E.M. 1952. Observations on the nature of scour. *Proceedings of the 5th Hydraulic Conference*, Bull. 34, Univ. of Iowa, Iowa City, IA. pp. 179–197.
- Laursen, E.M., M.W. Flick, and B.E. Ehlers. 1986. Local scour at drop structures. *Proc. of the 4th Federal Interagency Sedimentation Conference*. Las Vegas, NV. Vol I. p. 381–390.
- Law, D.L., and W.F. Hansen 2004. Native plants and fertilization help to improve sites and stabilize gullies on the Sumter National Forest. *In Proc. 3rd International Symposium on Gully Erosion*, Univ. of Mississippi. Oxford, MS. Publication pending.
- Lawler, D.M. 1993. The measurement of river bank erosion and lateral channel change: A review. *Earth Surface Processes and Landforms*. 18(9):777–821.
- Lee, D.C. 1991. A stochastic, compartmental model of the migration of juvenile anadromous salmonids in the Columbia River Basin. *Ecological Modelling* 54(3–4):227–246.
- Lenzi, M.A., F. Comiti, and A. Marion. 2004. Local scouring at bed sills in a mountain river: Plima River, Italian Alps. *J. of Hydrol. Eng.* 130(3):267–269.
- Lenzi, M.A., A. Marion, F. Comiti, and R. Gaudio. 2002. Local scouring in low and high gradient streams at bed sills. *J. of Hydrol. Res.* 40(6):2002.

- Leopold, L.B. 1994. A view of the river. Harvard University Press. Cambridge, MA.
- Leopold, L.B., and T. Maddock, Jr. 1953. The hydraulic geometry of stream channels and some physiographic implications. U.S. Geological Survey professional paper 252. Washington, DC.
- Leopold, L.B., and H.E. Skibitzhe. 1967. Observations on unmeasured rivers. *In* *Geografisha Annaler*, V. 4.9, ser. A. pp. 247–255.
- Leopold, L.B., and M.G. Wolman. 1957. River channel patterns—braided, meandering, and straight. U.S. Geological Survey professional paper 282B. Washington, DC.
- Leopold, L.B., and M.G. Wolman. 1960. River meanders. *Geol. Soc. of Amer. Bull.* Vol. 71. pp. 769–794.
- Leopold, L.B., and W.B. Langbein. 1966. River meanders. *Sci. Amer.* June. pp. 60–69.
- Leopold, L.B., and D.L. Rosgen. 1992. Effect of climatic change on rivers. *Applied Geomorphology Workshop Notebook*. Pagosa Springs, CO.
- Leopold, L.B., and W.W. Emmett. 1997. Bedload and river hydraulics—inferences from the East Fork River, Wyoming. U.S. Geological Survey professional paper. 1583 pp.
- Leopold, L.B., M.G. Wolman, and J.P. Miller. 1964. Fluvial processes in geomorphology. W.H. Freeman and Co. San Francisco, CA.
- Levins, R. 1966. The strategy of model building in population biology. *Amer. Sci.* 54:421–431.
- Lewis, L. 2000. Soil bioengineering—an alternative to roadside management—a practical guide. Technical Report 007701801–SDTDC. U.S. Dept. of Agric., Forest Service. San Dimas Technology and Development Center. San Dimas, CA.
- Lewis, S.E. 1995. Roost fidelity of bats: a review. *J. of Mammalogy* 76:481–496.
- Li, M.H., and K.E. Eddleman. 2002. Biotechnical engineering as an alternative to traditional engineering methods: a biotechnical streambank stabilization design approach. *Landscape and Urban Planning* 60(4):225–242.
- Li, M.H., H.C. Landphair, M.A. Arnold, K. Mullin, and K.E. Eddleman. 2004. A dormancy extension technique for biotechnical streambank stabilization in warm regions. *Landscape and Urban Planning* 71(2–4):223–231.
- Ligon, F.K., W.E. Dietrich, and W.J. Trush. 1995. Downstream ecological effects of dams. *BioScience* 45: 183–192.
- Lillehammer A., J.E. Brittain, and S.J. Saitveit. 1984. Egg development, nymphal growth and distribution of Fennoscandian stoneflies (*Plecoptera*), (Abstract). *Annales de Limnologie* 20(1–2):144.
- Limerinos, J.T. 1970. Determination of the Manning coefficient from measured bed roughness in natural channels. U.S. Geological Survey Water-Supply paper 1898–B. Washington, DC.
- Linder, W.M. 1963. Stabilization of stream beds with sheet piling and rock sills. Prepared for Federal Interagency Sedimentation Conference, Subcommittee on Sedimentation, U.S. Dept. of Agric. Agric. Research Service, Misc. publ. 970, paper no. 55. Jackson, MS. pp. 470–484.
- Linsley, R.K., M.A. Kohler, and J.L.H. Paulhus. 1975. *Hydrology for engineers*. 2nd ed. McGraw-Hill, Inc. New York, NY.
- Lisle, S. 2004. Building flow devices. Beaver Deceivers Inc. Grafton, VA. 3p.
- Lisle, T.E., and J. Lewis. 1992. Effects of sediment transport on survival of salmonid embryos in a natural stream: a simulation approach. *Canadian J. of Fisheries and Aquatic Sciences* 49(11): 2337–2344.
- Little, W.C., and J.B. Murphey. 1982. Model study of low drop grade control structures. *J. of the Hydrol. Div., Amer. Soc. of Civil Eng.* 108 No. HY10. pp. 1132–1146.

- Liu, R., and Y.Q. Li. 2004. Comprehensive gully reclamation in the Loess Plateau, Northwest China: from warping dams to gully gardens. Proc. 3rd International Symposium on Gully Erosion. Univ. of Mississippi. Oxford, MS.
- Lombard, B. 2000. The importance of Amoskeag Falls and the Merrimack River in the history of Manchester. Manchester Historical Society. Manchester, NH.
- López, F., and M. Garcia. 1997. Open-channel flow through simulated vegetation: turbulence modeling and sediment transport. Wetlands Research Program Technical Report WRP-CP-10. U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Lorenz, E.A., M.N. Lobrecht, and K.M. Robinson. 2000. An Excel program to design rock chutes for grade stabilization. Amer. Soc. of Agric. Eng. Paper no. 002008. American International Meeting. Milwaukee, WI. 21 pp.
- Maccaferri Engineering. 2001. Soil Bioengineering and Ecological Systems. Bologna, Italy.
- Macklin, M.G. 1996. Fluxes and storage of sediment-associated heavy metals in floodplain systems: assessment and river basin management issues at a time of rapid environmental change. *In* Floodplain processes. M.G. Anderson, D.E. Walling, and P.D. Bates, eds. John Wiley and Sons. New York, NY. pp. 441–460
- Macklin, M.G., and J. Lewin. 1997. Channel, floodplain and drainage basin response to environmental change. *In* Applied fluvial geomorphology for river engineering and management. C.R. Thorne, R.D. Hey, and M.D. Newson, eds. John Wiley and Sons. New York, NY. pp. 15–45.
- McCullah, J.A. 2003. BioDraw 2.0. Salix applied earth-care. Redding, CA
- Maidment, D.R. 1993. Handbook of Hydrology. D.R. Maidment, ed. McGraw-Hill, Inc. New York, NY.
- Manning, R. 1891. On the flow of water in open channels and pipes. Trans. of the Inst. of Civil Eng. of Ireland.
- Marble, A.D. 1992. A guide to wetland functional design. Lewis Publishers. Boca Raton, FL.
- Martin, C.O. 2000. Bat habitat restoration and management opportunities on Corps of Engineers projects. TN-EMRRP-SI-18. U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS. <http://el.erdc.usace.army.mil/elpubs/pdf/si18.pdf>.
- Martin, C.O. 2001. Riparian habitat management for mammals on Corps of Engineers projects. EMRRP Technical Notes Collection. ERDC TN-EMRRP-SI-29. U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS. <http://el.erdc.usace.army.mil/elpubs/pdf/si29.pdf>.
- Martin, C.O., and R.A. Fischer. 2002. Riparian zone management in restoration and management of riparian areas for water quality and ecological functions. Water Operations Technical Support Workshop. U.S. Army Corps of Engineers, Engineers Research and Development Center. Vicksburg, MS.
- Maryland Department of Natural Resources. 2000. Stream Corridor Assessment Survey. Annapolis, MD.
- Maser, C., and J.R. Sedell. 1994. From the forest to the sea: the ecology of wood in streams, rivers, estuaries, and oceans. St. Lucie Press. Delray Beach, FL.
- Mason, P.J., and K. Arumugam. 1985. Free jet scour below dams and flip buckets. J. of Hydrol. Eng. 11(2), 220–235.
- Matsuura T., and R. Townsend. 2004. Stream-barb installations for narrow channel bends—a laboratory study. Canadian J. of Civil Engineering, Vol. 31, No. 3. pp. 478.
- Matthews W.J. 1986. Fish faunal structure in an Ozark stream: stability, persistence and a catastrophic flood. Copeia. Amer. Soc. of Ichthyologists and Herpetologists (2):388–397.

- Maxwell, J.R., C.E. Edwards, M.E. Jensen, S.J. Paus-tian, H. Parrot, and D.M. Hill. 1995. A hierarchical framework of aquatic ecological units in North America. U.S. Dept. of Agric., Forest Service.
- Maynard, S.T. 1988. Stable riprap size for open chan-nel flows. Technical report HL-88-4. U.S. Army Corps of Engineers, Waterways Experiment Sta-tion. Vicksburg, MS.
- Maynard, S.T. 1992. Steep stream riprap design, streams above the line: channel morphology and flood control. Proc. of the U.S. Army Corps of Engineers Workshop on Steep Streams, 27-29 October, Misc. paper HL-94-4. Seattle, WA. 9 p.
- Maynard, S.T. 1995. Gabion-mattress channel-protec-tion design. J. of Hydrol. Eng. 121(7):519-522.
- Maynard, S.T. 1996. Toe-scour estimation in stabilized bendways. J. of Hydrol. Eng. 122(8):460-464.
- Maynard, S.T., M.T. Hebler, and S.F. Knight. 1998. User's manual for CHANLPRO, PC program for channel protection design. Tech. report CHL-98-20, U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- McBane, J.A. 2004. Personal communication.
- McCarley R.W., J.J. Ingram, and B.J. Brown. 1990. Flood-control channels research program. Flood-control channel national inventory. Mis-cellaneous paper HL-90-10. U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- McClelland, D.E. 1999. Application by the USDA For-est Service of methods for estimating the bearing capacity of spread footings in bridge approach fills. U.S. Dept. of Agric., Forest Service. 15 pp.
- McCook, D.K. 2004. Personal communication.
- McIntire, C.D. 1973. Periphyton dynamics in laboratory streams: A simulation model and its implications. Ecological Monographs 43:399-420.
- McIntire, C.D., and J.A. Colby. 1978. A hierarchical model of lotic ecosystems. Ecological Mono-graphs 48:167-190.
- McIntire, C.D., S.V. Gregory, A.D. Steinman, and G.A. Lamberti. 1996. Modeling benthic algal communi-ties: an example from stream ecology. *In* Benthic algal ecology in freshwater ecosystems (Algal Ecology). R.J. Stevenson, M. Bothwell, and R.L. Lowe, eds., Academic Press. San Diego, CA. pp. 669-704.
- McKee, W.H., and D.L. Law. 1985. Response to fer-tilization on the Francis Marion and Sumter National Forests. Progress and final report No. FS-SE-1103-157(2). Center for Forested Wet-lands Research, Southern Experiment Station. Charleston, SC. 16 pp.
- McKee, W.H., D.L. Gartner, and D.L. Law. 1995. Pilot scale fertilization of pole-sized stands of loblolly pine on the Sumter National Forest. Final report No. FS-SE-4102-188(2). Center for Forested Wetlands Research, Southern Research Station. Charleston, SC. 13 pp.
- McLaughlin Water Engineers. 1986. Evaluation of and design recommendations for drop structures in the Denver metropolitan area. A report prepared for the Denver urban drainage and flood control district. Denver, CO.
- Mecklenburg, D., and A. Ward. 2002. Quantifying and managing the impacts of urbanization on the effective discharge and stream stability. Proc. of the International Conference on Environmen-tal Flows for River Systems. Cape Town, South Africa.
- Medellin, R.A. 2003. Diversity and conservation of bats in Mexico: research priorities, strategies, and ac-tions. Wildlife Soc. Bull. 31:87-97.
- Meffe, G.K. 1984. Effects of abiotic disturbance on coexistence of predator-prey fish species. Ecol-ogy 65:1525-1534.
- Meinzer, O.E. 1923. Outline of ground-water hydrology, with definitions. U.S. Geological Survey Water-Supply paper 494.
- Melville, B.W. 1992. Local scour at bridge abutments. J. of Hydraul. Eng. 118(4):615-631.

