

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey
*Last Update 9/30/2013***

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Summary and Purpose

Just as there is no universally accepted definition for the concept of “water quality” there are many interpretations of what constitutes water quality research. Historically water quality is broadly defined as the physical, chemical, and biological composition of water affecting its intended use. Water quality has different meanings to different users and often it is not possible to predict intended use. Our ability to measure and interpret water characteristics changes over time as do the standards used to evaluate water suitability for a given use.

What follows is an alphabetical compilation of journal articles, books, and book chapters published between 1973 and 2013 authored or co-authored by University of Nebraska faculty and staff employed by the School of Natural Resources and the Nebraska Conservation and Survey. A separate bibliography includes reports, extension publications, and other types of water quality literature from this era. The period of compilation is arbitrary though it represents a highly productive period (this list contains over 300 citations) for improving our understanding of human activities and processes affecting water composition and controlling its intended use. The titles of some publications are easily related to water quality while others may seem distantly connected. In some cases, producers of water quality research publications may not even realize the long term implications of an article. Thus, any Nebraska water quality research bibliography will be incomplete. It is up to the users of this bibliography to decide if a citation belongs and whether others are missing. The purpose of this bibliography is to document the long term contributions and impact of the efforts by the many Nebraska natural resource scientists in expanding the body of knowledge for managing, protecting and conserving water quality for future beneficial use.

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1. Adam, M.A., S.D. Comfort, D.D. Snow, D. Cassada, M.C. Morley, and W. Clayton. 2006. Evaluating ozone as a remedial treatment for removing RDX from unsaturated soils. *Journal of Environmental Engineering*.132:1580-1588.
2. Adam, M.L., S.D. Comfort, M.C. Morley, D.D. Snow. 2004. Remediating RDX-contaminated ground water with permanganate: Laboratory investigations for the Pantex aquifer. *J. Environ. Qual.* 33:2165-2173.
3. Adam, M.L., S.D. Comfort, T.C. Zhang, and M.C. Morley. 2005. Evaluating Biodegradation as a Primary and Secondary Treatment for Removing RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine) from a Perched Aquifer. *Bioremediation Journal* 9:9-19.

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4. Albano, J., Comfort, S.D., Zlotnik, V., Halihan, T., Burbach, M.E., Chokeyaroenrat, C., Onanong, S., & Clayton, W. 2010. In situ chemical oxidation of RDX-contaminated ground water with permanganate at the Nebraska Ordnance Plant. *Ground Water Monitoring & Remediation*, 30(3), 96-106.
5. Annable, W.K., Frappe, S.K., O. Shouzkar-Stash, T. Shanoff, R.J. Drimmie, and F.E. Harvey, 2007, 37Cl, 15N, 13C, Isotopic Analysis of Common Agro-chemicals for Identifying Non-point Source Agricultural Contaminants, *Applied Geochemistry*, 22(7), p. 1539-1536.
6. Ayers, J.F. and D.C. Gosselin. 1995. Design of Multilevel Monitoring Wells for Continuous Sample Collection, *Groundwater Monitoring and Remediation*, 15, 119-124 .
7. Ayers, J.F., Chen, X., and D.C. Gosselin. 1998. Behavior of Nitrate-Nitrogen Movement Around a Pumping High-Capacity Well: A Field Example, *Journal of Groundwater*, 36, 325-337.
8. Baer, J.U., W.L. Powers, P.J. Shea, and C.L. Stueffer-Powell. 1992. Pore size distribution index as an indicator of atrazine movement in a Crete silt loam soil. *Soil Sci.* 154:377-386.
9. Bartelt-Hunt, S. L.; Snow, D. D.; Damon, T.; Shockley, J.; Hoagland, K. 2009. The occurrence of illicit and therapeutic pharmaceuticals in wastewater effluent and surface waters in Nebraska. *Environmental Pollution* 157:786-791.
10. Bartelt-Hunt, S. L.; Snow, D. D.; Damon-Powell, T.; Brown, D. L.; Prasai, G.; Schwarz, M.; Kolok, A. S. 2011. Quantitative evaluation of laboratory uptake rates for pesticides, pharmaceuticals, and steroid hormones using POCIS. *Environmental Toxicology and Chemistry* 30, (6), 1412-1420.
11. Bartelt-Hunt, S.; Snow, D. D.; Damon-Powell, T.; Miesbach, D., 2011. Occurrence of steroid hormones and antibiotics in shallow groundwater impacted by livestock waste control facilities. *Journal of Contaminant Hydrology* 123, (3-4), 94-103.
12. Bartelt-Hunt, S.L., D.D. Snow, W.L. Kranz, T.L. Mader, C.A. Shapiro, S.J. van Donk, D.P. Shelton, D.D. Tarkalson, and T.C. Zhang. 2012. Effect of growth promotants on the occurrence of steroid hormones on feedlot soils and in runoff from beef cattle feeding operations. *Environmental Science and Technology*, 46, (3), 1352-1360.
13. Bartelt-Hunt, S. L.; DeVivo, S.; Johnson, L.; Snow, D. D.; Kranz, W. L.; Mader, T. L.; Shapiro, C. A.; van Donk, S. J.; Shelton, D. P.; Tarkalson, D. D.; Zhang, T. C., 2013. Effect of Composting on the Fate of Steroids in Beef Cattle Manure. *Journal of Environmental Quality*, 42, (4), 1159-1166.
14. Bates, H. K.; Martin, G. E.; Spalding, R. F., 1998. Kinetic isotope effects in production of nitrite-nitrogen and dinitrogen gas during in situ denitrification. *Journal of Environmental Quality* 27, (1), 183-191.
15. Bates, H. K.; Spalding, R. F., Aquifer denitrification as interpreted from in situ microcosm experiments. *Journal of Environmental Quality* 1998, 27, (1), 174-182.
16. Batt A.L., D. D. Snow, D.S. Aga. 2006. Occurrence of sulfonamide antimicrobials in private water wells in Washington County, Idaho, USA. *Chemosphere*. 64: 1963 - 1971.

