

JAMES J. STONE, Ph.D., P.E.

PERSONAL INFORMATION

Contact Information: Department of Civil and Environmental Engineering
 South Dakota School of Mines and Technology
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Google Scholar: <http://scholar.google.com/citations?user=JfD14B0AAAAJ&hl=en>

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CURRENT POSITIONS AND AFFILIATIONS

Professor, Department of Civil and Environmental Engineering, South Dakota School of Mines and Technology, 2016 to present
 Associate Professor, Department of Civil and Environmental Engineering, South Dakota School of Mines and Technology, 2008 to 2016
 Assistant Professor, Department of Civil and Environmental Engineering, South Dakota School of Mines and Technology, 2003 to 2008

PAST POSITIONS

Hydrologist, 2010 to 2014, USGS South Dakota Water Science Center, Rapid City, South Dakota
 Erskine Fellow, 2013, 2016 University of Canterbury, Department of Civil and Natural Resources, Christchurch, New Zealand
 Postdoctoral Research Associate, 2003, Pennsylvania State University, Department of Civil and Environmental Engineering
 Staff Environmental Engineer, 1997 to 1999, TRC-Hydrogeo Consultants, Lakewood, Colorado
 Staff Environmental Engineer, 1995 to 1997, Olver Incorporated, Blacksburg, Virginia

EDUCATION

Doctor of Philosophy, 2002, Environmental Engineering, Pennsylvania State University
 Masters of Science, 1995, Environmental Engineering, Virginia Polytechnic Institute and State University
 Bachelor of Science, 1993, Civil Engineering, Virginia Polytechnic Institute and State University

* refers to SDSM&T graduate or undergraduate student author

REFEREED JOURNAL ARTICLES

1. Dangelmayr, M., Reimus., P., Wasserman, N., Punsal*, J., Johnson, R., Clay, J., Stone, J.J. 2017. Laboratory column experiments and transport modeling to evaluate retardation of uranium in an aquifer downgradient of a uranium insitu recovery site. *Applied Geochemistry* (2017) 1-13.
<http://dx.doi.org/10.1016/j.apgeochem.2017.02.018>
2. Vik*, E., Sieverding, H., Punsal*, J., Kenner, S., Kunza, L., Stone, J.J. 2017. Timing of organic carbon release from mountain pine beetle impacted ponderosa pine Forests. *Water Environment Research*.
<http://dx.doi.org/10.1111/wej.12253>
3. Gonzalez-Estrella, J., Asato, C., Stone, J.J., Gilcrease, P. 2017. A review of anaerobic digestion of paper and paper board waste. *Reviews in Environmental Science and Bio/Technology*.

- <http://dx.doi.org/10.1007/s11157-017-9436-z>
4. Gonzalez-Estrella, J., Asato, C., Jerke*, A., Stone, J.J., Gilcrease, P., 2016. Effect of structural carbohydrates and lignin content on the anaerobic digestion of paper and paper board materials by anaerobic granular sludge. *Biotechnology and Bioengineering*. <http://dx.doi.org/10.1002/bit.26228>.
 5. Isola*, C., Sieverding, H., Raghunathan, R., Sibi, M., Webster, D., Sivaguru, J., Stone, J.J., 2016. Life cycle assessment of photodegradable polymeric material derived from renewable bioresources. *Journal of Cleaner Production*. <http://dx.doi.org/10.1016/j.jclepro.2016.10.177>.
 6. Shrestha*, N., Chilkoor*, G., Wilder*, J., Gadhamshetty, V., Stone, J.J., 2016. Potential water resource impacts of hydraulic fracturing from unconventional oil production in the Bakken shale. *Water Research*. <http://dx.doi.org/10.1016/j.watres.2016.11.006>.
 7. Sieverding, H., Clay, D., Khan, E., Sivaguruc, J., Pattabiramand, M., Koodalie, R., Ndiva-Mongohf, M., Stone, J.J., 2016. A sustainable rural food-energy-water nexus framework for the upper Great Plains. *Agriculture and Environmental Letters*. 1(1) 1-4. <http://dx.doi.org/10.2134/ael2016.02.0008>.
 8. Asato, C., Gonzalez-Estrella, J., Jerke*, A., Bang, S., Stone, J.J., Gilcrease, P., 2016. Batch anaerobic digestion of synthetic military base food waste and cardboard mixtures. *Bioresource Technology*. 216(2016) 894-903. <http://dx.doi.org/10.1016/j.biortech.2016.06.033>.
 9. Hengen*, T., Sieverding, H., Stone, J.J., 2016. Life cycle assessment analysis of engineered stormwater control methods common to urban watersheds. *ASCE Journal of Water Resources Planning and Management*. 142(7) 1-9. [http://dx.doi.org/10.1061/\(ASCE\)WR.1943-5452.0000647](http://dx.doi.org/10.1061/(ASCE)WR.1943-5452.0000647).
 10. Johnson, R., Truax*, R., Lankford, D., Stone, J.J., 2016. Using solid-phase iron concentrations, batch sorption tests, and generalized composite surface complexation models to determine uranium sorption parameters at a proposed uranium in-situ recovery site. *Mine Water and the Environment*. (2016) 1-12. <http://dx.doi.org/10.1007/s10230-016-0384-6>.
 11. Sharma*, R., Putirka, K., Stone, J.J., 2016. Stream sediment geochemistry of the Cheyenne River and its drainages in the abandoned uranium mining region of the southern Black Hills, South Dakota U.S. *Environmental Earth Sciences*. 75(9) 1-12. <http://dx.doi.org/10.1007/s12665-016-5522-8>.
 12. Mbonimpa, E., Kumar, S., Owens, V., Chintala, R., Sieverding, H., Stone, J.J., 2016. Nitrogen rate and landscape impacts on life cycle energy use and emissions from switchgrass-derived ethanol. *Global Change Biology, Bioenergy*. 8(4) 750-763. <http://dx.doi.org/10.1111/gcbb.12296>.
 13. Hengen*, T., Sieverding, H., Cole, N., Ham, J., Stone, J.J., 2016. Eco-efficiency model for evaluating feedlot rations in the Great Plains, United States. *Journal of Environmental Quality*. <http://dx.doi.org/10.2134/jeq2015.09.0464>.
 14. Sieverding, H., Zhou, X., Wei, L., Stone, J.J., 2016. Life cycle assessment of oilseeds for biojet production using localized cold-press extraction. *Journal of Environmental Quality*. 45(3) 967-976. <http://dx.doi.org/10.2134/jeq2015.06.0313>.
 15. Sieverding, H., Bailey*, L., Hengen*, T., Clay, D., Stone, J.J., 2015. Meta-analysis of soybean-based biodiesel for the northern Great Plains using global comparisons. *Journal of Environmental Quality*. 44(4) 1038-1048. <http://dx.doi.org/10.2134/jeq2014.07.0320>.
 16. Sharma*, R., Stone, J.J., 2015. Mineralogical and chemical composition of bottom sediments within Black Hills region reservoirs of South Dakota and Wyoming. *Environmental Earth Sciences*. 74(5) 4381-4393. <http://dx.doi.org/10.1007/s12665-015-4444-1>.
 17. Clay, D., Reicks, Graig, Carlson, G., Miller, J., Stone, J.J., Clay, S., 2015. Tillage and corn residue harvesting impact surface and subsurface carbon sequestration. *Journal of Environmental Quality*. 44(3) 803-809. <http://dx.doi.org/10.2134/jeq2014.07.0322>.
 18. O'Sullivan, A., Wicke, D., Hengen*, T., Sieverding, H., Stone, J.J., 2015. Life cycle assessment modeling of stormwater treatment systems. *Journal of Environmental Management*. 149(2015) 236-244. <http://dx.doi.org/10.1016/j.jenvman.2014.10.025>.
 19. Clay, D., Clay, S., Reitsma, K., Dunn, B., Carlson, G., Horvath, D., Stone, J.J., 2014. Does the conversion of grasslands to row crop production in semi-arid areas threaten global food security? *Global Food Security*. 3(1): 22-30. <http://dx.doi.org/10.1016/j.gfs.2013.12.002>.
 20. Hengen*, T., Squillace*, M., O'Sullivan, A., Stone, J.J., 2014. Life cycle assessment analysis of active and passive acid mine drainage treatment technologies. *Resources, Conservation and Recycling*. 86: 160-167. <http://dx.doi.org/10.1016/j.resconrec.2014.01.003>.
 21. Troyer, L., Stone, J.J., Borch, T. 2014. Impact of biogeochemical redox processes on the fate and transport of As and U at an abandoned uranium mine site: An X-ray absorbance spectroscopy study. *Environmental*