- Merkel, W.H. 2002. Muskingum-Cunge Flood Routing Procedure in NRCS Hydrologic Models, in the Proceedings of the Second Federal Interagency Hydrologic Modeling Conference. U.S. Dept. of Agric., Natural Resources Conservation Service. Beltsville, MD
- Meyerhof, G.G. 1957. The ultimate bearing capacity of foundations on slopes. *In* Proc. of the 4th International Conference on Soil Mechanics and Foundation Engineering. Vol. 3. pp. 384–386.
- Meyerhof, G.G. 1974a. Penetration testing outside Europe: General report. Proc. of the European Symposium on Penetration Testing. Vol. 2.1. pp. 40–48.
- Meyerhof, G.G. 1974b. Ultimate bearing capacity of footings on sand overlying clay. *Canadian Geotechnical Journal*. Vol. 11. pp. 223–229. Ottawa, Canada.
- Meyer-Peter, E., and R. Müller. 1948. Formulas for bed-load transport. Proc. 2nd meeting of the International Assoc. for Hydrol. Research. Stockholm, Sweden. pp. 39–64.
- Mickleburgh, S.P., A.M. Hutson, and P.A. Racey. 2002. A review of the global conservation status of bats. *Oryx* 36:18–34.
- Middleton, B.A. 2002. Flood pulsing in wetlands: restoring the natural hydrological balance. John Wiley and Sons. New York, NY.
- Millar, R.G., and M.C. Quick. 1993. Effect of bank stability on geometry of gravel rivers. *J. of Hydrol. Eng.* 119(12):1343–1363.
- MissDowns, P.W., and A. Simon. 2001. Fluvial geomorphological analysis of the recruitment of large woody debris in the Yalobusha River network, Central Mississippi, USA. *Geomorphology* 37:65–91.
- Mitchell, J.K., and W.C.B. Villet. 1987. Reinforcement of Earth slopes and embankments. National Cooperative Highway Research Program. Report No. 290, Transportation Research Board. Washington, DC.
- Mitsch, W.J., and J.C. Gosslink. 1986. Wetlands. Van Nostrand Reinhold Co. New York, NY.
- Molinas, A. 1990. Bridge stream tube model for alluvial river simulation (BRISTARS), user's manual, National Cooperative Highway Research Program, Project No. HR15–11, Transportation Research Board. Washington, DC.
- Molles, M.C., C.S. Crawford, L.M. Ellis, H.M. Valett, and C.N. Dahm. 1998. Managed flooding for riparian ecosystem restoration. *BioScience* 48:749–756.
- Montgomery, D.R., and J.M. Buffington. 1993a. Channel classification, prediction of channel response, and assessment of channel condition. Washington State Dept. of Natural Resources Report TFW–SH10–93–002. Olympia, WA.
- Montgomery, D.R., and J.M. Buffington. 1993b. Channel processes, classification and response potential, ecology and management of streams in the Pacific Northwest. Olympia, WA.
- Montgomery, D.R., and J.M. Buffington. 1997. Channel-reach morphology in mountain drainage basins, *Geological Soc. of Amer. Bull.* 109(5):596–611.
- Montgomery, D.R., and J.M. Buffington. 1998. Channel processes, classification, and response. *In* River Ecology and Management. R. Naiman and R. Bilby, eds. Springer-Verlag, New York, NY. pp. 13–42.
- Morgenstern, N.R., and V.E. Price. 1965. The analysis of the stability of general slip surfaces. *Geotechnique* 15:79–83.
- Moscrip, A.L., and D.R. Montgomery. 1997. Urbanization, flood frequency, and salmon abundance in Puget lowland streams. *J. of the Amer. Water Resour. Assoc.* 33(6):1289–1297.
- Murdoch, T., M Cheo, and K. O’Laughlin. 1996. Stream-keeper’s field guide—watershed inventory and stream monitoring methods. The Adopt-A-Stream Foundation. Everett, WA.

- Murphy, T.E. 1967. Drop structures for Gering Valley Project, Scottsbluff County, Nebraska, hydraulic model investigation. Technical Report No. 2-760, U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Mussetter, R.A. 1982. Equilibrium slopes above channel control structures. M.S. Thesis, Colorado State Univ., Civil Engineering Dept. Fort Collins, CO.
- Myers, Jr., C.T. 1982. Rock riprap gradient control structures. Proc. of the Conference Applying Research to Hydraulic Practice, Amer. Soc. of Civil Eng. Jackson, MS.
- Naiman, R.J. ed. 1988. How animals shape their ecosystems. *BioScience* 38:750-800.
- Naiman, R.J., T.J. Beechie, L.E. Benda, D.R. Berg, P.A. Bisson, L.H. MacDonald, M.D. O'Connor, P.L. Olson, and E.A. Steel. 1992. Fundamental elements of ecologically healthy watersheds in the Pacific Northwest Coastal Ecoregion. *In* Watershed management: balancing sustainability and environmental change. R. J. Naiman ed. Springer-Verlag. New York, NY. pp. 127-188
- Nakamura, F., and F.J. Swanson. 1993. Effects of coarse woody debris on morphology and sediment storage of a mountain stream system in western Oregon. *Earth surface process and land forms* 18:43-61.
- Nanson, G.C., and J.C. Croke. 1992. A genetic classification of floodplains. *Geomorphology* 4:459-486.
- Nanson, G.C., and E.J. Hickin. 1986. A statistical analysis of bank erosion and channel migration in Western Canada. *Geolog. Soc. of Amer. Bull.* 97:497-504.
- Nash, D.B. 1994. Effective sediment-transporting discharge from magnitude-frequency analysis. *J. of Geology* 102(1):79-95.
- National Academy of Science. 2002. The Missouri River ecosystem: exploring the prospects for recovery. National Academy Press. Washington, DC.
- National Concrete Masonry Association. 1997. Design manual for segmental retaining walls. Herndon, VA.
- National Oceanic and Atmospheric Association, National Marine Fisheries (NOAA Fisheries Services). 1995. Juvenile fish screen criteria. Environmental and Technical Services. Portland, OR.
- National Oceanic and Atmospheric Association, National Marine Fisheries (NOAA Fisheries Services). 2000. Guidelines for salmon passage at stream crossings. Portland, OR.
- National Oceanic and Atmospheric Association, National Marine Fisheries Service (NOAA Fisheries Services), U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and U.S. Environmental Protection Agency. 2006. Sediment Removal from Active Stream Channels in Oregon. Portland, OR.
- National Research Council. 1992. Restoration of aquatic ecosystems: science, technology, and public policy. National Research Council, Committee on Restoration of Aquatic Ecosystems: Science, Technology, and Public Policy, Water and Science Technology Board, Commission on Geosciences, Environment, and Resources. National Academy Press. Washington, DC.
- National Research Council. 1993. Vetiver grass, a thin green line against erosion. National Academy Press. Washington, DC.
- Neill, C.R. 1968. A reexamination of the beginning of movement for coarse granular bed materials. Report INT 68, Hydrol. Research Station. Wallingford, United Kingdom.
- Neill, C.R., ed. 1973. Guide to bridge hydraulics. Univ. of Toronto Press. Toronto, Canada.
- Neilson, F.M., T.N. Waller, and K.M. Kennedy. 1991. Annotated bibliography on grade control structures. Miscellaneous paper, HL-914, U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.

- Newbold, J.D., J.W. Elwood, R.V. O'Neill and A.L. Sheldon. 1983. Phosphorus dynamics in a woodland stream ecosystem: a study of nutrient spiraling. *Ecology* 64:1249–1265.
- Newbold, J.D., J.W. Elwood, R.V. O'Neill, and W. Van Winkle. 1981. Measuring nutrient spiraling in streams. *Canadian J. of Fisheries and Aquatic Sciences* 38:860–863.
- Newbury, R. 2002. Stream restoration hydraulics design course. Course notes, U.S. Army Corps of Engineers. Rock Island, IL.
- Newbury, R.W., and M.N. Gaboury 1993. Stream analysis and fish habitat design. Newbury Hydraulics. Manitoba, Canada.
- Niemi, G.J., P. DeVore, N. Detenbeck, D. Taylor, and A. Lima. 1990. Overview of case studies on recovery of aquatic systems form disturbance. *J. of Environ. Manage.* 14:571–587.
- Nixon, M. 1959. A study of bankfull discharges of rivers in England and Wales. *Proc. of the Inst. of Civil Eng.* 12:157–175.
- Norcross, T.W. 1936. Handbook of erosion control engineering on the National Forests. U.S. Government Printing Office. Washington, DC. 90 pp.
- Nordlund, B. 1996. Designing fish screens for fish protection at water diversions. National Oceanic and Atmospheric Association. National Marine Fisheries Service. Portland, OR.
- Nordlund, B. 1997. Designing fish screens for fish protection at water diversions. National Oceanic and Atmospheric Association. National Marine Fisheries Service. Portland, OR.
- Norman, J.N. 1975. Design of stable channels with flexible linings. U.S. Dept. of Transportation, Federal Highway Administration. *Hydrol. Eng. Circ.* 15. Washington, DC.
- North Carolina Department of Environment, Health, and Natural Resources. 1997. Standard operating procedures for biological monitoring.
- North Carolina Stream Restoration Institute and North Carolina Sea Grant. 2003. Stream restoration—a natural channel design handbook. Raleigh, NC.
- Novak, P., A.I.B. Moffat, C. Nalluri, and R. Narayanan. 1997. *Hydraulic Structures*. 2nd ed., Spon and FN. London, United Kingdom. 599 p.
- Nunnally, N.R., and F.D. Shields. 1985. Incorporation of environmental features in flood control channel projects. Technical Report E–85–3. U.S. Army Corps of Engineers, Waterways Experiment Station, CE. Vicksburg, MS.
- Nunnally, N.R., and R.B. Sotir. 1997. Criteria for selection and placement of woody vegetation in stabilization protection. Oxford, MS. pp. 816–821.
- O'Brien, J.S. 2004. FLO–2D User Manual.
- Odgaard, A.J. 1986. Meander flow model, development and applications. *J. of Hydraul. Eng.* 112(12):1117–1150.
- Odum, E.P. 1971. *Fundamentals of ecology*. W.B. Saunders Co. Philadelphia, PA.
- Ohmart, R.D., L.H. Myers, W.L. Graf, M. Hurley, D.M. Green, J.H. Brock, and C.D. Zisner. 1998. RARS: rapid assessment of riparian systems. Report to Arizona Game and Fish Department. Phoenix, AZ.
- O'Loughlin, C.L., and R.R. Ziemer. 1982. The importance of root strength and deterioration rates upon edaphic stability in steepland forests. Carbon uptake and allocation in subalpine ecosystems as a key to management. *Proc. International Union of Forest Research Organizations Workshop*. pp. 70–77.
- Ontario Ministry of Agriculture, Food, and Rural Affairs. 1998. Stream, ditch, and floodplain management. *Inforsheet No. 21*. Guelph, ON. NIG 4Y2.
- Oregon Department of Fish and Wildlife. 2004. Fish passage criteria. Salem, OR.

