

**Online Resources for Riparian Management Practices:  
with a focus on the Fairbanks North Star Borough, Alaska**

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**Completed For: Tanana Valley Watershed Association, Fairbanks, Alaska**

**Marc Coles-Ritchie, Ph.D.  
Riparian Ecologist  
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## **Online Resources**

The title, author (when available) and year (when available) are listed for each link. Some links are included multiple places in this list.

### ***Regulations – U.S. (Alaska is next section)***

- “The Riparian Toolbox: Model Regulations and Legal Issues” from the “The Long Island Sound Riparian Toolbox.” Lists websites with ordinances for regulations from various states.
  - <http://www.hydroqual.com/projects/riparian/legal.htm>
- “Wetland Mitigation in Washington State Part 1: Agency Policies and Guidance” by Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10 (2006). “Determining Adequate Buffers” section is on page 79.
  - <http://www.ecy.wa.gov/pubs/0606011a.pdf>
- “Wetlands in Washington State Volume 1: A Synthesis of the Science” by Sheldon et al (2005) for the Washington Department of Ecology. Buffers discussed in section 5.5 (page 5-23) and a review of buffer recommendations from the literature is presented on pages 5-47 to 5-52.
  - <http://www.ecy.wa.gov/pubs/0506006.pdf>
- “Vegetated Riparian Buffers and Buffer Ordinances” by the South Carolina Department of Health and Environmental Control. Includes a review of buffer width ordinances from across US.
  - <http://www.cofc.edu/~uses/assets/papers/buffers.pdf>

### ***Regulations – Alaska***

- “Chugach National Forest, Land and Resources Management Plan” by the USDA Forest Service (2002).
  - <http://maps.fs.fed.us/chugach/>
- “Tongass National Forest, Land and Resource Management Plan” by the USDA Forest Service (2008).
  - <http://tongass-fpadjust.net/>
- “Area Plans Online” by the Alaska Department of Natural Resources.
  - <http://www.dnr.state.ak.us/mlw/planning/areaplans/>
- “General Recommendations for Riparian Management Zones in Interior Alaska” by Alaska Department of Natural Resources, Alaska Department of Fish and Game, US Fish and Wildlife Service, and US Army Corps of Engineers (2002). Partial copies at:
  - [http://alaska.fws.gov/fisheries/fieldoffice/fairbanks/pdf/1\\_rmzcover.pdf](http://alaska.fws.gov/fisheries/fieldoffice/fairbanks/pdf/1_rmzcover.pdf)

- [http://alaska.fws.gov/fisheries/fieldoffice/fairbanks/pdf/3\\_existing\\_rmz\\_regulations.pdf](http://alaska.fws.gov/fisheries/fieldoffice/fairbanks/pdf/3_existing_rmz_regulations.pdf)
- “Forest Practices” information for Alaska by the Alaska Department of Natural Resources, Division of Forestry.
  - <http://forestry.alaska.gov/forestpractices.htm>
    - “Alaska Forest Resources and Practices Act”
    - “Best management practices” (includes riparian buffers)
    - “Stream Classification and Riparian Standards: Summary Table of Statutes and Regulations”
    - “Region II Forest Resources & Practices Riparian Management Annotated Bibliography, July 2004” (Region II is interior Alaska south of the Alaska Range)
    - “Region III Forest Resources & Practices Riparian Management Annotated Bibliography, August 2000” (Region III is western and northern Alaska and interior Alaska north of the Alaska Range)
    - “Summary of Monitoring Studies of the Effectiveness of Practices under the Alaska Forest Resources and Practices Act 1990-2002” compiled by Alison Arians DNR Division of Forestry (2003).
    - “Relevant Literature For an Evaluation of The Effectiveness of The Alaska Forest Resources And Practices Act: An Annotated Bibliography” by Ott, et al. (2005).