- Chemistry*. 11(1): 18-27. <http://dx.doi.org/10.1071/EN13129>
22. Lupo*, C., Clay, D., Benning, J., Stone, J.J., 2013. A life cycle assessment of the beef cattle production system for the Northern Great Plains, US. *Journal of Environmental Quality*. 42(5): 1386-1394. <http://dx.doi.org/10.2134/jeq2013.03.0101>
 23. Betemariam*, H., Davis, A., Stetler, L., McCutcheon, C., Desutter, T., Penn, M., Stone, J.J., 2013. Geochemical behavior and watershed influences associated with sediment-bound mercury for South Dakota lakes and impoundments. *Water, Air, and Soil Pollution*. 225(2013): 1497-1511 <http://dx.doi.org/10.1007/s11270-013-1497-1>
 24. Lupo, C* and Stone, J.J., 2013. Bulk atmospheric mercury fluxes for the Northern Great Plains U.S. *Water, Air, and Soil Pollution*. 224(2013) 1437-1449. <http://dx.doi.org/10.1007/s11270-013-1437-0>
 25. Dreher*, T., Mott, H., Lupo*, C., Oswald*, A., Clay, S., Stone, J.J., 2012. Effects of chlortetracycline amended feed on anaerobic sequencing batch reactor performance of swine manure digestion. *Bioresource Technology*. 125(2012) 65-74 <http://dx.doi.org/10.1016/j.biortech.2012.08.077>.
 26. Clay, D., Chang, J., Clay, S., Stone, J.J., Gelderman, R., Carlson, G., Reitsma, K., Jones, M., Janssen, L., Schumacher, T., 2012. Corn yields and no-tillage affects carbon sequestration and carbon footprints. *Agronomy Journal*. 104(3) 763-770. <http://dx.doi.org/10.2134/agronj2011.0353>.
 27. Clay, D., Carlson, G., Clay, S., Stone, J.J., Reitsma, D., Gelderman, R., 2012. Great Plains soils may be C sinks. *Better Crops*. 96(2) 22-24. <http://www.ipni.net/publication/bettercrops.nsf>
 28. Stone, J.J., Dollarhide*, C., Benning, J., Carlson, C., Clay, D., 2012. The life cycle impacts of feed for modern Northern Great Plains U.S. swine production. *Agricultural Systems*. 106(1) 1-10. <http://dx.doi.org/10.1016/j.agsy.2011.11.002>.
 29. Larson*, L., Kipp*, G., Mott, H., Stone, J.J. 2012. Sediment pore-water interactions associated with transport of arsenic and uranium within a watershed impacted by historical uranium mining activity, North Cave Hills region, South Dakota. *Applied Geochemistry*. 27(4) 879-891. <http://dx.doi.org/10.1016/j.apgeochem.2012.01.008>
 30. Stone, J.J., Oswald*, A., Lupo*, C, Clay, S., Mott, H., 2011. Impact of chlortetracycline on sequencing batch reactor performance for swine manure treatment. *Bioresource Technology*. 102(2011): 7807-7814. <http://dx.doi.org/10.1016/j.biortech.2011.06.038>
 31. Stone, J.J., McCutcheon*, C., Stetler, L., Chipps, S., 2011. Interrelationships between fish tissue mercury concentrations and water quality for South Dakota natural lakes and impoundment. *Water, Air and Soil Pollution*. 222(1-4): 337-349. <http://dx.doi.org/10.1007/s11270-011-0828-3>
 32. Stone, J.J., Dreis*, E., Lupo*, C., Clay, S., 2011. Land application of tylosin and chlortetracycline swine manure: impacts to soil nutrients and soil microbial community structure. *Journal of Environmental Science and Health, Part B Pesticides, Food Contaminants, and Agricultural Wastes*. 46: 1-11. <http://www.tandfonline.com/doi/abs/10.1080/03601234.2011.603988>
 33. Larson*, L., Stone, J.J., 2011. Sediment-bound arsenic and uranium within the Bowman-Haley Reservoir, North Dakota. *Water, Air, and Soil Pollution*. 219(1): 27-42. <http://dx.doi.org/10.1007/s11270-010-0681-9>
 34. Hayer, C., Chipps, S., Stone, J.J., 2011. Influence of physiochemical and watershed characteristics on mercury concentration in walleye, *Sander vitreus*, M. *Bulletin of Environmental Contamination and Toxicology*. 86(2): 163-167. <http://dx.doi.org/10.1007/s00128-010-0166-y>
 35. Stone, J.J., Aurand*, K., Dollarhide*, C., Jinka*, R., Thaler, R., Clay, D., Clay, S., 2011. Determination of environmental impacts of antimicrobial usage for Northern Great Plains U.S. swine production facilities: a life cycle assessment approach. *International Journal of Life Cycle Assessment*. 16(1): 27-39. <http://dx.doi.org/10.1007/s11367-010-0241-y>
 36. Stone, J.J., Dollarhide*, C., Jinka*, R., Aurand*, K., Thaler, R., Hostetler, C., Clay, D., 2010. Life cycle assessment of a modern Northern Great Plains U.S. swine production facility. *Environmental Engineering Science*. 27(12): 1009-1018. <http://dx.doi.org/10.1089/ees.2010.005>
 37. Stone, J.J., Clay, S., Spellman, G., 2010. Tylosin and chlortetracycline effects during swine manure digestion: influence of sodium azide. *Bioresource Technology*. 101(24): 9515-9520. <http://dx.doi.org/10.1016/j.biortech.2010.07.116>
 38. Paul*, C., Stone, J.J., 2009. Effects of Nickel and Soil Humic Acid during biological hematite reduction by *Shewanella putrefaciens*. *Environmental Engineering Science*. 26(4): 841-848. <http://dx.doi.org/10.1089/ees.2008.0254>
 39. Kipp*, G., Stone, J.J., Stetler, L.D., 2009. Metal transport in sediments near abandoned uranium mines in Harding County, South Dakota. *Applied Geochemistry*. 24(2009): 2246-2255.

- <http://dx.doi.org/10.1016/j.apgeochem.2009.09.017>
40. Stone, J.J., Clay, S., Zhu*, Z., Wong*, K., Porath*, L., Spellman, G., 2009. Impact of antimicrobial agents tylosin and chlortetracycline during swine manure treatment. *Water Research*. 43(2009): 4740-4750. <http://dx.doi.org/10.1016/j.watres.2009.08.005>
 41. Stone J.J., Burgos W.D., Royer R.A., and Dempsey B.A., 2007. Effect of natural organic matter on zinc inhibition of biological Fe(III) and nitrate reduction by *Shewanella putrefaciens* CN32. *Environmental Science and Technology*. 41(15): 5284-5290. <http://dx.doi.org/10.1021/es062802l>
 42. Burgos, W.D., Senko, J.D., Dempsey, B.A., Roden, E.E., Stone, J.J., Kemner, K.M., Kelley, S.D., 2007. Soil humic acid decreases biological uranium(VI) reduction by *Shewanella putrefaciens* CN32. *Environmental Engineering Science*. 24(6): 755-761. <http://dx.doi.org/10.1089/ees.2006.0009>
 43. Stone J.J., Burgos W.D., Royer R.A., and Dempsey B.A., 2006. Impact of zinc on biological Fe(III) and NO₃⁻ reduction by *Shewanella putrefaciens* CN32. *Environmental Engineering Science*. 23(4): 691-704. <http://dx.doi.org/10.1089/ees.2006.23.691>
 44. Stone J.J., Burgos W.D., Royer R.A., and Dempsey B.A., 2006. Zinc and manganese inhibition of biological hematite reduction. *Environmental Engineering Science*. 23(5): 859-870. <http://dx.doi.org/10.1089/ees.2006.23.851>
 45. Burgos, W.D., Fang, Y.L., Royer, R.A., Yeh, G.T., Stone, J.J., Jeon, B.H., Dempsey, B.A., 2003. Reaction-based modeling of quinone-mediated bacterial Iron(III) reduction. *Geochimica Cosmochimica Acta*. 67(15): 2735-2748. [http://dx.doi.org/10.1016/S0016-7037\(03\)00105-4](http://dx.doi.org/10.1016/S0016-7037(03)00105-4)

CURRENT RESEARCH SUPPORT

1. Quantifying the contribution of native and non-native pollinators to Brassica carinata yield and carinata's impact on pollinator health. North Central Regional Sun Grant Center/USDA-NIFA. July 2016 to June 2018. PI: Fenster, C (SDSU; \$141,408), co-PI: Stone, J.J. (\$28,200), Sieverding, H.
2. Back to the Future: Enhancing food security and farm production with integrated crop-livestock production systems. USDA NIFA AFRI CAP. March 2016 to March 2020. PI: Kumar, S (SDSU; \$3,984,596), co-PI: Stone, J.J. (\$363,000), many others.
3. Geochemical uranium transport modeling with batch calibration. Power Resources. Jan 2016 to Dec 2017. PI: Stone, J.J. (\$163,000).
4. Hydrologic life cycle impacts of mountain pine beetle infestations. USGS104G. Sept 2015 to Sept 2018. PI: Stone, J.J. (\$250,000), co-PI: Sieverding, H., Kenner, S.
5. Expeditionary and contingency basing: Renewable energy, energy conservation, energy efficient waste disposal, energy management, waste water recovery and reuse. US Air Force BEAR-EST. Nov 2014 to Nov 2017. PI: Winter, R (\$4,000,000), co-PI: Stone, J.J. (\$200,000), many others.
6. Bio versus fossil oil: Dryland biofuel feedstock production transportation infrastructure challenges. US DOT,DOE-SunGrant. Sept 2014 to Sept 2017. PI: Stone, J.J. (\$288,000), co-PI: Sieverding, H.
7. Agronomy, processing, meal utilization, economics, and LCA of ethiopian mustard (Carinata) and winter camelina as alternative oilseed crops for South Dakota. South Dakota Oilseed Initiative. July 2017 to June 2018. PI: Stone, J.J. (\$45,000), co-PI Sieverding, H.