- Oregon State University. Extension Service. Stream-a-syst—a tool to help you examine stream conditions on your property. Corvallis, OR.
- Orsborn, J.F. 1985. New concepts in fish ladder design. part I of IV: summary. Prepared for U.S. Dept. of Energy, Bonneville Power Administration, Project No. 82-14, Contract No. DE-AI79-82BP36523. Portland, OR. 61 pp.
- O'Shea, T.J., M.A. Bogan, and L.E. Ellison. 2003. Monitoring trends in bats of the United States and territories: status of the science and recommendations for the future. *Wildlife Soc. Bull.* 31(1):16-29.
- Osman, A.M., and C.R. Thorne. 1988. Riverbank stability analysis I: Theory. *J. Hydraul. Eng. Amer. Soc. of Civil Eng.* 114(2):134-172.
- Osterkamp, W.R., and E.R. Hedman. 1982. Perennial-streamflow characteristics related to channel geometry and sediment in Missouri River basin. U.S. Geological Survey professional paper 1288. Washington, DC.
- Paintal, A.S. 1971. Concept of critical shear stress in loose boundary open channels. *J. of Hydraul. Research*, No. 1. pp. 90-113.
- Parker, G. 1982. Regime equations for gravel-bed rivers. *In* Gravel-bed rivers, R.D. Hey, J.C. Bathurst, and C.R. Thorne, eds., John Wiley and Sons. Chichester, United Kingdom. pp. 542-551.
- Parker, G. 1990 Surface-based bedload transport relation for gravel rivers. *J. Hydrol. Research*, 28(4):417-436.
- Paul, M.J., and J.L. Meyer. 2001. Streams in the urban landscape. *Annual Review of Ecology and Systematics* 32:333-365.
- Paustian, S.J., K. Anderson, D. Blanchet, S. Brady, M. Copley, J. Edgington, J. Fryxell, G. Johnejack, D. Kelliher, M. Kuehn, S. Maki, R. Olson, J. Seesa, and M. Wolanek. 1992. A channel type users guide for the Tongass National Forest, southeast Alaska. U.S. Dept. of Agric., Forest Service. Technical paper R10-TP-26. 179 pp.
- Peake, S., F.W.H. Beamish, R.S. McKinley, D.A. Scruton, and C. Katopodis. 1997. Relating swimming performance of lake sturgeon, *Acipenser fulvescens*, to fish passage design. *Canadian J. of Fisheries and Aquatic Sciences* 54:1361-1366.
- Pearce, R.O., and R.T. Lee. 1991. Some design considerations for approach velocities at juvenile salmonid screening facilities. *In* Fisheries Bio-engineering Symposium, Amer. Fisheries Soc. Symposium. Bethesda, MD. 10:237-248.
- Peck, R.B., W.E. Hanson, and T.H. Thornburn. 1974. Foundation Engineering. John Wiley and Sons. New York, NY.
- Pekarova, P., P. Miklanek, and J. Pekar. 2003. Spatial and temporal runoff oscillation analysis of the main rivers of the world during the 19th-20th centuries. *J. of Hydraul.* Vol. 274:47-61.
- Pemberton, E.L., and J.M. Lara. 1984. Computing degradation and local scour: technical guideline for Bureau of Reclamation. U.S. Dept. of Interior, Bureau of Reclamation Engineering and Research Center. Denver, CO.
- Peterjohn, W.T., and D.L. Correll. 1984. Nutrient dynamics in an agricultural watershed: observations on the role of a riparian forest. *Ecology* 65:1466-1475.
- Peterka, A.J. 1984. Hydraulic design of stilling basins and energy dissipators. U.S. Dept. of the Interior, Bureau of Reclamation, Engineering Monograph No. 25.
- Petersen, M.S. 1986. River Engineering. Prentice-Hall, Englewood Cliffs, NJ.
- Petts, G.E. 1984. Impounded rivers: perspectives for ecological management. John Wiley and Sons. Chichester, United Kingdom.
- Pickup, G. 1976. Adjustment of stream-channel shape to hydrologic regime. *J. of Hydrol.* 30:365-373.
- Pickup, G., and R.F. Warner. 1976. Effects of hydrologic regime on magnitude and frequency of dominant discharge. *J. of Hydrol.* 29:51-75.

- Pile Buck, Inc. 1987. Pile Buck steel sheet piling design manual. Vero Beach, FL.
- Pimentel, D., L. Lach, R. Zuniga, and D. Morrison. 2000. Environmental and economic costs of nonindigenous species in the United States. *BioScience* 50(1):53–65.
- Pinay, G., and H. Descamps. 1988. The role of riparian woods in regulating nitrogen fluxes between the alluvial aquifer and surface water: a conceptual model. *Regulated Rivers: Res. and Manage.* 2:507–16.
- Pizzuto, J. 2002. Effects of dam removal on river form and process. *BioScience* 52(8):683–691.
- Platts, W.S., C.L. Armour, G.D. Booth, M. Bryant, J.L. Bufford, P. Cuplin, S. Jensen, G.W. Lienkaemper, G.W. Minshall, S.T. Monsen, R.L. Nelson, J.R. Sedell, and J.S. Tuhy. 1987. Methods for evaluating riparian habitats with applications to management General Technical Report. INT-221. Ogden, UT. U.S. Dept. of Agric. Forest Service, Intermountain Research Station. 177 pp.
- Poff, L.N., and D. Hart. 2002. How dams vary and why it matters for the emerging science of dam removal. *BioScience* 52(8):659–668.
- Poff, L.N., J.D. Allan, M.B. Bain, J.R. Karr, K.L. Prestegard, B.D. Richter, R.E. Sparks, and J.C. Stromberg. 1997. The natural flow regime: a paradigm for river conservation and restoration. *BioScience* 47(11):769–784.
- Poff, N.L., and J.V. Ward. 1990. Physical habitat template of lotic systems: recovery in the context of historical pattern of spatiotemporal heterogeneity. *Environ. Manage.* 14:629–645.
- Ponce, V.M., and D.B. Simons. 1977. Shallow wave propagation in open channel flow. *Amer. Soc. of Civil Eng. J. of the Hydrol. Div.* HY12. pp. 1461–1476.
- Powers, P.D., J.F. Orsborn, T.W. Bunstead, S. Klinger-Kingsley, and W.H. Mih. 1985. Fishways—an assessment of their development and design. Final Report, part III of IV, prepared for Bonneville Power Administration, Project 82–14, DOE Contract Number DE–AI79–82BP36523. Portland, OR. 161 pp.
- Proffitt, G.J., and A.J. Sutherland. 1983. Transport of nonuniform sediment. *J. Hydrol. Research, Internat. Assoc. of Hydrol. Eng. and Res.* Vol. 21, No. 1:33–43.
- Proffitt, G.T. 1980. Selective transport and armouring of non-uniform alluvial sediments. Dept. of Civ. Eng., Univ. of Canterbury, Christchurch, New Zealand, Rep. No. 80122, Apr. 1980.
- Przedwojski, B., R. Blazejewski, and K.W. Pilarczyk. 1995. River training techniques, fundamentals, design and applications. Rotterdam, Netherlands: A.A. Balkema. 625 p.
- Rabeni, C.F. 1991. Buffer zones for riparian zone management: a literature review. U.S. Army Corps of Engineers, New England Division. Waltham, MA.
- Rahman, M.M., and M.A. Haque. 2004. Local scour at sloped-wall spur-dike-like structures in Alluvial Rivers. *J. of Hydrol. Eng.* 130(1):70–74.
- Rainey, W.S. 1991. Fish passage: introduction. *Amer. Fisheries Soc. Symp.* Bethesda, MD. 10:227.
- Rajaratnum, N., C. Katopodis, and S. Lodewyk. 1988. Hydraulics of offset baffle culvert fishways. *Canadian J. of Civil Engineering.* 15(6):1043–1051.
- Raudkivi, A.J. 1990. Loose boundary hydraulics, Pergamon Press. Oxford, United Kingdom.
- Raynie, R.C., and J.M. Visser. 2002. CWPPRA Adaptive management review final report. Coastal Wetlands Planning, Protection and Restoration Act, Planning and Evaluation Subcommittee. Baton Rouge, LA.

- Reckendorf, F., and M. Van Liew. 1988. Streambed sampling and analysis. Tucannon Watershed. Washington. U.S. Dept. of Agric. Soil Conservation Service, West National Technical Center. Portland, OR. 116 pp.
- Reckendorf, F., and M. Van Liew. 1989. Sampling of sediment intrusion into artificial redds in the Tucannon Watershed. Washington. Proc. of the Sixth Symposium on Coastal and Ocean Management. Charleston, SC. pp. 964–978.
- Reeves, G.H., L.E. Benda, K.M. Burnett, P.A. Bisson, and J.R. Sedell. 1995. A disturbance-based ecosystem approach to maintaining and restoring freshwater habitats of evolutionarily significant units of anadromous salmonids in the Pacific Northwest. Amer. Fisheries Symp. 17:334–349.
- Regional Ecosystem Office. 1997. Species information addendum to appendix b. riparian reserve evaluation techniques and synthesis. Supplement to section II of ecosystem analysis at the watershed scale: federal guide for watershed analysis ver. 2.2. Portland, OR.
- Reich, M., J.L. Kershner, and R.C. Wildman. 2003. Restoring streams with large wood: a synthesis. In *The ecology and management of wood in World rivers*. S.V. Gregory, K.L. Boyer, and A. Gurnell, eds. Amer. Fisheries Soc. Bethesda, MD. pp. 355–366.
- Reid, L.M., and T. Dunne. 1996. Rapid evaluation of sediment budgets. Catena Verlag, Reiskirchen, Germany. 164 p.
- Remillard, M.M., G.K. Gruendling, and D.J. Bogucki. 1987. Disturbance by beaver (*Castor canadensis*) and increased landscape heterogeneity. In *Landscape heterogeneity and disturbance*. M.G. Turner, ed. Ecological Studies, Vol.64. Springer-Verlag. New York, NY. pp. 103–122.
- Resh, V.H., A.V. Brown, A.P. Covich, M.E. Gurtz, H.W. Li, G.W. Minshall, S.R. Reice, A.L. Sheldon, J.B. Wallace, R.C. Wissmar. 1988. The role of disturbance in stream ecology. J. North Amer. Benthological Soc. 7(4):433–455.
- Resource Management Associates. 2004. Web site. <http://www.rmanet.com/default.htm>.
- Reynoldson, T.B., R.H. Norris, V.H. Resh, K.E. Day, and D.M. Rosenberg. 1997. The reference condition: a comparison of multimetric and multivariate approaches to assess water-quality impairment using benthic macroinvertebrates. J. of the North Amer. Benthological Soc. 16:833–852.
- Ricciardi, A., and J.B. Rasmussen. 1999. Extinction rates of North American freshwater fauna. Conservation Biology 13:1220–1222.
- Richards, K.S. 1982. Rivers: Form and process in Alluvial Channels. Methuen, 358 p.
- Richardson, E.V., and S.R. Davis. 2001. Evaluating scour at bridges. Hydrol. Eng. Circ. No. 18, NHI 01–001. Ayres Associates. Fort Collins, CO. National Technical Information Service. Springfield, VA.
- Richardson, E.V., D.B. Simons, and P.F. Lagasse. 2001. River engineering for highway encroachments—Highways in the River Environment. FHWA NHI 01–004. U.S. Dept. of Transportation, Federal Highway Administration, Hydraulic Design Series No 6. Washington, DC.
- Robinson, K.M., C.E. Rice, and K.C. Kadavy. 1998. Design of rock chutes. Trans. of the Amer. Soc. of Agric. Eng. 41(3):621–626.
- Robinson, K.M., K.C. Kadavy, and C.E. Rice. 1998. Rock chutes on slopes between 2 and 40 percent. 1998 Amer. Soc. of Agric. Eng. Annual International Meeting.
- Robinson, L. 2002. The lowdown on riprap: option for preventing erosion in channels and streambanks. In *Erosion Control*. Forester Communications, Inc. Santa Barbara, CA.
- Roseboom, D., T. Hill, J. Rodsater, J. Beardsley, and L. Duong. 2000. Evaluation of sediment delivery to Lake Pittsfield after best management practice implementation, National Watershed Monitoring Project. Annual report prepared for the Illinois Environmental Protection Agency. Springfield, IL. 212 p.