### ***Alaska – Streambank Protection***

- “Streambank Revegetation and Protection: A Guide for Alaska” by Walter et al. (2005) for the Alaska Department of Fish & Game.
  - <http://www.sf.adfg.state.ak.us/SARR/restoration/techniques/intro.cfm>
- “Guidebook for Reference Based Assessment Of The Functions Of Precipitation-Driven Wetlands on Discontinuous Permafrost in Interior Alaska” (Operational Draft) by Lee et al (1999) for the Alaska Department of Environmental Conservation.
  - [http://www.dec.state.ak.us/water/wnpssc/wetlands/interior\\_operational\\_draft\\_may\\_1999b.pdf](http://www.dec.state.ak.us/water/wnpssc/wetlands/interior_operational_draft_may_1999b.pdf)
- “Streambank Restoration and Erosion Protection” information by Alaska Department of Fish & Game
  - <http://www.habitat.adfg.alaska.gov/streambankrestprot.php>
- “Alaska Plant Materials Center Publications” which includes documents on streambank restoration in Alaska, by Nancy J. Moore of Alaska Department of Natural Resources.
  - <http://www.dnr.state.ak.us/ag/PMCwebsite/PMC Nancy.htm>

- “Evaluation of Bioengineered Stream Bank Stabilization in Alaska” by Karle et al. (2003) for Alaska Department of Transportation & Public Facilities.
  - [http://www.dot.state.ak.us/stwddes/research/assets/pdf/fhwa\\_ak\\_rd\\_03\\_03.pdf](http://www.dot.state.ak.us/stwddes/research/assets/pdf/fhwa_ak_rd_03_03.pdf)

### ***Alaska - Tanana Watershed***

- “Tanana Basin Area Plan” by the Alaska Department of Natural Resources (1991).
  - <http://www.dnr.state.ak.us/mlw/planning/areaplans/tanana/index.cfm>
- “Tanana Valley Watershed Association” a non-profit group, whose website includes information on efforts to improve the health of the watershed.
  - <http://www.tvwatershed.com/>
- “Tanana River Watershed, Selected Water-Resource Links” maintained by Geo-Watersheds Scientific.
  - <http://www.tanana-watershed.org/links.html>
- “Fairbanks North Star Borough, Department of Community Planning”
  - <http://www.co.fairbanks.ak.us/CommunityPlanning/>
- Bank stabilization projects in Fairbanks North Star Borough
  - <http://www.co.fairbanks.ak.us/Meetings/Ordinances/2004/2004-20-1t.pdf>
  - <http://www.epa.gov/fedrgstr/EPA-IMPACT/2005/March/Day-30/i6225.htm>

### ***Alaska – Misc.***

- “Forest Health Monitoring Clearinghouse” with data on Alaska, by the USFS/State and Private Forestry and USGS Alaska Geographic Science Office.
  - <http://agdc.usgs.gov/data/projects/fhm/#H>
- Letter from the Kenai River Special Management Area to the Kenai Peninsula Borough about effectiveness of stream protection ordinance (January 2008).
  - <http://www.dnr.state.ak.us/parks/krsma/hpodraftfinal.pdf>

### ***Ecology and Functions of Riparian Areas***

- “Status of Riparian Habitat” by Kondolf et al. (1996) as part of the Sierra Nevada Ecosystem Project.
  - [http://ceres.ca.gov/snep/pubs/web/PDF/VII\\_C36.PDF](http://ceres.ca.gov/snep/pubs/web/PDF/VII_C36.PDF)
- “Stream Conditions: Riparian Function and Protection” by the Klamath Resource Information System (KRIS).
  - <http://www.krisweb.com/stream/riparian.htm>

- “Resistance Due to Vegetation” by Craig Fischenich (2000) of the Environmental Laboratory, U.S. Army Engineer Research and Development Center.
  - <http://el.erd.c.usace.army.mil/elpubs/pdf/sr07.pdf>

### ***Streambank Protection***

- “Streambank Revegetation and Protection: A Guide for Alaska” by Walter et al. (2005) for the Alaska Department of Fish & Game.
  - <http://www.sf.adfg.state.ak.us/SARR/restoration/techniques/intro.cfm>
- Stream restoration information from across the US, including extensive lists of websites, articles and books.
  - [http://www.scwrp.org/documents/Restoration\\_Management/Stream%20Restoration%20Technical%20Information.pdf](http://www.scwrp.org/documents/Restoration_Management/Stream%20Restoration%20Technical%20Information.pdf)
- “Streambank Restoration and Erosion Protection” information by Alaska Department of Fish & Game
  - <http://www.habitat.adfg.alaska.gov/streambankrestprot.php>
- “Alaska Plant Materials Center Publications” which includes documents on streambank restoration in Alaska, by Nancy J. Moore of Alaska Department of Natural Resources.
  - <http://www.dnr.state.ak.us/ag/PMCwebsite/PMC Nancy.htm>
- “Evaluation of Bioengineered Stream Bank Stabilization in Alaska” by Karle et al. (2003) for Alaska Department of Transportation & Public Facilities.
  - [http://www.dot.state.ak.us/stwddes/research/assets/pdf/fhwa\\_ak\\_rd\\_03\\_03.pdf](http://www.dot.state.ak.us/stwddes/research/assets/pdf/fhwa_ak_rd_03_03.pdf)
- “The Practical Streambank Bioengineering Guide” by Bentrup and Hoag (1998) of the NRCS (USDA) Plant Materials Center.
  - <http://www.plant-materials.nrcs.usda.gov/pubs/idpmcpustquid.pdf>
- “Bioengineering Techniques for Streambank Restoration: A Review of Central European Practices” by Donat (1995) for the Canadian Province of British Columbia, Ministry of Environment, Lands and Parks, and Ministry of Forests.
  - [http://www.for.gov.bc.ca/hfd/library/ffip/Donat\\_M1995.pdf](http://www.for.gov.bc.ca/hfd/library/ffip/Donat_M1995.pdf)

