

# Managing River Catchments

View Online



- 
1.  
Gilvear DJ, Heal KV, Stephen A. Hydrology and the ecological quality of Scottish river ecosystems. *Science of The Total Environment*. 2002;294(1-3):131-159.  
doi:10.1016/S0048-9697(02)00060-8
  
  2.  
Lewin J. Enlightenment and the GM floodplain. *Earth Surface Processes and Landforms*. 2013;38(1):17-29. doi:10.1002/esp.3230
  
  3.  
Perfect C, Addy S, Gilvear D. *The Scottish Rivers Handbook*.; 2013.  
<https://www.crew.ac.uk/publication/scottish-rivers-handbook>
  
  4.  
Werritty A, Leys KF. The sensitivity of Scottish rivers and upland valley floors to recent environmental change. *CATENA*. 2001;42(2-4):251-273.  
doi:10.1016/S0341-8162(00)00140-5
  
  5.  
Werritty A, Hoey TB, Scottish Natural Heritage (Agency). *Geomorphological Changes and Trends in Scotland: River Channels and Processes*. Vol no. 053. Scottish Natural Heritage; 2004. [https://www.snh.org.uk/pdfs/publications/commissioned\\_reports/F00AC107B.pdf](https://www.snh.org.uk/pdfs/publications/commissioned_reports/F00AC107B.pdf)
  
  - 6.

Syvitski JPM. Impact of Humans on the Flux of Terrestrial Sediment to the Global Coastal Ocean. *Science*. 2005;308(5720):376-380. doi:10.1126/science.1109454

7.

Belletti B, Rinaldi M, Bussettini M, et al. Characterising physical habitats and fluvial hydromorphology: A new system for the survey and classification of river geomorphic units. *Geomorphology*. 2017;283:143-157. doi:10.1016/j.geomorph.2017.01.032

8.

Brierley G, Hooke J. Emerging geomorphic approaches to guide river management practices. *Geomorphology*. 2015;251:1-5. doi:10.1016/j.geomorph.2015.08.019

9.

Brierley GJ, Fryirs KA. *Geomorphology and River Management: Applications of the River Styles Framework*. Blackwell Pub; 2005.

10.

Brierley G, Fryirs K, Cullum C, Tadaki M, Huang HQ, Blue B. Reading the landscape: Integrating the theory and practice of geomorphology to develop place-based understandings of river systems. *Progress in Physical Geography*. 2013;37(5):601-621. doi:10.1177/0309133313490007

11.

Brierley G, Hooke J. Emerging geomorphic approaches to guide river management practices. *Geomorphology*. 2015;251:1-5. doi:10.1016/j.geomorph.2015.08.019

12.

Fryirs KA, Brierley GJ. *Geomorphic Analysis of River Systems: An Approach to Reading the Landscape*. Wiley; 2013.

13.

Gurnell AM, Rinaldi M, Belletti B, et al. A multi-scale hierarchical framework for developing understanding of river behaviour to support river management. *Aquatic Sciences*. 2016;78(1):1-16. doi:10.1007/s00027-015-0424-5

14.

Roni P, Beechie TJ. Stream and Watershed Restoration: A Guide to Restoring Riverine Processes and Habitats. Vol Advancing river restoration and management. Wiley-Blackwell; 2013.

15.

Wohl EE. Rivers in the Landscape: Science and Management. John Wiley & Sons Inc; 2014.

16.

Ebooks Corporation Limited. Tools in Fluvial Geomorphology. Vol Applied legal philosophy. Second edition. (Kondolf GM, Piégay H, eds.). John Wiley & Sons; 2016. <https://ebookcentral.proquest.com/lib/gla/detail.action?docID=4517652>

17.

Reid HE, Brierley GJ. Assessing geomorphic sensitivity in relation to river capacity for adjustment. *Geomorphology*. 2015;251:108-121. doi:10.1016/j.geomorph.2015.09.009

18.

Smith MJ, Paron P, Griffiths JS. Geomorphological Mapping: Methods and Applications. Vol Developments in earth surface processes. 1st ed. Elsevier; 2011. <https://ezproxy.lib.gla.ac.uk/login?url=https://www.sciencedirect.com/science/book/9780444534460>

19.