- Rosgen, D.L. 1988. Conversion of a braided river pattern to meandering: a landmark restoration project. Presented at California Riparian Systems Conference. Davis, CA.
- Rosgen, D.L. 1992. A stream classification system. *In* Applied Geomorphology workshop notebook. Pagosa Springs, CO. pp. C1–C50
- Rosgen, D.L. 1994. A classification of natural rivers. *In* Catena 22:169–199.
- Rosgen, D.L. 1996. Applied river morphology. Wildland Hydrology. Pagosa Springs, CO.
- Rosgen, D.L. 1997a. A geomorphological approach to restoration of incised rivers. Proc. of the Conference on management of landscapes disturbed by channel incision. Oxford, United Kingdom.
- Rosgen D.L. 1997b. Personal communication.
- Rosgen, D.L. 1998. The reference reach—a blueprint for natural channel design. Proc. of Wetlands and restoration conference, Amer. Soc. of Civil Eng. Denver, CO.
- Rosgen, D.L. 1999. Development of a river stability index for clean sediment TMDLs. *In* Proc. of Wildland Hydrology, D.S. Olsen, and J.P. Potyondy, eds., Amer. Water Resour. Assoc. Bozeman, MT. pp. 25–36.
- Rosgen, D.L. 2001a. A hierarchical river stability watershed-based sediment assessment methodology. Seventh Federal Interagency Sedimentation Conference. Reno, NV.
- Rosgen, D.L. 2001b. A practical method of computing streambank erosion rate. Seventh Federal Interagency Sediment Conference. Reno, NV.
- Rosgen, D.L. 2001c. A practical method of computing streambank erosion rate. Wildland Hydrology. Pagosa Springs, CO.
- Rosgen, D.L. 2001d. A stream channel stability assessment methodology. 7th Federal Interagency Sediment Conference. Reno, NV.
- Rosgen, D.L. 2001e. The cross-vane, w-weir and j-hook vane structures...their description, design, and application for stream stabilization and river restoration. Amer. Soc. of Civil Eng., Restoration Proceedings. Reno, NV, 22 pp.
- Rosgen, D.L. 2005. Watershed assessment and river stability for sediment supply (WARSSS). EPA Web page and Manuscript. Wildland Hydrology in press. Fort Collins, CO. 500 pp.
- Rosgen, D.L. 2006. River restoration using a geomorphic approach for natural channel design. Proceeding of the 8th Federal Interagency Sedimentation Conference. Reno, NV.
- Rosgen, D.L., and L.B. Leopold. 1992. Applied geomorphology workshop. Pagosa Springs, CO.
- Rosgen, D.L., and H.L. Silvey. 2005. The reference reach field book. Wildland Hydrology. Fort Collins, CO. 256 pp.
- Rosgen, D.L., L.B. Leopold, and H.L. Silvey. 1998. The reference reach field hook. Wildland Hydrology. Fort Collins, CO. 210 pp.
- Ryan, S. E., and W.W. Emmett. 2002. The nature of flow and sediment movement in Little Granite Creek near Bondurant, WY. Gen. Tech. Rep. RMRS–GTR–90, U.S. Dept. Agric. Forest Service, Rocky Mountain Research Station.
- Ryan, S. 2003. Personal communication.
- Ryan, J., and H. Short. 1995. The Winooski River Watershed Evaluation Project Report. Americorps Corporation for National and Community Service and U.S. Dept. of Agric., Natural Resources Conservation Service. Williston, Vt
- Rijkswaterstaat. 1995. Manual on scour. Delft hydraulics, Rijkswaterstaat Road, and Hydraulic Engineering Division. Delft, the Netherlands.
- Saele, L.M. 1994. Guidelines for the design of stream Barbs. Streambank Protection and Restoration Conference, U.S. Dept. of Agric., Natural Resources Conservation Service. Portland, OR.

- Saint-Venant, A.J.C. Barré de. 1848. Études théoriques et pratiques sur le mouvement des eaux courantes (Theoretical and practical studies of stream flow). Paris, France.
- Salafsky, N., R. Margoluis, and K. Redford. 2001. Adaptive management: a tool for conservation practitioners. World Wildlife Fund.
- Sands, L.B., and I.R. Kapitzke. 1998. Monitoring and modeling streambank subsurface water conditions in North Queensland, Australia. *In* Water Resources Engineering 98. S.R. Abt, J. Young-Pezeshk, and C.C. Watson, eds., Amer. Soc. of Civil Eng. Reston, VA. pp. 1882–1887.
- Saran, S., V.K. Sud, and S.C. Handa. 1989. Bearing capacity of footings adjacent to slopes. *J. of Geotech. Eng. Amer. Soc. of Civil Eng.* 115(4):553–573.
- Save Our Bosque Task Force. 2004. Phase V. Monitoring and adaptive management strategy for the river/riparian restoration plan middle Rio Grande San Acacia to San Marcial, New Mexico. Albuquerque, NM.
- Schaff, S.D., S.R. Pezeshki, and F.D. Shields, Jr. 2002. The effect of pre-planting soaking on growth and survival of black willow (*Salix nigra*) cuttings. *Restoration Ecology* 10(2):267–274.
- Scheffer, T.C. 1971. A climate index for estimating potential for decay in wood structures above ground. *Forest Products Journal* 21(10):25–31.
- Schiechl, H.M., and R. Stern. 1994. Water Bioengineering Techniques. Blackwell Science, Inc. Cambridge, MA.
- Schiechl, H.M., and R. Stern. 1996. Water bioengineering techniques for watercourse bank and shoreline protection, Blackwell Science, Inc. Cambridge, MA.
- Schlosser, I.J. 1987. A conceptual framework for fish communities in small warmwater streams. *In* Community and Evolutionary Ecology of North American Stream Fishes. W.J. Matthews, and D.C. Heins, eds., Univ. of Oklahoma Press. Norman, OK.
- Schmertmann, J.H. 1978. Guidelines for cone penetration test performance and design. Report No. FHWA-TS-78-209. McLean, VA.
- Schmidt, Larry 1994. Personal communication.
- Schoklitsch, A. 1937. Hydraulic structures—a text and handbook, The Amer. Soc. of Mech. Eng. New York, NY.
- Schua, L., and R. Schua. 1970. Lebensraum Wasser. Geheimnisse in einer unbekannten Welt. Stuttgart, Germany.
- Schueler, T. 1995. The importance of imperviousness. watershed protection techniques. Feature article from Watershed Protection Techniques. 1(3):100–111.
- Schultze, R.E., and G.I. Wilcox. 1985. Emergency measures for streambank stabilization: an evaluation. Paper presented at North American Riparian Conference. Tucson, AZ. 3 pp.
- Schuman, J.R. 1995. Environmental considerations for assessing dam removal alternatives for river restoration. *Regulated Rivers* 11:249–261.
- Schumm, S.A. 1960. The shape of alluvial channels in relations to sediment type. U.S. Geological Survey professional paper 352-B. Washington, DC.
- Schumm, S.A. 1963. A tentative classification of alluvial river channels. U.S. Geological Survey. Circular 477. Washington, DC.
- Schumm, S.A. 1967. Meander wavelength of alluvial rivers. *Science*, 157. pp. 1549–1550.
- Schumm, S.A. 1968. River adjustment to altered hydrologic regime—Murrumbidgee River and palaeochannels, Australia, U.S. Geological Survey professional paper 598. Washington, DC.
- Schumm, S.A. 1977. The fluvial system. John Wiley and Sons. New York, NY.
- Schumm, S.A. 1980. Geomorphic thresholds: the concept and its applications. *Institute British Geography. Trans. Vol. 4.* pp. 485–515.

- Schumm, S.A., M.D. Harvey, and C.A. Watson. 1981. Yazoo Basin geomorphology. U.S. Dept. of Agric., Soil Conservation Service project SCS-23-MS-80.
- Schumm, S.A., M.D. Harvey, and C.A. Watson. 1984. Incised channels, morphology, dynamics, and control. Water Resour. Publ., U.S. Library of Congress. Catalog Number 83-050243. Littleton, CO. 200 pp.
- Schwert, D.P. 2003. A geologist's perspective on the Red River of the North: history, geography, and planning/management issues. Proc. 1st International Water Conference, Red River Basin Institute. Moorhead, MN.
- Sear, D.A., and M.D. Newsome. 1994. Sediment and gravel transportation in rivers: a procedure for incorporating geomorphology in river maintenance. National Rivers Authority R&D project 384.
- Seary J. K. 1959. Flow duration curves. U.S. Geological Survey Water-Supply paper 1542-A. Washington, DC. 33p.
- Sedell, J.R., G.H. Reeves, F.R. Hauer, J.A. Stanford, and C.P. Hawkins. 1990. Role of refugia in recovery from disturbances: modern fragmented and disconnected river systems. *J. of Environ. Manage.* 14:711-724.
- Sherard, J.L., R.J. Woodward, S.F. Gizienski, and W.A. Clevenger. 1963. Earth and Earth-rock dams—engineering problems of design and construction. John Wiley and Sons. New York, NY.
- Sherwood, J.M. 1986. Estimating peak discharge, flood volumes, and hydrograph shapes of small ungaged urban streams in Ohio. U.S. Geological Survey. Water-Resources Investigation Report 86-4197, 52 pp.
- Sherwood, J.M. 1994. Estimation of volume-duration-frequency relations of ungaged small urban streams in Ohio. *Amer. Water Resour. Assoc. Water Res. Bull.* 30(2):261-269.
- Shi, Y., and J. Asher. 2002. Science based watershed management: Institute of water resources. Michigan State University. 2002. <http://www.iwr.msu.edu>. East Lansing, MI.
- Shields, A. 1936. Anwendung der Aenlichkeitsmechanik und der Turbulenzforschung auf die Geschiebebewegung, Mitteilungen der Preussischen Versuchsanstalt fur Wasserbau und Schiffbau, 26, Berlin Germany, translated to English by W.P. Ott and J.C. van Uchelen, U.S. Dept. of Agric., SCS, California Institute of Technology. Pasadena, CA.
- Shields, D.H., N. Chandler, and J. Garnier. 1990. Bearing capacity of foundations in slopes. *J. of Geotechnical Engineering*, 116(3):528-537.
- Shields, D.H., J.D. Scott, G.E. Bauer, J.H. Deschenes, and A.K. Barsvary. 1977. Bearing capacity of foundations near slopes. Proc. 9th International Conference on Soil Mechanics and Foundation Engineering, Japanese Society of Soil Mechanics and Foundation Engineering. Tokyo, Japan, 2:715-720.
- Shields, F.D., Jr., and N. Aziz. 1992. Knowledge-based system for environmental design of stream modifications. *App. Engineering in Agric. Amer. Soc. for Civil Eng.* 8(4):553-562.
- Shields, F.D., Jr., and C.J. Gippel. 1995. Prediction of effects of woody debris removal on flow resistance. *J. of Hydrol. Eng.*, 121(4). pp. 341-354.
- Shields, F.D., Jr., and R.T. Milhous. 1992. Sediment and aquatic habitat in river systems. Final report, Amer. Soc. of Civil Eng. Task Committee on Sediment Transport and Aquatic Habitat. *J. of Hydrol. Eng.* 118(5). pp. 669-687.
- Shields, F.D., Jr., and M.R. Palermo. 1982. Assessment of environmental considerations in the design and construction of waterway projects. Technical Report E-82-8, U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.

- Shields, F.D., Jr., and R.H. Smith. 1992. Effects of large woody debris removal on physical characteristics of a sand-bed river. *Aquatic Conservation: Marine and Freshwater Ecosystems* 2:145–163.
- Shields, F.D., Jr., A.J. Bowie, and C.M. Cooper. 1995. Control of streambank erosion due to bed degradation with vegetation and structure. *Water Resour. Bull.* 31(3):475–489.
- Shields, F.D., Jr., C.M. Cooper, and S.S. Knight. 1995. Experiment in stream restoration. *J. of Hydrol. Eng.* 121(6):494–502.
- Shields, F.D., Jr., C.M. Cooper, and S. Testa, III. 1995. Towards greener riprap: environmental considerations from microscale to macroscale. *In* River, coastal and shoreline protection: erosion control using riprap and armourstone. C.R. Thorne, S.R. Abt, F.B.J. Barends, S.T. Maynard, and K.W. Pilarczyk, eds. John Wiley and Sons. Chichester, United Kingdom. pp. 557–574.
- Shields, F.D., Jr., R.R. Copeland, P.C. Klingeman, M.W. Doyle, and A. Simon. 2003. Design for stream restoration. *J. of Hydrol. Eng.*
- Shields, F.D., Jr., S.S. Knight, and C.M. Cooper. 1998. Rehabilitation of aquatic habitats in warmwater streams damaged by channel incision in Mississippi. *Hydrobiologia*. 382:63–86.
- Shields, F.D., Jr., S.S. Knight, and C.M. Cooper. 2000. Warmwater stream bank protection and fish habitat: a comparative study. *J. of Environ. Manage.* 26(3):317–328.
- Shields, F.D., Jr., N. Morin, and C.M. Cooper. 2004. Large woody debris structures for sand bed channels. *J. of Hydrol. Eng.* 130(3):208–217.
- Shields, F.D., Jr., S.S. Knight, N. Morin, and J.C. Blank. 2003. Response of fishes and aquatic habitats to sand-bed stream restoration using large woody debris. *Hydrobiologia* 494:251–257.
- Shields, F.D., Jr., J.J. Hoover, N.R. Nunnally, K.J. Kilgore, T.E. Schaefer, and T.N. Waller. 1990. Hydraulic and environmental effects of channel stabilization Twentymile Creek, Mississippi. Technical Report EL-90-14, U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Shuey, R. 2001. Intervale Country Club New Hampshire Wetlands Bureau Permit Application Project, Gove Environmental Services, Inc. Stratham, NH.
- Shulits, S. 1935. The Schoklitsch bed-load formula. *Engineering*. 139:644–646, 687.
- Sills, G.L., and R.L. Fleming. 1992. Slide stabilization with stone-fill trenches. *Proc. Specialty Conference on Stability and Performance of Slopes and Embankments-II*, Amer. Soc. of Civil Eng. Geotechnical Special Publ. No. 31. Berkeley, CA. pp. 1382–1394.
- Simon, A. 1989. A model of channel response in disturbed alluvial channels. *Earth surface processes and landforms* 14(1):11–26.
- Simon A. 1992. Energy, time, and channel evolution in catastrophically disturbed fluvial systems. *Geomorphology* 5(3–5):345–372.
- Simon, A. 1994. Gradation processes and channel evolution in modified West Tennessee streams: Process, response, and form. U.S. Geological Survey professional paper 1470. 84 pp.
- Simon, A. 2003. Personal communication.
- Simon, A., and C.R. Hupp. 1986. Channel evolution in modified Tennessee channels. *Proc. 4th Federal Interagency Sedimentation Conference*. Las Vegas, NV. 2:5–71–5–82.
- Simon, A., and C.R. Hupp. 1992. Geomorphic and vegetative recovery processes along modified stream channels of West Tennessee: U.S. Geological Survey Open-File Report 91–502. 142 pp.
- Simon A., and R.E. Thomas. 2002. Processes and forms of an unstable alluvial system with resistant, cohesive streambeds. *Earth Surface Processes and Landforms* 27:699–718.