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1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

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17. Bennett, D.M. S.C. Fritz, J.C. Holz, A.A. Holz, and V.A. Zlotnik. 2007. Evaluating climatic and non-climatic influences on ion chemistry in natural and man-made lakes of Nebraska, USA. *Hydrobiologia* 591:103-115.
18. Bier, E., Z. Li, J. Singh, S.D. Comfort, and P.J. Shea. 1999. Remediating hexahydro-1,3,5-trinitro-1,3,5-triazine-contaminated water and soil by Fenton oxidation. *J. Environ. Toxicol. Chem.* 18:1078-1084.
19. Biswas, S., C. A. Shapiro, W. L. Kranz, T. L. Mader, D. P. Shelton, D. D. Snow, S. L. Bartelt-Hunt, D. D. Tarkalson, S. J. van Donk, T. C. Zhang, S. Ensley. 2012. Current knowledge on the environmental fate, potential impact and management of growth promoting compounds used in the US beef cattle industry. *Journal of Soil and Water Conservation.* 68(4):325-336.
doi:10.2489/jswc.68.4.325
20. Biswas, S. W. L. Kranz, C. A. Shapiro, M. Mamo, S. L. Bartelt-Hunt, D. D. Snow, D. P. Shelton, D. D. Tarkalson, T. L. Mader, S. J. van Donk, T. C. Zhang. 2013. Use of a surrogate to evaluate the impact of tillage on the transport of steroid hormones from manure-amended agricultural fields. *Transactions of the ASABE.* . 56(4): 1379-1385
21. Boparai, H.K., P.J. Shea, S.D. Comfort, and D.D. Snow. 2006. Dechlorinating chloroacetanilide herbicides by dithionite-treated aquifer sediment and surface soil. *Environ. Sci. Technol.* 40:3043-3049.
22. Boparai, H.K., P.J. Shea, S.D. Comfort, and T.A. Machacek. 2008. Sequencing zerovalent iron treatment with carbon amendments to remediate agrichemical-contaminated soil. *Water, Air and Soil Poll.* 193:189-196.
23. Boparai, H.K., S.D. Comfort, P.J. Shea, and J.E. Szecsody. 2008. Remediating explosive-contaminated groundwater by in situ redox manipulation (ISRM) of aquifer sediments. *Chemosphere* 71:933-941
24. Boparai, H.K., S.D. Comfort, T. Satapanajaru, J.E. Szecsody, P.R. Grossl, and P.J. Shea. 2010. Abiotic transformation of high explosives by freshly precipitated iron minerals in aqueous FeII solutions. *Chemosphere* 79:865-872.
25. Bornstein, B., A.J. Tomkins, S. Michaels, A. Samal, Y. Nam, S. Zellmer K. Hoagland and D. Olson. 2009. Social justice and water sustainability and management. In: A. Kakanowski and M. Narusevich, (Eds.), *Handbook of Social Justice*, Nova Science Pub., Chap. 14, 12 p.
26. Brejda, J.J., P.J. Shea, L.E. Moser, and S.S. Waller. 1988. Atrazine dissipation and off-site movement in a Nebraska Sandhills subirrigated meadow. *Jour. Range Management* 41:416-420.
27. Bulley, H., J. Merchant, D. Marx, J. Holz and A. Holz. 2007. A GIS-Based Approach to Watershed Classification for Nebraska Reservoirs. *Journal of the American Water Resources Association* 43:605-621.
28. Burbach, M.E., and Joeckel, R.M. 2006. A delicate balance: Rainfall and groundwater in Nebraska during the 2000-2005 drought. *Great Plains Research* 16(1): 5-16.
29. Cai, Z.; Ramanujam, V. M. S.; Gross, M. L.; Monson, S. J.; Cassada, D. A.; Spalding, R. F., Liquid-solid extraction and fast atom bombardment high-resolution mass spectrometry for the

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1973-2013 Bibliography
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determination of hydroxyatrazine water at low-ppt levels. *Analytical Chemistry* 1994, 66, 4202-4209.

