

BART NIJSSEN

Curriculum Vitae

Civil and Environmental Engineering
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EDUCATIONAL HISTORY

University of Washington, Seattle, Washington
PhD, Civil and Environmental Engineering
December 2000
Aspects of boreal forest hydrology: From stand to watershed

Wageningen University, Wageningen, The Netherlands
Ingenieur, Tropical Land and Water Management
August 1991
Sampling and modeling of transport processes in the vadose zone

EMPLOYMENT HISTORY

University of Washington
Seattle, Washington, United States
Professor and Chair, Civil and Environmental Engineering, 2022 - current

University of Washington
Seattle, Washington, United States
Professor WOT, Civil and Environmental Engineering, 2018 - 2022

University of Washington
Seattle, Washington, United States
Associate Professor WOT, Civil and Environmental Engineering, 2016 - 2018

University of Washington
Seattle, Washington, United States
Research Associate Professor, Civil and Environmental Engineering, 2014 - 2016

University of Washington
Seattle, Washington, United States
Research Scientist Principal, Civil and Environmental Engineering, 2011 - 2014

3TIER, Inc
Seattle, Washington, United States
Senior Vice-President Technology, 2005 - 2010

University of Arizona
Tucson, Arizona, United States
Assistant Professor, Civil Engineering and Engineering Mechanics / Hydrology and Water Resources, 2001 - 2005

University of Washington
Seattle, Washington, United States
Project Scientist, Civil and Environmental Engineering, 2001

Ursus Technologies
Seattle, Washington, United States
Software Engineer, 2000 - 2001

University of Washington
Seattle, Washington, United States
Graduate Research Assistant, Civil and Environmental Engineering, 1994 - 2000

AWARDS AND HONORS

2021 American Geophysical Union – Edward A. Flinn III Award. *For sustained buildup and maintenance of publicly available computational infrastructure for the global Earth science community.*

2019 American Meteorological Society – Editor’s Award: Journal of Hydrometeorology. *For continued, consistently high-quality, and very thorough reviews of difficult manuscripts*

2018 – current Allan & Inger Osberg Professorship

2017 Administrator’s Excellence Awards - Exceptional Public Service to BPA Award, April 2018, Bonneville Power Administration, Portland, Oregon.

Award for Excellence at the Student Interface, April 2004, University of Arizona, Tucson, Arizona

Preston, Gates & Ellis Intangibility Award, 2000, Electrical Engineering, University of Washington, Seattle, Washington

AFFILIATIONS AND OTHER APPOINTMENTS

National Center for Atmospheric Research
Boulder, Colorado, United States
Affiliate Scientist, Research and Applications Laboratory, 2017 - current

SCHOLARLY OUTPUT

H-index = 46 (Google Scholar); Total citations: 11,653 (Google Scholar); Citations in 2021/2022: 2,152 (Google Scholar). All statistics as of September 25, 2022.

References are in reverse-chronological order.

Notes: 1. Graduate student advised as major advisor at the time of the research on which paper is based; 2. Post-doctoral research associate; 3. Indicates that I am the corresponding author.