- Simon, A., W. Dickerson, and A. Heins. 2004. Suspended-sediment transport rates at the 1.5 year recurrence interval for ecoregions of the United States; transport conditions at the bankfull and effective discharge?" *Geomorphology* 58(1-4):243-262.
- Simon, A., W.J. Wolfe, and A. Molinas. 1991. Mass-wasting algorithms in an alluvial channel model. *In* Proc. 5th Federal Interagency Sedimentation Conference, Las Vegas, NV. pp. 8-22-8-29.
- Simon, A., A. Curini, S.E. Darby, and E.J. Langendoen. 1999. Streambank mechanics and the role of bank and near-bank processes in incised channels. *In* *Incised river channels*, S.E. Darby, and A. Simon, eds., John Wiley and Sons. New York, NY. pp. 123-152.
- Simon, K., and A. Steinemann. 2000. Soil bioengineering. challenges for planning and engineering. *J. of Urban Planning and Development*. American Society of Civil Engineers, 126(2):89-102.
- Simons, D.B. 1957. Theory and Design of Stable Channels in Alluvial Material. Ph.D Dissertation, Dept. of Civil Engineering, Colorado State Univ. Fort Collins, CO.
- Simons, D.B., and M.L. Albertson. 1963. Uniform water conveyance channels in alluvial material. *Trans. Amer. Soc. of Civil Eng.* Vol. 128, part 1, paper no. 3399. pp. 65-107.
- Simons, D.B., and R.M. Li. 1982. Engineering analysis of fluvial systems. Simons, Li and Associates, Fort Collins, CO.
- Simons, D. B., and E.V. Richardson. 1966. Resistance to flow in alluvial channels. U.S. Geological Survey professional paper 422J. Washington, DC.
- Simons, D.B., and F. Sentürk. 1992. Sediment Transport Technology. Water Resourc. Pub. Littleton, CO. 897 p.
- Simpson, W., and A. TenWolde. 1999. Physical properties and moisture relations of wood. Chapter 3 in wood handbook: Wood as an engineering material. Report FPL-GTR-113, U.S. Dept. of Agric. Forest Service, Forest Products Laboratory. Madison, WI.
- Singer, M.J., J. Blankard, E. Gillogley, and K. Arulanandan. 1978. Engineering and pedological properties of soils as they affect soil erodibility. California Water Resource Center, Technical Completion Report Number 166, ISSN 0575-4941. 32 pp.
- Singh, V.P., and W.G. Strupczewski. 2002. On the status of flood frequency analysis. *Hydrol. Process.* 16:3737-3740.
- Smith, C.D. 1985. Hydraulic structures. Univ. of Saskatchewan Printing Services. Saskatoon, Canada.
- Smith, J.B., and R.A. Wilson. 1992. Low drop grade control structures hydraulic design guidance. U.S. Army Corps of Engineers. Vicksburg District. Vicksburg, MS.
- Snohomish County Public Works. 2004. Flexible leveler drawing. (adapted from S. Lisle, 1991). Snohomish County public works. Snohomish County, WA.
- Soar, P.J., and C.R. Thorne. 2001. Channel Restoration Design for Meandering Rivers, ERDC/CHL TR-01-1, U.S. Army Corps of Engineers, Coastal and Hydraulics Laboratory. Vicksburg, MS.
- Society of Range Management. 1989. A glossary of terms used in range management, 3rd edition, Soc. for Range Manage. Denver, CO.
- Southerland, W.B. 2003. Stream geomorphology and classification in glacial-fluvial valleys of the North Cascade Mountain Range in Washington State. Unpublished doctoral dissertation. Washington State Univ. Pullman, WA.

- Sparks, R.E., P.B. Bayley, S.L. Kohler, and L.L. Osborne. 1990. Disturbance and recovery of large floodplain rivers. *Environ. Manage.* 14:699–709.
- Stanford, J.A., and J.V. Ward. 1992. Management of aquatic resources in large catchments: recognizing interactions between ecosystem connectivity and environmental disturbance. *In* Watershed Management. R.J. Naiman, ed., Springer-Verlag, New York, NY. pp. 91–124
- Stanford, J.A., and J.V. Ward. 2001. Revisiting the serial discontinuity concept. *Regulated Rivers: Res. and Manage.* 17:303–310.
- Stanford, J.A., J.V. Ward, W.J. Liss, C.A. Frissell, R.N. Williams, J.A. Lichatowich, and C.C. Coutant. 1996. A general protocol for restoration of regulated rivers. *Regulated Rivers: Research and Management* 12:391–413.
- Stark, T.D., and H.T. Eid. 1997. Slope stability analyses in stiff fissured clays. *J. of Geotechnical and Geoenvironmental Eng.* Vol. 123(4):335–343.
- Steffen, L., D. Roseboom, and W. Kinney. 2000. Fluvial geomorphology. Workshop handouts. Lincoln, IL.
- Stein, B.A., and S.R. Flack. 1997. 1997 species report card: the state of U.S. plants and animals. The Nature Conservancy. Arlington, VA.
- Steinman, A.D., and C.D. McIntire. 1990. Recovery of lotic periphyton communities from disturbance. *Environ. Manage.* 14:589–604.
- Stevenson, R.J., and J.P. Smol. 2002. Use of algae in environmental assessments. *In* Freshwater Algae in North America: Classification and Ecology. J.D. Wehr, and R.G. Sheath, eds. Academic Press. San Diego, CA.
- Stiles, R. 1988. Engineering with vegetation. *In* Landscape Design (172):57–61.
- Stiles, R. 1991. Re-inventing the wheel? *Landscape Design* (203):ii.
- Stokes, G.G. 1851. On the effect of internal friction of fluids on the motion of pendulums. *Trans. Cambridge Philos. Soc.* 9, 8.
- Strahler, A.N. 1957. Quantitative analysis of watershed geomorphology. *Trans. Amer. Geophysical Union* 38:913–920.
- Stufft, W.A. 1965. Erosion control for Gering Valley. Amer. Soc. of Civil Eng. Hydrol. Div. Conference. Tucson, AZ.
- Sylte, T.L., and J.C. Fischenich. 2000. Rootwad composites for streambank stabilization and habitat enhancement. Ecosystem Management and Restoration Research Program Technical Notes Collection (ERDC TN–EMRRP–SR–21), U.S. Army Corps of Engineers, Engineer Research and Development Center, <http://el.erd.c.usace.army.mil/elpubs/pdf/sr21.pdf>. Vicksburg, MS.
- Tate, Jr., C.H. 1988. Muddy Creek grade control structures, Muddy Creek, Mississippi and Tennessee. Technical Report HL–88–11, U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Tate, Jr., C.H. 1991. Soil Conservation Service low drop structure model study. Technical Report HL–91–13, U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Taylor, C.A., M.L. Warren, J.F. Fitzpatrick, H.H. Hobbs, R.F. Jezerinac, W.L. Pflieger, and H.W. Robison. 1996. Conservation status of crayfishes of the United States and Canada. *Fisheries* 21(4):25–38.
- Temple, D. 1980. Tractive force design of vegetated channels. *Amer. Soc. of Civil Eng. Trans.* A28:23(4).
- Temple, D.M., K.M. Robinson, R.M. Ahring, and A.G. Davis. 1987. Stability of grass-lined open channels. U.S. Dept. of Agric. Agricultural handbook 667. Washington, DC.
- Terrene Institute. 1996. Water quality indicators guide—surface water (chapter 2 and appendices A and F). 2nd. edition. Washington, DC.

- Terzaghi, K. 1943. Theoretical soil mechanics. John Wiley and Sons. New York, NY.
- Terzaghi, K., and R.B. Peck. 1967. Soil Mechanics in Engineering Practice, 2nd ed. John Wiley and Sons. New York, NY. pp. 422–423.
- Texas Department of Transportation. 1999. Field performance testing of selected erosion control products. TXDOT/TTI hydraulics and erosion control laboratory. Bryan, TX.
- Thevenet, A., A. Citterio, and H. Piegay. 1998. A new methodology for the assessment of large woody debris accumulations on highly modified rivers (example of two French piedmont rivers). *Regulated Rivers: Res. and Manage.* 14:467–483.
- Thomas, B.E., H.W. Hjaltmarson, and S.D. Waltemeyer. 1994. Methods for estimating magnitude and frequency of floods in the southwestern United States. U.S. Geological Survey. Open file report 93–419.
- Thomas, D.B., S.R. Abt, R.A. Mussetter, and M.D. Harvey. 2000. A design procedure for sizing step-pool structures. *In* Proc. of the Joint Conference on Water Resource Engineering and Water Resources Planning and Management. R.H. Hotchkiss, and M. Glade, eds., Amer. Soc. of Civil Eng. Reston, VA.
- Thomas, W.A., R.R. Copeland, and D.N. McComas. 2003. SAM hydraulic design package for channels. U.S. Army Corps of Engineers, Engineer Research and Development Center, Coastal and Hydraulics Laboratory. Vicksburg, MS.
- Thomas, W.A., R.R. Copeland, N.K. Raphael, and D.N. McComas. 1994. User's manual for the hydraulic design package for channels (SAM). U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Thomas, W.A., R.R. Copeland, N.K. Raphael, and D.N. McComas. 1995. Hydraulic design package for flood control channel: (SAM) user's manual. U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Thompson, D.M. 2002. Long-term effect of instream habitat-improvement structures on channel morphology along the Blackledge and Salmon Rivers, Connecticut. *Environ. Manage.* 29(1):250–265.
- Thorne, C.R. 1988. Bank processes on the Red River between Index, Arkansas and Shreveport, Louisiana. Final report to U.S. Army European Research Office, under contract DAJA45–88–C–0018, Dept. of Geography, Queen Mary College. London, United Kingdom.
- Thorne, C.R. 1990. Effects of vegetation on riverbank erosion and stability. *In* Vegetation and erosion. J.B. Thornes, ed. John Wiley and Sons. Chichester, United Kingdom. pp. 125–144.
- Thorne, C.R. 1997. Applied fluvial geomorphology for river engineering and management. C.R. Thorne, R.D. Hey, and M.D. Newson, eds., John Wiley and Sons. Chichester, United Kingdom. pp. 175–222.
- Thorne, C.R. 1998. Stream reconnaissance handbook. John Wiley and Sons. Chichester, United Kingdom.
- Thorne, C.R., and S.R. Abt. 1993. Velocity and scour prediction in river bends. Contract report HL–93–1, U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Thorne, C.R., and A.M. Osman. 1988. Riverbank stability analysis: II applications. *J. Hydraulic Eng. Amer. Soc. of Civil Eng.* 114(2):151–172.
- Thorne, C.R., and P.J. Soar. 2001. Channel restoration design for meandering rivers, ERDC/CHL–01–1, U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS.
- Thorne, C.R., R. Hey, and M. Newson. 1997. Applied fluvial geomorphology for river engineering and management. John Wiley and Sons. Chichester, United Kingdom.
- Thorne, C.R., R.D. Hey, and M.D. Newson. 2001. Applied Fluvial Geomorphology for River Engineering and Management, John Wiley and Sons. Chichester, United Kingdom.