### ***Riparian Management for Homeowners and Communities***

- “Benefits of Riparian Zones: Using native plants to protect streambanks and shorelines” by the Tennessee Valley Authority.
  - <http://www.tva.gov/river/landandshore/stabilization/benefits.htm>
- “Riparian Buffers: Rationale, Strategies, and Resources for Restoring and Protecting Streamside Corridors” by River Keepers (of North Dakota and Minnesota).
  - [http://www.riverkeepers.org/pdf/riparian\\_buffers\\_fact\\_sheet.pdf](http://www.riverkeepers.org/pdf/riparian_buffers_fact_sheet.pdf)

- “Backyard Buffers for the South Carolina Lowcountry”
  - <http://www.cofc.edu/~uses/assets/papers/backyard.pdf>
- “The Architecture of Urban Stream Buffers” by the Center for Watershed Protection (payment required for their articles).
  - <http://www.stormwatercenter.net/Practice/39-The%20Architecture%20of%20Urban%20Buffers.pdf>
- “Living with the River” by The Red River Basin Riparian Project (North Dakota)
  - <http://www.casscountynod.gov/departments/planning/documents/LivingWithTheRiver.pdf>
- “Nonpoint Source Outreach Toolbox”
  - <http://www.epa.gov/nps/toolbox/search.htm>
- “Riparian Buffers Do’s and Don’ts” from the “The Long Island Sound Riparian Toolbox”
  - [http://www.hydroqual.com/projects/riparian/do\\_and\\_dont.pdf](http://www.hydroqual.com/projects/riparian/do_and_dont.pdf)
- “Protecting Stream and River Corridors Creating Effective Local Riparian Buffer Ordinances” by Wenger and Fowler (2000).
  - [http://www.rivercenter.uga.edu/publications/pdf/riparian\\_buffer\\_guidebook.pdf](http://www.rivercenter.uga.edu/publications/pdf/riparian_buffer_guidebook.pdf)
- “A Stream Corridor Protection Strategy for Local Governments” by University of Virginia (2002). Includes case studies from Maryland, Virginia and Pennsylvania.
  - [http://www.virginia.edu/iem/docs/stream%20guide\\_final.pdf%202](http://www.virginia.edu/iem/docs/stream%20guide_final.pdf%202)
- “Planner’s Guide to Wetland Buffers for Local Governments” by Environmental Law Institute (2008).
  - [http://www.elistore.org/reports\\_detail.asp?ID=11272](http://www.elistore.org/reports_detail.asp?ID=11272)

### ***Riparian Management in Rural Settings***

- “Cows and Fish” website promoting riparian awareness by the Alberta Riparian Habitat Management Society.
  - <http://www.cowsandfish.org/>
- “Riparian Forest Buffer Conservation Practice Job Sheet” by the Natural Resources Conservation Service (1997).
  - <http://www.unl.edu/nac/jobsheets/ripjob.pdf>
- “Healthy Land Healthy Streams, Riparian Management Systems” for agricultural settings, maintained by Iowa State University.
  - <http://www.buffer.forestry.iastate.edu/>

- “Stewards of Our Streams: Maintenance of Riparian Buffers” for agricultural settings, maintained by Iowa State University.
  - <http://www.extension.iastate.edu/Publications/PM1626C.pdf>
- “Riparian Buffer Design Guidelines For Water Quality and Wildlife Habitat Functions on Agricultural Landscapes in the Intermountain West” by Johnson and Buffler (2008).
  - <http://www.treesearch.fs.fed.us/pubs/29201>