PAST EXTERNAL RESEARCH SUPPORT

1. Agronomy, processing, meal utilization, economics, and LCA of ethiopian mustard (Carinata) and winter camelina as alternative oilseed crops for South Dakota. South Dakota Oilseed Initiative. July 2016 to June 2017. PI: Stone, J.J. (\$45,000), co-PI Sieverding, H.
2. FEW: A sustainable rural framework workshop for the upper Great Plains. National Science Foundation SEES Food/Energy/Water Nexus workshop. July 2015 to July 2017. PI: Stone, J.J. (\$50,000), co-PI: Sieverding, H., Khan, E. (NDSU), Clay, D. (SDSU), Koodali, R. (USD), Pattabiraman, M. (UNe-K).
3. DakotaBioCon: life cycle analysis. National Science Foundation South Dakota Epscor R2T2. June 2015 to June 2016. PI: Stone, J.J. (\$100,000), co-PI Sieverding, H.
4. Agronomy, processing, meal utilization, economics, and LCA of ethiopian mustard (Carinata) and winter camelina as alternative oilseed crops for South Dakota. South Dakota Oilseed Initiative. Sept 2015 to June 2016. PI: Stone, J.J. (\$45,000), co-PI Sieverding, H.

5. Source water implications associated with the current Black Hills mountain pine-beetle infestation. USGS104B. Feb 2013 to Dec 2015. PI: Stone, J.J. (\$19,330), co-PI: Stamm, J. (USGS).
6. Critical evaluation of restoration goals based on improved geochemical and toxicological characterization of baseline- and post-mining site conditions, University of Wyoming School of Energy Resources, legislature of State of Wyoming In-Situ Recovery of Uranium Research Program. December 2012 to February 2014. PI: Borch, T., Colorado State University, co-PI: Johnson, T., Colorado State University, Stone, J.J. (\$88,000).
7. MRI: Acquisition of a high resolution liquid chromatograph coupled to a high resolution and high mass accuracy ion trap time of flight mass spectrometer, National Science Foundation Major Research Instrumentation, September 2013 to September 2016. PI: Christopher, L., SDSM&T (\$390,014), co-PIs: Stone, J.J., others.
8. Agronomy, processing, meal utilization, economics, and LCA of ethiopian mustard (*Carinata*) and winter camelina as alternative oilseed crops for South Dakota. South Dakota Oilseed Initiative. July 2013 to June 2015. PI: Gibbons, B., South Dakota State University, co-PI: Stone, J.J. (\$81,000), others.
9. Extent of off-site uranium contamination from Black Hills National Forest abandoned uranium minesites, US Environmental Protection Agency Region 8, US Department of Agriculture, and US Forest Service - Northern Region Office, August 2010 to May 2014, PI: Stone, J.J. (\$98,500)
10. Extent of off-site uranium contamination from Custer National Forest abandoned uranium minesites, US Environmental Protection Agency Region 8, US Department of Agriculture, and US Forest Service - Northern Region Office, March 2006 to May 2014, PI: Stone, J.J. (\$600,000), co-PI: Stetler, L.D., SDSM&T, Schwalm, A., Oglala Lakota College.
11. Life cycle assessment model development for Colorado beef production. Colorado State University. September 2012 to June 2013. PI: Stone, J.J., (\$11,000).
12. Life cycle assessment analysis of engineered stormwater control methods common to South Dakota, USGS 104B, May 2011 to March 2013, PI: Gribb, M., co-PI: Stone, J.J., (\$19,730), Benning, J.
13. Life cycle assessment model development for South Dakota Soybean Research and Promotion Council (South Dakota State University sub-award), September 2013 to June 2014. PI: Stone, J.J., (\$25,000).
14. Life cycle assessment model development for South Dakota Soybean Research and Promotion Council (South Dakota State University sub-award), September 2012 to June 2013. PI: Stone, J.J., (\$22,500).
15. Swine facility life cycle assessment model development, South Dakota Corn Council (South Dakota State University sub-award), August 2011 to June 2012, PI: Stone, J.J. (\$29,400).
16. South Dakota Sustainability Initiative: building sustainable practice throughout the Missouri River watersheds of South Dakota. SD Epscor SD EPSCoR RII T1 Proposal Planning Grant, March 2012 to August 2012. PI: Stone, J.J. (\$7,997), co-PI: Clay, D. and Johnson, C. South Dakota State University; Spellman, G. and Sarver, S. Black Hills State University; Kerby, J. and Sulak, B. University of South Dakota.
17. Integration of remote sensing and life cycle analysis to enhance the sustainability of South Dakota agricultural production, SD NASA EPSCoR, May 2011 to March 2012, PI: Kjaersgaard, J, S South Dakota State University, co-PI: Clay, S., South Dakota State University, Stone, J.J. (\$7,097)
18. South Dakota Sustainability Initiative: building sustainable practice throughout the Missouri River watersheds of South Dakota. NSF R2T1 Planning Grant South Dakota EPSCoR, March to September 2012. PI: Stone, J.J., (\$8,000)
19. Phase I: Data Collection and Assessment for Mercury TMDL Development, South Dakota Department of Environment and Natural Resources, May 2009 to June 2011. PI: Stone, J.J., (\$22,603)
20. Phase I: Data Collection and Assessment for Mercury TMDL Development, South Dakota Department of Environment and Natural Resources, May 2008 to June 2011, PI: Stone, J.J., (\$265,424), co-PI: Stetler, L.D., Sundareshwar, P.V., SDSM&T, Chipps, S., South Dakota State University, Penn, M., University of Wisconsin-Platteville.
21. Assessment of Atmospheric Mercury Deposition at Select Northern Great Plains National Parks Service Locations, National Parks Services and Great Plains Cooperative Ecosystem Studies Unit, July 2008 to September 2011, PI: Stone, J.J. (\$69,963).
22. Swine facility life cycle assessment model development, South Dakota Corn Council (South Dakota State University sub-award), August 2001 to June 2011, PI: Stone, J.J. (\$35,000).
23. Watershed retention and transformation of arsenic and uranium by iron minerals from historical South Dakota uranium mining operations, Stanford Synchrotron Radiation Lightsource user, Molecular Environmental & Interface Science, May 2009 to December 2010, PI: Borch, T., Colorado State University, co-PI: Stone, J.J.

24. Degradation of antimicrobial agents Tylosin and Chlortetracycline during swine waste treatment, supplemental Research Experience for Undergraduate student support, National Science Foundation, Chemical, Bioengineering, Environmental, and Transport Systems division, Environmental Engineering Program, July 2006 to June 2010, PI: Stone, J.J. (\$6,000), co-PI: Clay, S., Thaler, R., South Dakota State University
25. Degradation of antimicrobial agents Tylosin and Chlortetracycline during swine waste treatment, National Science Foundation, Chemical, Bioengineering, Environmental, and Transport Systems division, Environmental Engineering Program, July 2006 to June 2010, PI: Stone, J.J. (\$201,974), co-PI: Clay, S., Thaler, R., South Dakota State University.
26. Degradation of antimicrobial agents Tylosin and Chlortetracycline during swine waste treatment, supplemental Research Experience for Undergraduate student support, National Science Foundation, Chemical, Bioengineering, Environmental, and Transport Systems division, Environmental Engineering Program, July 2006 to June 2010, PI: Stone, J.J. (\$6,000), co-PI: Clay, S., Thaler, R., South Dakota State University.
27. Swine facility life cycle assessment model development, South Dakota Corn Council (South Dakota State University sub-award), August 2009 to June 2010, PI: Stone, J.J. (\$20,000).
28. Evaluating time-series remotely sensed data sets in the estimation of crop yields and the resulting environmental impacts via life-cycle analysis, South Dakota NASA EPSCoR, April 2009 to May 2010, PI: Hansen, M., South Dakota State University, co-PI: Clay, S.A., South Dakota State University, Stone, J.J. (\$10,000)
29. Acquisition of a kinetic phosphorescence analyzer for uranium-focused research and education, National Science Foundation, Division of Earth Sciences, Instrumentation and Facilities Program, NSF 07-553, July 2008. PI: Sani, R. (\$48,750), co-PIs: Stone, J.J., Stetler, L.D., SDSM&T.
30. Furthering uranium and heavy metal remediation capacities through applied research, South Dakota 2010 Individual Seed Grant Program, August 2005 to August 2006. PI: Stone, J.J. (\$63,992).
31. Acquisition of equipment cluster to strengthen a multi-disciplinary regional biogeochemistry core facility for research and training, National Science Foundation, Division of Biological Infrastructure, Major Research Instrumentation, June 2005 to June 2006. PI: Dr. Sundareshwar (\$269,857), Co-PIs: Stone, J.J., Kenner, S., Zimmerman, P, SDSM&T.
32. Natural organic matter-promoted metal inhibition of biological Fe(III) reduction, South Dakota EPSCoR Rushmore CAREER grant, January 2004 to December 2004, PI: Stone, J.J. (\$65,000).