Refereed archival journal publications

Published

1. Harrell¹, J., B. Nijssen, and C. Frans, 2022: Where and when does streamflow regulation significantly affect climate change outcomes in the Columbia River basin?. *Water Resources Research*, doi:10.1029/2022WR031950.
2. Cristea, N., A. Bennett¹, B. Nijssen, and J. Lundquist, 2022: Models with multiple snow layers are essential to improve snow predictions in current and future climates. *Water Resources Research*, doi:10.1029/2020WR028993.
3. Mizukami, N., A. Newman, J. Littell, T. Giambelluca, A. Wood, E. Gutmann, J. Hamman, D. Gergel, B. Nijssen, M. Clark, and J. Arnold, 2022: New projections of 21st century climate and hydrology for Alaska and Hawai'i. *Climate Services*, doi:10.1016/j.cliser.2022.100312.
4. Caceres, A., P. Jaramillo, H. Matthews, C. Samaras, and B. Nijssen, 2022: Potential hydropower contribution to mitigate climate risk and build resilience in Africa. *Nature Climate Change*, doi:10.1038/s41558-022-01413-6.
5. Lumbrazo, C., A. Bennett¹, W. Currier, B. Nijssen, and J. Lundquist, 2022: Evaluating multiple canopy-snow unloading parameterizations in SUMMA with time-lapse photography characterized by citizen scientists. *Water Resources Research*, doi:10.1029/2021WR030852.
6. Bennett¹, A., A. Stein¹, Y. Cheng¹, B. Nijssen³, and M. McGuire, 2022: A process-conditioned and spatially consistent method for reducing systematic biases in modeled streamflow. *Journal of Hydrometeorology*, doi:10.1175/JHM-D-21-0174.1.
7. Cheng¹, Y., B. Nijssen, G. Holtgrieve, and J. Olden, 2022: Modeling the freshwater ecological response to changes in flow and thermal regimes influenced by reservoir dynamics. *Journal of Hydrology*, doi:10.1016/j.jhydrol.2022.127591.
8. Van Beusekom, A., L.E. Hay, A.R. Bennett¹, Y.-D. Choi, M.P. Clark, J.L. Goodall, Z. Li, I. Maghami, B. Nijssen, and A.W. Wood, 2022: Hydrologic model sensitivity to temporal disaggregation of meteorological forcing data: A case study for the contiguous USA. *Journal of Hydrometeorology*, doi:10.1175/JHM-D-21-0111.1.
9. Fonseca, F.R., M. Craig, P. Jaramillo, M. Bergés, E. Severnini, A. Loew, H. Zhai, Y. Cheng, B. Nijssen, N. Voisin, and J. Yearsley, 2021: Climate-induced tradeoffs in planning and operating costs of a regional electricity system. *Environmental Science & Technology*, doi:10.1021/acs.est.1c01334.
10. Bennett¹, A., and B. Nijssen, 2021: Deep learned process parameterizations provide better representations of turbulent heat fluxes in hydrologic models. *Water Resources Research*, doi:10.1029/2020WR029328.
11. Clark, M., R. Zolfaghari, K. Green, S. Trim, W. Knoben, A. Bennett¹, B. Nijssen, A. Ireson, and R. Spiteri, 2021: The numerical implementation of land models: Problem formulation and laugh tests. *Journal of Hydrometeorology*, doi:10.1175/JHM-D-20-0175.1.
12. Rupp, D., O. Chegwiddden¹, B. Nijssen, and M. Clark, 2021: Changing river network synchrony modulates projected increases in high flows. *Water Resources Research*, doi:10.1029/2020WR028713.
13. Caceres, A.C., P. Jaramillo, H. S. Matthews, C. Samaras, and B. Nijssen, 2021: Hydropower under climate uncertainty: characterizing the available capacity of Brazilian, Colombian and Peruvian power plants under climate scenarios. *Energy for Sustainable Development*, doi:10.1016/j.esd.2021.02.006.

