**Great Basin LTAR Bibliography**

**2012-Present**

1. Alkhaier, F., Z. Su, and G.N. Flerchinger. 2012. Shallow groundwater effect on land surface temperature and surface energy balance under bare soil conditions: modeling and description. Hydrologic and Earth System Sciences. 16:1817-1831. doi: 10.5194/hess-16-1817-2012.
2. Alkhaier, F., Z. Su, and G.N. Flerchinger. 2012. Reconnoitering the effect of shallow groundwater on land surface temperature and surface energy balance using MODIS and SEBS. Hydrologic and Earth System Sciences. 16:1833-1844. doi: 10.5194/hess-16-1833-2012.
3. Al-Hamdan, O.Z., Hernandez, M., Pierson Jr, F.B., Nearing, M.A., Williams, C.J., Stone, J.J., Boll, J., Weltz, M.A. 2014. Rangeland Hydrology and Erosion Model (RHEM) enhancements for applications on disturbed rangelands. Hydrological Processes. 29:445-457. doi: 10.1002/hyp.10167.
4. Al-Hamdan, O.Z., Pierson Jr, F.B., Nearing, M.A., Stone, J.J., Williams, C.J., Moffet, C.A., Kormos, P.R., Boll, J., Weltz, M.A. 2012. Characteristics of concentrated flow hydraulics for rangeland ecosystems: Implications for hydrologic modeling. Earth Surface Processes and Landforms. 37(2):157-168. doi: 10.1002/esp.2227.
5. Al-Hamdan, O.Z., Pierson Jr, F.B., Nearing, M.A., Williams, C.J., Stone, J.J., Kormos, P.R., Boll, J., Weltz, M.A. 2012. Concentrated flow erodibility for physically-based erosion models: temporal variability in disturbed and undisturbed rangelands. Water Resources Research. 48(7): W07504. doi: 10.1029/2011WR011464.
6. Al-Hamdan, O.Z., Pierson Jr, F.B., Nearing, M.A., Williams, C.J., Stone, J.J., Kormos, P.R., Boll, J., Weltz, M.A. 2013. Risk assessment of erosion from concentrated flow on rangelands using overland flow distribution and shear stress partitioning. Transactions of the ASABE. 56(2):539-548. doi: 10.13031/2013.42684.
7. Beck, S., Clark, P., Howery, L., Johnson, D., Kluever, B., Smallidge, S., Cibils, A.F. 2012. A perspective on livestock-wolf interactions on western rangelands. Rangelands. 34(5):6-11. doi: 10.2111/RANGELANDS-D-11-00069.1.
8. Bonta, J.V., Hardegree, S.P., Cho, J. 2012. Characterization of within-day beginning times of storms for stochastic simulation. American Society of Agricultural and Biological Engineers. 55(4):1179-1192. doi: 10.13031/2013.42242.
9. Bullied, W.J., Flerchinger, G.N., Bullock, P.R., Van Acker, R.C. 2014. Process-based modeling of temperature and water profiles in the seedling recruitment zone: Part I. Model validation. Agricultural and Forest Meteorology. 188:89-103. doi: 10.1016/j.agrformet.2013.11.012
10. Bullied, W.J., Flerchinger, G.N., Bullock, P.R., Van Acker, R.C. 2014. Process-based modeling of temperature and water profiles in the seedling recruitment zone: Part II. Seedling emergence timing. Agricultural and Forest Meteorology. 188:104-120. doi: 10.1016/j.agrformet.2013.10.007.
11. Chambers, J.C., Bradley, B.B., D'Antonio, C., Germino, M.J., Grace, J.B., Hardegree, S.P., Miller, R.F., Pyke, D.A. 2013. Resilience to disturbance and resistance to alien grass invasions in the cold desert of western North America. Ecosystems. 17:360-375. doi: [10.1007/s10021-013-9725-5](http://dx.doi.org/10.1007/s10021-013-9725-5).
12. Chan, S., Bindlish, R., O'Neill, P., Njoku, E., Jackson, T.J., Colliander, A., Chen, F., Burgin, M., Dunbar, R., Peipmeier, J., Yueh, S., Entekhabi, D., Cosh, M.H., Caldwell, T., Walker, J., Wu, X., Berg, A., Rowlandson, T., Pacheco, A., McNairn, H., Thibeault, M., Martinez-Fernandez, J., Gonzalez-Zamora, A., Seyfried, M.S., Bosch, D.D., Starks, P.J., Goodrich, D.C., Prueger, J.H., Palecki, M., Small, E., Zreda, M., Calvet, J., Crow, W.T., Kerr, Y. 2016. Assessment of the SMAP level 2 passive soil moisture product. IEEE Transactions on Geoscience and Remote Sensing. 54(8):1-14. doi:10.1109/TGRS.2016.2561938.
13. Chen, X., Kumar, M., Wang, R., Winstral, A., Marks, D.G. 2016. Assessment of the timing of daily peak streamflow during melt season in a snow dominated watershed. Journal of Hydrometeorology. 17:2225-2244. doi: 10.1175/JHM-D-15-0152.1.