PAST INTERNAL RESEARCH SUPPORT

1. Biodegradation of polycyclic aromatic hydrocarbons under thermophilic conditions, SDSM&R Nelson Research Grant FY'07, February 2006 to December 2007. PI: Sani, R. (\$5,000), Co-PIs: Stone, J.J., Bang, S., SDSM&T.
2. Acquisition of field and laboratory instrumentation, SDSM&T FY'06 Budget Request, April 2005, PI: Stone, J.J. (\$10,000), co-PI: Sundareshwar, P.V., SDSM&T.
3. Monitoring of Pharmaceuticals and Personal Care Products within Rapid City's Drinking Water Supply and Wastewater Treatment Facility. SDSM&T Nelson Research Grant FY'04. February 2004 to May 2005, PI: Stone, J.J. (\$5,000), Co-PI: Heglund, D., SDSM&T.

REPORTS AND REPORT CHAPTERS

1. Borch, T., Johnson, T., Stone, J.J., Bhattacharyya, A., Ruedig, E., Truax*, R. 2015. Critical evaluation of restoration goals based on improved geochemical and toxicological characterization of baseline and post-mining site conditions. Prepared for University of Wyoming School of Energy Resources, legislature of State of Wyoming In-Situ Recovery of Uranium Research Program, Laramie, WY.
2. Hansen, R., Stone, J.J. 2011. Mercury total maximum daily load evaluation for the State of South Dakota South Dakota. Prepared for the Department of Environment and Natural Resources, Pierre, SD.
3. Stone, J.J. 2011. Final Report: Phase I data collection and assessment for South Dakota mercury TMDL development. Report No. CEE 05-11. Department of Civil and Environmental Engineering, South Dakota School of Mines and Technology. Prepared for South Dakota Department of Environment and Natural Resources, Pierre, SD.
4. Stetler, L.D., Stone, J.J. 2010. Environmental geology of abandoned uranium mines, Harding County, South

- Dakota. In *Geologic Field Trips in the Black Hills* (eds. M. Terry, E. Duke, J. Tielke). Bulletin No. 21, Department of Geology and Geological Engineering, South Dakota School of Mines and Technology, Rapid City, SD. 128-138.
5. Schwalm, A., Stone, J.J., Stetler, L.D. 2008. Abandoned Mine Investigation Report: Metal Contaminant Concentrations at the Abandoned Hilltop #1 and #2, Area H-2, Hanson Operation Uranium Mine Site, Slim Buttes, Harding County, South Dakota. Report No 10-08. Department of Civil and Environmental Engineering, South Dakota School of Mines and Technology. Prepared for USDA-USFS Northern Regional Office, Missoula, MT.
 6. Davis, A., Stetler, L.D., Stone, J.J. 2007. Pumping Well Test Analysis: Hell Creek Aquifer, North Cave Hills, Harding County, South Dakota. Report No 11-07, Department of Geology and Geological Engineering, South Dakota School of Mines and Technology. Prepared for USDA-USFS Northern Regional Office, Missoula, MT.
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1. Stetler, L., Stone, J.J., 2011. Environmental impacts from wind erosion of abandoned mine lands. Proceedings from the International Symposium on Erosion and Landscape Evolution conference, Anchorage AK.
2. Stone, J.J., Larson*, L., Kipp*, G., 2011. Sediment pore-water equilibria interactions associated with arsenic and uranium transport within a historical uranium mining-impacted watershed in South Dakota. Proceedings from the 28th Annual Meeting of American Society of Mining and Reclamation, Bismarck, ND.
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1. Dangelmayr, M., Stone, J.J., Remius, P., Johnson, R., Clay, J. Modeling uranium attenuation at a uranium in situ recovery (ISR) facility. Presented at the National Mining Association Uranium Recovery Workshop 2017, Denver CO, June 2017
2. Gonzalez-Estrella, J., Asato, C., Jerke*, A., Stone, J.J., Gilcrease, P. Predicting anaerobic degradability of paper and paper board waste. Presented at the 2017 Association of Environmental Engineering and Science Professors conference, Anne Arbor MI, June 2017.
3. Skilling*, D., Asato, C., Gonzalez-Estrella, J., Malzahn, J., Stone, J.J., Gilcrease, P. Modeling anaerobic digestion of food waste and paper board waste mixtures. Presented at the 2017 Association of Environmental Engineering and Science Professors conference, Anne Arbor MI, June 2017.
4. Dangelmayr, M., Stone, J.J., Johnson, R., Reimus, P., Clay, J. Modeling uranium attenuation at a uranium in situ recovery (ISR) facility. Presented at the 2017 Western South Dakota Hydrology Conference, Rapid City SD, April 2017.
5. Punsal*, J., Stone, J.J., Sieverding, H., Rhoades, C., Kunza, L. Quantitative and fluorescence analyses of dissolved organic carbon emanating from mountain pine beetle-impacted watersheds of upper Rapid Creek. Presented at the 2017 Western South Dakota Hydrology Conference, Rapid City SD, April 2017.
6. Shaw, P., Kenner, S., Stone, J.J., Sieverding, H. Comparisons between EROS continuous change detection classification system and USFS forest health technology mapping for the current mountain pine beetle outbreak. Presented at the 2017 Western South Dakota Hydrology Conference, Rapid City SD, April 2017
7. Shaw, P., Kenner, S., Stone, J.J., Sieverding, H. Modeling the hydrological impact of land cover change for the current Black Hills mountain pine beetle outbreak. Presented at the 2017 Western South Dakota Hydrology Conference, Rapid City SD, April 2017
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10. Jeong, H., Sieverding, H., Stone, J.J. Optimization model for biodiesel supply chain and infrastructure development in the Northern Great Plains Region. Presented at the 2016 Renewable Energy Conference, Jonesboro AR, October 2016
11. Johnson, R., Stone, J.J., Truax*, R., Dangelmayr, M., Reimus, P., Clay, J. Water quality issues related to uranium in situ recovery sites. Presented at the annual Geologic Society of America conference, Denver, CO, September 2016.
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13. Isola*, C., Sieverding, H., Stone, J.J. Life cycle assessment of photodegradable polymeric material derived from renewable bioresources. Presented at the Life Cycle Assessment XVI conference, Charleston, SC, September 2016.
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18. Vik*, E., Stone, J.J. Potential organic carbon exports within the upper Rapid Creek watershed due to the current mountain pine beetle outbreak. Presented at the 2015 South Dakota Water and Wastewater Association Annual Meeting, Spearfish, SD, September 2015.
 19. Stone, J.J., Sieverding, H., Gibbons, B. Bio versus fossil oil: Dryland biofuel feedstock production transportation infrastructure challenges. Presented at the 2015 Associated of Environmental Engineering and Science Professors AEESP annual conference, New Haven CT, June 2015.
 20. Borch, T., Troyer, L., Campbell, K., Stone, J.J., Lezama-Pacheco, J., Bargar, J. Fate of U and As in biostimulated mine trailings sediments. Presented at the Spring 2015 American Chemical Society meeting, Denver, CO, April 2015.
 21. Borch, T., Johnson, T., Stone, J.J. Critical evaluation of restoration goals based on improved geochemical and toxicological characterization of baseline- and post-mining site conditions. Presented at the 2015 In-Situ Recovery of Uranium Research Symposium, Laramie, WY, April 2015.
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37. Squillace*, M., Stone, J.J., Investigation of mercury and arsenic sediment concentrations within the Cheyenne River basin of the Cheyenne River Sioux Tribe Reservation. presented at the 2013 Western South Dakota Hydrology Conference, Rapid City, SD, April 2013.
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39. Hengen*, T., Squillace*. M., O'Sullivan, A., Crombie, F., Stone, J.J., Life Cycle Assessment Analysis for Active and Passive Acid Mine Drainage Treatment Options for the Stockton Coal Mine, New Zealand presented at the Eastern South Dakota Water Conference, Brookings SD, October 2012
40. Stone, J.J., Hengen*, T., Squillace*. M., Life Cycle Assessment Analysis for Active and Passive Acid Mine Drainage Treatment presented at the Life Cycle Assessment XII Conference, Tacoma WA, September 2012
41. Hengen*, T., Stone, J. Life cycle assessment analysis of engineered stormwater control methods common to urban South Dakota watersheds, presented at the South Dakota Water and Wastewater conference, Rapid City, SD, September 2012
42. Stone, J.J., Truax*, R., Bailey*, L., Carlson, G., Clay, D., 'Well to Tank' GREET LCA model for South Dakota ethanol production. Presented at the Center for Bioenergy Research and Development meeting, Raleigh, NC May 2012.
43. Stone, J.J., Pfiefler*, B., Arsenic distribution in sediment and pore waters of the historical mining-impacted Belle Fourche and Cheyenne River floodplains, South Dakota. Presented at the U.S. EPA Hardrock Mining Conference, Denver CO, April 2012.
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46. Lupo*, C., Stone, J.J., Olson, K., Clay, D., Estimating potential environmental impacts associated with beef cattle production in the Northern Great Plains, US using life cycle assessment. Presented at the 2012 Western South Dakota Hydrology Conference, Rapid City, SD, April 2012.
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49. Jones*, T., Metzler*, E., Rohde*, C., McKaskey*, J., Stetler, L., Stone, J.J., Solutions for mine-tailing leachate affecting the floodplain south of Creede, CO. Presented at the 2012 Western South Dakota Hydrology Conference, Rapid City, SD, April 2012.
50. Tisher*, K., Squillace*, M., Hoyle*, J., Muraveva*, A., Stetler, L., Stone, J.J., Reclamation of the Holy Moses Mine to prevent the contamination of East Willow Creek and its aquatic resources. Presented at the 2012 Western South Dakota Hydrology Conference, Rapid City, SD, April 2012.
51. Lupo*, C., Morris*, D., Shagla*, C., Stetler, L., Stone, J.J., Reclamation of the last chance waste rock pile near Creede, CO. Presented at the 2012 Western South Dakota Hydrology Conference, Rapid City, SD, April 2012.
52. Borch, T., Troyer, L., Larson, L., Stone, J.J., Impact of biogeochemical redox processes on U and As dynamics within a U mining impacted watershed. Presented at the International Workshop on Uranium Biogeochemistry: transformations and applications, Ascona Switzerland, March 2012.
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54. Hengen*, T., Stone, J.J., Life cycle assessment analysis of engineered stormwater control methods common