30. Caldwell, K. A.; Ramanujam, V. M. S.; Cai, Z.; Gross, M. L.; Spalding, R. F., 1993. Herbicide trace analysis by high-resolution fast atom bombardment mass spectrometry: quantification of low parts per trillion levels of atrazine in water. *Anal. Chem.* 65, (17), 2372-2379.
31. Carder, J.P. and K.D. Hoagland. 1998. Combined effects of alachlor and atrazine on benthic algal communities in artificial streams. *Environmental Toxicology and Chemistry* 17:1415-1420.
32. Cassada, D. A.; Monson, S. J.; Snow, D. D.; Spalding, R. F., Sensitive determination of RDX, nitroso-RDX metabolites, and other munitions in ground water by solid-phase extraction and isotope dilution liquid chromatography-atmospheric pressure electrospray ionization mass spectrometry. *Journal of Chromatography A* 1999, (844), 87-95.
33. Cassada, D. A.; Spalding, R. F.; Cai, Z.; Gross, M. L., Determination of atrazine, deethylatrazine and deisopropylatrazine in water and sediment by isotope dilution gas chromatography-mass spectrometry. *Analytica Chimica Acta* 1994, 287, 7-15.
34. Cassada, D.A., S.J. Monson, D.D. Snow, and R.F. Spalding. 1999. Sensitive determination of RDX, nitroso-RDX metabolites, and other munitions in ground water by solid-phase extraction and isotope dilution liquid chromatography-atmospheric pressure electro-spray ionization mass spectrometry. *Journal of Chromatography A*, 844, 87-95.
35. Cassada, D.A., Y. Zhang, D.D. Snow, and R.F. Spalding. 2000. Trace analysis of ethanol, MTBE, and related oxygenate compounds by solid phase microextraction and gas chromatography/mass spectrometry. *Analytical Chemistry*, 72, (19), 4654-4658.
36. Chen, X. and D.C. Gosselin. 1998. Numerical Simulation of Radial Gas Flow: Effects of Soil Anisotropy, Well Construction and Surface Seal, *Journal of Hydrologic Engineering*, January 1998, 52-61.
37. Chokejaroenrat, C., Onanong, S., & Clayton, W. 2010. In situ chemical oxidation of RDX-contaminated ground water with permanganate at the Nebraska Ordnance Plant. *Ground Water Monitoring & Remediation*, 30(3), 96-106.
38. Chokejaroenrat, C.; Comfort, S. D.; Harris, C. E.; Snow, D. D.; Cassada, D.; Sakulthaew, C.; Satapanajaru, T. 2011. Transformation of Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) by Permanganate. *Environmental Science & Technology*, 45, (8), 3643-3649.
39. Christenson, M.D., A. Kambhu, and S.D. Comfort. 2012. Using slow-release permanganate candles to remove TCE from a low permeable aquifer at a former landfill. *Chemosphere*. 89:680-687
40. Comfort, S.D., P.J. Shea, L.S. Hundal, Z. Li, B.L. Woodbury, J.M. Martin, and W.L. Powers. 1995. TNT transport and fate in contaminated soil. *J. Environ. Qual.* 24:1174-1182.
41. Comfort, S.D., P.J. Shea, T.A. Machacek, and T. Satapanajaru. 2003. Pilot-scale treatment of RDX-contaminated soil with zerovalent iron. *J. Environ. Qual.* 32:1717-1725.
42. Comfort, S.D., P.J. Shea, T.A. Machacek, H. Gaber, and B.-T. Oh. 2001. Field-scale remediation of a metolachlor-contaminated field site using zerovalent iron. *J. Environ. Qual.* 30:1636-1643.