Davies TRH, Lee AL. Physical hydraulic modelling of width reduction and bed level change in braided rivers. *Journal of Hydrology (New Zealand)*. 27(2):113-127. <https://ezproxy.lib.gla.ac.uk/login?url=https://www.jstor.org/stable/43944615>

20.

Journal of Hydrology (New Zealand). <https://eleanor.lib.gla.ac.uk/record=b2647865>

21.

Burt TP, Allison RJ. Sediment Cascades: An Integrated Approach. Wiley-Blackwell; 2010.

22.

Davies TRH, McSaveney MJ, Clarkson PJ. Anthropogenic aggradation of the Waiho River, Westland, New Zealand: microscale modelling. *Earth Surface Processes and Landforms*. 2003;28(2):209-218. doi:10.1002/esp.449

23.

Korup O. Geomorphic imprint of landslides on alpine river systems, southwest New Zealand. *Earth Surface Processes and Landforms*. 2005;30(7):783-800. doi:10.1002/esp.1171

24.

Korup O, Densmore AL, Schlunegger F. The role of landslides in mountain range evolution. *Geomorphology*. 2010;120(1-2):77-90. doi:10.1016/j.geomorph.2009.09.017

25.

Cox et al SC. GNS Science Report 2014/07 : Activity of the Landslide Te Horo and Te Koroka Fan, Dart River, New Zealand during January 2014. [https://shop.gns.cri.nz/sr\\_2014-007-pdf/](https://shop.gns.cri.nz/sr_2014-007-pdf/)

26.

Thomas et al JS. GNS Science Report 2009/43: 42 Years Evolution of Slip Stream Landslide and Fan, Dart River, New Zealand. [https://shop.gns.cri.nz/sr\\_2009-43-pdf/](https://shop.gns.cri.nz/sr_2009-43-pdf/)

27.

CIWEM. Floods and dredging: a reality check. Published online 2014.

<http://www.ciwem.org/wp-content/uploads/2016/02/Floods-and-Dredging-a-reality-check.pdf>

28.

Kummu M. Water management in Angkor: Human impacts on hydrology and sediment transportation. *Journal of Environmental Management*. 2009;90(3):1413-1421. doi:10.1016/j.jenvman.2008.08.007

29.

Diamond JM. *Collapse: How Societies Choose to Fail or Survive*. Vol Penguin history. Penguin Books; 2006.

30.

Belletti B, Rinaldi M, Buijse AD, Gurnell AM, Mosselman E. A review of assessment methods for river hydromorphology. *Environmental Earth Sciences*. 2015;73(5):2079-2100. doi:10.1007/s12665-014-3558-1

31.

J. M. Buffington. Geomorphic classification of rivers. :730-767. <https://www.treesearch.fs.fed.us/pubs/43354>

32.

Ebooks Corporation Limited. *Tools in Fluvial Geomorphology*. Vol Applied legal philosophy. Second edition. (Kondolf GM, Piégay H, eds.). John Wiley & Sons; 2016. <https://ebookcentral.proquest.com/lib/gla/detail.action?docID=4517652>

33.

Rinaldi M, Gurnell AM, del Tánago MG, Bussettini M, Hendriks D. Classification of river morphology and hydrology to support management and restoration. *Aquatic Sciences*. 2016;78(1):17-33. doi:10.1007/s00027-015-0438-z

34.

Tadaki M, Brierley G, Cullum C. River classification: theory, practice, politics. Wiley Interdisciplinary Reviews: Water. Published online April 2014:n/a-n/a. doi:10.1002/wat2.1026

35.

Beechie T, Imaki H. Predicting natural channel patterns based on landscape and geomorphic controls in the Columbia River basin, USA. Water Resources Research. 2014;50(1):39-57. doi:10.1002/2013WR013629

36.

Brierley GJ. River Styles, a Geomorphic Approach to Catchment Characterization: Implications for River Rehabilitation in Bega Catchment, New South Wales, Australia. Environmental Management. 2000;25(6):661-679. doi:10.1007/s002670010052

37.