- Thorne, C. R., A. Simon, and R. Allen. 1996. Geomorphological river channel reconnaissance for river analysis, engineering and management. *Trans. of the Inst. of British Geographers. New Series*, 21, 469–483.
- Thornes, J.B., and D. Brunsden. 1977. *Geomorphology and Time*. Methuen. London, United Kingdom.
- Thornton, C.I., C.C. Watson, S.R. Abt, C.M. Lipscomb, and C.M. Ullman. 1999. Laboratory testing of A-jacks units for inland applications: pier scour protection testing. Colorado State Univ. Report for Armortec, Inc.
- Tillinger, T.N., and O.R. Stein. 1996. Fish passage through culverts in Montana: A preliminary Investigation. Federal Highway Administration FHWA/MT/96/8117–2.
- Tippie, S. 2003. 2003 Highlights. Wildlife 2000. Denver, CO. 16p.
- Toffaletti, F.B. 1968. A procedure for computation of the total river sand discharge and detailed distribution, bed to surface. Tech. Report No. 5, Report to committee on channel stabilization. U.S. Army Corps of Engineers. Vicksburg, MS.
- Townsend, C.R. 1989. The patch dynamics concept of stream community ecology. *J. of the North Amer. Benthological Soc.* 8:36–50.
- Trimble, S.W. 1970a. The Alcovy River swamps: the result of culturally accelerated sedimentation. *Bull. of the Georgia Academy of Sci.* 28: 131–141.
- Trimble, S.W. 1970b. Culturally accelerated Sedimentation on the Middle Georgia Piedmont, Fort Worth, Texas. U.S. Dept. of Agric., Soil Conservation Service.
- Trimble, S.W. 1974. Man-induced soil erosion on the southern Piedmont, 1700–1970. *Soil Conservation Society of Amer.* Ankeny, IA.
- Trimble, S.W. 1998. Dating fluvial processes from historical data and artifacts. *CATENA* 31:283–304.
- Trimble, S.W. 2001. Geomorphology, hydrology, and soils. *In The Historical Ecology Handbook*. D. Egan and E. Howell, eds., Island Press. Covelo, CA. pp.317–333.
- Trimble, S.W., and W.P. Carey. 1992. A comparison of the Brune and Churchill methods for computing sediment yields applied to a reservoir system. U.S. Geological Survey Water-Supply paper 2340. pp. 195–202.
- Trimble, S.W., and R.U. Cooke. 1991. Historical sources for geomorphological research in the United States. *Prof. Geographer* 43:212–228.
- Trimble, S.W., and P. Crosson. 2000. U.S. soil erosion rates—myth or reality. *Science* 289:248–250.
- Trimble, S.W., and S.W. Lund. 1982. Soil conservation and the reduction of erosion and sedimentation in the Coon Creek Basin, Wisconsin. U.S. Geological Survey professional paper 1234.
- Triska, F.J. 1984. Role of wood debris in modifying channel geomorphology and riparian areas of a large lowland river under pristine conditions: a historical case study. *Verhandlungen. Internationale Vereinigung Fur Theoretische Und Angewandte Limnologie* 22(3):1876–1892.
- Troendle, C., R. Swanson, and J. Nankervis. 2005. Preliminary report for snowmelt model WIN-WRNSHydro. Ver.101, U.S. Dept. of Agric., Forest Service. Fort Collins, CO.
- Troendle, C.A., D.L. Rosgen, S. Ryan, L. Porth, and J. Nankervis. 2001. Developing a reference sediment transport relationship. 7th Federal Interagency Sediment Conference. Reno, NV.
- Tuttle, M.D. 1976. Population ecology of the gray bat (*Myotis grisescens*): factors influencing growth and survival of newly volant young. *Ecology* 57:587–595.
- Tuttle, M.D. 1977. Gating as a means of protecting cave dwelling bats. *In National Cave Management Symposium Proc.* T. Aley and D. Rhodes, eds. Speleobooks. Albuquerque, NM. 106 pp.

- Tuttle, M.D., and D.A.R. Taylor. 1998. Bats and mines. Resour. pub. No. 3. Bat Conservation International. Austin, TX. 50 pp.
- U.S. Army Corps of Engineers. 1974. Gabion control structures. Engineering Technical Letter, ETL-1110-2-194. Washington, DC.
- U. S. Army Corps of Engineers. 1981. The streambank erosion control evaluation and Demonstration Act of 1974, Section 32, Public Law 93-251. Final Report to Congress.
- U. S. Army Corps of Engineers. 1987. Corps of Engineers wetland delineation manual. Technical Report Y-87-1. U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- U.S. Army Corps of Engineers. 1990a. CPD-1A HEC-1, flood hydrograph package, user's manual. Davis, CA.
- U.S. Army Corps of Engineers. 1990b. HEC-2, water surface profiles, user's manual. Davis, CA.
- U.S. Army Corps of Engineers. 1991a. HEC-2, Water surface profiles user's manual. Institute for Water Resourc. Hydrol. Eng. Center. Davis, CA.
- U. S. Army Corps of Engineers. 1991b. Engineering and design—tidal hydraulics proponent. EM 1110-2-1607. Washington, DC.
- U.S. Army Corps of Engineers. 1992a. Engineering and design—Bearing Capacity of Soils. EM 1110-1-1905. Washington, DC.
- U.S. Army Corps of Engineers. 1992b. HEC-FFA: flood frequency analysis user's manual. CPD-59, Hydrol. Eng. Center. Davis, CA.
- U.S. Army Corps of Engineers. 1992. Design and construction of grouted riprap. Engineer Technical Letter No. 1110-2-334. Washington, DC.
- U.S. Army Corps of Engineers. 1993a. Hydrologic frequency Analysis. EM 1110-2-1415. Washington, DC.
- U.S. Army Corps of Engineers. 1993b. River hydraulics. EM 1110-2-1416. Washington, DC.
- U.S. Army Corps of Engineers. 1993c. Scour and deposition in rivers and reservoirs, user's manual, HEC-6. Hydrol. Eng. Center. Davis, CA.
- U.S. Army Corps of Engineers. 1994a. Engineering and design—channel stability assessment for flood control projects. EM 1110-2-1418. Washington, DC.
- U.S. Army Corps of Engineers. 1994b. CWALSHT Computer Program. Vicksburg, MS.
- U.S. Army Corps of Engineers. 1994c. Design of sheet pile walls. EM 1110-2-2504. Washington, DC.
- U.S. Army Corps of Engineers. 1994e. Engineering and design—flood-runoff analysis. EM 1110-2-1417.
- U. S. Army Corps of Engineers. 1994f. Hydraulic design of flood control channels. EM 1110-2-1601.
- U.S. Army Corps of Engineers. 1995a. CPD-68 HEC-RAS, River Analysis System, User's Manual, AD-A311953. 176 pp.
- U.S. Army Corps of Engineers. 1995b. Engineering use of geotextiles, Army TM 5-818-8. Washington, DC.
- U.S. Army Corps of Engineers. 1995c. Sedimentation investigations in rivers and reservoirs, EM 1110-2-4000. Washington, DC.
- U.S. Army Corps of Engineers. 1995d. Guidebook for application of hydrogeomorphic assessments to riverine wetlands. Technical Report WRP-DE-11. Washington, DC.
- U.S. Army Corps of Engineers. 1996. Engineering and design—risk-based analysis for flood damage reduction studies. EM 1110-2-1619, CECW-EH-4. Washington, DC.
- U.S. Army Corps of Engineers. 1997. Pile driving equipment. EI 02G001. Washington, DC.
- U.S. Army Corps of Engineers. 1998a. Design of deep foundations. TI 818-02. Washington, DC.

- U.S. Army Corps of Engineers. 1998b. HEC-1 Flood hydrograph package user's manual. Hydrol. Eng. Center. Davis, CA.
- U.S. Army Corps of Engineers. 1999. Ice engineering. CECW-EH. EM 1110-2-1612.
- U.S. Army Corps of Engineers. 2000. Design documentation report, geology and geotechnical appendix, alignment refinement. St. Paul District.
- U.S. Army Corps of Engineers. 2001a. HEC-HMS, Hydrologic modeling system user's manual. Hydrol. Eng. Center. Davis, CA.
- U.S. Army Corps of Engineers. 2001b. HEC-RAS river analysis system user's manual version 3.0. Institute for Water Resources Hydrologic Engineering Center. Davis, CA.
- U.S. Army Corps of Engineers. 2003. Safety and health requirements. EM 385-1-1. Washington, DC.
- U.S. Army Corps of Engineers. 2005. Site selection for boulder groupings. EMSR-4-01. Ecosystem Management and Restoration Information System. Vicksburg, MS.
- U.S. Department of Agriculture, Forest Service, Legislative Affairs Staff. 1983. The principal laws relating to Forest Service activities. Agric. Handbook No. 453. Washington, DC. 591 pp.
- U.S. Department of Agriculture, Forest Service. 1992a. A channel type users guide for the Tongass National Forest, Southeast Alaska. R10 Technical paper 26. Juneau, AK.
- U.S. Department of Agriculture, Forest Service. 1992b. Integrated riparian evaluation guide (levels I, II, and III). Ogden, UT.
- U.S. Department of Agriculture, Forest Service. 1994a. Retaining walls design guide. Washington, DC.
- U.S. Department of Agriculture, Forest Service. 1994b. Underwater methods for study of salmonids in the intermountain west. General technical report INT-GTR-307. Ogden, UT.
- U.S. Department of Agriculture, Forest Service. 1996. Stream inventory handbook-level I and II. Portland, OR.
- U.S. Department of Agriculture, Forest Service. 1997a. Integrated Resource Inventory Training Guide, Chapter 3. Common Water Unit. Washington, DC.
- U.S. Department of Agriculture, Forest Service. 1997b. Fish and fish habitat standard inventory procedures handbook. Intermountain Research Station. Ogden, UT.
- U.S. Department of Agriculture, Forest Service, Forest Product Laboratory. 1999. General Technical Report FPL-GTR-113, Properties of some commercially imported woods grown in the United States. Madison, WI.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 1994. Gradation design of sand and gravel filters. National Engineering Handbook, part 633, chapter 26. Washington, DC.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 1996a. Ecosystem based assistance pilot projects. Washington, DC.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 1996b. Engineering Field Handbook. NEH650.16, Streambank and shoreline protection. Washington, DC.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 1996c. Preliminary investigation for stream riparian areas. Watershed Science Institute. Seattle, WA.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 1997a. Streamflow data. National Engineering Handbook, part 630, Hydrology, chapter 5. Washington, DC.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 1997b. Technology policy paper-mapping procedures for riparian and other small areas. Washington, DC.

- U.S. Department of Agriculture, Natural Resources Conservation Service. 1998a. National range and pasture handbook. Washington, DC.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 1998b. Stream visual assessment protocol. NWCC Tech. Note 99–1. Water and Climate Center. Portland, OR.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 1999a. Case summary report examining a 1930's restoration of the Winoski River Watershed, VT.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2000. Design of stream barbs. Tech. Note 23. Washington, DC.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2001a. Specifications for construction contracts. National Engineering Handbook, part 642. Washington, DC.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2001b. Stream corridor inventory and assessment techniques. Portland, OR.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2001c. Stream corridor inventory and assessment techniques. Watershed Science Institute Technical Report. Revised. 30 p.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2003a. National biology manual. Washington, DC.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2003b. National planning procedures handbook. Washington, DC.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2004. NRCS Hydro, ArcView GIS Interface with Win TR–20, user guide. Washington, DC.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2005. Construction Specification 64–wire mesh gabions and mattresses twisted (woven) or welded mesh. National Engineering Handbook, part 642, ch. 2. Washington, DC. http://www.nrcs.usda.gov/Technical/EBG/construction_specs.html.
- U.S. Department of Agriculture, Soil Conservation Service. 1954. Handbook of channel design for Soil and Water Conservation. SCS–TP–61, (revision of 1947 publ.), Stillwater Outdoor Hydrol. Laboratory. Stillwater, OK.
- U.S. Department of Agriculture, Soil Conservation Service. 1971. National Engineering Handbook, Section 16, Drainage of agricultural land. Washington, DC.
- U.S. Department of Agriculture, Soil Conservation Service. 1972. Stage-discharge relationships. National Engineering Handbook, section 4, Hydrology, chapter 14. Washington, DC.
- U.S. Department of Agriculture, Soil Conservation Service. 1976. Hydraulic design of riprap gradient control structures. Technical release no. 59 and amendment 1 dated 10 April 1986. Washington, DC.
- U.S. Department of Agriculture, Soil Conservation Service. 1977. Design of open channels. Technical Release No. 25. Engineering Division. Washington, DC.
- U.S. Department of Agriculture, Soil Conservation Service. 1979. Stable Earth channels. Course reference. Portland, OR.
- U.S. Department of Agriculture, Soil Conservation Service. 1983. Selected statistical methods. National Engineering Handbook, section 4, Hydrology, chapter 18. Washington, DC.
- U.S. Department of Agriculture, Soil Conservation Service. 1985. National Engineering Handbook. Chapter 10. Estimation of Direct Runoff from Storm Rainfall. Washington, DC.