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1973-2013 Bibliography
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43. Czap, N.V., Czap, H.J., Khachatryan, M., Burbach, M.E., & Lynne, G.D. (2013). Smiley or Frowney: The effect of emotions and empathy framing in a downstream water pollution game. *International Journal of Economics and Finance*, 5(3), 9-23
44. Czap, N.V., Czap, H.J., Khachatryan, M., Lynne, G.D., & Burbach, M.E. (2012). Walking in the shoes of others: Experimental testing of dual-interest and empathy in environmental choice. *Journal of Socio-Economics*, 41, 642-653.
45. Dall'Olmo, G. and A. A. Gitelson, Effect of bio-optical parameter variability and uncertainties in reflectance measurements on the remote estimation of chlorophyll-a concentration in turbid productive waters: modeling results, *Applied Optics*, 20 May 2006, Vol. 45, No. 15, 3577-3592
46. Davis, R.B., C.T. Hess, S.A. Norton, D.W. Hanson, K.D. Hoagland and D.S. Anderson. 1984. ¹³⁷Cs and ²¹⁰Pb dating of sediments from soft-water lakes in New England and Scandinavia, a failure of ¹³⁷Cs dating. *Chemical Geology* 44: 151-85
47. DeNicola, D.M. and K.D. Hoagland. 1996. Effects of solar spectral irradiance (visible to UV) on a prairie stream epilithic community. *Journal of the North American Benthological Society* 15:155-169.
48. DeNicola, D.M., K.D. Hoagland and S.C. Roemer. 1992. Influences of canopy cover and spectral irradiance and periphyton assemblages in a prairie stream. *Journal of the North American Benthological Society* 11:391-404.
49. Dosskey, M.G., K.D. Hoagland, and J.R. Brandle. 2007. Change in filter strip performance over ten years. *Journal of Soil and Water Conservation* 62(1):21-32.
50. Dosskey, M.G., M.J. Helmers, and D.E. Eisenhauer. 2006. An approach for using soil surveys to guide the placement of water quality buffers. *Journal of Soil and Water Conservation*, 61(6):344-354.
51. Dosskey, M.G., M.J. Helmers, and D.E. Eisenhauer. 2008. A design aid for determining width of filter strips. *Journal of Soil and Water Conservation*, 63(4):232-241.
52. Dosskey, M.G., M.J. Helmers, D.E. Eisenhauer, T.G. Franti and K.D. Hoagland. 2002. Assessment of concentrated flow through riparian buffers. *Journal of Soil and Water Conservation* 57:336-343.
53. Drenner, R.W., K.D. Hoagland, J.D. Smith, W.J. Barcello, P.C. Johnson, M.A. Palmeri and J.C. Hobson. 1993. Experimental microcosm study of the effects of sediment-bound bifenthrin on gizzard shad and plankton. *Environmental Toxicology and Chemistry* 12:1297-1306.
54. Dvorak, B.I., Hygnstrom, J.R., Youngblood, D.J., Woldt, W.E., and Hawkey, S.A. 2008. Lessons Learned Concerning Impact Assessment: Pollution Prevention Technical Assistance in Nebraska, *Journal of Cleaner Production*, 16(6) 751-760.
55. Dvorak, B.I., Morley, M. and Denning, P. 2008. Relative Impact on GAC Usage Rates of Operating Strategies for Treatment of a Contaminated Groundwater, *Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management (ASCE)* 12(2) 1-10.
56. Efting, A.; Snow, D.; Fritz, S. 2011. Cyanobacteria and microcystin in the Nebraska (USA) Sand Hills Lakes before and after modern agriculture. *Journal of Paleolimnology* 46, (1), 17-27.

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1973-2013 Bibliography
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57. Eggemeyer, K.D., T. Awada, D.A. Wedin, F.E. Harvey, and X. Zhou, 2006, Ecophysiology of two native invasive woody species and two dominant warm-season grasses in the semi-arid grasslands of the Nebraska Sandhills, *International Journal of Plant Sciences*. 167:991-999.
58. Eggemeyer, K.D., T. Awada, F.E. Harvey, D.A. Wedin, X.H. Zhou, and C.W. Zanner. 2009. Seasonal Changes in Depth of Water Uptake for Encroaching Trees *Juniperus virginiana* and *Pinus ponderosa* and Two Dominant C4 Grasses in a Semi-Arid Grassland. *Tree Physiology*. 29(1):pp
59. Evans, L.V. and K.D. Hoagland (Eds.) 1986. *Algal Biofouling*. Elsevier Sci. Pub., Amsterdam 318 p.
60. Exner, M. E.; Spalding, R. F., N-15 identification of nonpoint sources of nitrate contamination beneath cropland in the Nebraska Panhandle: two case studies. *Applied Geochemistry* 1994, 9, 73-81.
61. Exner, M. E.; Spalding, R. F.; Lindau, C. W., Ground-water contamination and well construction in southeast Nebraska. *Ground Water* 1985, 23, (1), 26-34.
62. Exner, M.E. 1990. Pesticide contamination of ground water artificially recharged by farmland runoff. *Ground Water Monitoring Review* 9:126-133.
63. Exner, M.E. and R.F. Spalding. Evolution of contaminated groundwater in Holt County, Nebraska. *Water Resources Research*, 1979, 15(1): 139-147.
64. Exner, M.E., H. Perea-Estrada, and R.F. Spalding. 2010. Long-term response of groundwater nitrate concentrations to management regulations in Nebraska's central Platte valley. *TheScientificWorldJOURNAL* 10:286-297.
65. Exner, M.E., M.E. Burbach, D.G. Watts, R.C. Shearman, and R.F. Spalding. Deep nitrate movement in the unsaturated zone of a simulated urban lawn. *J. Environmental Quality*, 1991, 20 (3): 658-662.
66. Exner, M.E., R.F. Spalding, and D.M. Harrell. 2005. Development of a Quality-Assessed Agrichemical Database for Monitoring Anthropogenic Impacts on Ground-Water Quality. *Environmental Monitoring and Assessment* 107: 249-257.
67. Fellows, C.S., H.M. Valett, C.N. Dahm, P.J. Mulholland, and S.A. Thomas. 2006. Coupling nutrient uptake and energy flow in headwater streams. *Ecosystems* 9:788-804.
68. Fischer, A. J.; Rowan, E. A.; Spalding, R. F., VOCs in ground water influenced by large scale withdrawals. *Ground Water* 1987, 25, (4), 407-414.
69. Franti, T.G. and K.D. Hoagland. 2003. Eutrophication. In: *Encyclopedia of Water Science*. M. Dekker, Inc. pp. 232-234.
70. Fredrickson, D.R. and P.J. Shea. 1986. Effect of soil pH on degradation, movement, and plant uptake of chlorsulfuron. *Weed Sci.* 34:328-332.
71. Gaber, H., S.D. Comfort, P.J. Shea, and T.A. Machacek. 2002. Metolachlor dechlorination by zerovalent iron during unsaturated transport. *J. Environ. Qual.* 31:962-969.