14. Clark, M., Nijssen, B., Lundquist, J., Kavetski, D., Rupp, D., Gutmann, E., Wood, A., Gochis, D., Rasmussen, R., Tarboton, D., Mahat, V., Flerchinger, G.N., Marks, D.G. 2015. A unified approach for process-based hydrologic modeling: Part 2. Model implementation and case studies. Water Resources Research. 51(4):2515-2542. doi: 10.1002/2015WR017200.
15. Clark, P., Johnson, D., Ganskopp, D., Varva, M., Cook, J., Cook, R., Pierson, F.B., Hardegree, S.P. 2017. Contrasting Daily and Seasonal Activity and Movement of Sympatric Elk and Cattle. Rangeland Ecology and Management. 70:183-191. doi: <http://dx.doi.org/10.1016/j.rama.2016.09.003>.
16. Clark, P., Lee, J., Ko, K., Nielson, R.M., Johnson, D.E., Ganskopp, D.C., Pierson Jr, F.B., Hardegree, S.P. 2015. Prescribed fire effects on resource selection by cattle in mesic sagebrush steppe. Part 2: Mid-summer grazing. Journal of Arid Environments. 124:398-412. doi: 10.1016/j.jaridenv.2015.03.005.
17. Clark, P., Lee, J., Ko, K., Nielson, R., Johnson, D.E., Ganskopp, D.C., Chigbrow, D.J., Pierson Jr, F.B., Hardegree, S.P. 2014. Prescribed fire effects on resource selection by cattle in mesic sagebrush steppe. Part 1: Spring grazing. Journal of Arid Environments. 100-101:78-88. doi: [10.1016/j.jaridenv.2013.10.012](http://dx.doi.org/10.1016/j.jaridenv.2013.10.012).
18. Clark, P., Moffet, C.A., Lewis, G.S., Seyfried, M.S., Hardegree, S.P., Pierson Jr, F.B. 2012. Water quality effects of herded stream crossings by domestic sheep bands. Journal of Environmental Quality. 41:1-11. doi:10.2134/jeq2012.0005.
19. Clark, P., Williams, C.J., Hardegree, S.P., Pierson Jr, F.B. 2016. Postfire grazing management effects on mesic sagebrush-steppe vegetation: spring grazing. Journal of Arid Environments. 132:49-59. doi: [10.1016/j.jaridenv.2015.10.022](http://dx.doi.org/10.1016/j.jaridenv.2015.10.022).
20. Cowley, G.S., Niemann, J.D., Green, T.R., Seyfried, M.S., Jones, A.S., Grazaitis, P.J. 2017. Impacts of precipitation and potential evapotranspiration patterns on downscaling soil moisture in regions with large topographic relief. Water Resources Research. 53, doi:10.1002/2016WR019907.
21. Enslin, C., Godsey, S., Marks, D.G., Kormos, P.R., Seyfried, M.S., Link, T., McNamara, J. 2016. Data set: A modeling dataset that spans the rain - snow transition zone: Johnston Draw catchment, Reynolds Creek Experimental Watershed, Idaho, USA. Ag Data Commons, USDA National Agricultural Library. http://dx.doi.org/10.15482/USDA.ADC/1258769.
22. Fang, Q., Ma, L., Flerchinger, G.N., Qi, Z., Ahuja, L.R., Xing, H., Li, J., Yu, Q. 2014. Modeling evapotranspiration and energy balance in a wheat-maize cropping system using the revised RZ-SHAW model. Agriculture and Forest Meteorology. 194:218-229. doi: [10.1016/j.agrformet.2014.04.009](http://dx.doi.org/10.1016/j.agrformet.2014.04.009).
23. Finzel, J.A., Seyfried, M.S., Weltz, M.A., Kiniry, J.R., Johnson, M.V.V., Launchbaugh, K.L. 2012. Indirect measurement of leaf area index in sagebrush steppe rangelands. Rangeland Ecology and Management. 65:208-212. doi: <http://dx.doi.org/10.2111/REM-D-11-00069.1>.
24. Finzel, J., Seyfried, M.S., Weltz, M.A., Launchbaugh, K. 2015. Simulation of long-term soil water dynamics at Reynolds Creek, Idaho: Implications for rangeland productivity. Ecohydrology. 9:673-687. doi: 10.1002/eco.1666.
25. Flerchinger, G.N., Caldwell, T.G., Cho, J., Hardegree, S.P. 2012. Simultaneous heat and water model: Model use, calibration and validation. Transactions of the ASABE. 55(4):1395-1411. doi: 10.13031/2013.42250.
26. Flerchinger, G.N., Lehrsch, G.A., Mccool, D.K. 2013. Freezing and thawing processes. Online Reference Database Earth Systems and Environmental Sciences. doi: 10.1016/B978-0-12-409548-9.05173-3.
27. Flerchinger, G.N., Reba, M.L., Marks, D. 2012. Measurement of surface energy fluxes from two rangeland sites and comparison with a multilayer canopy model. Journal of Hydrometeorology 13(3):1038-1051, doi: 10.1175/JHM-D-11-093.1.
28. Flerchinger, G.N., Seyfried, M.S. 2014. Comparison of methods for estimating

evapotranspiration in a small rangeland catchment. Vadose Zone Journal. 13:4. doi: 10.2136/vzj2013.08.0152.