14. Fonseca, F.R., M. Craig, P. Jaramillo, M. Berges, E. Severnini, A. Loew, H. Zhai, Y. Cheng¹, B. Nijssen, N. Voisin, and J. Yearsley, 2021: Effects of climate change on capacity expansion decisions of an electricity generation fleet in the Southeast U.S.. *Environmental Science & Technology*, doi:10.1021/acs.est.0c06547.
15. Queen, L., P. Mote, D. Rupp, O. Chegwiddden¹, and B. Nijssen, 2021: Ubiquitous but variable increases in projected flood magnitude in the Columbia River Basin. *Hydrology and Earth System Sciences*, doi:10.5194/hess-25-257-2021.
16. Droppers, B., W. Franssen, M. van Vliet, B. Nijssen, and F. Ludwig, 2020: Simulating human impacts on global water resources using VIC-5. *Geoscientific Model Development*, doi:10.5194/gmd-13-5029-2020.
17. Choi, Y.-D., J. L. Goodall, J. M. Sadler, A. M. Castronova, A. Bennett¹, Z. Li, B. Nijssen, S. Wang, M. P. Clark, D. P. Ames, J. S. Horsburgh, H. Yi, C. Bandaragoda, M. Seul, R. Hooper and D. G. Tarboton, 2020: Toward open and reproducible environmental modeling by integrating online data repositories, computational environments, and model application programming interfaces". *Environmental Modelling and Software*, doi:10.1016/j.envsoft.2020.104888.
18. Renner, M., A. Kleidon, M. Clark, B. Nijssen, M. Heidkamp, M. Best, and G. Abramowitz, 2020: How well can land-surface models represent the diurnal cycle of turbulent heat fluxes?. *Journal of Hydrometeorology*, doi:10.1175/JHM-D-20-0034.1.
19. Loew, A., P. Jaramillo, H. Zhai, R. Ali, B. Nijssen, Y. Cheng¹, and K. Klima, 2020: Fossil fuel-fired power plant operations under a changing climate. *Climatic Change*, doi:10.1007/s10584-020-02834-y.
20. Chegwiddden¹, O., D. Rupp, and B. Nijssen³, 2020: Climate change alters flood magnitudes and mechanisms in climatically-diverse headwaters across the northwestern United States. *Environmental Research Letters*, doi:10.1088/1748-9326/ab986f.
21. Cheng¹, Y., N. Voisin, J. Yearsley, and B. Nijssen³, 2020: Reservoirs modify river thermal regime sensitivity to climate change: a case study in the southeastern United States. *Water Resources Research*, doi:10.1029/2019WR025784.
22. Cheng¹, Y., N. Voisin, J. Yearsley, and B. Nijssen³, 2020: Thermal extremes in regulated river systems under climate change: an application to southeastern U.S. rivers. *Environmental Research Letters*, doi:10.1088/1748-9326/ab8f5f.
23. Daley, K., S. Ahmad, C. Beveridge, F. Hossain, B. Nijssen, and G. Holtgrieve, 2020: Recent Warming of the Tonle Sap Lake, Cambodia: Implications for one of the world's most productive inland fisheries. *Lakes & Reservoirs: Science, Policy and Management for Sustainable Use*, doi:10.1111/lre.12317.
24. Bennett¹, A., J. Hamman, and B. Nijssen, 2020: MetSim: A Python package for estimation and disaggregation of meteorological data. *Journal of Open Source Software*, doi:10.21105/joss.02042.
25. Bonnema, M., F. Hossain, B. Nijssen, and G. Holtgrieve, 2020: Hydropower's hidden transformation of rivers in the Mekong. *Environmental Research Letters*, doi:10.1088/1748-9326/ab763d.
26. Mao¹, Y., W. Crow, and B. Nijssen³, 2020: A unified data-driven method to derive hydrologic dynamics from global SMAP surface soil moisture and GPM precipitation data. *Water Resources Research*, doi:10.1029/2019WR024949.