River Styles. <http://www.riverstyles.com/>

38.

Lave R, Doyle M, Robertson M. Privatizing stream restoration in the US. Social Studies of Science. 2010;40(5):677-703. doi:10.1177/0306312710379671

39.

Montgomery DR. Channel-reach morphology in mountain drainage basins. GSA Bulletin. 1997;109(5):596-611. <https://ezproxy.lib.gla.ac.uk/login?url=https://pubs.geoscienceworld.org/gsa/gsabulletin/article/109/5/596/183255/channel-reach-morphology-in-mountain-drainage>

40.

Rosgen DL. A classification of natural rivers. CATENA. 1994;22(3):169-199. doi:10.1016/0341-8162(94)90001-9

41.

Modular River Survey. <http://modularriversurvey.org/>

42.

Rinaldi M, Gurnell AM, del Tánago MG, Bussetini M, Hendriks D. Classification of river morphology and hydrology to support management and restoration. *Aquatic Sciences*. 2016;78(1):17-33. doi:10.1007/s00027-015-0438-z

43.

Smith SM, Presteggaard KL. Hydraulic performance of a morphology-based stream channel design. *Water Resources Research*. 2005;41(11):n/a-n/a. doi:10.1029/2004WR003926

44.

Kasprak A, Hough-Snee N, Beechie T, et al. The Blurred Line between Form and Process: A Comparison of Stream Channel Classification Frameworks. *PLOS ONE*. 2016;11(3). doi:10.1371/journal.pone.0150293

45.

Scottish Environmental Protection Agency. Supporting guidance (WAT-SG-21): Environmental Standards for River Morphology. [https://www.sepa.org.uk/media/152194/wat\\_sg\\_21.pdf](https://www.sepa.org.uk/media/152194/wat_sg_21.pdf)

46.

Pender G, Faulkner H. *Flood Risk Science and Management*. Wiley-Blackwell; 2011.

47.

Cabinet Office. *National Flood Resilience Review*. Published online 2016. <https://www.gov.uk/government/publications/national-flood-resilience-review>

48.

Burt S, McCarthy M, Kendon M, Hannaford J. Cumbrian floods, 5/6 December 2015. *Weather*. 2016;71(2):36-37. doi:10.1002/wea.2704

49.

Ferranti E, Chapman L, Whyatt D. A Perfect Storm? The collapse of Lancaster's critical infrastructure networks following intense rainfall on 4/5 December 2015. *Weather*. 2017;72(1):3-7. doi:10.1002/wea.2907

50.

Marsh et al T. The winter floods of 2015/2016 in the UK. <https://nora.nerc.ac.uk/515303/>

51.

Cabinet office. The Pitt Review: Lessons learned from the 2007 floods. [http://webarchive.nationalarchives.gov.uk/20100807034701/http://archive.cabinetoffice.gov.uk/pittreview/thepittreview/final\\_report.html](http://webarchive.nationalarchives.gov.uk/20100807034701/http://archive.cabinetoffice.gov.uk/pittreview/thepittreview/final_report.html)

52.

Thorne C. Geographies of UK flooding in 2013/4. *The Geographical Journal*. 2014;180(4):297-309. doi:10.1111/geoj.12122

53.

National River Flow Archive: Occasional Reports. <http://nrfa.ceh.ac.uk/occasional-reports>

54.

Gregory KJ, Goudie A. *The SAGE Handbook of Geomorphology*. SAGE; 2011.

55.

Slater LJ, Singer MB, Kirchner JW. Hydrologic versus geomorphic drivers of trends in flood hazard. *Geophysical Research Letters*. 2015;42(2):370-376. doi:10.1002/2014GL062482

56.

Slater LJ. To what extent have changes in channel capacity contributed to flood hazard trends in England and Wales? *Earth Surface Processes and Landforms*. 2016;41(8):1115-1128. doi:10.1002/esp.3927

57.

Olsen JR. Climate Change and Floodplain Management in the United States. *Climatic Change*. 2006;76(3-4):407-426. doi:10.1007/s10584-005-9020-3

58.