1. Flerchinger, G.N., Seyfried, M.S., Hardegree, S.P. 2016. Hydrologic response and recovery to prescribed fire and vegetation removal in a small rangeland catchment. Ecohydrology. 9(8):1604-1619. doi: 10.1002/eco.1751.
2. Hardegree, S.P., Cho, J., Moffet, C.A., Roundy, B.A., Jones, T.A., James, J.J., Flerchinger, G.N., Clark, P., Pierson Jr, F.B. 2013. Hydrothermal assessment of temporal variability in seedbed microclimate. Rangeland Ecology and Management. 66:127-135. doi: [10.2111/REM-D-11-00074.1](http://dx.doi.org/10.2111/REM-D-11-00074.1).
3. Hardegree, S.P., Cho, J., Schneider, J.M. 2012. Weather variability, ecological processes and optimization of soil micro-environment for rangeland restoration. In: Monaco, T.A. and Sheley, R.L., editors. Invasive Plant Ecology and Management: Linking Processes to Practice. Wallingford, Oxon: CAB International. p. 107-121. doi: [10.1079/9781845938116.0107](http://dx.doi.org/10.1079/9781845938116.0107).
4. Hardegree, S.P., Jones, T.A., Roundy, B., Shaw, N., Monaco, T.A. 2016. Assessment of range planting as a conservation practice. Rangeland Ecology and Management. 69:237-247. doi: 10.1016/j.rama.2016.04.007.
5. Hardegree, S.P., Schneider, J.M., Moffet, C.A. 2012. Weather variability and adaptive management for rangeland restoration. Rangelands. 34(6):53-56. doi: <http://dx.doi.org/10.2111/RANGELANDS-D-12-00048.1>.
6. Hardegree, S.P., Schneider, J.M., Moffet, C.A., Boehm, A.R. 2012. Using weather data to improve decision-making. Agricultural Research Service Publication. <https://www.nwrc.ars.usda.gov/publications/2012/Hardegree-EBIPM%20Guidebook.pdf>
7. Hardegree, S.P., Sheley, R.L., Duke, S.E., James, J.J., Boehm, A.R., Flerchinger, G.N. 2016. Temporal variability in microclimatic conditions for grass germination and emergence in the sagebrush steppe. Rangeland Ecology and Management. 69(2):123-128. doi: <http://dx.doi.org/10.1016/j.rama.2015.12.002>.
8. Hardegree, S.P., Walters, C.T., Boehm, A.R., Olsoy, P.J., Clark, P., Pierson Jr, F.B. 2015. Hydrothermal germination models: comparison of two data-fitting approaches with probit optimization. Crop Science. 55:2276-2290. doi:10.2135/cropsci2014.10.0703.
9. Hernandez, M., Nearing, M.A., Stone, J.J., Pierson Jr, F.B., Wei, H., Spaeth, K., Heilman, P., Weltz, M.A., Goodrich, D.C. 2013. Application of a rangeland soil erosion model using NRI data in southeastern Arizona. Journal of Soil and Water Conservation Society. 68(6):512-525. doi: 10.289/jswc.68.6.512.
10. Jackson, T.J., Bindlish, R., Cosh, M.H., Zhao, T., Starks, P.J., Bosch, D.D., Moran, M.S., Seyfried, M.S., Kerr, Y., Leroux, D., Goodrich, D.C. 2012. SMOS validation of soil moisture and ocen salinity (SMOS) soil moisture over watershed networks in the U.S. IEEE Transactions on Geoscience and Remote Sensing. 50:1530-1543. doi: [10.1109/TGRS.2011.2168533](https://doi.org/10.1109/TGRS.2011.2168533).
11. Kargas, G., Kerkides, P., Seyfried, M.S. 2015. Response of three soil water sensors to variable solution electrical conductivity in different soils. Vadose Zone Journal. 13(9). doi: 13.10.2136/vzj2013.09.0169.
12. Kojima, Y., Flerchinger, G.N., Heitman, J., Horton, R. 2013. Numerical evaluation of a sensible heat balance method to determine rates of soil freezing and thawing. Vadose Zone Journal. 12(1). doi: 10.2136/vzj2012.0053.
13. Kojima, Y., Heitman, J., Flerchinger, G.N., Ren, T., Ewing, R.P., Horton, R. 2014. Field test and sensitivity analysis of a sensible heat balance method to determine ice contents. Vadose Zone Journal. 13(9). doi: 10.2136/vzj2014.04.0036.
14. Kojima, Y., Heitman, J., Flerchinger, G.N., Ren, T., Horton, R. 2016. Sensible heat balance estimates of transient soil ice contents for freezing and thawing conditions. Vadose Zone Journal. 15(5):11. doi: 10.2136/vzj2015.10.0134.
15. Kongoli, C., Kustas, W.P., Anderson, M.C., Norman, J.M., Alfieri, J.G., Flerchinger, G.N., Marks, D.G. 2014. Evaluation of a two source snow-vegetation energy balance model for estimating surface energy fluxes in a rangeland ecosystem. Journal of Hydrometeorology. 15(1):143-158. doi: <http://dx.doi.org/10.1175/JHM-D-12-0153.1>.
16. Kormos, P.R., Marks, D.G., Boehm, A.R., Havens, S.C., Hedrick, A., Pierson Jr, F.B., Williams, C.J., Hardegree, S.P., Bates, J.D., Svejcar, A., Winstral, A. 2016. Data set: Weather, snow, and streamflow data from four western juniper-dominated experimental catchments in southwestern Idaho, USA, Ag Data Commons, USDA Agricultural Library, http://dx.doi.org/10.15482/USDA.ADC/1254010.
17. Kormos, P., Marks, D.G., McNamara, J., Marshall, H., Winstral, A.H., Flores, A.N. 2014. Snow distribution, melt and surface water inputs to the soil in the mountain rain-snow transition zone. Journal of Hydrology. 519:190-204. doi: 10.1016.j.jhydrol.2014.06.051.
18. Kormos, P.R., Marks, D.G., Pierson Jr, F.B., Williams, C.J., Hardegree, S.P., Havens, S.C., Hedrick, A., Bates, J.D., Svejcar, A.J. 2016. Ecosystem water availability in juniper versus sagebrush snow-dominated rangelands. Rangeland Ecology and Management. 70(1): 116-128. doi: 10.1016/j.rama.2016.05.003.
