A Listing of Peer-Reviewed Research Papers on the South Fork Iowa River Watershed.

(most but not all papers will be available open access)

1. Tomer, M.D., D.E. James, and T.M. Isenhart. 2003. Optimizing the placement of riparian practices in a watershed using terrain analysis. Journal of Soil & Water Conservation. 58:198-206. (https://www.jswconline.org/content/58/4/198)
2. Tomer, M.D., and D.E. James. 2004. Do soil surveys and terrain analyses identify similar priority sites for conservation? Soil Science Society of America Journal. 68:1905-1915. (https://doi.org/10.2136/sssaj2004.1905)
3. Green, C.H., M.D. Tomer, M. DiLuzio, and J. Arnold. 2006. Hydrologic calibration of the Soil and Water Assessment Tool for a large tile-drained watershed in Iowa. Transactions ASABE. 49:413-422. (doi: 10.13031/2013.20415)
4. Wilson, C.G., R.A. Kuhnle, D.D. Bosch, J.L. Steiner, P.J. Starks, M.D. Tomer, and G.V. Wilson. 2008. Quantifying relative contributions from sediment sources in Conservation Effects Assessment Project watersheds. Journal of Soil & Water Conservation. 63(6):523-532. (https://doi.org/10.2489/jswc.63.6.523)
5. Tomer, M.D., T.B. Moorman, and C.G. Rossi. 2008. Assessment of the Iowa River's South Fork watershed: 1. Water quality. Journal of Soil & Water Conservation. 63(6):360-370. (https://doi.org/10.2489/jswc.63.6.360)
6. Tomer, M.D., T.B. Moorman, D.E. James, G. Hadish, and C.G. Rossi. 2008. Assessment of the Iowa River's South Fork watershed: 2. Conservation practices. Journal of Soil & Water Conservation. 63(6):371-379. (https://doi.org/10.2489/jswc.63.6.371)
7. Karlen, D.L., M.D. Tomer, J. Nepple, and C.A. Cambardella. 2008. A preliminary watershed scale soil quality assessment in north central Iowa, USA. Soil & Tillage Research. 99:291-299. (https://doi.org/10.1016/j.still.2008.03.002)
8. Tomer, M.D., C.G. Wilson, T.B. Moorman, K.J. Cole, D. Heer, and T.M. Isenhart. 2010. Source-pathway separation of multiple contaminants during a rainfall-runoff event in an artificially drained agricultural watershed. Journal of Environmental Quality. 39(3):882-895. (https://doi.org/10.2134/jeq2009.0289)
9. Yan, B., M.D. Tomer, and D.E. James. 2010. Historical channel movement and sediment accretion along the South Fork of the Iowa River. Journal of Soil & Water Conservation. 65(1):1-8. (https://doi.org/10.2489/jswc.65.1.1)
10. Kolpin, D.W., C.C. Hoerger, M.T. Meyer, F.E. Wettstein, L.E. Hubbard, and T.D. Bucheli. 2010. Phytoestrogens and mycotoxins in Iowa streams: an examination of underinvestigated compounds in agricultural basins. Journal of Environmental Quality. 39(6):2089-2099. (https://doi.org/10.2134/jeq2010.0121)