27. Mao¹, Y., W. Crow, and B. Nijssen³, 2020: Dual state/rainfall correction via soil moisture assimilation for improved streamflow simulation: Evaluation of a large-scale implementation with SMAP satellite data. *Hydrology and Earth System Sciences*, doi:10.5194/hess-24-615-2020.
28. Craig, M.T., P. Jaramillo, B.-M. Hodge, B. Nijssen, and C. Branucci, 2020: Compounding climate change impacts during high stress periods for a high wind and solar power system in Texas. *Environmental Research Letters*, doi:10.1088/1748-9326/ab6615.
29. Yearsley, J., N. Sun, M. Baptiste, and B. Nijssen, 2019: Assessing the impacts of hydrologic and land use alterations on water temperature in the Farmington river basin in Connecticut. *Hydrology and Earth System Sciences*, doi:10.5194/hess-23-4491-2019.
30. Pflug, J., G. Liston, B. Nijssen, and J. Lundquist, 2019: Testing model representations of snowpack liquid water percolation across multiple climates. *Water Resources Research*, doi:10.1029/2018WR024632.
31. Chegwiddden¹, O., B. Nijssen³, D. Rupp, J. Arnold, M. Clark, J. Hamman, S.-C. Kao, Y. Mao¹, P. Mote, M. Pan, E. Pytlak, and M. Xiao, 2019: How do modeling decisions affect the spread among hydrologic climate change projections?. *Earth's Future*, doi:10.1029/2018EF001047.
32. Bennett¹, A., B. Nijssen³, G. Ou, M. Clark, and G. Nearing, 2019: Quantifying process connectivity with transfer entropy in hydrologic models. *Water Resources Research*, doi:10.1029/2018WR024555.
33. Eythorsson, D., S. M. Gardarsson, S. K. Ahmad, F. Hossain, and B. Nijssen, 2019: Arctic climate and snow cover trends – Comparing global circulation models with remote sensing observations. *Journal of Applied Earth Observations and Geoinformation*, doi:10.1016/j.jag.2019.04.003.
34. Eldardiry, H., A. Mahmood, X. Chen, F. Hossain, B. Nijssen and D. Lettenmaier, 2019: Atmospheric river-induced precipitation and snowpack during the western United States cold season. *Journal of Hydrometeorology*, doi:10.1175/JHM-D-18-0228.1.
35. Fan, Y., M. Clark, D. M. Lawrence, S. Swenson, L. E. Band, S. Brantley, P. D. Brooks, W. E. Dietrich, A. Flores, G. Grant, J. W. Kirchner, D. S. Mackay, J. J. McDonnell, P. C. D. Milly, P. L. Sullivan, C. Tague, H. Ajami, N. Chaney, A. Hartmann, P. Hazenberg, J. McNamara, J. Pelletier, J. Perket, E. Rouholahnejad-Freund, T. Wagener, X. Zeng, R. E. Beighley, J. Buzan, M. Huang, B. Livneh, B. P. Mohanty, B. Nijssen, M. Safeeq, C. Shen, W. van Verseveld, J. Volk, and D. Yamazaki, 2019: Hillslope hydrology in global change research and earth system modeling. *Water Resources Research*, doi:10.1029/2018WR023903.
36. Lapo, K., B. Nijssen, and J. Lundquist, 2019: Evaluation of turbulence stability schemes of land models for stable conditions. *Journal of Geophysical Research - Atmospheres*, doi:10.1029/2018JD028970.
37. Mao¹, Y., W. T. Crow, and B. Nijssen³, 2018: A framework for diagnosing factors degrading the streamflow performance of a soil moisture data assimilation system. *Journal of Hydrometeorology*, doi:10.1175/JHM-D-18-0115.1.
38. Brunke, M., J. Cassano, N. Dawson, A. DuVivier, W. Gutowski, Jr., J. Hamman¹, W. Maslowski, B. Nijssen, J. Reeves Eyre, J. Renteria, A. Roberts, and X. Zeng, 2018: Evaluation of the atmosphere-land-ocean-sea ice interface processes in the Regional Arctic System Model Version 1 (RASMI) using local and globally gridded observations. *Geoscientific Model Development*, doi:10.5194/gmd-11-4817-2018.