19. Kormos, P.R., Marks, D.G., Seyfried, M.S., Havens, S.C., Hedrick, A., Lohse, K., Masarik, M., Flores, A. 2016. Data set: 31 years of spatially distributed air temperature, humidity, precipitation amount and precipitation phase from a mountain catchment in the rain-snow transition zone. Boise State University, Reynolds Creek Critical Zone Observatory. http://doi.org/10.18122/B2B59V.
20. Kormos, P., Marks, D.G., Williams, C.J., Marshall, H., Aishlin, P., Chandler, D., McNamara, J.P. 2014. Soil, snow, weather, and sub-surface storage data from a mountain catchment in the rain-snow transition zone. Earth System Science Data. 6:165-173. doi: 10.5194/essd-6-165-2014.
21. Kormos, P., McNamara, J., Seyfried, M.S., Marshall, H., Marks, D.G., Flores, A. 2015. Bedrock infiltration estimates from a catchment water storage-based modeling approach in the rain snow transition zone. Journal of Hydrology. 525:231-248. doi: <http://dx.doi.org/10.1016/j.jhydrol.2015.03.032>.
22. Kumar, M., Marks, D.G., Dozier, J., Reba, M.L., Winstral, A.H. 2013. Evaluation of distributed hydrologic impacts of temperature-index and energy-based snow models. Advances in Water Resources. 56:77-89. doi: 10.1016/j.advwatres.2013.03.006.
23. Larson, J.E., Sheley, R.L., Hardegree, S.P., Doescher, P.S., James, J.J. 2015. Do key dimensions of seed and seedling functional trait variation capture variation in recruitment probability? Oecologia. 181:39-53. doi: 10.1007/s00442-015-3430-3.
24. Larson, J.E., Sheley, R.L., Hardegree, S.P., Doescher, P.S., James, J.J. 2015. Seed and seedling traits affecting critical life stage transitions and recruitment outcomes in dryland grasses. Journal of Applied Ecology. 52:199-209. doi: 10.1111/1365-2664.12350.
25. Li, R., Flerchinger, G.N., Shi, H., Fu, X., Li, Z. 2013. Modeling the effect of antecedent soil water storage on water and heat status in seasonally freezing and thawing agricultural soils. Geoderma. 206:70-74. doi: [10.1016/j.geoderma.2013.04.021](http://dx.doi.org/10.1016/j.geoderma.2013.04.021).
26. Li, Z., Ma, L., Flerchinger, G.N., Ahuja, L.R., Wang, H. 2012. Simulation of overwinter soil water and soil temperature with SHAW and RZ-SHAW. Soil Science Society of America Journal. 76:1548-1563. doi:10.2136/sssaj2011.0434.
27. Li, R., Shi, H., Flerchinger, G.N., Akae, T., Wang, C. 2012. Simulation of freezing and thawing soils in Inner Mongolia Hetao irrigation district, China. Geoderma. 173-174:28-33. doi: [10.1016/j.geoderma.2012.01.009](http://dx.doi.org/10.1016/j.geoderma.2012.01.009).
28. Liu, J., Hans, L., Deliang, C., Xiji, Z., Flerchinger, G.N., Qiang, Y., Jun, D., Dingrong, W., Yanbo, S., Zhenbin, Y. 2015. Changes in the relationship between solar radiation and sunshine hours in large cities of China. Energy. 82(15):589-600. Doi: 10.1016/j.energy.2015.01.068.
29. Ma, L., Flerchinger, G.N., Ahuja, L.R., Sauer, T.J., Prueger, J.H., Malone, R.W., Hatfield, J.L. 2012. Simulating the surface energy balance in a soybean canopy with SHAW and RZ-SHAW models. Transactions of the ASABE. 55(1):175-179. doi: 10.13031/2013.41261.
30. Marks, D.G., Winstral, A.H., Reba, M.L., Pomeroy, J., Kumar, M. 2013. An evaluation of methods for determining during-storm precipitation phase and the rain/snow transition elevation at the surface in a mountain basin. Advances in Water Resources. 55:98-110. doi: 10.1016/j.advwatres.2012.11.012.
31. McIver, J., Brunson, M., Bunting, S., Chambers, J., Doescher, P., Grace, J., Hulet, A., Johnson, D., Knick, S., Miller, R., Pierson Jr, F.B., Pyke, D., Rau, B.M., Rollins, K., Roundy, B., Schupp, E., Tausch, R., Williams, C.J. 2014. A synopsis of short-term responses to alternative restoration treatments in sagebrush-steppe: the SageSTEP project. Rangeland Ecology and Management. 67:584-598. doi: <http://dx.doi.org/10.2111/REM-D-14-00084.1>.
32. Mohammed, A.A., Schincario, R.A., Quinton, W.L., Nagare, R.M., Flerchinger, G.N. 2017. On the use of mulching to mitigate permafrost thaw due to linear disturbances in sub-arctic peatlands. Ecological Engineering 102:207-223, doi.org/10.1016/j.ecoleng.2017.02.020.
33. Monaco, T.A., Hardegree, S.P., Pellant, M., Brown, C.S. 2016. Exotic brome grasses in arid and semi-arid ecosystems of the western US: causes, consequences, and management implications. Springer Series on Environmental Management, New York. 339-370. doi: 10.1007/978-3-319-24930-8\_12.
34. Nayak, A., Marks, D.G., Chandler, D., Winstral, A.H. 2012. Modeling interannual variability in snow-cover development and melt for a semiarid mountain catchment. Journal Hydrologic Engineering. 1:74-84. doi: 10.1061/(ASCE)HE.1943-5584.0000408.
35. Newman, A., Clark, M., Winstral, A.H., Marks, D.G., Seyfried, M.S. 2014. The use of similarity concepts to represent sub-grid variability in hydrologic and land-surface models: case study in a snowmelt dominated watershed. Journal of Hydrometeorology. 15:1717-1738. doi: 10.1175/JHM-D-13-038.1.
36. Niemeyer, R., Link, T., Seyfried, M.S., Flerchinger, G.N. 2016. Surface water input from snowmelt and rain throughfall in western juniper: potential impacts of climate change and shifts in semi-arid vegetation. Hydrological Processes. 30(17):3046-3060. doi: 10.1002/hyp.10845.