11. Beeson, P.C., P.C. Doraiswamy, A.M. Sadeghi, M. Di Luzio, M.D. Tomer, J.G. Arnold, and C.S.T. Daughtry. 2011. Treatments of precipitation inputs to hydrologic models. Transactions ASABE. 54(6):2011-2020. (doi: 10.13031/2013.40652)
12. Stott, D.E., C.A. Cambardella, R. Wolf, M.D. Tomer, and D.L. Karlen. 2011. A soil quality assessment within the Iowa River South Fork watershed. Soil Science Society of America Journal. 75:2271-2282. (https://doi.org/10.2136/sssaj2010.0440)
13. Moriasi, D.N., J.G. Arnold, C.G. Rossi, and M.D. Tomer. 2012. Evaluating hydrology of SWAT with new tile drain equations. Journal of Soil & Water Conservation. 67(6):513-524. (https://doi.org/10.2489/jswc.67.6.513)
14. McCarthy, K.A., C.E. Rose, and S.J. Kalkhoff. 2012. Environmental settings of the South Fork Iowa River Basin, Iowa, and the Bogue Phalia Basin, Mississippi, 2006–10. US Geological Survey scientific investigations report 5021. (https://pubs.usgs.gov/sir/2012/5021/)
15. Kalkhoff, S.J., A.V. Vecchia, P.D. Capel, and M.T. Meyer. 2012. Eleven-year trend in acetanilide pesticide degradates in the Iowa River, Iowa. Journal of Environmental Quality. 41(5):1566-1579. (https://doi.org/10.2134/jeq2011.0426)
16. Coupe, R.H., S.J. Kalkhoff, P.D. Capel, and C. Gregoire. 2012. Fate and transport of glyphosate and aminomethylphosphonic acid in surface waters of agricultural basins. Pest management science. 68(1):16-30. (https://doi.org/10.1002/ps.2212)
17. Tomer, M.D., P.C. Beeson, D.W. Meek, D.N. Moriasi, C.G. Rossi, and A.M. Sadeghi. 2013. Evaluating simulations of daily discharge from large watersheds using autoregression and an index of flashiness. Transactions ASABE. 56(4):1317-1326. (http://dx.doi.org/10.13031/trans.56.9713)
18. Beeson, P.C., A.M. Sadeghi, M.W. Lang, M.D. Tomer, and C.S.T. Daughtry. 2013. Sediment delivery estimates in water quality models altered by resolution and source of topographic data. Journal of Environmental Quality. 43(1):26-36. (https://doi.org/10.2134/jeq2012.0148)
19. Moriasi, D.N., P.H. Gowda, J.G. Arnold, D.J. Mulla, S. Ale, J.L. Steiner, and M.D. Tomer. 2013. Evaluation of the Hooghoudt and Kirkham tile drain equations in the Soil and Water Assessment Tool to simulate tile flow and nitrate-nitrogen. Journal of Environmental Quality. 42:1699-1710. (https://doi.org/10.2134/jeq2013.01.0018)
20. Tomer, M.D., E.J. Sadler, R.E. Lizotte, R.B Bryant, T.L. Potter, M.T. Moore, T.L Veith, C. Baffaut, M.A. Locke, and M.R. Walbridge. 2014. A Decade of Conservation Effects Assessment Research by USDA-ARS: Progress Overview and Future Outlook. Journal of Soil & Water Conservation. 69(5):365-373. (https://doi.org/10.2489/jswc.69.5.365)
21. Garbrecht, J.D., M.A. Nearing, F.D. Shields, M.D. Tomer, E.J. Sadler, J.V. Bonta, and C. Baffaut. 2014. Impact of weather and climate scenarios on conservation assessment outcomes. Journal of Soil & Water Conservation. 69(5):374-392. (https://doi.org/10.2489/jswc.69.5.374)

22. Bonner, I.J., K.G. Cafferty, D.J. Muth Jr., M.D. Tomer, D.E. James, S.A. Porter, and D.L. Karlen. 2014. Opportunities for energy crop production based on a subfield scale distribution of profitability. Energies. 7:6509-6526. (https://doi.org/10.3390/en7106509)

23. Moorman, T.B., M.D. Tomer, D.R. Smith, and D.B. Jaynes. 2015. Evaluating the potential role in denitrifying bioreactors in reducing watershed-scale nitrate loads: A case study comparing three Midwestern (USA) watersheds. Ecological Engineering. 75:441-448. (https://doi.org/10.1016/j.ecoleng.2014.11.062)

24. Coopersmith, E.J., M.H. Cosh, W.A. Petersen, J. Prueger, and J.J. Niemeier. 2015. Soil moisture model calibration and validation: An ARS watershed on the South Fork Iowa River. Journal of Hydrometeorology. 16(3):1087-1101. (https://doi.org/10.1175/JHM-D-14-0145.1)

25. Rondinelli, W.J., B.K. Hornbuckle, J.C. Patton, M.H. Cosh, V.A. Walker, B.D. Carr, and S.D. Logsdon. 2015. Different rates of soil drying after rainfall are observed by the SMOS satellite and the South Fork in situ soil moisture network. Journal of Hydrometeorology. 16(2):889-903. (https://doi.org/10.1175/JHM-D-14-0137.1)

26. Ha, M. and M. Wu. 2015. Simulating and evaluating best management practices for integrated landscape management scenarios in biofuel feedstock production. Biofuels, Bioproducts and Biorefining. *9*(6):709-721.(https://doi.org/10.1002/bbb.1579)

27. Beeson, P.C., C.S.T. Daughtry, E.R. Hunt, B. Akhmedov, A.M. Sadeghi, D.L. Karlen, and M.D. Tomer. 2016. Multispectral satellite mapping of crop residue cover and tillage intensity in Iowa. Journal of Soil & Water Conservation. 71(5):385-395. (https://doi.org/10.2489/jswc.71.5.385)

28. Merten, G.H., H.L. Welch, and M.D. Tomer. 2016. Effects of hydrology, watershed size, and agricultural practices on sediment yields in two river basins in Iowa and Mississippi. Journal of Soil & Water Conservation. 71(3):267-278. (https://doi.org/10.2489/jswc.71.3.267)

29. Kalkhoff, S.J., L.E. Hubbard, M.D. Tomer, and D.E. James. 2016. Effect of variable annual precipitation and nutrient input on nitrogen and phosphorus transport from two Midwestern agricultural watersheds. Science of the Total Environment. 559:53-62. (https://doi.org/10.1016/j.scitotenv.2016.03.127)

30. Tomer, M.D., T.B. Moorman, J.L. Kovar, K.J. Cole, and D.J. Nichols. 2016. Eleven years of runoff and phosphorus losses from two fields with and without manure application, Iowa, USA. Agricultural Water Management. 168:104-111. (https://doi.org/10.1016/j.agwat.2016.01.011)