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1973-2013 Bibliography
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72. Gibb, C., T. Satapanajaru, S.D. Comfort, and P.J. Shea. 2004. Remediating dicamba-contaminated water with zerovalent iron. *Chemosphere* 54:841-848.
73. Gilerson, A.A., Gitelson, A.A., Zhou, J., Gurlin, D., Moses, W.J., Ioannou, I., and Ahmed, S.A. 2010. Algorithms for Remote Estimation of Chlorophyll-a in Coastal and Inland Waters using Red and Near Infrared Bands. *Optics Express*, Vol. 18(23): 24109-24125.
74. Gitelson, A. A. Gao, Bo-Cai, Li, R.R., Berdnikov, S. V., and V. Saprygin. 2011. Estimation of Chlorophyll-a Concentration in Productive Turbid Waters Using Hyperspectral Imager for the Coastal Ocean – The Azov Sea Case Study, *Environ. Res. Lett.*, 6, 024023 (6pp), doi:10.1088/1748-9326/6/2/024023.
75. Gitelson, A. A., D. Gurlin, W. J Moses and T. Barrow. (2009). A bio-optical algorithm for the remote estimation of the chlorophyll-a concentration in case 2 waters. *Environ. Res. Lett.*, 4 045003 (5pp), doi:10.1088/1748-9326/4/4/045003.
76. Gitelson, A.A., G. Dall Olmo, W. Moses, D. C. Rundquist, T. Barrow, T. R. Fischer, D. Gurlin, and J. Holz. 2008. A simple semi-analytical model for remote estimation of chlorophyll-a in turbid waters: *Remote Sensing of Environment*. 112 (2008) 3582-3593.
77. Goodale, C, S.A. Thomas, G. Fredricksen, E.M. Elliot, M. Flinn, and T.J. Butler. 2009 Unusual seasonal patterns and inferred processes of nitrogen retention in forested headwater catchments of the Upper Susquehanna basin. *Biogeochemistry*. 93:197-218.
78. Gormly, J. R.; Spalding, R. F., 1979. Sources and concentrations of nitrate-nitrogen in ground water of the Central Platte region, Nebraska. *Ground Water*, 17, (3), 291-301.
79. Gosselin, D.C. 1997. Major-ion Chemistry of Compositionally, Geochemically Diverse Lakes, Western Nebraska, U.S.A.: Implications for Paleoclimatic Interpretations, *Journal of Paleolimnology*, 17, 33-49.
80. Gosselin, D.C., and M. Khisty. 2001. Simulating the influence of two shallow, flow-through lakes on a Ground Water System. *Hydrogeology Journal*, 9, 476-486.
81. Gosselin, D.C., D.C. Rundquist, and S. McFeeters. 2000. Remote Monitoring of Selected Groundwater-Dominated Lakes in the Nebraska Sand Hills, *Journal of the American Water Resources Association*, 36 (5), 1039-1052.
82. Gosselin, D.C., F.E. Harvey, and C.D. Frost. 2001. Geochemical Evolution of Ground Water in the Great Plains (Dakota) Aquifer of Nebraska: Implications for the Management of a Regional Aquifer System. *Journal of Ground Water*, 39 (1), 98-108.
83. Gosselin, D.C., F.E. Harvey, C.D. Frost, R. Stotler, and A. Macfarlane. 2004. Strontium isotope geochemistry of ground water in the central part of the Great Plains (Dakota) aquifer. *Applied Geochemistry*, 19, 359–377.
84. Gosselin, D.C., J. Headrick, F.E. Harvey, and R. Tremblay. 1999. Fluoride in Nebraska's Groundwater, *Ground Water Monitoring and Remediation*, 19 (2), 87-95.
85. Gosselin, D.C., J. Headrick, R. Tremblay, X. Chen, and S. Summerside. 1997. Domestic Well-water Quality in Rural Nebraska, *Groundwater Monitoring and Remediation*, 17, 77-87.

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1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