- to urban South Dakota Watersheds. Presented at the 2011 Eastern South Dakota Water Conference, Brookings, SD, October 2011.
55. Hengen*, T., Stone, J.J., Life cycle assessment analysis of engineered stormwater control methods common to urban South Dakota Watersheds. Presented at the 2011 South Dakota Water and Wastewater Association annual conference, Huron, SD, September 2011.
 56. Stetler, L., Stone, J.J., Geological Engineering senior design experience: abandoned uranium mine site characterization. Presented at the Frontiers in Education Conference, Rapid City, SD, October 2011.
 57. Stone, J.J., Sediment pore-water equilibria interactions associated with arsenic and uranium transport within a historical uranium mining-impacted watershed in South Dakota. Presented at the U2011 Uranium Symposium, Casper, WY, September 2011.
 58. Stetler, L., Stone, J.J., Environmental impacts from wind erosion of abandoned mine lands. Presented at the American Society of Agricultural and Biological Engineers International Symposium on Erosion and Landscape Evolution, Anchorage, AK, September 2011.
 59. Pfiel*, B., Stone, J.J., Stamm, J., Geibel, N. Arsenic speciation in sediment and pore waters of the historical mining-impacted Belle Fourche and Cheyenne River floodplains. Presented at the 28th annual meeting of the American Society of Mining Reclamation Conference, Bismarck, ND, June 2011.
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 67. Kelly*, M., Stone, J.J., Methods of extraction and preparation for analysis of bottom sediment core samples from Black Hills area lakes and reservoirs. Presented at the SDSM&T Undergraduate Research Symposium, Rapid City, SD, April 2011.
 68. Stone, J.J., Dollarhide*, C., Jinka*, R., Thaler, R., Hostetler, C., Clay, D., Life cycle assessment of a modern U.S. Northern Great Plains swine production facility. Presented at the Life Cycle Assessment X Conference, Portland, OR, November 2010.
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 70. Kipp*, G., Stone, J.J., Larson*, L., Arsenic and uranium transport in sediments near abandoned uranium mines in Harding County, South Dakota. Presented at the 2010 Geologic Society of American Denver Annual Meeting, Denver, CO, November 2010.
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 74. Stone, J.J., Aurand*, K., Dollarhide*, C., Jinka*, R., Thaler, R., Clay, D., Clay, S., Life cycle assessment of tylosin and chlortetracycline antimicrobial use at swine production facilities. Presented at the joint meeting of the Rocky Mountain Section, Geologic Society of America 62nd Annual Meeting and the 2010 Western South Dakota Hydrology Conference, Rapid City, SD, April 2010.
 75. Larson*, L., Stone, J.J., Stetler, L., Troyer, L., Borch, T., Sediment pore-water equilibrium interactions associated with arsenic and uranium transport within a historical uranium mining impacted watershed, Harding County, SD. Presented at the joint meeting of the Rocky Mountain Section, Geologic Society of America 62nd Annual Meeting and the 2010 Western South Dakota Hydrology Conference, Rapid City, SD, April 2010.
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 78. Betemariam*, H., Stone, J.J., Stetler, L., McCutcheon*, C., Chipps, S., Desutter, T., Penn, M., Urban, N., Sediment mercury behavior in South Dakota lakes and impoundments. Presented at the joint meeting of the Rocky Mountain Section, Geologic Society of America 62nd Annual Meeting and the 2010 Western South Dakota Hydrology Conference, Rapid City, SD, April 2010.
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97. Dreis*, E., Clay, S., Spellman, G., Stone, J.J., Environmental implications associated with land application of antimicrobial-containing manure. Presented at the 2008 Eastern South Dakota Water Conference, Brookings, SD, October 2008.
98. Aurand*, K., Stone, J.J., Clay, S., Determination of environmental impacts due to antimicrobial usage at swine CAFOs: a Life Cycle Assessment approach. Presented at the 2008 Eastern South Dakota Water Conference, Brookings, SD, October 2008.
99. Albertus*, H., Stetler, L.D., Schwalm, A., Eastman, A., Stone, J.J., Surface water and sediment investigation concerning abandoned uranium mines within the Slim Buttes region, Harding County, South Dakota. Presented at the 2008 Eastern South Dakota Water Conference, Brookings, SD, October 2008.
100. Stetler, L.D., Davis, A., Stone, J.J., Assessment of aquifer contamination near abandoned uranium mines in the North Cave Hills, South Dakota. Presented at the 2008 National Groundwater Association, US EPA Remediation of Abandoned Mine Lands Conference, Denver, CO, October 2008.
101. Stone, J.J., Kipp*, G., Stetler, L.D., Fate and transport of metals in a watershed impacted by abandoned uranium mines. Presented at the Uranium Mining and Hydrology V Conference, Freiberg, Germany, September 2008.
102. Stone, J.J., Stetler, L.D., Environmental impacts from the North Cave Hills abandoned uranium mines, South Dakota. Presented at the Uranium Mining and Hydrology V Conference, Freiberg, Germany, September 2008.
103. Stone, J.J., Clay, S., Spellman, G., Effect of antimicrobial compounds Tylosin and Chlorotetracycline during anaerobic swine manure digestion. Presented at the 236th American Chemical Society National Meeting and Exposition, Division of Environmental Chemistry, Philadelphia, PA, August 2008.
104. Stone, J.J., Kipp*, G., Stetler, L.D., Metal transport in sediments near abandoned uranium mines in Harding County, South Dakota. Presented at the 18th Annual Goldschmidt Geochemistry Conference, Vancouver, Canada, July 2008.
105. Stetler, L.D., Davis, A., Stone, J.J., Results of a groundwater pumping test near abandoned uranium mines in the North Cave Hills, South Dakota. Presented at the 2008 Western South Dakota Hydrology Conference, Rapid City, SD, April 2008.