### ***Riparian Buffer Effectiveness (reviews)***

- “Riparian Buffer Width, Vegetative Cover, and Nitrogen Removal Effectiveness: A Review of Current Science and Regulations” by Mayer et al. (2006) for EPA.
  - <http://www.epa.gov/nrmrl/pubs/600R05118/600R05118.pdf>
- “Review of Riparian Buffer Zone Effectiveness” by Parkyn (2004) for New Zealand Ministry of Agriculture and Forestry.
  - <http://www.maf.govt.nz/mafnet/rural-nz/sustainable-resource-use/resource-management/review-riparian-buffer-zone-effectiveness/techpaper-04-05-riparian-effectiveness.pdf>
- “Riparian areas and wetlands” by Kattelman and Embury (1996) as part of the “Status of the Sierra Nevada” series.
  - [http://pubs.usgs.gov/dds/dds-43/VOL\\_III/VIII\\_C05.PDF](http://pubs.usgs.gov/dds/dds-43/VOL_III/VIII_C05.PDF)
- “Challenges in adaptive management of riparian and coastal ecosystems” explains the lack of good data on buffer effectiveness
  - <http://www.ecologyandsociety.org/vol1/iss2/art1/>
- “Understanding the Science Behind Riparian Forest Buffers: Planning, Establishment, and Maintenance” by Klapproth and Johnson (2001). Focus is on Virginia.
  - <http://www.ext.vt.edu/pubs/forestry/420-155/420-155.html>
- “A Review of the Scientific Literature on Riparian Buffer Width, Extent, and Vegetation” by Wenger (1999).
  - [http://www.agecon.lsu.edu/WaterEconomics/pdf/buffer\\_litreview.pdf](http://www.agecon.lsu.edu/WaterEconomics/pdf/buffer_litreview.pdf)

### ***Riparian Buffers – recommended widths***

- “County of Santa Clara Riparian Corridor Study” by the Planning Office Environmental Resources Agency County Of Santa Clara (CA), 2003
  - [http://www.sccgov.org/SCC/docs/Planning%2C%20Office%20of%20%28DEP%29/attachments/650099pl\\_RiparianCorridorStudy.pdf#xml=http://www.sccgov.org:80/scsearch/ui.jsp?ui\\_mode=answer&prior\\_transaction\\_id=21933&iq\\_action=6&answer\\_id=16777217&highlight\\_info=4202074,7,14&turl=http%3A%2F%2Fwww.sccgov.org%2FSCC%2Fdocs%2FPlanning%252C%2520Office%2520of%2520%2528DEP%2529%2Fattachme](http://www.sccgov.org/SCC/docs/Planning%2C%20Office%20of%20%28DEP%29/attachments/650099pl_RiparianCorridorStudy.pdf#xml=http://www.sccgov.org:80/scsearch/ui.jsp?ui_mode=answer&prior_transaction_id=21933&iq_action=6&answer_id=16777217&highlight_info=4202074,7,14&turl=http%3A%2F%2Fwww.sccgov.org%2FSCC%2Fdocs%2FPlanning%252C%2520Office%2520of%2520%2528DEP%2529%2Fattachme)

- “Riparian Forest Buffers: Function and Design for Protection and Enhancement of Water Resources” by Welsch (1991) for the USDA Forest Service.
  - [http://www.na.fs.fed.us/spfo/pubs/n\\_resource/buffer/cover.htm](http://www.na.fs.fed.us/spfo/pubs/n_resource/buffer/cover.htm)
- “Vegetated Riparian Buffers and Buffer Ordinances” by the South Carolina Department of Health and Environmental Control. Includes a review of recommended buffer widths from across US.
  - <http://www.cofc.edu/~uses/assets/papers/buffers.pdf>

### ***Programs that Support Riparian Protection***

- “Emergency Watershed Protection (EWP) program” of the NRCS (USDA). Works to “safeguard lives and property from floods, drought, and the products of erosion on any watershed.”
  - <http://www.nrcs.usda.gov/programs/ewp/index.html>
- “Watershed Protection and Flood Prevention” of the NRCS (USDA).
  - <http://www.nrcs.usda.gov/programs/watershed/>
- “Wildlife Habitat Incentives Program” of the NRCS (USDA), which includes riparian habitat.
  - <http://www.nrcs.usda.gov/programs/whip/>
- “The Five Star Restoration Program” on The National Association of Counties website describes this program that provides financial assistance to local partnerships for wetland, riparian, and coastal habitat restoration.
  - [http://www.naco.org/Template.cfm?Section=New\\_Technical\\_Assistance&template=/ContentManagement/ContentDisplay.cfm&ContentID=18449](http://www.naco.org/Template.cfm?Section=New_Technical_Assistance&template=/ContentManagement/ContentDisplay.cfm&ContentID=18449)
- “Conservation Technical Assistance” program of the NRCS (USDA) helps people conserve, maintain, and improve their natural resources.
  - <http://www.nrcs.usda.gov/programs/cta/index.html>