86. Gosselin, D.C., J.F. Ayers, and J.C. Guretzky. 1995. Sampling Dynamics of Irrigation Wells, Conference Proceedings, Clean Water-Clean Environment-21st Century, American Association Agricultural Engineers, 113-116.
87. Gosselin, D.C., J.F. Ayers, and Y-K. Zhang. Modeling Concentration Variations in High-Capacity Wells: Implications for Groundwater Sampling. *Water Resources Bulletin*, 30, 613-622.
88. Gosselin, D.C., L.M. Klawer, R. M. Joeckel, F.E. Harvey, A.R. Reade, and K. McVey. 2006. Arsenic in Rural Public Water Supplies, Nebraska, U.S.A., *Great Plains Research*, 16, 137-148.
89. Gosselin, D.C., P.E. Nabelek, Z.E. Peterman, and S. Sibray. 1997. Oxygen, Hydrogen, and Strontium Isotopes in Saline Alkaline Lakes from Western Nebraska, U.S.A., *Journal of Paleolimnology*, 17, 51-65.
90. Gosselin, D.C., S. Drda, F. E. Harvey, and J. Goeke. 1999. Hydrologic Dynamics of Two Interdunal Valleys in the Central Sand Hills Nebraska, *Ground Water*, 37 (6), 924-933.
91. Gosselin, D.C., S. Sibray, and J.F. Ayers. 1994. Geochemistry of K-rich Alkaline Lakes, Western Sandhills, Nebraska, USA., *Geochimica Cosmochimica Acta*, 58, 1403-1418.
92. Gosselin, D.C., V. Srihdar, F.E. Harvey and J.W. Goeke. 2006. Hydrological effects and groundwater fluctuations in interdunal environments in the Nebraska Sand Hills. *Great Plains Research*, 16, 17 – 28.
93. Gurlin, D., Gitelson, A.A., and W.J. Moses. 2011. Remote estimation of chl-a concentration in turbid productive waters — Return to a simple two-band NIR-red model? *Remote Sensing of Environment*, 115, 3479-3490
94. Gribovszki, Z., Kalicz, P., Szilagyi, J., Kucsara, M., 2008. Riparian zone evapotranspiration from diurnal groundwater-level fluctuations, *Journal of Hydrology*, 349(1-2): 6-17.
95. Halihan, T., J. Albano, S.D. Comfort, and V.A. Zlotnik. 2012. Electrical resistivity imaging of a permanganate injection during in situ treatment of RDX-contaminated groundwater. *Ground Water Monitoring & Remediation*. 32:43-52
96. Hardiljeet K., B., S.D. Comfort, T. Satapanajaru, J.E. Szecsody, P.R. Grossl and P.J. Shea. 2010. Abiotic transformation of high explosives by freshly precipitated iron minerals in aqueous FeII solutions. *Chemosphere*, 79:865-872.
97. Harvey, F.E., Ayers, J.F. and Gosselin, D.C. 2008. Ground Water Dependence of Endangered Ecosystems: An Example from Nebraska's Saline Wetlands, *Journal of Ground Water*, 45, 6, 736-752.
98. Harvey, F.E., J.B. Swinehart and T.M. Kurtz, 2007, Ground Water Sustenance of Unique Ecosystems: Nebraska's Sand Hills Peatland Fens, *Ground Water*, 45(2), p. 218-234.
99. Hassan, K. M.; Spalding, R. F., Hydrogen isotope values in lacustrine kerogen. 2001, 713-721.
100. Heiskary, S., Olmanson, L., Gitelson, A., and Chipman. J. 2006. Remote Sensing: Does It Have a Role? *LakeLine*, Spring 2006, 27-35.

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1973-2013 Bibliography
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Last Update 9/30/2013

101. Herbel, M. J.; Spalding, R. F., Vadose zone fertilizer-derived nitrate and d15N extracts. *Ground Water* 1993, 31, (3), 376-382.
102. Hoagland, K.D and C.G. Peterson. 1990. Effects of light and disturbance on vertical zonation of attached microalgae in a large reservoir. *Journal of Phycology* 26:450-457.
103. Hoagland, K.D. 1983. Short-term standing crop and diversity of periphytic diatoms in a eutrophic reservoir. *Journal of Phycology* 19:30-38.
104. Hoagland, K.D., A. Zlotsky and C.G. Peterson. 1986. The source of algal colonizers on rock substrates in a freshwater impoundment. In: L.V. Evans and K.D. Hoagland (Eds.), *Algal Biofouling*. Elsevier Sci. Pub., Amsterdam pp. 21-39.
105. Hoagland, K.D., J.P. Carder and R. L. Spawn. 1996. Effects of organic toxic substances. In: Stevenson, R.J., M.L. Bothwell and R.L. Lowe (Eds.), *Algal Ecology*, Academic Press. Chap. 15, pp. 469-496.
106. Hoagland, K.D., J.R. Rosowski, M.R. Gretz and S.C. Roemer. 1993. Diatom extracellular polymeric substances: function, fine structure, chemistry, and physiology. *Journal of Phycology* 29:537-566.
107. Hoagland, K.D., R.W. Drenner, J.D. Smith and D.R. Cross. 1993. Freshwater community responses to mixtures of agricultural pesticides: Effects of atrazine and bifenthrin. *Environmental Toxicology and Chemistry* 12:627-637.
108. Hoagland, K.D., S. A. Matteen, J.-X. Tang and B.D. Siegfried. 2002. Pesticide effects on diatom communities: differential toxicity of atrazine metabolites. 15th International Diatom Symposium pp. 135-141.
109. Hoagland, K.D., S.G. Ernst, S.I. Jensen, R.J. Lewis, V.I. Miller and D.M. DeNicola. 1995. Genetic variation in *Fragilaria capucina* clones along a latitudinal gradient across North America: a baseline for detecting global climate change. *International Diatom Symposium* 13:385-392.
110. Holz, J.C. , K.D. Hoagland, R.L. Spawn, A. Popp and J.L. Anderson. 1997. Phytoplankton community response to reservoir aging. *Hydrobiologia* 346:183-192.
111. Holz, J.C. and K.D. Hoagland. 1996. Experimental microcosm study of the effects of phosphorus reduction on plankton community structure. *Canadian Journal of Fisheries and Aquatic Sciences* 53: 1754-1764.
112. Holz, J.C. and K.D. Hoagland. 1999. Effects of phosphorus reduction on water quality: comparison of alum-treated and untreated portions of a hypereutrophic lake. *Journal of Lake and Reservoir Management* 15:70-82.
113. Horst, G.L., P.J. Shea, N. Christians, D.R. Miller, C. Stuefer-Powell, and S.K. Starrett. 1996. Pesticide dissipation under golf course fairway conditions. *Crop Sci.* 36:362-370.
114. Horst, G.L., W.L. Powers, D.R. Miller, P.J. Shea, and E.A. Wicklund. 1994. Simulating natural drainage under turfgrass in chemical fate studies. *Crop Sci.* 34:292-295.
115. Huang, Y.H., T.C. Zhang, P.J. Shea, and S.D. Comfort. 2003. Effects of oxide coating and selected cations on nitrate reduction by iron metal. *J. Environ. Qual.* 32: 1306-1315.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