Schottler SP, Ulrich J, Belmont P, et al. Twentieth century agricultural drainage creates more erosive rivers. *Hydrological Processes*. 2014;28(4):1951-1961. doi:10.1002/hyp.9738

59.

Alfieri L, Bisselink B, Dottori F, et al. Global projections of river flood risk in a warmer world. *Earth's Future*. Published online January 2017. doi:10.1002/2016EF000485

60.

Jongman B, Ward PJ, Aerts JCJH. Global exposure to river and coastal flooding: Long term trends and changes. *Global Environmental Change*. 2012;22(4):823-835. doi:10.1016/j.gloenvcha.2012.07.004

61.

Jongman B, Hochrainer-Stigler S, Feyen L, et al. Increasing stress on disaster-risk finance due to large floods. *Nature Climate Change*. 2014;4(4):264-268. doi:10.1038/nclimate2124

62.

Hirabayashi Y, Mahendran R, Koirala S, et al. Global flood risk under climate change. *Nature Climate Change*. 2013;3(9):816-821. doi:10.1038/nclimate1911

63.

United Nations Office for Disaster Risk Reduction. Global assessment report on disaster risk reduction 2015. <https://www.unisdr.org/we/inform/publications/42809>

64.

United Nations Office for Disaster Risk Reduction, Centre for Research on Epidemiology of Disasters. The human cost of weather-related disasters 1995-2015. <https://www.unisdr.org/we/inform/publications/46796>

65.

Scotland & Northern Ireland Forum for Environmental Research. A handbook of climate trends across Scotland (SNIFFER project CC03). [https://www.south-ayrshire.gov.uk/documents/sniffer%20partnership\\_climate%20change%20trend%20handbook%20june%2006.pdf](https://www.south-ayrshire.gov.uk/documents/sniffer%20partnership_climate%20change%20trend%20handbook%20june%2006.pdf)

66.

Jenkins GJ. The climate of the United Kingdom and recent trends. Published online 2007. [http://www.ukcip.org.uk/wp-content/PDFs/UKCP09\\_Trends.pdf](http://www.ukcip.org.uk/wp-content/PDFs/UKCP09_Trends.pdf)

67.

Future flooding. <https://www.gov.uk/government/publications/future-flooding>

68.

Pall P, Aina T, Stone DA, et al. Anthropogenic greenhouse gas contribution to flood risk in England and Wales in autumn 2000. *Nature*. 2011;470(7334):382-385. doi:10.1038/nature09762

69.

Schaller N, Kay AL, Lamb R, et al. Human influence on climate in the 2014 southern England winter floods and their impacts. *Nature Climate Change*. 2016;6(6):627-634. doi:10.1038/nclimate2927

70.

Beven KJ. Rainfall-Runoff Modelling: The Primer. 2nd ed. Wiley-Blackwell; 2012.

71.

O'Connell PE, Ewen J, O'Donnell G, Quinn P. Is there a link between agricultural land-use management and flooding? *Hydrology and Earth System Sciences*. 2007;11(1):96-107. doi:10.5194/hess-11-96-2007

72.

Beven KJ, Chappell N, Lamb R, Shaw EM. *Hydrology in Practice*. 4th ed. Spon Press; 2011.

73.

Arnell NW, Halliday SJ, Battarbee RW, Skeffington RA, Wade AJ. The implications of climate change for the water environment in England. *Progress in Physical Geography*. 2015;39(1):93-120. doi:10.1177/0309133314560369

74.

Dixon SJ, Sear DA, Odoni NA, Sykes T, Lane SN. The effects of river restoration on catchment scale flood risk and flood hydrology. *Earth Surface Processes and Landforms*. 2016;41(7):997-1008. doi:10.1002/esp.3919

75.

Environment Agency. How to model and map catchment processes when flood risk management planning. Published online 2016. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/523456/How\\_to\\_model\\_and\\_map\\_catchment\\_processes\\_-\\_report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/523456/How_to_model_and_map_catchment_processes_-_report.pdf)

76.

Environment Agency. Working with natural processes to reduce flood risk: science report. Published online 2014. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/338437/SC130004\\_R2.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/338437/SC130004_R2.pdf)

77.