106. Tuombe*, E., Stone, J.J., Stetler, L.D., Surface water and sediment investigation concerning abandoned uranium mines within the South Cave Hills region, Harding County, South Dakota. Presented at the 2008 Western South Dakota Hydrology Conference, Rapid City, SD, April 2008.
107. Stone, J.J., Stetler, L.D., Sundareshwar, P., Chipps, S., Penn, M., Development of a mercury TMDL for South Dakota lakes and reservoirs. Presented at the 2008 Western South Dakota Hydrology Conference, Rapid City, SD, April 2008.
108. Kipp*, G., Stone, J.J., Stetler, L.D., Davis, A., Sorption of metals onto soil minerals near abandoned uranium mines in the South Cave Hills, Harding County, South Dakota. Presented at the 2008 Western South Dakota Hydrology Conference, Rapid City, SD, April 2008.
109. Dreis*, E., Porath*, L., Stone, J.J., Clay, S., Spellman, G., Environmental impacts associated with antimicrobial compounds Tylosin and Chlortetracycline usage within swine CAFO facilities. Presented at the 2008 Western South Dakota Hydrology Conference, Rapid City, SD, April 2008.
110. Stetler, L.D., Stone, J.J., Radionuclide impacts to human health from surface dust samples near abandoned uranium mines in Harding Co., South Dakota. Presented at the 87th annual meeting of the South Dakota Academy of Sciences, Chamberlain, SD, April 2008.
111. Stetler, L.D., Davis, A., Stone, J.J., Groundwater pumping test in the North Cave Hills uranium district, South Dakota. Presented at the 20th Annual South Dakota DENR Environmental and Groundwater Quality Conference, Pierre, SD, March 2008
112. Malladi*, Y., Wong*, K., Zhu*, Z., Clay, S., Stone, J.J., Impacts of antimicrobial agents CTC and Tylosin on gas generation rates during swine manure degradation. Presented at the Joint Meeting of the Eastern South Dakota Water Conference and the 52nd Annual Mid-West Groundwater Conference, Sioux Falls, SD, October 2007.
113. Porath*, L., Wong*, K., Zhu*, Z., Clay, S., Stone, J.J., The effects of antimicrobial agents CTC and Tylosin on the efficiency of swine manure degradation. Presented at the Joint Meeting of the Eastern South Dakota Water Conference and the 52nd Annual Mid-West Groundwater Conference, Sioux Falls, SD, October 2007.
114. Stone, J.J., Clay, S., Spellman, G., Impact of antimicrobial compounds Tylosin and Chlortetracycline during swine manure treatment. Presented at the Joint Meeting of the Eastern South Dakota Water Conference and the 52nd Annual Mid-West Groundwater Conference, Sioux Falls, SD, October 2007.
115. Tuombe*, E., Stetler, L.D., Stone, J.J., Surface water and sediment investigation concerning abandoned uranium mines in the South Cave Hills region, Harding County, South Dakota. Presented at the Joint Meeting of the Eastern South Dakota Water Conference and the 52nd Annual Mid-West Groundwater Conference, Sioux Falls, SD, October 2007.
116. Stetler, L.D., Stone, J.J., Schwalm, A., Environmental impacts from abandoned uranium mines, Harding County, South Dakota. Presented at the 50th Annual Meeting of the Association of Environmental and Engineering Geologists, Los Angeles, CA, October 2007.
117. Stone, J.J., Clay, S., Spellman, G., Impact of antimicrobial compounds Tylosin and Chlortetracycline during swine manure treatment. Presented at the Association of Environmental Engineering and Science Professors Bi-Annual Conference, Blacksburg, VA, July 2007.
118. Stone, J.J., Stetler, L.D., Schwalm, A., Environmental impacts from abandoned uranium mines in western South Dakota. Presented at the Association of Environmental Engineering and Science Professors Bi-Annual Conference, Blacksburg, VA, July 2007.
119. Porath*, L., Mott, H.V., Clay, S., Stone, J.J., Effects of antimicrobials on swine manure degradation. Presented at the SDSM&T NSF-Research Experience for Undergraduates colloquium, Rapid City, SD, July 2007
120. Onyeukwu*, K., Stetler, L.D., Stone, J.J., Assessment of wind- and soil-related hazards associated with abandoned uranium mines in the North Cave Hills, Harding County, South Dakota. Presented at the Association of Environmental and Engineering Geologist Regional Student Night 2007, Golden, CO, April 2007.
121. Stetler, L.D., Stone, J.J., Schwalm, A., Off-site impacts from abandoned uranium mines in the North Cave Hills, Harding County, South Dakota. Presented at the 86th annual meeting of the South Dakota Academy of Sciences, Brookings, SD, April 2007.
122. Stetler, L.D., Stone, J.J., Onyeukwu*, K., Aerosol dust transport, deposition, and composition around abandoned uranium mines in the North Cave Hills, Harding County, South Dakota. Presented at the 2007 Western South Dakota Hydrology Conference, Rapid City, SD, April 2007.
123. Stetler, L.D., Stone, J.J., Groundwater quality near abandoned uranium mines in the North Cave Hills, Harding County, South Dakota. Presented at the 2007 Western South Dakota Hydrology Conference, Rapid City, SD, April 2007.

124. Stone, J.J., Stetler, L.D., Schwalm, A., Environmental impacts from the North Cave Hills abandoned uranium mines, Harding County, South Dakota. Presented at the 2007 Western South Dakota Hydrology Conference, Rapid City, SD, April 2007.
125. Stetler, L.D., Stone, J.J., Radionuclides and metals in groundwater near abandoned uranium mines in the North Cave Hills, Harding County, South Dakota. Presented at the 19th Annual South Dakota DENR Environmental and Groundwater Quality Conference, Pierre, SD, March 2007.
126. Wong*, K., Stone, J.J., Clay, S., Degradation of Tylosin and Chlortetracycline during swine manure treatment. Presented at the Eastern South Dakota Water Conference, Brookings, SD, November 2006.
127. Stone, J.J., Stetler, L.D., Schwalm, A., Wintergerst, R., Walters-Clark, L., Study of Abandoned Uranium Mining Impacts on Private Lands Surrounding the North Cave Hills. Presented at the National Association of Abandoned Mine Lands Program 28th National Conference, Billings, MT, September 2006.
128. Bosse, C., Stone, J.J., Molybdenosis field study in North Cave Hills region impacted by abandoned uranium mines. Presented at the SDSM&T NSF-Research Experience for Teachers colloquium, Rapid City, SD, July 2006.
129. Farrand, M., Stone, J.J., Effect of antimicrobial agent Chlortetracycline during swine manure treatment. Presented at the SDSM&T NSF-Research Experience for Teachers colloquium, Rapid City, SD, July 2006.
130. Stone, J.J., Stetler, L.D., Schwalm, A., Wintergerst, R., Walters-Clark, L., Soil, water and air investigation concerning abandoned uranium mines in North Cave Hills region, Custer National Forest. Presented at the 2006 Western South Dakota Hydrology Conference, Rapid City, SD, April 2006.
131. Stone, J.J., The presence of pharmaceuticals and antimicrobial agents within the environment. Presented at the 18th Annual South Dakota DENR Environmental and Groundwater Quality Conference, Pierre, SD, March 2006.
132. Malladi*, U., Sears, J., Stone, J.J., Assessing the environmental effects of processing with nanoparticles. Presented at the 2005 North Dakota, South Dakota EPSCoR Conference, Brookings, SD, September 2005.
133. Stone, J.J., K-12 student recruitment efforts for the BS Environmental Engineering program at SDSM&T. Presented at the Association of Environmental Engineering and Science Professors Bi-Annual Conference, Potsdam, NY, July 2005.
134. Stone, J.J., Pharmaceuticals in water supplies. Presented at the 2005 Western South Dakota Hydrology Conference, Rapid City, SD, April 2005.
135. Carpenter*, S., Heglund, D., Stone, J.J., Detection of endocrine disrupting compounds in water samples. Presented at the 2005 South Dakota Student Research Poster Symposium, Pierre, SD, February 2005.
136. Paul*, C., Stone, J.J., The effect of zinc and nickel on bioreduction of iron oxides. Presented at the 2005 South Dakota Student Research Poster Symposium, Pierre, SD, February 2005.
137. Sandvik, E., Kutil*, N., Stone, J.J., Impact of natural organic matter on biological metal reduction. Presented at the annual Inland Research Alliance Conference, Spokane, WA, September 2004.
138. Kutil*, N., Sandvik, E., Stone, J.J., The impact of nickel and zinc on Fe(III)-oxide bioreduction. Presented at the 2004 South Dakota Rushmore Regional Conference on Biocomplexity, Sioux Falls, SD, August 2004.
139. Stone, J.J., Burgos, W.D., Ruebush, S.S., Changes in microbial response for natural organic matter promoted metal inhibition during Fe(III)-oxide bioreduction. Presented at the 14th Annual Goldschmidt Geochemistry Conference, Copenhagen, Denmark, June 2004.
140. Stone, J.J., Laboratory studies for uranium remediation using biological U(VI) reduction. Presented at the South Dakota DENR 16th Annual Environmental and Groundwater Quality Conference, Pierre, SD, March 2004.
141. Stone, J.J., Burgos, W.D., Natural organic matter-promoted metal inhibition of hematite bioreduction. Presented at the American Geophysical Union Fall 2003 General Meeting, San Francisco, CA, December 2003.
142. Stone, J.J., Burgos, W.D., Royer, R.A. Effects of reactive surface area and DIRB concentrations on zinc inhibition during dissimilatory iron reduction of hematite. Presented at the American Society for Microbiology 102nd General Meeting, Salt Lake City, UT, May 2002.
143. Stone, J.J., Royer, R.A., Burgos, W.D., Dempsey, B.A., Yet, G.T., Roden, E.E., Effect of natural organic matter on zinc inhibition with *Shewanella putrefaciens* CN32. Presented at the US Department of Energy-NABIR PI Workshop, Warrenton, VA, March 2002
144. Stone, J.J., Burgos, W.D., Royer, R.A. Impact of zinc on biological reduction of hematite. Presented at the 6th International Conference on the Biogeochemistry of Trace Elements, Guelph, Ontario, Canada, July 2001.
145. Stone, J.J., Burgos, W.D., Royer, R.A. Impact of zinc on biological reduction of hematite using the dissimilatory iron reducing bacterium *Shewanella putrefaciens*. Presented at the 11th Annual Goldschmidt

Geochemistry Conference, Hot Springs, VA, May 2001.