116. Hundal, L.S., J. Singh, E.L. Bier, P.J. Shea, S.D. Comfort, and W.L. Powers. 1997. Removal of TNT and RDX from water and soil using iron metal. *Environ. Pollution* 26:896-904.
117. Hundal, L.S., P.J. Shea, S.D. Comfort, W.L. Powers, and J. Singh. 1997. Long-term TNT sorption and bound residue formation in soil. *J. Environ. Qual.* 26:896-904.
118. Joern, A. and K.D. Hoagland. 1996. In defense of whole-community bioassays for risk assessment. *Environmental Toxicology and Chemistry* 15:407-409.
119. Johnson, L.M., K.D. Hoagland and M.R. Gretz. 1995. Effects of bromide and iodide on stalk secretion in the biofouling diatom *Achnanthes longipes* (Bacillariophyceae). *Journal of Phycology* 31:401-412.
120. Jones, K. L., G. C. Poole, W. W. Woessner, M. V. Vitale, B. R. Boer, S. J. O'Daniel, S. A. Thomas, and B. A. Geffen. 2008. Geomorphology, hydrology, and aquatic vegetation drive seasonal hyporheic flow patterns across a gravel-dominated floodplain. *Hydrological Processes* 22:2105-2113.
121. Junk, G. A.; Spalding, R. F.; Richard, J. J., Areal, vertical, and temporal differences in ground water chemistry: II. Organic constituents. *J. Environ. Qual.* 1980, 9, (3), 479-483.
122. Jurgensen, T.A. and K.D. Hoagland 1990. Effects of short-term pulses of atrazine on attached algal communities in a small stream. *Archives of Environmental Contamination and Toxicology* 19:617-623.
123. Kalderis, D, A. Juhasz, R. Boopathy, and S.D. Comfort. 2011. Soil contaminated by explosives - environmental fate and evaluation of state of the art remediation processes. IUPAC Technical Report to be published in *Pure and Applied Chemistry* 83:1407-1484
124. Kambhu, A., S. Comfort, C. Chokejaroenrat, and C. Chainarong. 2012. Developing slow-release persulfate candles to treat BTEX contaminated water. *Chemosphere* 89:656-664
125. Kim, J., M. Cho, J. Yoon, P.J. Shea, and B-T. Oh. 2007. Surficial disinfection of *Escherichia coli* contaminated playground soil by UV irradiation. *Environ. Geochem. Health* 12:64-71."
126. Kim, J.S., P.J. Shea, J.E. Yang, and J-E. Kim. 2007. Halide salts accelerate degradation of high explosives by zerovalent iron. *Environmental Pollution* 147:634-641
127. Kim, S-A. J-C. Chae, S. Kamla-Kannan, K-J. Lee, Y-J. Park, P.J. Shea, W-H. Lee, H-M. Kim, and B-T. Oh. 2013. Removal of Pb(II) from aqueous solution by zeolite-supported nanoscale zero-valent iron. *Chem. Eng. J.* 217:54-60.
128. Kochsiek, A., Ciganda, V., Bryan, N., Hite, L. and Awada, T. (2006). Ecophysiological responses of *Schizachyrium scoparium* to water and nitrogen manipulations. *Great Plains Research.* 16: 29-36.
129. Kolok, A.S., C.L. Beseler, X-H. Chen, and P.J. Shea. 2009. The watershed as a conceptual framework for the study of environmental and human health. *Environ. Health Insights* 3:1-10.
130. Kolok, Alan S.; Snow, Daniel D.; Kohno, Satomi; Sellin, Marlo K.; Guillette, Louis J. 2007. Occurrence and biological effect of exogenous steroids in the Elkhorn River, Nebraska, USA. *Science of the Total Environment*, 388(1-3), 104-115.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