Gao J, Holden J, Kirkby M. The impact of land-cover change on flood peaks in peatland basins. *Water Resources Research*. 2016;52(5):3477-3492. doi:10.1002/2015WR017667

78.

JBA. Nature-based approaches for catchment flood management: an online catalogue. Published online 2015.  
[http://www.jbatrust.org/wp-content/uploads/2016/02/W15-0603-Nature-Based-approaches-to-Catchment-Improvements-Sept-2015-FINAL\\_v0.1.pdf](http://www.jbatrust.org/wp-content/uploads/2016/02/W15-0603-Nature-Based-approaches-to-Catchment-Improvements-Sept-2015-FINAL_v0.1.pdf)

79.

SEPA. Natural flood management handbook. Published online 2015.  
<http://www.sepa.org.uk/media/163560/sepa-natural-flood-management-handbook1.pdf>

80.

Natural Water Retention Measures. <http://nwrm.eu/>

81.

Working with natural processes to reduce flood risk : JBA Trust - Interactive map.  
<http://www.jbatrust.org/news/working-with-natural-processes-to-reduce-flood-risk/>

82.

Grill G, Lehner B, Lumsdon AE, MacDonald GK, Zarfl C, Reidy Liermann C. An index-based framework for assessing patterns and trends in river fragmentation and flow regulation by global dams at multiple scales. *Environmental Research Letters*. 2015;10(1). doi:10.1088/1748-9326/10/1/015001

83.

Lehner B, Reidy Liermann C, Revenga C, et al. High-resolution mapping of the world's reservoirs and dams for sustainable river-flow management. *Frontiers in Ecology and the Environment*. 2011;9(9):494-502.

<https://ezproxy.lib.gla.ac.uk/login?url=https://www.jstor.org/stable/23034466>

84.

Zarfl C, Lumsdon AE, Berlekamp J, Tydecks L, Tockner K. A global boom in hydropower dam construction. *Aquatic Sciences*. 2015;77(1):161-170. doi:10.1007/s00027-014-0377-0

85.

World Commission on Dams. Dams and development: a new framework for decision-making. Published online 2000.

[https://www.internationalrivers.org/sites/default/files/attached-files/world\\_commission\\_on\\_dams\\_final\\_report.pdf](https://www.internationalrivers.org/sites/default/files/attached-files/world_commission_on_dams_final_report.pdf)

86.

Magilligan FJ, Nislow KH. Changes in hydrologic regime by dams. *Geomorphology*. 2005;71(1-2):61-78. doi:10.1016/j.geomorph.2004.08.017

87.

Sambrook Smith GH. *Braided Rivers: Process, Deposits, Ecology, and Management*. Blackwell Pub; 2006.

88.

Kondolf GM. Hungry Water: Effects of Dams and Gravel Mining on River Channels. *Environmental Management*. 1997;21(4):533-551. doi:10.1007/s002679900048

89.

Kondolf GM, Rubin ZK, Minear JT. Dams on the Mekong: Cumulative sediment starvation. *Water Resources Research*. 2014;50(6):5158-5169. doi:10.1002/2013WR014651

90.

Luo XX, Yang SL, Wang RS, Zhang CY, Li P. New evidence of Yangtze delta recession after

closing of the Three Gorges Dam. *Scientific Reports*. 2017;7. doi:10.1038/srep41735

91.

Magilligan FJ, Nislow KH. Changes in hydrologic regime by dams. *Geomorphology*. 2005;71(1-2):61-78. doi:10.1016/j.geomorph.2004.08.017

92.

Yang SL, Milliman JD, Li P, Xu K. 50,000 dams later: Erosion of the Yangtze River and its delta. *Global and Planetary Change*. 2011;75(1-2):14-20. doi:10.1016/j.gloplacha.2010.09.006

93.

Lessard J, Murray Hicks D, Snelder TH, et al. Dam Design can Impede Adaptive Management of Environmental Flows: A Case Study from the Opuha Dam, New Zealand. *Environmental Management*. 2013;51(2):459-473. doi:10.1007/s00267-012-9971-x

94.