31. Givens, C.E., D.W. Kolpin, M.A. Borchardt, J.W. Duris, T.B. Moorman, and S.K. Spencer. 2016. Detection of hepatitis E virus and other livestock-related pathogens in Iowa streams. Science of the Total Environment. 566:1042-1051. (https://doi.org/10.1016/j.scitotenv.2016.05.123)

32. Tomer, M.D., and J.D. Van Horn. 2018. Stream bank and sediment movement associated with 2008 flooding, South Fork Iowa River. Journal of Soil & Water Conservation. 73(2):97-106. (https://doi.org/10.2489/jswc.73.2.97)

33. Rieke, E.L., T.B. Moorman, E.L. Douglass, and M.L. Soupir. 2018. Seasonal variation of macrolide resistance gene abundances in the South Fork Iowa River Watershed. Science of The Total Environment. 610:1173-1179. (https://doi.org/10.1016/j.scitotenv.2017.08.116)

34. Washington, M.T., T.B. Moorman, M.L. Soupir, M. Shelley, and A.J. Morrow. 2018. Monitoring tylosin and sulfamethazine in a tile-drained agricultural watershed using polar organic chemical integrative sampler (POCIS). Science of The Total Environment. 612:358-367. (https://doi.org/10.1016/j.scitotenv.2017.08.090)

35. Rieke, E.L., T.B. Moorman, M.L. Soupir, F. Yang, and A. Howe. 2018. Assessing pathogen presence in an intensively tile drained, agricultural watershed. Journal of Environmental Quality. 47(5):1033-1042. (https://doi.org/10.2134/jeq2017.12.0500)

36. Smith, E.A. and P.D. Capel. 2018. Specific conductance as a tracer of preferential flow in a subsurface-drained field. Vadose Zone Journal. 17(1):1-13. (https://doi.org/10.2136/vzj2017.11.0206)

37. Walker, V.A., B.K. Hornbuckle, and M.H. Cosh. 2018. A five-year evaluation of SMOS Level 2 soil moisture in the corn belt of the United States. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing. 11(12):4664-4675. (https://doi.org/10.1109/JSTARS.2018.2864897)

38. Lohani S., C. Baffaut, A.L. Thompson, N. Aryal, R.L. Bingner, D.L. Bjorneberg, D.D. Bosch, R.B. Bryant, A. Buda, S.M. Dabney, A.R. Davis, L.F. Duriancik, D.E. James, K.W. King, P.J.A. Kleinman, M. Locke, G.W. McCarty, L.A. Pease, M.L. Reba, D.R Smith, M.D. Tomer, T.L. Veith, M.R. Williams and L.M.W. Yasarer. 2020 Performance of the Soil Vulnerability Index with respect to slope, digital elevation model resolution, and hydrologic soil group. Journal of Soil & Water Conservation. 75(1):12-27. (https://doi.org/10.2489/jswc.75.1.12)

39. C. Baffaut, S. Lohani, A.L. Thompson, A.R. Davis, N. Aryal, D.L. Bjorneberg, R.L. Bingner, S.M. Dabney, L.F. Duriancik, D.E. James, K.W. King, S. Lee, G.W. McCarty, L.A. Pease, M.L. Reba, A.M. Sadeghi, M.D. Tomer, M.R. Williams and L.M.W. Yasarer. 2020. Evaluation of the Soil Vulnerability Index for artificially drained cropland across eight Conservation Effects Assessment Project watersheds. Journal of Soil & Water Conservation. 75(1):28-41. (https://doi.org/10.2489/jswc.75.1.28)

40. Moorman,T.B., D.E. James, J. Van Horn, S.A. Porter and M.D. Tomer. 2020. Temporal trends in amount and placement of conservation practices in the South Fork of the Iowa River watershed. Journal of Soil & Water Conservation. 75(3):245-253. (https://doi.org/10.2489/jswc.75.3.245)

41. Williams, F., P. Moore, T. Isenhart, and M. Tomer. 2020. Automated measurement of eroding streambank volume from high-resolution aerial imagery and terrain analysis. Geomorphology. 367:107313. (https://doi.org/10.1016/j.geomorph.2020.107313)

42. Coupe, R.H., J.D. Thornburg, E.A. Smith, et al. 2020. Spatial and temporal variability in discharge and nitrate in Iowa subsurface drains. Environmental Monitoring & Assessment. 192, 687. (https://doi.org/10.1007/s10661-020-08636-0)

43. Ha, M., Wu, M., Tomer, M.D., Gassman, P.W., Isenhart, T.M., Arnold, J.G., White, M.J., Parish, E.S., Comer, K.S. and Belden, B., 2020. Biomass Production with Conservation Practices for Two Iowa Watersheds. JAWRA Journal of the American Water Resources Association. 56(6):1030-1044. (https://doi.org/10.1111/1752-1688.12880)