- U.S. Department of Agriculture, Soil Conservation Service. 1986. Urban hydrology for small watersheds. Technical Release 55. Washington, DC.
- U.S. Department of Agriculture, Soil Conservation Service. 1991. Guide for the use of geotextiles. Design Note 24. Washington, DC.
- U.S. Department of Agriculture, Soil Conservation Service. 1992. Computer program for project formulation hydrology. Technical Release No. 20. Washington, DC.
- U.S. Department of Agriculture, Soil Conservation Service. 1994. Keys to Soil taxonomy. 6th ed. Washington, DC.
- U.S. Department of Interior, Bureau of Land Management. 1989. Riparian area management—inventory and monitoring of riparian areas. TR 1737–3. Denver, CO.
- U.S. Department of Interior, Bureau of Land Management. 1992. Riparian area management—procedures for ecological site inventory. TR 1737–7. Denver, CO.
- U.S. Department of Interior, Bureau of Land Management. 1993. Riparian area management—greenline riparian-wetland monitoring. TR 1737–8. Denver, CO.
- U.S. Department of Interior, Bureau of Land Management. 1996. Riparian area management—using aerial photographs to assess proper functioning condition of riparian-wetland areas. TR 1737–12. Denver, CO.
- U.S. Department of Interior, Bureau of Land Management. 1998. Riparian area management: a user guide to assessing proper functioning condition and the supporting science for lotic areas. TR 1737–15. Denver, CO.
- U.S. Department of Interior, Bureau of Reclamation. 1967. Design standards No. 2 Canals and Related Structures. Office of the Chief Engineer. Denver, CO.
- U.S. Department of Interior, Bureau of Reclamation. 1978. Design of Small Canal Structures. PB95–176848. Washington, DC.
- U.S. Department of Interior, Bureau of Reclamation. 1984. Hydraulic design of stilling basins and energy dissipaters. Eng. Mono. No. 25. Washington, DC.
- U.S. Department of Interior, Bureau of Reclamation. 1987. Design of Small Dams. 3rd edition. Washington, DC. 816 p.
- U.S. Department of Interior, Bureau of Reclamation. 2001. Water measurement manual. Washington, DC.
- U. S. Department of Transportation, Federal Highway Administration. 1987. Use of riprap for bank protection. Hydrol. Eng. Circ. No. 11. Washington, DC.
- U. S. Department of Transportation, Federal Highway Administration. 1988. Design of roadside channels with flexible linings. Hydrol. Eng. Circ. No. 15. Washington, DC.
- U. S. Department of Transportation, Federal Highway Administration. 1989. Design of riprap revetment. Metric version, Hydrol. Eng. Circ. No. 11. Washington, DC. 169 p.
- U. S. Department of Transportation, Federal Highway Administration. 1990a. Reinforced soil structures, volume I. design and construction guidelines. Pub. No. FHWA–RD–89–043. McLean, VA.
- U. S. Department of Transportation, Federal Highways Administration. 1990b. User's manual for WSPRO—a computer model for water surface profile computations. Report FHWA–IP–89–027. Washington, DC. 177 p.
- U. S. Department of Transportation, Federal Highway Administration. 1996. Urban drainage design manual. Hydrol. Circ. No. 22, 2nd ed. Pub. no. FHWA NHI 01–021. Washington, DC.

- U. S. Department of Transportation, Federal Highway Administration. 2001a. Bridge scour and stream instability countermeasures, experience, selection, and design guidance. 2nd ed. Hydrol. Eng. Circ. No. 23. Washington, DC. 402 p.
- U. S. Department of Transportation, Federal Highway Administration. 2001b. Evaluating scour at bridges. Hydrol. Eng. Circ. No. 18. Washington, DC.
- U. S. Department of Transportation, Federal Highway Administration. 2001c. Mechanically stabilized Earth walls and reinforced slopes design and construction guidelines. NHI-00-0043. Washington, DC.
- U. S. Department of Transportation, Federal Highway Administration. 2002. User's manual for FESWMS Flo2DH, two-dimensional depth-averaged flow and sediment transport model. Pub. No. FHWA-RD-03-053. Washington, DC.
- U.S. Environmental Protection Agency. 1980. An approach to water resource evaluation of nonpoint silvicultural sources. EPA-600/8-80-012. Athens, GA.
- U.S. Environmental Protection Agency. 1993. Monitoring protocols to evaluate water quality effects of grazing management on western rangeland streams. Water Division Region 10. Seattle, WA.
- U.S. Environmental Protection Agency. 1995. EPA storm water management model. Ver. 4.4. Washington, DC.
- U.S. Environmental Protection Agency. 1997. Volunteer stream monitoring: A methods manual EPA 841-B-97-003. Washington, DC.
- U.S. Environmental Protection Agency. 1998. National water quality inventory report to Congress. 305b report. Washington, DC.
- U.S. Environmental Protection Agency. 1999a. Catalog of Federal funding sources for watershed protection. 2nd edition. Office of Water, EPA 841-B-99-003. Washington, DC. <http://www.epa.gov/OWOW/watershed/wacademy/>.
- U.S. Environmental Protection Agency. 1999b. Rapid bioassessment protocols for use in streams and Wadeable rivers: periphyton, benthic macroinvertebrates and fish. M.T. Barbour, J. Gerritsen, B.D. Snyder, and J.B. Strubling. 2nd edition. Office of Water. Washington, DC. EPA 841-B-002.
- U.S. Environmental Protection Agency. 2000. Water quality conditions in the United States: The 1998 National Water Quality Inventory Report to Congress. Report No. EPA841-R-00-001. Washington, DC.
- U.S. Environmental Protection Agency. 2004. Physical stream assessment: a review of selected protocols. No. 3W-0503-NATX. Washington, DC. 207 pp.
- U.S. Fish and Wildlife Service. 1989. Stream temperature investigations: field and analysis methods (for use with SNTMP: stream network temperature model). Fort Collins, CO.
- U.S. Fish and Wildlife Service. 2004. Migratory fish restoration and passage on the Susquehanna River.
- U.S. Geological Survey. 1968. Frequency curves. H.C. Riggs. Techniques of water-resource investigations.
- U.S. Geological Survey. 1972. The Black Hills-Rapid City flood of June 9-10, 1972. Professional paper 877. Washington, DC.
- U.S. Geological Survey. 1987. Technique for estimating flood-peak discharges and frequencies on rural streams in Illinois. Water-Resources Investigations Report 87-4207. Urbana, IL.
- U.S. Geological Survey. 1996. Regional equations for estimation of peak-streamflow frequency for natural basins in Texas. W.H. Asquith, and R.M. Slade Jr., Report 96-4307.
- U.S. Geological Survey. 1998. User's manual for program PEAKFQ, annual flood frequency analysis using bulletin 17B guidelines. Draft. Water-Resources Investigation Report. Reston, VA.

- U.S. Geological Survey. 1999. Field methods for measurement of fluvial sediment. T.K. Edwards, and G.D. Glysson. Techniques of water-resources investigations, book 2, chapter C2. Reston, VA.
- U.S. Geological Survey. 2002a. The National Flood Frequency Program, ver. 3: a computer program for estimating magnitude and frequency of floods for ungaged sites. K.G. Ries, III, and M.Y. Crouse (compilers), Report 02-4168.
- U.S. Geological Survey. 2002b. USGS water data for the Nation. Washington, DC. <http://waterdata.usgs.gov/nwis/>
- U.S. Geological Survey. 2002c. Water resources data for Colorado, water year 2001. Vol. 2. Colorado River Basin, Water Resourc. Div. Lakewood, CO.
- U.S. Navy. 1971. Soil mechanics, foundations, and earth structures. NAVFAC Design Manual DM-7. Washington, DC.
- U.S. Navy, Naval Facilities Engineering Command. 1982a. Foundations and Earth structures, Design Manual 7.2. Alexandria, VA.
- U.S. Navy, Naval Facilities Engineering Command. 1982b. Soil mechanics, design manual 7.1. Alexandria, VA.
- U.S. Navy, Naval Facilities Engineering Command. 1986. Foundations and soil structures, design manual 7.02. Alexandria, VA.
- U.S. Water Resources Council. 1981. Guidelines for determining flood flow frequency. Bulletin 17B. Interagency Committee on Water Data.
- Union of Soviet Socialist Republics. 1936. Standards for permissible non-eroding velocities. Bureau of the methodology of the hydro-energo plan: hydrotechnical construction. Moscow, Russia.
- University of Alberta. 2004. Webpage information regarding River-2d modeling software.
- University of Montana. 1999. RWRP lotic health assessment. W. Thompson et al., Riparian and Wetland Research Program, School of Forestry, Missoula, MT.
- Utah State University. 1997. Role of GIS in selecting sites for riparian restoration based on hydrology and land use. By G. Russell, C. Hawkins, and M. O'Neil. Watershed Science Unit. Logan, UT.
- van Rijn, L.C. 1984. Sediment transport, part III: alluvial bed forms and alluvial roughness. J. of Hydraul. Eng. 110(12):1733-1754.
- Vannote, R.L., G.W. Minshall, K.W. Cummins, J.R. Sedell, and C.E. Cushing. 1980. The river continuum concept. Canadian J. of Fisheries and Aquatic Sci. 37(1):130-137.
- Vanoni, V.A., ed. 1975. Sedimentation engineering. Amer. Soc. of Civil Eng. Reston, VA.
- Vanoni, V.A., and R.E. Pollack. 1959. Experimental design of low rectangular drops for alluvial flood channels. Report no. E-82, California Institute of Technology. Pasadena, CA.
- Vaughan, N., J. Albert, and R.F. Carlson. 2002. Impacts of ice forces on stream bank protection. FHWA-AK-RD-02-03. Alaska Dept. of Trans. Juneau, AK.
- Veronese, A. 1937. Erosioni di fondo a valle di uno scarico. Annali dei Lavori Pubblici. 75(9),717-726 (in Italian).
- Vita-Finzi, C. 1969. The Mediterranean valleys: geological changes in historical times. Cambridge University Press. Cambridge, United Kingdom.
- Vitrano, D.M. 1988. Unit construction of trout habitat improvement structures for Wisconsin Coulee Streams. Wis. Dept. Nat. Resour. Admin. Rep. no. 27. Madison, WS. 35 pp.
- Volpe, R.L., and W.E. Kelly, eds. 1985. Seepage and leakage from dams and impoundments. In Proc. of Amer. Soc. of Civil Eng. symposium. Denver, CO.
- Wallace, B.J. 1990. Recovery of lotic macroinvertebrate communities from disturbance. Environ. Manage. 14:605-620.