East AE, Pess GR, Bountry JA, et al. Large-scale dam removal on the Elwha River, Washington, USA: River channel and floodplain geomorphic change. *Geomorphology*. 2015;228:765-786. doi:10.1016/j.geomorph.2014.08.028

95.

Gartner JD, Magilligan FJ, Renshaw CE. Predicting the type, location and magnitude of geomorphic responses to dam removal: Role of hydrologic and geomorphic constraints. *Geomorphology*. 2015;251:20-30. doi:10.1016/j.geomorph.2015.02.023

96.

Church MA, Biron P, Roy AG, Ashmore P. *Gravel-Bed Rivers: Processes, Tools, Environments*. Wiley-Blackwell; 2012.

97.

Magilligan FJ, Nislow KH, Kynard BE, Hackman AM. Immediate changes in stream channel geomorphology, aquatic habitat, and fish assemblages following dam removal in a small upland catchment. *Geomorphology*. 2016;252:158-170. doi:10.1016/j.geomorph.2015.07.027

98.

Major JJ, O'Connor JE, Podolak CJ, et al. Geomorphic Response of the Sandy River, Oregon, to Removal of Marmot Dam : U.S. Geological Survey Professional Paper 1792. Published online 2012. <https://pubs.usgs.gov/pp/1792/>

99.

O'Connor JE, Duda JJ, Grant GE. 1000 dams down and counting. *Science*. 2015;348(6234):496-497. doi:10.1126/science.aaa9204

100.

Pizzuto J. Effects of dam removal on river form and process. *BioScience*. 52(8):683-691. <https://ezproxy.lib.gla.ac.uk/login?url=https://go.galegroup.com/ps/i.do?p=AONE&u=gilasuni&id=GALE|A90317048&v=2.1&it=r&sid=summon&authCount=1>

101.

Engineering Geology for Society and Territory: Volume 3: River Basins, Reservoir Sedimentation and Water Resources. Springer International Publishing; 2015. <https://ezproxy.lib.gla.ac.uk/login?url=https://link.springer.com/10.1007/978-3-319-09054-2>

102.

Ryan Bellmore J, Duda JJ, Craig LS, et al. Status and trends of dam removal research in the United States. *Wiley Interdisciplinary Reviews: Water*. 2017;4(2). doi:10.1002/wat2.1164

103.

Young SM, Ishiga H. Environmental change of the fluvial-estuary system in relation to Arase Dam removal of the Yatsushiro tidal flat, SW Kyushu, Japan. *Environmental Earth*

Sciences. 2014;72(7):2301-2314. doi:10.1007/s12665-014-3139-3

104.

Marmot Dam Removal. Published online 30AD.  
<https://www.youtube.com/watch?v=i1NI2ia3nDw>

105.

Elwha River following dam removal. Published online 2AD.  
<https://www.youtube.com/watch?v=VipVo8zPH0U>

106.

Elwha River Restoration Project - videos.  
<https://walrus.wr.usgs.gov/elwha/products.html#videos>

107.

Snake River. Published online 7AD. <https://www.youtube.com/watch?v=DK5nUXkrz8o>

108.

CIRIA. River weirs - Design, maintenance, modification and removal. Published online 2016.  
[http://www.cpwf.co.uk/C763%20River%20weirs.%20Design,%20maintenance,%20modification%20and%20removal%20\(web\)%20\(1\).pdf](http://www.cpwf.co.uk/C763%20River%20weirs.%20Design,%20maintenance,%20modification%20and%20removal%20(web)%20(1).pdf)

109.

Hawley S. Recovering a Lost River: Removing Dams, Rewilding Salmon, Revitalizing Communities. Beacon Press; 2012.

110.

Lichatowich J. Salmon without Rivers: A History of the Pacific Salmon Crisis. Island Press; 1999.

111.

Mapes L, Ringman S. Elwha: A River Reborn. First edition. The Mountaineers Books; 2013.

112.

CIWEM. Integrated Water Management. Published online 2011.

<http://www.ciwem.org/wp-content/uploads/2016/02/Integrated-Water-Management-Report.pdf>

113.

defra. Making space for water: Taking forward a new Government strategy for flood and coastal erosion risk management in England. Published online 2005.