Nouwakpo, S.K., Williams, C.J., Al-Hamdan, O., Weltz, M.A., Pierson Jr, F.B., Nearing, M.A. 2016. A review of concentrated flow erosion processes on rangelands: fundamental understanding and knowledge gaps. International Soil and Water Conservation Research. 4(2):75-86. doi: <http://dx.doi.org/10.1016/j.iswcr.2016.05.003>.

1. Olsoy, P.J., Glenn, N.F., Clark, P., Derryberry, D.R. 2014. Aboveground total and green biomass of dryland shrub derived from terrestrial laser scanning. Journal of Photogrammetry and Remote Sensing. 88C:166-173. doi: 10.1016/j.isprsjprs.2013.12.006.
2. Olsoy, P.J., Glenn, N.F., Clark, P. 2014. Estimating sagebrush biomass using

terrestrial laser scanning (TLS). Remote Sensing of Environment. 67:224-228. doi:10.2111/REM-D-12-00186.1.

1. Olsoy, P.J., Mitchell, J., Levia, D.F., Clark, P., Glenn, N.F. 2015. Estimation of big sagebrush leaf area index with terrestrial laser scanning. Ecological Indicators. 61:815-821. doi: [10.1016/j.ecolind.2015.10.034](http://dx.doi.org/10.1016/j.ecolind.2015.10.034).
2. Painter, T., Bormann, K., Deems, J., Marks, D.G., Mckenzie Skiles, S., Mcgurk, B. 2016. The Airborne Snow Observatory: fusion of scanning lidar, imaging spectrometer, and physically-based modeling for mapping snow water equivalent and snow albedo. Remote Sensing of Environment. 184:139-152. doi: <http://dx.doi.org/10.1016/j.rse.2016.06.018>
3. Pierson Jr, F.B., Williams, C.J. 2016. Ecohydrologic impacts of rangeland fire on runoff and erosion: A literature synthesis. Gen. Tech. Rep. RMRS-GTR-351. Fort Collins,

CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 110 p.