146. Stone, J.J., Burgos, W.D., Royer, R.A. Impact of zinc on biological reduction of hematite. Presented at the Allegheny Branch of the American Society for Microbiology Fall Meeting, State College, PA, October 2000.
147. Dempsey, B.A., Jeon, B.H., Stone, J.J., Royer, R.A., Burgos, W.D. Adsorption of Fe(II) & Zn(II) on ferric oxides. Presented at the 74th Colloid and Surface Science Symposium, Bethlehem, PA, June 2000.

INVITED LECTURES

1. SDSM&T Chemical/Biological Engineering REU Luncheon, Rapid City, SD. "Life cycle assessment modeling." June 2016.
2. 2016 Western South Dakota Hydrology Conference, Rapid City, SD. Keynote luncheon presentation "Food/Energy/Water Nexus challenges and potential solutions for the northern Great Plains." April 2016.
3. University of Nebraska-Lincoln Food Energy Water Nexus workshop, Lincoln NE. Keynote presentation "Life cycle assessment modeling challenges and opportunities for the FEW nexus." February 2016.
4. SDSM&T Chemical/Biological Engineering REU Luncheon, Rapid City, SD. "Life cycle assessment modeling." June 2015.
5. SDSM&T Green Chemistry Summer Camp 2015, Rapid City, SD. "Life cycle assessment modeling." July 2015.
6. Annual SunGrant PI meeting, Minneapolis, MN. "Bio versus fossil oil: dryland biofuel feedstock production transportation infrastructure challenges." March 2015.
7. Annual South Dakota American Water Works Association Water Seminar, Spearfish, SD. "In-situ recovery (ISR) uranium mining and potential effects on groundwater quality." February 2015.
8. North Central Development Committee 227 Brassica carinata Second Annual Meeting, Pierre, SD. "Camelina and Carinata LCA." December 2014.
9. 2014 American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America International Annual Meetings, Long Beach CA. "Geochemical modeling of the down gradient transport potential of uranium at an In-Situ Recovery (ISR) facility." November 2014.
10. Honors College Energy Colloquium, South Dakota State University, Brookings, SD. "Life Cycle Assessment modeling- sustainability metric for environmental and agricultural systems." November 2014.
11. Department of Civil and Natural Resources weekly seminar series, University of Canterbury, Christchurch, New Zealand. "The use of life cycle assessment as a sustainability metric for environmental and agricultural systems." August 2013.
12. University of Canterbury Engineers without Borders, Christchurch, New Zealand. "EWB project in Rwanda - case study on drinking water collection and treatment." August, 2013.
13. South Dakota Engineering Society Awards Luncheon, Rapid City, SD. "Life cycle assessment modeling: methodology and current applications at SDSM&T." February 2013.
14. University of South Dakota Sustainability Seminar Series, Vermillion SD. "The use of Life Cycle Assessment as a sustainability metric for environmental and agricultural systems." October 2012.
15. South Dakota Academy of Sciences, Vermillion, SD. "Sustainability-research efforts in South Dakota." April 2012.
16. SDSM&T CEE graduate student seminar series, Rapid City, SD. "Life cycle assessment modeling: methodology and current research efforts." March 2011.
17. SDSM&T Sustainability and Green Energy Conference, Rapid City, SD. "Life cycle assessment modeling: current research efforts." April 2011.
18. Black Hills State University, A to Z Science Seminar, Spearfish, SD. "Life cycle assessment modeling: methodology and current research efforts." March 2011.
19. National Parks Service Northern Great Plains Technical Committee Meeting, Rapid City, SD. "Assessment of atmospheric mercury deposition at select Northern Great Plains National Parks." January 2010.
20. SDSM&T Lunch-n-Learn, Rapid City, SD. "Sustainability." May 2009.
21. South Dakota Retired Teachers Association annual meeting, Pierre, SD. "Going GREEN for your grandkids (and what your grandkids may already be learning about at SDSM&T)." April 2009.
22. EPA Region 8 TMDL training workshop, Rapid City, SD. "South Dakota mercury TMDL development." March, 2009.
23. National Parks Service Northern Great Plains Technical Committee Meeting, Rapid City, SD. "South Dakota mercury TMDL project." December 2008.
24. South Dakota State University, Department of Plant Sciences Seminar Series, Brookings, SD. "Impact of

- antimicrobial compounds Tylosin and Chlortetracycline during swine manure treatment.” February 2008.
25. University of Nebraska, Lincoln. Environmental Engineering Seminar Series, Lincoln, NE. “Impact of antimicrobial compounds Tylosin and Chlortetracycline during swine manure treatment.” February 2008.
 26. SDSM&T Geol/GeoE/Paleo Friday Afternoon Seminar, Rapid City, SD. “Impact of antimicrobial compounds Tylosin and Chlortetracycline during swine manure treatment.” November 2007.
 27. South Dakota Water and Wastewater Association 2007 Annual Water Seminar, Rapid City, SD. “Study of abandoned uranium mining impacts on private lands surrounding the North Cave Hills.” February 2007.
 28. South Dakota Engineering Society, Professional Development Hours, Fall 2006 conference, Rapid City, SD. “Study of abandoned uranium mining impacts on private lands surrounding the North Cave Hills.” October 2006.
 29. USDA/USFS Public informational meeting, Ludlow, SD. “Study of abandoned uranium mining impacts on private lands surrounding the North Cave Hills.” October 2006
 30. Black Hills State University, A to Z Science Seminar, Spearfish, SD. “Uranium and Hog Manure □ regional environmental research projects at SDSM&T.” September 2006.
 31. SDSM&T informational seminar for development of international service learning projects, Rapid City, SD. “Rwanda EWB project - May 2005.” September 2006.
 32. SDSM&T NSF-Research Experience for Teachers brown bag seminar, Rapid City, SD. “Environmental Engineering Research at SDSM&T.” July 2006.
 33. South Dakota Wastewater Association spring workshop, Oakoma, SD. “Solutions for Rwanda.” April 2006.
 34. Bi-annual North Dakota, South Dakota, and Minnesota Surface Water Treatment Workshop, Fargo, ND. “The Presence of Pharmaceuticals and Antimicrobial Agents within the Environment.” April 2006.
 35. USDA/USFS Public informational meeting. Buffalo, SD. “Study of abandoned uranium mining impacts on private lands surrounding the North Cave Hill.” March 2006.
 36. SDSM&T Academic Advisory Board, Rapid City, SD. “International senior design efforts.” October 2005
 37. South Dakota Engineering Society, Professional Development Hours, Fall 2005 conference, Pierre, SD. “Solutions for Muramba, Rwanda: Rainwater Catchment Implementation May, 2005.” September 2005.
 38. South Dakota Engineering Society monthly meeting, Rapid City, SD. “Environmental effects of Hurricane Katrina.” September 2005.
 39. South Dakota State University Microbiology Seminar Series, Center for Biocomplexity Studies, Brookings, SD. “The effect of heavy metals during biological Fe(III)-oxide and U(VI) reduction. ” September 2005.
 40. SDSM&T Native American SKILS summer program, Rapid City, SD. “Solutions for Muramba, Rwanda: Rainwater Catchment Implementation May, 2005.” June 2005
 41. South Dakota American Water Works Association annual spring meeting, Pierre, SD. “Pharmaceuticals in water supplies.” February 2005.
 42. SDSM&T NSF-Research Experience for Undergraduates brown bag seminar, Rapid City, SD. “Heavy metal induced inhibition during the biological reduction of Fe(III)-oxides.” June 2004.
 43. Black Hills State University, A to Z Science Seminar, Spearfish, SD. “Metal/microbe interactions controlling heavy metal and radionuclide bioremediation efforts.” February 2004.
 44. SDSM&T informational seminar for development of international service learning projects, Rapid City, SD. “International senior projects: new possibilities for Tech faculty and students.” December 2004.