### ***Watershed Management***

- “A Watershed Approach” website by EPA on developing and implementing watershed plans.
  - <http://www.epa.gov/owow/watershed/approach.html>
- “Handbook for Developing Watershed Plans to Restore and Protect Our Waters” by EPA.
  - [http://www.epa.gov/owow/nps/watershed\\_handbook/](http://www.epa.gov/owow/nps/watershed_handbook/)
- “Protecting Streams, Lakes, and Rivers” watershed design resources by the Center for Watershed Protection (payment required for documents).

- [http://www.cwp.org/Resource\\_Library/](http://www.cwp.org/Resource_Library/)
- “Key EPA Internet-Based Tools For Watershed Management: Quick Links for the Overview Level Course Tutorial” by EPA.
  - <http://www.epa.gov/owow/watershed/wacademy/epatools/pdf/ov-qlinx.pdf>

### **Stormwater Management**

- “Stormwater Manager's Resource Center” by the Center for Watershed Protection (payment required for their guidebooks).
  - <http://www.stormwatercenter.net/>
- “National Conference on Urban Stormwater: Enhancing Programs at the Local Level” by EPA.
  - <http://www.epa.gov/owow/nps/natlstormwater03/>

### **Bibliographies**

- “Vegetated Stream Riparian Zones: Their Effects on Stream Nutrients, Sediments, and Toxic Substances. An Annotated and Indexed Bibliography of the world literature, including buffer strips and interactions with hyporheic zones and floodplains” by Correll (2003).
  - <http://www.unl.edu/nac/riparianbibliography.htm>
- “Resources on Riparian Forests” by the Stroud Water Research Center.
  - [http://www.stroudcenter.org/education/BufferBibliography\(1\).htm](http://www.stroudcenter.org/education/BufferBibliography(1).htm)
- “Dynamic Bibliographies” including riparian buffer literature database, by the USDA National Agriculture Library.
  - <http://www.nal.usda.gov/wqic/Bibliographies/dynamic.html#riparian>
- “Factors Affecting Stream Bank and River Bank Stability, with an Emphasis on Vegetation Influences: An Annotated Bibliography” by Ott (2000), Compiled for the Region III (Interior Alaska) Forest Practices Riparian Management Committee.
  - <http://forestry.alaska.gov/pdfs/2BankStabilityfinal.pdf>
- “A Review of the Literature and Assessment of Research Needs in Agricultural Streams in the Pacific Northwest as it Pertains to Freshwater Habitat for Salmonids” by Bolton and Monohan (2001).
  - <http://depts.washington.edu/cssuw/Research/finalcted.pdf>
- “PSL Stream-Riparian BAS Review” by May, Watershed Ecology, LLC (2003) for the City of Bainbridge Island (Washington).
  - [http://www.ci.bainbridge-isl.wa.us/documents/Riparian\\_BAS\\_Rpt\\_Part1.pdf](http://www.ci.bainbridge-isl.wa.us/documents/Riparian_BAS_Rpt_Part1.pdf)
  - [http://www.ci.bainbridge-isl.wa.us/documents/Riparian\\_BAS\\_Part2.pdf](http://www.ci.bainbridge-isl.wa.us/documents/Riparian_BAS_Part2.pdf)

- [http://www.ci.bainbridge-isl.wa.us/documents/Riparian\\_BAS\\_Part3.pdf](http://www.ci.bainbridge-isl.wa.us/documents/Riparian_BAS_Part3.pdf)
- “A Review of the Scientific Literature on Riparian Buffer Width, Extent, and Vegetation” by Wenger (1999).
  - [http://www.agecon.lsu.edu/WaterEconomics/pdf/buffer\\_litreview.pdf](http://www.agecon.lsu.edu/WaterEconomics/pdf/buffer_litreview.pdf)
- “Threats Assessment For Western Riparian Ecosystems: An Annotated Bibliography” by USDA Forest Service.
  - <http://www.rmrs.nau.edu/awa/ripthreatbib/>