1. Pierson Jr, F.B., Williams, C.J., Hardegree, S.P., Clark, P., Kormos, P.R., Al-Hamdan, O.Z. 2013. Hydrologic and erosion responses of sagebrush steppe following juniper encroachment, wildfire, and tree cutting. Rangeland Ecology and Management. 66:274-289. doi: [10.2111/REM-D-12-00104.1](http://dx.doi.org/10.2111/REM-D-12-00104.1).
2. Pierson Jr, F.B., Williams, C.J., Kormos, P.R., Al-Hamdan, O.Z. 2014. Short-term effects of tree removal on infiltration, runoff, and erosion in woodland-encroached sagebrush steppe. Rangeland Ecology and Management. 67:522-538. doi: 10.2111/REM-D-13-00033.1.
3. Pierson Jr, F.B., Williams, C.J., Kormos, P.R., Al-Hamdan, O.Z., Hardegree, S.P., Clark, P. 2015. Short-term impacts of tree removal on runoff and erosion from sagebrush-steppe hillslopes. Rangeland Ecology and Management. 68:408-422. doi: <http://dx.doi.org/10.1016/j.rama.2015.07.004>.
4. Pomeroy, J., Fang, X., Marks, D.G. 2016. The cold rain-on-snow event of June 2013 in the Canadian Rockies – characteristics and diagnosis. Hydrological Processes. 30:2899–2914. doi: 10.1002/hyp.10905.
5. Ponce Campos, G., Moran, M.S., Huete, A., Zhang, Y., Bresloff, C., Huxman, T., Eamus, D., Bosch, D.D., Buda, A.R., Gunter, S.A., Scalley, T., Kitchen, S., McClaran, M., McNab, W., Montoya, D., Morgan, J.A., Peters, D.C., Sadler, E.J., Seyfried, M.S., Starks, P.J. 2013. Ecosystem resilience despite large-scale altered hydro climatic conditions. Nature. 494:349-352. doi: 10.1038/nature11836.
6. Qi, Z., Ma, L., Bausch, W.C., Trout, T.J., Ahuja, L.R., Flerchinger, G.N., Fang, Q. 2016. Simulating maize production, water and surface energy balance, and canopy temperature under full and deficit irrigation. Transactions of the ASABE. 59:623-633. doi: 10.13031/trans.59.11067.
7. Rasouli, K., Pomeroy, J., Marks, D.G. 2015. Snowpack sensitivity to perturbed climate changes in alpine catchements. Hydrological Processes. 29(18):3925-3940. doi: 10.1002/hyp.10587.
8. Reba, M.L., Marks, D.G., Link, T., Pomeroy, J., Winstral, A.H. 2014. Sensitivity of model parameterizations for simulated latent heat flux at the snow surface for complex mountain sites. Hydrological Processes. 28:868-881. doi: 10.1002/hyp.9619.
9. Reba, M.L., Pomeroy, J., Marks, D.G., Link, T. 2012. Estimating surface sublimation losses from snowpacks in a mountain catchment using eddy covariance and turbulent transfer calculations. Hydrological Processes. 26:3699-3711. doi:10.1002/hyp.8372.

Robichaud, P.R., Wagenbrenner, J.W., Pierson Jr, F.B., Spaeth, K.E., Ashmun, L.E., Moffet, C.A. 2016. Infiltration and interrill erosion rates after a wildfire in western Montana, USA. Catena. 142:77-88. doi: <http://dx.doi.org/10.1016/j.catena.2016.01.027>.