39. Niemeyer², R., Y. Cheng¹, Y. Mao¹, J. Yearsley, and B. Nijssen³, 2018: A thermally-stratified reservoir module for large-scale distributed stream temperature models with application in the Tennessee River Basin. *Water Resources Research*, doi:10.1029/2018WR022615.
40. Vano, J., M. Clark, J. Arnold, B. Nijssen, A. Wood, E. Gutmann, N. Addor, J. Hamman, F. Lehner, 2018: Dos and don'ts for using climate change information for water resource planning and management, version 1.0: guidelines for study design. *Climate Services*, doi:10.1016/j.cliser.2018.07.002.
41. Nearing, G. S., B. Ruddell, M. Clark, C. Peters-Lidard, and B. Nijssen, 2018: Benchmarking and process diagnostics of land models. *Journal of Hydrometeorology*, doi:10.1175/JHM-D-17-0209.1.
42. Hamman¹, J. J., B. Nijssen³, T. J. Bohn, D. R. Gergel¹, and Y. Mao¹, 2018: The Variable Infiltration Capacity Model, Version 5 (VIC-5): Infrastructure improvements for new applications and reproducibility. *Geoscientific Model Development*, doi:10.5194/gmd-11-3481-2018.
43. Endalamaw, A., W. R. Bolton, J. M. Young-Robertson, D. Morton, L. Hinzman, and B. Nijssen, 2017: Towards improved parameterization of a macro-scale hydrologic model in a discontinuous permafrost boreal forest ecosystem. *Hydrology and Earth System Sciences*, doi:10.5194/hess-21-4663-2017.
44. Mizukami, N., M. Clark, A. Newman, A. Wood, E. Gutmann, B. Nijssen, O. Rakovec, L. Samaniego, 2017: Towards seamless large domain parameter estimation for hydrologic models. *Water Resources Research*, doi:10.1002/2017WR020401.
45. Mendoza, P. A., A. W. Wood, E. Clark¹, E. Rothwell, M. P. Clark, B. Nijssen, L. D. Brekke, and J. R. Arnold, 2017: An intercomparison of approaches for improving predictability in operational seasonal streamflow forecasting. *Hydrology and Earth System Sciences*, doi:10.5194/hess-21-3915-2017.
46. Newman, A. J., N. Mizukami, M. P. Clark, A. W. Wood, B. Nijssen, and G. Nearing, 2017: Benchmarking of a physically based hydrologic model. *Journal of Hydrometeorology*, doi:10.1175/jhm-d-16-0284.1.
47. Cassano, J. J., A. DuVivier, A. Roberts, M. Hughes, M. Seefeldt, M. Brunke, A. Craig, B. Fisel, W. Gutowski, J. Hamman¹, M. Higgins, W. Maslowski, B. Nijssen, R. Osinski, and X. Zeng, 2017: Development of the Regional Arctic System Model (RASM): Near Surface Atmospheric Climate Sensitivity. *Journal of Climate*, doi:10.1175/jcli-d-15-0775.1.
48. Houze, R. A., L. A. McMurdie, W. A. Petersen, M. R. Schwaller, W. Baccus, J. Lundquist, C. Mass, B. Nijssen, S. A. Rutledge, D. Hudak, S. Tanelli, G. G. Mace, M. Poellot, D. Lettenmaier, J. Zagrodnik, A. Rowe, J. DeHart, L. Madaus, and H. Barnes, 2017: The Olympic Mountains Experiment (OLYMPEX). *Bulletin of the American Meteorological Society*, doi:10.1175/bams-d-16-0182.1.
49. Hamman¹, J., B. Nijssen³, A. Roberts, A. Craig, W. Maslowski, and R. Osinski, 2017: The coastal streamflow flux in the Regional Arctic System Model. *Journal of Geophysical Research: Oceans*, 122, 1683-1701, doi:10.1002/2016jc012323.
50. Gergel¹, D. R., B. Nijssen³, J. T. Abatzoglou, D. P. Lettenmaier, and M. R. Stumbaugh, 2017: Effects of climate change on snowpack and fire potential in the western USA. *Climatic Change*, 141, 287-299, doi:10.1007/s10584-017-1899-y.
51. Clark, M. P., B. Nijssen, and C. H. Luce, 2017: An analytical test case for snow models. *Water Resources Research*, 53, 909-922, doi:10.1002/2016wr019672.

52. Xiao, M., B. Nijssen, and D. P. Lettenmaier, 2016: Drought in the Pacific Northwest, 1920-2013. *Journal of Hydrometeorology*, 17, 2391-2404, doi:10.1175/jhm-d-15-0142.1.
53. Zhou², T., B. Nijssen, H. Gao, and D. P. Lettenmaier, 2016: The contribution of reservoirs to global land surface water storage variations. *Journal of Hydrometeorology*, 17, 309-325, doi:10.1175/jhm-d-15-0002.1.
54. Sun¹, N., J. Yearsley, M. Baptiste, Q. Cao, D. P. Lettenmaier, and B. Nijssen³, 2016: A spatially distributed model for assessment of the effects of changing land use and climate on urban stream quality. *Hydrological Processes*, 30, 4779-4798, doi:10.1002/hyp.10964.
55. Mizukami, N., M. P. Clark, K. Sampson, B. Nijssen, Y. Mao¹, H. McMillan, R. J. Viger, S. L. Markstrom, L. E. Hay, R. Woods, J. R. Arnold, and L. D. Brekke, 2016: mizuRoute version 1: a river network routing tool for a continental domain water resources applications. *Geoscientific Model Development*, 9, 2223-2238, doi:10.5194/gmd-9-2223-2016.
56. Mizukami, N., M. P. Clark, E. D. Gutmann, P. A. Mendoza, A. J. Newman, B. Nijssen, B. Livneh, L. E. Hay, J. R. Arnold, and L. D. Brekke, 2016: Implications of the methodological choices for hydrologic portrayals of climate change over the contiguous United States: Statistically downscaled forcing data and hydrologic models. *Journal of Hydrometeorology*, 17, 73-98, doi:10.1175/jhm-d-14-0187.1.
57. Hamman¹, J., B. Nijssen³, M. Brunke, J. Cassano, A. Craig, A. DuVivier, M. Hughes, D. P. Lettenmaier, W. Maslowski, R. Osinski, A. Roberts, and X. Zeng, 2016: Land surface climate in the Regional Arctic System Model. *Journal of Climate*, 29, 6543-6562, doi:10.1175/jcli-d-15-0415.1.
58. DuVivier, A. K., J. J. Cassano, A. Craig, J. Hamman¹, W. Maslowski, B. Nijssen, R. Osinski, and A. Roberts, 2016: Winter atmospheric buoyancy forcing and oceanic response during strong wind events around southeastern Greenland in the Regional Arctic System Model (RASM) for 1990-2010. *Journal of Climate*, 29, 975-994, doi:10.1175/jcli-d-15-0592.1.
59. Cao, Q., N. Sun², J. Yearsley, B. Nijssen, and D. P. Lettenmaier, 2016: Climate and land cover effects on the temperature of Puget Sound streams. *Hydrological Processes*, 30, 2286-2304, doi:10.1002/hyp.10784.
60. Anghileri, D., N. Voisin, A. Castelletti, F. Pianosi, B. Nijssen, and D. P. Lettenmaier, 2016: Value of long-term streamflow forecasts to reservoir operations for water supply in snow-dominated river catchments. *Water Resources Research*, 52, 4209-4225, doi:10.1002/2015wr017864.
61. Vano, J. A., B. Nijssen, and D. P. Lettenmaier, 2015: Seasonal hydrologic responses to climate change in the Pacific Northwest. *Water Resources Research*, 51, 1959-1976, doi:10.1002/2014wr015909.
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63. Newman, A. J., M. P. Clark, J. Craig, B. Nijssen, A. W. Wood, E. Gutmann, N. Mizukami, L. Brekke, and J. R. Arnold, 2015: Gridded ensemble precipitation and temperature estimates for the contiguous United States. *Journal of Hydrometeorology*, 16, 2481-2500, doi:10.1175/jhm-d-15-0026.1.