<http://webarchive.nationalarchives.gov.uk/20130402151656/http://archive.defra.gov.uk/environment/flooding/documents/policy/strategy/strategy-response1.pdf>

114.

Institute for European Environmental Policy. The potential policy and environmental consequences for the UK of a departure from the European Union. Published 2016.

<http://www.ieep.eu/news/2016/08/the-uk-referendum-what-it-means-for-the-environment-and-for-ieep>

115.

Kallis G. The EU water framework directive: measures and implications. *Water Policy*. 2001;3(2):125-142. doi:10.1016/S1366-7017(01)00007-1

116.

Royal Geographical Society. Water policy in the UK: the challenges. Published online 2012.

[https://www.rgs.org/NR/rdonlyres/4D9A57E4-A053-47DC-9A76-BDBEF0EA0F5C/0/RGSIBGPolicyDocumentWater\\_732pp.pdf](https://www.rgs.org/NR/rdonlyres/4D9A57E4-A053-47DC-9A76-BDBEF0EA0F5C/0/RGSIBGPolicyDocumentWater_732pp.pdf)

117.

RSPB. Flooding in focus. Published online 2014.  
[https://www.rspb.org.uk/Images/flooding-in-focus\\_tcm9-386202.pdf](https://www.rspb.org.uk/Images/flooding-in-focus_tcm9-386202.pdf)

118.

SEPA. Supporting Guidance (WAT-SG-21) : Environmental Standards for River Morphology. Published online 2012. [https://www.sepa.org.uk/media/152194/wat\\_sg\\_21.pdf](https://www.sepa.org.uk/media/152194/wat_sg_21.pdf)

119.

SEPA. Scotland River Basin District : Characterisation and impacts analyses required by article 5 of the Water Framework Directive. Published online 2005.  
[https://www.sepa.org.uk/media/37505/rbmp\\_scotland\\_characterisation-impacts-analysis\\_article5.pdf](https://www.sepa.org.uk/media/37505/rbmp_scotland_characterisation-impacts-analysis_article5.pdf)

120.

SEPA. Significant water management issues in the Scotland river basin district. Published online 2007.  
[https://www.sepa.org.uk/media/37765/significant-water-management-issues\\_scotland.pdf](https://www.sepa.org.uk/media/37765/significant-water-management-issues_scotland.pdf)

121.

SEPA. Flood Risk Management Strategies and Local Flood Risk Management Plans. Published online 2011.  
[http://www.sepa.org.uk/media/42632/frm\\_strategies\\_and\\_lfrm\\_plans.pdf](http://www.sepa.org.uk/media/42632/frm_strategies_and_lfrm_plans.pdf)

122.

Beven KJ, Chappell N, Lamb R, Shaw EM. Hydrology in Practice. 4th ed. Spon Press; 2011.

123.

Maddock I, Harby A, Kemp P, Wood PJ, eds. Ecohydraulics: An Integrated Approach. Wiley Blackwell; 2013.

124.

Coaker TH. *Advances in Applied Biology: Vol. 6: Edited by T.H. Coaker.* Academic Press; 1981.

125.

Moir HJ, Pasternack GB. Relationships between mesoscale morphological units, stream hydraulics and Chinook salmon (*Oncorhynchus tshawytscha*) spawning habitat on the Lower Yuba River, California. *Geomorphology*. 2008;100(3-4):527-548. doi:10.1016/j.geomorph.2008.02.001

126.

Moir HJ, Gibbins CN, Soulsby C, Youngson AF. PHABSIM modelling of Atlantic salmon spawning habitat in an upland stream: testing the influence of habitat suitability indices on model output. *River Research and Applications*. 2005;21(9):1021-1034. doi:10.1002/rra.869

127.

Moir HJ, Gibbins CN, Soulsby C, Webb J. Linking channel geomorphic characteristics to spatial patterns of spawning activity and discharge use by Atlantic salmon (*Salmo salar* L.). *Geomorphology*. 2004;60(1-2):21-35. doi:10.1016/j.geomorph.2003.07.014

128.

Beechie TJ, Sear DA, Olden JD, et al. Process-based Principles for Restoring River Ecosystems. *BioScience*. 2010;60(3):209-222. doi:10.1525/bio.2010.60.3.7

129.