1. Rui, W., Mukesh, K., Marks, D.G. 2013. Anomalous trend in soil evaporation in semiarid, snow-dominated watersheds. Advances in Water Resources. 52:32-40. doi: 10.1016/j.advwatres.2013.03.004.
2. Sandells, M., Flerchinger G.N., Gurney R., and Marks, D. 2012. Simulation of snow and soil water content as a basis for satellite retrievals. Hydrology Research. 43(5):720-735. doi: 10.2166/nh.2012.028.
3. Sankey, T.T., Shrestha, R., Sankey, J.B., Hardegree, S.P., Strand, E. 2013. Lidar derived estimate and uncertainty of carbon sink in successional phases of woody encroachment. Journal of Geophysical Research-Biogeosciences. 118:1144-1155. doi: 10.1002/jgrg.20088.
4. Seyfried, M.S., Link, T., Marks, D.G., Murdock, M.D. 2016. Soil temperature variability in complex terrain measured using fiber-optic distributed temperature sensing. Vadose Zone Journal. 15(6). doi: 10.2136/vzj2015.09.0128.
5. Sheley, R.L., Boyd, C.S., Dobrowolski, J., Hardegree, S.P., James, J., Mangold, J. 2016. Editorial: a scientifically rigorous and user-friendly Rangeland Ecology & Management. Rangeland Ecology and Management. 69(1):1-3. doi: 10.1016/j.rama.2015.10.013.
6. Svejcar, A.J., James, J.J., Hardegree, S.P., Sheley, R.L. 2014. Incorporating plant mortality and recruitment into rangeland management and assessment. Rangeland Ecology and Management. 67:603-613. doi: 10.2111/REM-D-13-00102.1.
7. Webb, N.P., Herrick, J.E., Van Zee, J.W., Courtright, E.M., Hugenholtz, C.H., Zobeck, T.M., Okin, G., Barchyn, T.E., Billings, B.J., Boyd, R., Clingan, S., Cooper, B., Duniway, M., Derner, J.D., Fox, F.A., Havstad, K.M., Heilman, P., Laplante, V.K., Ludwig, N., Metz, L.J., Nearing, M.A., Norfleet, M., Pierson Jr, F.B., Sanderson, M.A., Sharratt, B.S., Steiner, J.L., Tatarko, J., Tedela, N., Toledo, D.N., Unnasch, R., Van Pelt, R.S., Wagner, L.E. 2016. The National Wind Erosion Research Network: Building a standardized long-term data resource for aeolian research, modeling and land management. Aeolian Research. 22:23-36. doi: [10.1016/j.aeolia.2016.05.005](http://dx.doi.org/10.1016/j.aeolia.2016.05.005).
8. Webber, B.L., Weber, K.T., Clark, P., Moffet, C., Ames, D.P., Taylor, J.B., Johnson, D.E., Kie, J.G. 2015. Movements of domestic sheep in the presence of livestock guardian dogs. Sheep and Goat Research Journal. 30:18-23.
9. Wei, L., Link, T., Hudak, A., Marshall, J., Kavanagh, K., Abatzoglou, J., Zhou, H., Pangle, R., Flerchinger, G.N. 2016. Simulated water budget of a small forested watershed in the continental/maritime hydroclimatic region of the United States. Hydrological Processes. 30(13):2000-2013. doi: 10.1002/hyp.10769.
10. Weltz, M.A., Jolley, L., Hernandez, M., Spaeth, K., Rossi, C., Talbot, C., Nearing, M.A., Stone, J.J., Goodrich, D.C., Wei, H., Pierson Jr, F.B., Morris, C.E. 2014. Estimating conservation needs for rangelands using USDA National Resources Inventory Assessments. American Society of Agricultural and Biological Engineers. 57(6):1-12. doi: <http://hdl.handle.net/1957/55125>.
11. Weltz, M.A., Nouwakpo, S.K., Hernandez, M., Nearing, M.A., Stone, J.J., Armendariz, G.A., Pierson Jr, F.B., Al-Hamdan, O., Williams, C.J., Spaeth, K.F., Wei, H., Heilman, P., Goodrich, D.C. 2015. USDA internet tool to estimate runoff and soil loss on rangelands: rangelands hydrology and erosion model. The Progressive Rancher. 8:24-25.
12. Weltz, M.A., Spaeth, K., Taylor, M.H., Rollins, K., Pierson, F., Jolley, L., Nearing, M., Goodrich, D., Hernandez, M., Nouwakpo, S.K., Rossi, C. 2014. Cheatgrass invasion and woody species encroachment in the Great Basin: Benefits of conservation. Journal of Soil and Water Conservation. 69(2):39A-44A. doi: 10.2489/jswc.69.2.39A.
13. Wilcox, B.P., Seyfried, M.S., Breshears, D.D., Mcdonnell, J.J. 2012. Ecohydrologic connections and complexities in drylands: New perspectives for understanding transformative landscape change. Ecohydrology. 5:143-144. doi: 10.1002/eco.1251.
14. Wilcox, B., Turnbull, L., Young, M., Williams, C.J., Ravi, S., Seyfried, M.S., Bowling, D., Scott, R.L., Germino, M., Caldwell, T., Wainwright, J. 2012. Invasion of shrublands by exotic grasses: Ecohydrological consequences in cold vs. warm deserts. Ecohydrology. 5: 160-173. doi: 10.1002/eco.247.
15. Williams, M.I., Dumroese, K.R., Page-Dumroese, D., Hardegree, S.P. 2016. Can biochar be used as a seed coating to improve native plant germination and growth in arid conditions? Journal of Arid Environments. 125:8-15. doi: <http://dx.doi.org/10.1016/j.jaridenv.2015.09.011>.
16. Williams, C.J., Pierson Jr, F.B., Al-Hamdan, O.Z., Kormos, P.R., Hardegree, S.P., Clark, P. 2013. Can wildfire serve as an ecohydrologic threshold-reversal mechanism on juniper-encroached shrublands. Ecohydrology. 7:453-477. doi: 10.1002/eco.1364.
17. Williams, C.J., Pierson Jr, F.B., Kormos, P.R., Al-Hamdan, O.Z., Hardegree, S.P., Clark, P. 2016. Ecohydrologic response and recovery of a semi-arid shrubland over a five year period following burning. Catena. 144:163-176. doi: [10.1016/j.catena.2016.05.006](http://dx.doi.org/10.1016/j.catena.2016.05.006).
18. Williams, C.J., Pierson Jr, F.B., Robichaud, P.R., Boll, J. 2014. Hydrologic and erosion responses to wildfire along the rangeland-xeric forest continuum in the western US: a review and model of hydrologic vulnerability. International Journal of Wildland Fire. 23:155-172. doi: <http://dx.doi.org/10.1071/WF12161>.
19. Williams, C.J., Pierson Jr, F.B., Robichaud, P.R., Al-Hamdan, O.Z., Boll, J., Strand, E.K. 2015. Structural and functional connectivity as a driver of hillslope erosion following disturbance. International Journal of Wildland Fire. 25:306-321. doi: 10.1071/WF14114.
20. Williams, C.J., Pierson Jr, F.B., Spaeth, K.E., Brown, J.R., Al-Hamdan, O.Z., Weltz, M.A., Nearing, M.A., Herrick, J.E., Boll, J., Robichaud, P.R., Goodrich, D.C., Heilman, P., Guertin, P.D., Hernandez, M., Wei, H., Hardegree, S.P., Strand, E.K., Bates, J.D., Metz, L., Nichols, M.H. 2016. Incorporating hydrologic data and ecohydrologic relationships in ecological site descriptions. Rangeland Ecology and Management. 69:4-19. doi: <http://dx.doi.org/10.1016/j.rama.2015.10.001>.
21. Williams, C.J., Pierson, F.B., Spaeth, K.E., Brown, J.R., Al-Hamdan, O.Z., Weltz, M.A., Nearing, M.A., Herrick, J.E., Boll, J., Robichaud, P.R., Goodrich, D.C., Heilman, P., Guertin, D.P., Hernandez, M., Wei, H., Polyakov, V.O., Armendariz, G., Nouwakpo, S.K., Hardegree, S.P., Clark, P.E., Strand, E.K., Bates, J.D., Metz, L.J., and Nichols, M.H. 2017. Application of Ecological Site information to transformative changes on Great Basin sagebrush rangelands. Rangelands 38:379-388. doi: <http://dx.doi.org/10.1016/j.rala.2016.10.004>.