64. Mishra, V., A. R. Ganguly, B. Nijssen, and D. P. Lettenmaier, 2015: Changes in observed climate extremes in global urban areas. *Environmental Research Letters*, 10, 024005, doi:10.1088/1748-9326/10/2/024005.
65. Mao, Y., B. Nijssen, and D. P. Lettenmaier, 2015: Is climate change implicated in the 2013-2014 California drought? A hydrologic perspective. *Geophysical Research Letters*, 42, 2805-2813, doi:10.1002/2015gl063456.
66. Livneh, B., T. J. Bohn, D. W. Pierce, F. Munoz-Arriola, B. Nijssen, R. Vose, D. R. Cayan, and L. Brekke, 2015: A spatially comprehensive, hydrometeorological data set for Mexico, the U.S., and Southern Canada 1950–2013. *Scientific Data*, 2, 150042, doi:10.1038/sdata.2015.42.
67. Clark, M. P., B. Nijssen, J. D. Lundquist, D. Kavetski, D. E. Rupp, R. A. Woods, J. E. Freer, E. D. Gutmann, A. W. Wood, D. J. Gochis, R. M. Rasmussen, D. G. Tarboton, V. Mahat, G. N. Flerchinger, and D. G. Marks, 2015: A unified approach for process-based hydrologic modeling: 2. Model implementation and case studies. *Water Resources Research*, 51, 2515-2542, doi:10.1002/2015wr017200.
68. Clark, M. P., B. Nijssen, J. D. Lundquist, D. Kavetski, D. E. Rupp, R. A. Woods, J. E. Freer, E. D. Gutmann, A. W. Wood, L. D. Brekke, J. R. Arnold, D. J. Gochis, and R. M. Rasmussen, 2015: A unified approach for process-based hydrologic modeling: 1. Modeling concept. *Water Resources Research*, 51, 2498-2514, doi:10.1002/2015wr017198.
69. Clark, E. A., J. Sheffield, M. T. H. van Vliet, B. Nijssen, and D. P. Lettenmaier, 2015: Continental Runoff into the Oceans (1950-2008). *Journal of Hydrometeorology*, 16, 1502-1520, doi:10.1175/jhm-d-14-0183.1.
70. Adam, J. C., J. C. Stephens, S. H. Chung, M. P. Brady, R. D. Evans, C. E. Kruger, B. K. Lamb, M. Liu, C. O. Stöckle, J. K. Vaughan, K. Rajagopalan, J. A. Harrison, C. L. Tague, A. Kalyanaraman, Y. Chen, A. Guenther, F.-Y. Leung, L. R. Leung, A. B. Perleberg, J. Yoder, E. Allen, S. Anderson, B. Chandrasekharan, K. Malek, T. Mullis, C. Miller, T. Nergui, J. Poinssatte, J. Reyes, J. Zhu, J. S. Choate, X. Jiang, R. Nelson, J.-H. Yoon, G. G. Yorgey, K. Johnson, K. J. Chinnayakanahalli, A. F. Hamlet, B. Nijssen, and V. Walden, 2015: BioEarth: Envisioning and developing a new regional earth system model to inform natural and agricultural resource management. *Climatic Change*, 555-571, doi:10.1007/s10584-014-1115-2.
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72. Nijssen³, B., S. Shukla, C. Lin, H. Gao, T. Zhou, Ishottama, J. Sheffield, E. F. Wood, and D. P. Lettenmaier, 2014: A prototype Global Drought Information System based on multiple land surface models. *Journal of Hydrometeorology*, 15, 1661-1676, doi:10.1175/jhm-d-13-090.1.
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Parts of books (chapters in edited books)