Brierley G, Hooke J. Emerging geomorphic approaches to guide river management practices. *Geomorphology*. 2015;251:1-5. doi:10.1016/j.geomorph.2015.08.019

130.

James LA. Designing forward with an eye to the past: Morphogenesis of the lower Yuba River. *Geomorphology*. 2015;251:31-49. doi:10.1016/j.geomorph.2015.07.009

131.

Newson MalcolmD, Large ARG. 'Natural' rivers, 'hydromorphological quality' and river restoration: a challenging new agenda for applied fluvial geomorphology. *Earth Surface Processes and Landforms*. 2006;31(13):1606-1624. doi:10.1002/esp.1430

132.

Raven EK, Lane SN, Bracken LJ. Understanding sediment transfer and morphological change for managing upland gravel-bed rivers. *Progress in Physical Geography*. 2010;34(1):23-45. doi:10.1177/0309133309355631

133.

Wohl E, Merritts DJ. What Is a Natural River? *Geography Compass*. 2007;1(4):871-900. doi:10.1111/j.1749-8198.2007.00049.x

134.

Bernhardt ES. Ecology: Synthesizing U.S. River Restoration Efforts. *Science*. 2005;308(5722):636-637. doi:10.1126/science.1109769

135.

Beechie TJ, Sear DA, Olden JD, et al. Process-based Principles for Restoring River Ecosystems. *BioScience*. 2010;60(3):209-222. doi:10.1525/bio.2010.60.3.7

136.

Downs P, Kondolf GM. Post-Project Appraisals in Adaptive Management of River Channel Restoration. *Environmental Management*. 2002;29(4):477-496. doi:10.1007/s00267-001-0035-X

137.

Gilvear DJ, Casas-Mulet R, Spray CJ. Trends and issues in delivery of integrated catchment scale river restoration: Lessons learned from a national river restoration survey within Scotland. *River Research and Applications*. 2012;28(2):234-246. doi:10.1002/rra.1437

138.

Koebel JW, Bousquin SG. The Kissimmee River Restoration Project and Evaluation Program, Florida, U.S.A. *Restoration Ecology*. 2014;22(3):345-352. doi:10.1111/rec.12063

139.

Morandi B, Piégay H, Lamouroux N, Vaudor L. How is success or failure in river restoration projects evaluated? Feedback from French restoration projects. *Journal of Environmental Management*. 2014;137:178-188. doi:10.1016/j.jenvman.2014.02.010

140.

Palmer MA, Menninger HL, Bernhardt E. River restoration, habitat heterogeneity and biodiversity: a failure of theory or practice? *Freshwater Biology*. 2010;55:205-222. doi:10.1111/j.1365-2427.2009.02372.x

141.

Podolak CJP. A visual framework for displaying, communicating and coordinating a river restoration monitoring project. *River Research and Applications*. 2014;30(4):527-535. doi:10.1002/rra.2651

142.

Simon A, Bennett SJ, Castro JM, American Geophysical Union. *Stream Restoration in Dynamic Fluvial Systems: Scientific Approaches, Analyses, and Tools*. Vol Geophysical monograph. American Geophysical Union; 2011.

143.

Smith B, Clifford NJ, Mant J. Analysis of UK river restoration using broad-scale data sets. *Water and Environment Journal*. 2014;28(4):490-501. doi:10.1111/wej.12063

144.

Wohl E, Lane SN, Wilcox AC. The science and practice of river restoration. *Water Resources Research*. 2015;51(8):5974-5997. doi:10.1002/2014WR016874

145.

The River Restoration Centre. <http://www.therrc.co.uk/>

146.

ECRR website. <http://www.ecrr.org/>

147.

Ashmore P. Towards a sociogeomorphology of rivers. *Geomorphology*. 2015;251:149-156. doi:10.1016/j.geomorph.2015.02.020

148.

Dufour S, Piégay H. From the myth of a lost paradise to targeted river restoration: forget natural references and focus on human benefits. *River Research and Applications*. 2009;25(5):568-581. doi:10.1002/rra.1239