100.Winstral, A.H., Marks, D.G. 2014. Long-term snow distribution observations in a

mountain catchment: assessing variability, time stability, and the representativeness of

an index site. Water Resources Research. 50:293-305. doi: 10.1002/2012WR013038.

101.Winstral, A.H., Marks, D.G., Gurney, R. 2014. Assessing the sensitivities of

distributed snow models to forcing data resolution. Journal of Hydrometeorology. 15(4):1366-1383. doi: <http://dx.doi.org/10.1175/JHM-D-13-0169.1>.

102.Winstral, A., Marks, D., Gurney, R. 2013. Simulating wind-affected snow accumulations

 at catchment to basin scales. Advances in Water Resources. 55:64-79. doi:

 10.1016/j.advwatres.2012.08.011.

 103.Zhang, Y., Cheng, G., Li, X., Han, X., Wang, L., Li, H., Chang, X., Flerchinger, G.N. 2013.

 Coupling of the simultaneous heat and water model with a distributed hydrological

 Model and evaluating of the combined model in a cold regions watershed. Hydrological

 Processes. 27:3762-3776. doi: 10.1002/hyp.9514.

**Top Five Publications:**

1. Flerchinger, G.N., Seyfried, M.S., Hardegree, S.P. 2016. Hydrologic response and recovery to prescribed fire and vegetation removal in a small rangeland catchment. Ecohydrology. 9(8):1604-1619. doi: 10.1002/eco.1751.
2. Hardegree, S.P., Schneider, J.M., Moffet, C.A., Boehm, A.R. 2012. Using weather data to improve decision-making. Agricultural Research Service Publication. <https://www.nwrc.ars.usda.gov/publications/2012/Hardegree-EBIPM%20Guidebook.pdf>
3. Kormos, P.R., Marks, D.G., Pierson Jr, F.B., Williams, C.J., Hardegree, S.P., Havens, S.C., Hedrick, A., Bates, J.D., Svejcar, A.J. 2016. Ecosystem water availability in juniper versus sagebrush snow-dominated rangelands. Rangeland Ecology and Management. 70(1): 116-128. doi: 10.1016/j.rama.2016.05.003.
4. Nayak, A., Marks, D., Chandler, D., Seyfried, M. 2010. Long-term snow, climate and streamflow trends at the Reynolds Creek Experimental Watershed, Owyhee Mountains, Idaho, United States. Water Resources Research. 46(6):W06519. doi: 10.1029/2008WR007525.
5. Williams, C.J., Pierson Jr, F.B., Spaeth, K.E., Brown, J.R., Al-Hamdan, O.Z., Weltz, M.A., Nearing, M.A., Herrick, J.E., Boll, J., Robichaud, P.R., Goodrich, D.C., Heilman, P., Guertin, P.D., Hernandez, M., Wei, H., Hardegree, S.P., Strand, E.K., Bates, J.D., Metz, L., Nichols, M.H. 2016. Incorporating hydrologic data and ecohydrologic relationships in ecological site descriptions. Rangeland Ecology and Management. 69:4-19. doi: <http://dx.doi.org/10.1016/j.rama.2015.10.001>.