1. Zhou², T., I. Haddeland, B. Nijssen, and D.P. Lettenmaier, 2016: Human-induced changes in the global water cycle. In *Terrestrial water cycle and climate change: Natural and human-induced impacts*, edited by Q. Tang and T. Oki, American Geophysical Union, ISBN-13:978-1118971765. (cc: 2)
2. Nijssen, B., L.A. Bastidas, 2006: Land-Atmosphere Models for Water and Energy Cycle Studies. In *Encyclopedia of Hydrological Sciences*, John Wiley and Sons, Ltd., doi:10.1002/0470848944.hsa212. (cc: 6)
3. Lettenmaier, D.P. and B. Nijssen, 2004: The water balance concept – how useful is it as a guiding principle for the design of land-atmosphere field experiments?, In *Vegetation, water, humans and the climate: A new perspective on an interactive system*, P. Kabat, M. Claussen, M., P.A. Dirmeyer, J.H.C. Gash, L. Bravo de Guenni, M. Meybeck, R.S. Pielke, R.S.; C.J. Vörösmarty, R.W.A. Hutjes, S. Lütke-meier, eds., *Global Change – The IGBP Series*, Springer, Berlin, p. 213-220, doi:10.1007/978-3-642-18948-7_20.
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Other significant research dissemination (web sites, software, Wikis, etc.)

Web sites

1. UW Hydro | Computational Hydrology Group web site: <http://www.hydro.washington.edu>
2. UW Hydro | Computational Hydrology Group online source code repository: <https://github.com/uw-hydro>

Software

1. Variable Infiltration Capacity (VIC) model web site (maintained by my group):
 - a. Source code: <https://github.com/UW-Hydro/VIC> (doi:10.5281/zenodo.267178)

- b. Documentation: <http://vic.readthedocs.io/en/latest/>
- 2. RVIC routing model (maintained by my group):
 - a. Source code: <https://github.com/UW-Hydro/RVIC> (doi:10.5281/zenodo.269614)
 - b. Documentation: <http://rvic.readthedocs.io/en/latest/>
- 3. METSIM: meteorological simulator and forcing disaggregator for hydrologic modeling and climate applications (developed and maintained by my group)
 - a. Source code: <https://github.com/UW-Hydro/MetSim> (doi:10.5281/zenodo.840574)
 - b. Documentation: <http://metsim.readthedocs.io/en/develop>
- 4. SUMMA (I am a maintainer and contributor for this source code):
 - a. Source code: <https://github.com/near/summa> (doi:10.5281/zenodo.800772)
 - b. Documentation: <http://summa.readthedocs.io/en/latest>
- 5. bmorph (developed and maintained by my group)
 - a. Source code: <https://github.com/UW-Hydro/bmorph> (doi:10.5281/zenodo.5348463)
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Data sets

1. Chegwidan, O. S., B. Nijssen, D. E. Rupp, P. W. Mote, 2017: Hydrologic Response of the Columbia River System to Climate Change [Data set]. Zenodo, doi:10.5281/zenodo.854763. Web site at: <http://www.hydro.washington.edu/CRCC>
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3. Integrated Scenarios of the Future Northwest Environment, 2015: <http://climate.nkn.uidaho.edu/IntegratedScenarios/index.php> – *data set described in Gergel et al., 2017. My group was responsible for the VIC model simulations.*
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