- Wallace, J.B., and Benke, A.C. 1984. Quantification of wood habitat in subtropical coastal plain streams. *Canadian J. Fisheries Aquatic Sci.* 41, 1643–1652.
- Wallerstein, N.P. 2003. Dynamic model for constriction scour caused by large woody debris. *Earth Surface Processes and Landforms*. 28:49–68.
- Wallerstein, N.P., C.V. Alonso, S.J. Bennett, and C.R. Thorne. 2001. Distorted Froude-scaled flume analysis of large woody debris. *Earth Surface Processes and Landforms*. 26:1265–1283.
- Wang, L., and J. Lyons. 2003. Fish and benthic macro-invertebrate assemblages as indicators of stream degradation in urbanizing watersheds. *In Biological response signatures: indicator patterns using aquatic communities*. T.P. Simon, ed. *Regulated Rivers: Res. and Manage.* 17:311–323.
- Wang, L., J. Lyons, P. Kanehl, and R. Bannerman. 2001. Impacts of urbanization on stream habitat and fish across multiple spatial scales. *Environ. Manage.* 28(2):255–266.
- Wang, L., J. Lyons, P. Kanehl, and R. Gatti. 1997. Influences of watershed land use on habitat quality and biotic integrity in Wisconsin streams. *Fisheries*. 22(6):6–12.
- Ward, A., and S. Trimble. 2004. *Environmental Hydrology*. Lewis Publishers. pp. 475.
- Ward, A.D. 2005. Personnel communication.
- Ward, A., D. Mecklenburg, and L. Brown. 2002. Using knowledge of fluvial processes to design self-maintaining agricultural ditches in the Midwestern region of the USA. *Proc. of the International Conference on Environmental Flows for River Systems*. Cape Town, South Africa.
- Ward, A., D. Mecklenburg, J. Mathews, and D. Farver. 2002. Sizing stream setback to help maintain stream stability. *Amer. Soc. of Agric. Eng. Paper no. 022239*.
- Ward, A., D. Mecklenburg, D. Farver, J. Witter, and A. Jayakaran. 2003. Insight on the variable nature of channel and bank forming discharges. *Amer. Soc. of Agric. Eng. Paper no. 032279*.
- Ward J.A., and J.A. Stanford. (eds). 1979. *The ecology of regulated streams*. Plenum Press. New York, NY. 398 pp.
- Ward, J.V., and J.A. Stanford. 1983. The intermediate disturbance hypothesis: an explanation for biotic diversity patterns in lotic ecosystems. *In Dynamics of lotic ecosystems*. T.D. Fontaine, and S.M. Bartell, eds. Ann Arbor Press, Ann Arbor, MI. pp. 347–356.
- Ward, J.V., and J.A. Stanford. 1995a. Ecological connectivity in alluvial river ecosystems and its disruption by flow regulation. *Regulated Rivers: Res. and Manage.* 11:105–119.
- Ward, J.V., and J.A. Stanford. 1995b. The serial discontinuity concept: Extending the model to flood plain rivers. *Regulated Rivers: Research and Management* 10:159–168.
- Ward, J. V., K. Tockner, U. Uehlinger, and F. Malard. 2001. Understanding natural patterns and processes in river corridors as the basis for effective river restoration. *Regulated Rivers: Res. and Manage.* 17:311–323.
- Wardlaw, E.G., L.A. Cooley, A.E. Templeton, and R.L. Fleming, Jr. 1984. Slide stabilization with gravel trenches. *International Conference on Case Histories in Geotechnical Engineering*. Vol. II. St. Louis, MO. pp. 743–748.
- Wareing, F.P. 1969. The control of dormancy in seed plants. *Symposium for the Society for Experimental Biology*, 23, 242–262.
- Warren, M.L., and M.G. Pardew. 1998. Road crossings as barriers to small-stream fish movement. *Trans. of the Amer. Fisheries Soc.* 127:637–644.
- Washington Department of Fish and Wildlife. 1999. *Fish Passage Design at Road Culverts. A design manual for fish passage at road crossings*. Habitat and Lands Program. Environmental Engineering Division. Olympia, WA.

- Washington Department of Fish and Wildlife. 2000a. Fish passage guidelines for Washington State (draft). Olympia, WA.
- Washington Department of Fish and Wildlife. 2000b. Fish protection screen guidelines for Washington state. Olympia, WA.
- Washington Department of Fish and Wildlife. 2001. Management recommendations for Washington's priority habitats: riparian. <http://www.wa.gov/wdfw/hab/ripsum.htm>.
- Washington Department of Fish and Wildlife. 2003. Design of road culverts for fish passage. Olympia, WA.
- Washington Departments of Fish and Wildlife, Transportation, and Ecology. 2003. Integrated streambank protection guidelines. Olympia, WA.
- Water Engineering and Technology, Inc. 1987. Recommended improvements for stabilization of Hotopha Creek Watershed. Fort Collins, CO.
- Watson, C.C., and D.S. Biedenharn. 1999. Design and effectiveness of grade control structures in incised river channels of North Mississippi, USA. *In* Incised river channels: processes, forms, engineering, and management. S.E. Darby, and A. Simons, eds. Chapter 17, John Wiley and Sons. West Sussex, United Kingdom. 432 p.
- Watson, C.C., and M. Eom. 2003. Rehabilitation design of Judy's Branch. Colorado State Univ. Eng. Res. Center. Fort Collins, CO.
- Watson, C.C., and M.D. Harvey. 1984. Equilibrium criteria for some incised channels of western United States. Speciality Conference of Amer. Soc. of Civil Eng. Water Today and Tomorrow.
- Watson, C.C., D. Dubler, and S.R. Abt. 1997. Demonstration erosion control project report, design hydrology investigations. Colorado State Univ. Submitted to U.S. Army Corps of Engineers, Waterways Experiment Station. Vicksburg, MS.
- Webb, R.H., and R.D. Jarrett. 2002. One-dimensional estimation techniques for discharges of paleofloods and historical floods. Ancient Floods, Modern Hazards: Principles and Applications of Paleoflood Hydrology, Water Science and Application 5. P. Kyle House, Robert H. Webb, Victor R. Baker, and Daniel R. Levish, eds. American Geophysical Union.
- Wells, G. 2002. Planning biotechnical streambank protection. Agroforestry Note 24, U.S. Dept. of Agric. National Agroforestry Center. Lincoln, NE.
- Wenger, S. 1999. A review of the scientific literature on riparian buffer width, extent and vegetation. Office of Public Service & Outreach, Institute of Ecology, Univ. of Georgia. Athens, GA. 59 pp.
- Wentworth, C.R. 1922. A scale of grade and class terms for clastic sediments. *J. of Geology* 30:377–392.
- Werrity, A. 1997. Short-term changes in channel stability. *In* Applied Fluvial Geomorphology for River Engineering and Management. C.R. Thorne, R.D. Hey, and M.D. Newson, eds. John Wiley and Sons. Chichester, United Kingdom.
- White, D.S. 1993. Perspectives on defining and delineating hyporheic zones. *J. of the North Amer. Benthological Soc.* 12:61–69.
- White, P.S., and S.T.A. Pickett. 1985. Natural disturbance and patch dynamics, an introduction. pp. 3–13. *In* S. T. A. Pickett and P.S. White, eds. The ecology of natural disturbance and patch dynamics. Academic Press. New York, NY.
- White, R.J., and O.M. Brynildson. 1967. Guidelines for management of trout stream habitat in Wisconsin. Wis. Dept. Nat. Resour. Tech. Bull. 39. 65 pp.
- White, W.R., R. Bettess, and E. Paris. 1982. Analytical approach to river regime. *J. of the Hydrol. Division, Amer. Soc. of Civil Eng.* 108, HY10. pp. 1179–1193.
- Whitney, G.G. 1995. From coastal wilderness to fruited plain: a history of environmental change in temperate North America from 1500 to the present. University Press. Cambridge, United Kingdom.

- Whittaker, J., and M. Jäggi. 1986. Blockschwellen. Mitteilungen der Versuchsanstalt für Wasserbau, Hydrologie und Glaziologie, Nr. 91, an der Eidgenössischen Technischen Hochschule Zürich.
- Wilcock, P.R. 1998. Two-fraction model of initial sediment motion on gravel-bed rivers. *Science* 17 April 1998: Vol. 280, No. 5382. pp. 410–412. DOI: 10.1126/science.280.5382.410
- Wilcock, P.R., and B.W. McArdell. 1993. Surface-based fractional transport rates: mobilization thresholds and partial transport of a sand-gravel sediment. *Water Resources Research* 29:1297–1312.
- Williams, G.P. 1978. Bankfull discharge of rivers. *Water Resour. Res.* 14(6) 1141–1154.
- Williams, G.P. 1986. River meanders and channel size. *J. of Hydrol.* 88:147–164.
- Williams, G.P., and M.G. Wolman. 1984. Downstream effects of dams on alluvial rivers: U.S. Geological Survey professional paper 1286. 83 p.
- Williams, J.D., M.L. Warren Jr., K.S. Cummings, J.L. Harris, and R.J. Neves. 1993. Conservation status of freshwater mussels of the United States and Canada. *Fisheries* 18:6–22.
- Williams, J.E., J.E. Johnson, D.A. Hendrickson, S. Contreras-Balderas, J.D. Williams, M. Navarro-Mendoza, D.E. McAllister, and J.E. Deacon. 1989. Fishes of North America endangered, threatened, or of special concern. *Fisheries* 14:3–20.
- Winward, A.H. 2000. Monitoring the vegetation resources in riparian areas. General Technical Report RMRS–GTR–47. U.S. Dept. of Agric., Forest Service. Ogden, UT.
- Wirtz, B., R. Martinez, and B. Sims. 1992. Watershed restoration on the French Mesa Grazing allotment. Presented at the National Hydrology Workshop, U.S. Dept. of Agric., Forest Service. Proc. (to be published). Phoenix, AZ.
- Wisconsin Department of Natural Resources. 2002. Wisconsin Trout Streams, PUB–FH–806. Madison, WI.
- Wohl, E. 2000. Mountain rivers. *Water Resour. Mono.* 14, American Geophysical Union. Washington, DC. 320 pp.
- Wolman, M.G. 1954. A method of sampling coarse river-bed material. *Trans. of American Geophysical Union* 35:951–956.
- Wolman, M.G. 1955. The natural channel of Brandywine Creek Pennsylvania. U.S. Geological Survey professional paper 271. Washington, DC.
- Wolman, M.G., and L.B. Leopold. 1957. River flood plain: some observations on their formation. U.S. Geological Survey professional paper 282–C. Washington, DC.
- Wolman, M.G., and J.P. Miller. 1960. Magnitude and frequency of forces in geomorphic processes. *J. of Geology* 68:54–74.
- Wolman, M.G., and A.P. Schick. 1967. Effects of construction on fluvial sediment, urban and suburban areas of Maryland. *Water Res. Res.* 3(2):451–464.
- Wood, A.D. 2003. Stability analysis of ballasted rootwads for stream restoration. Unpublished thesis, Penn State University, Department of Agriculture and Biological Engineering. State College, PA.
- Wood, A.D., and Jarrett, A.R. 2004. Design tool for rootwads in streambank restoration. Paper 042047, Annual International Meeting, Ottawa. Amer. Soc. of Agric. Eng. St. Joseph, MI.
- Woodyer, K.D. 1968. Bankfull frequency in rivers. *J. of Hydrol.* 6:114–142.
- Wunder, L., and A.B. Carey. 1994. Use of forest canopy by bats. *Northwest Science* 70:79–85.
- Wydoski, R.S., and R.R. Whitney. 2003. Inland fishes of Washington. 2nd edition, revised and expanded. Univ. of Washington Press. Seattle, WA. 320 pp.

-
- Yalin, M.S. 1992. River mechanics. Pergamon Press. New York, NY.
- Yang, C.T. 1996. Sediment transport: theory and practice. McGraw-Hill. New York, NY.
- Yang, C.T. 1973. Incipient motion and sediment transport. J. of the Hydrol. Div. Amer. Soc. of Eng. 99, HY10. pp. 1679–1704.
- Yang, C.T. 1984. Unit stream power equation for gravel. J. of the Hydrol. Div. Amer. Soc. of Eng. 110, 12. pp. 1783–1797.
- Yildiz, D., and E. Üzücek. 1994. Prediction of scour depth from free falling flip bucket jets. Intl. Water Power and Dam Construction.
- Yoho, N.S. 1980. Forest management and sediment production in the South—a review. Southern J. of App. Forestry. Vol. 4, No 1. pp. 27–35.
- Young, M.K. 1994. Mobility of brown trout in south-central Wyoming streams. Canadian J. of Zoology 72:2078–2083.
- Young, M.K. 1996. Summer movements and habitat use by Colorado River cutthroat trout in small, montane streams. Canadian J. of Fisheries and Aquatic Sci. 53:1403–1408.
- Yount, J.D., and G.J. Niemi. 1990. Recovery of lotic communities and ecosystems from disturbance—a narrative review of case studies. Environ. Manage. 14:547–569.
- Yuzyk, T.R. 1986. Bed material sampling in gravel-bed streams. Sediment Survey Section, Water Survey of Canada, Water Resources Branch, Inland Directorate, Conservation and Protection, Environment Canada, Report IWD–HQ–WRB–SS–86–8. 62 p.
- Zonneveld, I.S. 1994. Basic principles of classification. *In* Ecosystem classification for Environ. Manage. F. Klijn, ed. Kluwer Academic Publishers. Dordrecht, The Netherlands. pp. 23–47