COURSES

1. CEE/EnvE 326, Introductory Environmental Engineering Design
2. CEE/EnvE 327, Environmental Engineering Design
3. CEE/EnvE 327L, Environmental Engineering Design Laboratory
4. CEE 425/525, Sustainable Engineering (including Life Cycle Assessment module)
5. CEE/EnvE 426/526, Environmental Engineering Physical and Chemical Process Design (drinking water treatment)
6. CEE/EnvE 427/527, Environmental Engineering Biological Process Design(wastewater treatment)
7. CEE/EnvE 426L/526L, Environmental Engineering Physical and Chemical Process Design Laboratory
8. CEE/EnvE 428/528, Advanced Treatment Plant Design (1/3 of course).
9. CEE/EnvE 464 Capstone Design
10. CEE/EnvE 692, Environmental Remediation (1/3 of course)
11. CEE 791, Mining Environmental Impacts

12. EM 328, Applied Fluid Mechanics
13. EnvE 290, Environmental Engineering Seminar
14. ENNR 322 Ecological Engineering (24 lectures), University of Canterbury, New Zealand
15. ENCN 281 Environmental Engineering (12 lectures), University of Canterbury, New Zealand

TEACHING SUPPORT

1. "InTeGrate: Engineering, sustainability, and the Geosciences" teaching workshop. Colorado School of Mines. March 2013.
2. "InTeGrate: Interdisciplinary Teaching of Geoscience for a Sustainable Future" teaching workshop. Carlton College. July 2012.
3. ASCE ExCEEEd teaching workshop. Florida Gulf Coast University. June 2012.
4. "Teaching LCA - Integrated educational package" teaching workshop, Life Cycle Assessment IX conference, Boston, MA. September 2009.
5. "Frontiers in Environmental Engineering Education" teaching workshop, sponsored by the National Science Foundation, Arizona State University, Tempe, AZ. January 2007.
6. "Sustainability Workshop" sponsored by the National Science Foundation, Center for Sustainable Engineering, Carnegie Mellon University, Pittsburgh, PA. July 2006.
7. "How to Engineer Engineering Education." Bucknell University, Lewistown, PA. July 2005.
8. "Early CAREER Geosciences Faculty: Teaching, Research, and Managing Your Career Workshop" sponsored by the National Science Foundation, College of William and Mary, Williamsburg, VA. June 2004.

GRADUATE THESES and DISSERTATIONS

1. Albertus-Benham, A., 2009. Surface water and sediment investigation concerning abandoned uranium mines within the Slim Buttes region, Harding County, South Dakota. M.S. Thesis.
2. Betemarian, H., 2010. Sediment mercury geochemical behavior and watershed influences for South Dakota lakes and impoundments. M.S. Thesis.
3. Delzer, G., 2015. Evaluation of chemical prioritization system calculator and finished-water matrix-spike recoveries to predict the occurrence of anthropogenic organic contaminants in source and finished water of community water systems supplied by groundwater that use chlorine disinfection. PhD Dissertation.
4. Dreis, E., 2010. The effects of antimicrobial agents CTC and tylosin on manure land application. M.S. Thesis.
5. Hengen, T., 2014. Applications of life cycle assessment modeling for environmental, water resources, and agricultural processes. M.S. Thesis
6. Isola, C., 2017. Applications of life cycle assessment modeling in polymerization/depolymerization processes based on renewable resources. M.S. Thesis
7. Kipp, G., 2009. Metals transport in sediments near abandoned uranium mines in Harding County, South Dakota. M.S. Thesis.
8. Larson, L., 2010. Arsenic and uranium fate and transport within a historical U mining impacted watershed, Harding County, SD. M.S. Thesis.
9. Lupo, C., 2012. A life cycle assessment of the beef cattle production system for the Northern Great Plains, US. M.S. Thesis.
10. Malladi, U., 2006. Assessing the Environmental Impact of Processing with Silver Nanoparticles on M3D System. M.S. Thesis.
11. McCutcheon, C., 2009. Relations between water quality and mercury fish tissue concentrations in South Dakota lakes and impoundments. M.S. Thesis.
12. Paul, C., 2006. Effects of metals during biological hematite reduction, in the presence and absence of soil humic acid, by *Shewanella putrefaciens* CN32. M.S. Thesis.
13. Pfeifle, B., 2011. Fate and transport of arsenic within the Whitewood Creek, Belle Fourche, and Cheyenne River watersheds. M.S. Thesis.
14. Sharma, R., 2016. Heavy metals accumulation within Black Hills Region Reservoirs of South Dakota and Wyoming, and downriver of New Idria Mine in San Benito County, California. Ph.D. Dissertation.
15. Squillace, M., 2013. Mercury concentration in select South Dakota sediments. M.S. Thesis.
16. Tompkins, T., 2011. The effects of antimicrobial agents CTC and tylosin on swine manure sequencing batch reactor operations. M.S. Thesis.

17. Truax, R., 2015. Generic complexation sorption and transport modeling for the Smith Ranch Highlands uranium in-situ recovery site in Wyoming, USA. M.S. Thesis
 18. Tuombe, E., 2008. Surface water and sediment investigation concerning abandoned uranium mines in the South Cave Hills, North Cave Hills, and Flint Buttes region, Harding County, South Dakota. M.S. Thesis.
 19. Vik, E., 2016. Potential organic carbon exports within the upper Rapid Creek watershed due to mountain pine beetle infestation. M.S. Thesis.
 20. Wong, K., 2007. Development of headspace solid phase microextraction - Flame Ionization gas chromatography procedure for analysis of short chain volatile fatty acids in swine manure. M.S. Thesis.
1. Punsal, J., in progress. Hydrological impacts of mountain pine beetle outbreak in the Black Hills. M.S. Thesis.
 2. Shaw, P., in progress. Hydrologic modeling of mountain pine beetle impacts in the Black Hills. Ph.D. Dissertation
 3. Shrestha, P., in progress. Life cycle assessment modeling for integrated crop management systems. Ph.D. Dissertation.

RESEARCH SCIENTISTS and POST DOCTORIAL RESEARCHERS

1. Asato, C., AirForce biogas development. 2015-present.
2. Dangelmeyr, M., Power Resources ISR-uranium. 2016-present.
3. Gonzalez-Estrella, J., AirForce biogas development. 2015-present.
4. Jeong, H., SunGrant GIS/LCA modeling supply chain modeling. 2015-2016.
5. Moeller, D., SunGrant GIS/LCA supply chain modeling. 2016-2017.
6. Sieverding, H., South Dakota Oilseed Initiative. 2013-present.

STUDENT AWARDS

1. Vik, E. 2nd place poster presentation, SDSM&T Research Symposium, Rapid City, SD (\$300), 2015
2. Pfiefler, B., 2nd place oral presentation, American Society of Mining Reclamation Conference, Bismarck ND (\$300), 2011
3. Kulsea, A., South Dakota Solid Waste Management Association (\$250), 2011.
4. Lupo, C., Teske graduate fellowship award (\$4000), 2011.
5. Kipp, G., South Dakota Associated of Engineering Professionals scholarship (\$1,000), 2009.
6. Betemarian, H., South Dakota Associated of Engineering Professionals scholarship (\$300), 2009.
7. Tuombe, E., Ivanhoe Excellence Awards for Graduate Education (\$2,500 fellowship), SDSM&T, 2007.
8. Wong, K., Ivanhoe Excellence Awards for Graduate Education (\$2,500 fellowship), SDSM&T, 2006.

PROFESSIONAL ACTIVITIES

Member

- American Chemical Society (ACS), 2005-2010
- American Geophysical Union (AGU), 2005-2010
- American Society of Civil Engineering (ASCE), 2011-2013
- American Water Works Association (AWWA), 2005-2010
- Chair, Executive Council of the South Dakota Section of AWWA, 2008-2009
- Association of Environmental Engineering and Science Professors (AEESP), 2003-present
- Chair, Outstanding MS Thesis award committee, 2015-2017
- Water Environment Association (WEA), 2005-2008

Journal Reviewer

- Agronomy Journal*
- American Society of Engineering Education*
- Applied Biochemistry and Biotechnology*
- ASABE*
- ASCE: Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*

ASCE: Journal of Environmental Engineering
Bioresource Technology
CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition, and Natural Resources
Chemical Engineering Journal
Chemosphere; Ecotoxicology and Environmental Safety
Engineering in Life Sciences; Chemical Papers
Environmental Engineering Science
Environmental Science and Technology
Environmental Science: Processes and Impacts
Environmental Technology
Geoderm; Journal of Water
Grassland Science
Hydrogeology Journal
Hydrology Journal; Agronomy Journal
International Journal of Hydrogen Energy
ISPRS International Journal of Geo-information
Journal of Environmental Management
Journal of Environmental Monitoring
Journal of Environmental Quality
Journal of Environmental Radioactivity
Journal of Hydrogen Energy
Journal of Water
Resources, Conservation and Recycling Journal
Science of the Total Environment
Sensors
Sensors; Journal of Environmental Management
Soil Biology and Biochemistry
The Journal of Engineering for Sustainable Development: Energy, Environment and Health
The Journal of Weather Modification
Water Environment Research
Water Research
Water; Water, Air, and Soil Pollution

Proposal Review Panelist

National Science Foundation
Analytical and Surface Chemistry
Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
Environmental Engineering
Sustainable Engineering
Research Traineeship Program (NRT)
Lindbergh Foundation
USDA AFRI

Registration

Professional Engineer: State of Colorado, 1999-present
OSHA 40hr, 1998
MSHA 40hr, 1998