131. Kreslavski, V.D., G.K. Vasilyeva, S.D. Comfort, R.A. Drijber, and P.J. Shea. 1999. Accelerated transformation and binding of 2,4,6-trinitrotoluene in rhizosphere soil. *Bioremediation J.* 3:59-67.
132. Krishnan, G., G.L. Horst, and P.J. Shea. 2000. Differential tolerance of cool and warm-season grasses to TNT. *International J. Phytoremediation.* 2:369-382.
133. Langan, M.M. and K.D. Hoagland. 1996. Growth responses of *Typha latifolia* and *Scirpus acutus* to atrazine contamination. *Bulletin of Environmental Contamination and Toxicology* 57: 307-314.
134. Langell, M.A., E.B. Kadossov, H.K. Boparai, and P.J. Shea. 2009. Surface composition of iron-containing aquifer sediment after treating with sodium dithionite. *Journal of Surface and Interface Science* 41:941-950.
135. Lewis, R.J., S.I. Jensen, D.M. DeNicola, V.I. Miller, K.D. Hoagland and S.G. Ernst. 1997. Genetic variation in the diatom *Fragilaria capucina* along a latitudinal gradient across North America. *Plant Systematics and Evolution* 204:99-108.
136. Li, Z.M., M.M. Peterson, S.D. Comfort, G.L. Horst, P.J. Shea, and B.T. Oh. 1997. Remediating TNT-contaminated soil by soil washing and Fenton oxidation. *Sci. Tot. Environ.* 204:107-115.
137. Li, Z.M., P.J. Shea, and S.D. Comfort. 1997. Fenton oxidation of 2,4,6-trinitrotoluene in contaminated soil slurries. *Environ. Eng. Sci.* 14:55-66.
138. Li, Z.M., P.J. Shea, and S.D. Comfort. 1998. Nitrotoluene destruction by UV-catalyzed Fenton oxidation. *Chemosphere* 36:1849-1865.
139. Li, Z.M., S.D. Comfort, and P.J. Shea. 1997. Destruction of 2,4,6-trinitrotoluene (TNT) by Fenton oxidation. *J. Environ. Qual.* 26:480-487.
140. Lindau, C. W.; Spalding, R. F., Major procedural discrepancies in soil extracted nitrate levels and nitrogen isotopic values. *Ground Water* 1984, 22, (3), 273-278.
141. Liu, J., X. Chen, X. Zhang and K.D. Hoagland. 2012. Grid digital elevation model based algorithms for determination of hillslope width functions through flow distance transforms. *Water Resources Research* 48: W04532, doi: 10.1029/2011WR011395
142. Lockert, C.K., K.D. Hoagland, and B.D. Siegfried. 2006. Comparative sensitivity of freshwater algae to atrazine. *Bull. Environ. Contamin. Toxicol.* 76: 73-79.
143. Ma, L.; Spalding, R. F., 1997. Effects of artifice recharge on ground water quality and aquifer storage recovery. *Journal of American Water Resources Association*, 33, (3), 561-572.
144. Ma, L.; Spalding, R. F., Stable isotope characterization of the impacts of artificial ground water recharge. *Journal of the American Water Resources Association* 1996, 32, (6), 1273-1282.
145. Mariappan, S., Mary E. Exner, Glen E. Martin, and Roy F. Spalding. 2009. Variability of anaerobic animal waste lagoon delta 15N source signatures. *Environmental Forensics* 10:18-25.
146. Martin, G. E.; Snow, D. D.; Kim, E.; Spalding, R. F., Simultaneous determination of argon and nitrogen. *Ground Water* 1995, 33, (5), 781-785.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

147. Martin, J.L., S.D. Comfort, P.J. Shea, T.A. Kokjohn, and R.A. Drijber. 1997. Denitration of 2,4,6-trinitrotoluene (TNT) by *Pseudomonas savastanoi*. *Can. J. Microbiol.* 43:447-455.
148. Marx, J. Merchant, J. Holz and A. Holz. 2008. A Comparison of Nebraska Reservoir Classes Estimated from Watershed-Based Classification Models and Ecoregions, *Journal of Environmental Informatics*, 11(2): 90-102.
149. Matishov, G. G., Povazhnyi, V. V., Berdnikov, S. V., Moses, W. J., and A. A. Gitelson. 2010. Satellite Estimation of Chlorophyll-a Concentration and Phytoplankton Primary Production in the Sea of Azov. *Proceedings of Russian Academy of Sciences, Biological Sciences*, 432: 216–219.
150. McIntyre, P. B., A. S. Flecker, M. J. Vanni, J. M. Hood, B. W. Taylor, and S. A. Thomas. 2008. Fish distributions and nutrient cycling in streams: Can fish create biogeochemical hotspots? *Ecology* 89: 2335-2346.
151. Mokry, L.E. and K.D. Hoagland. 1990. Acute toxicities of five synthetic pyrethroid insecticides to *Daphnia magna* and *Ceriodaphnia dubia*. *Environmental Toxicology and Chemistry* 9:1045-1051.
152. Monson, S. J.; Ma, L.; Cassada, D. A.; Spalding, R. F., Confirmation and method development for dechlorinated atrazine from reductive dehalogenation of atrazine with Fe⁰. *Analytica Chimica Acta* 1998, 373, 153-160.
153. Moses, W. J., A. A. Gitelson, S. Berdnikov, and V. Povazhnyy. 2009. Satellite Estimation of Chlorophyll-a Concentration Using the Red and NIR Bands of MERIS—The Azov Sea Case Study. *IEEE Geoscience and Remote Sensing Letters*, doi:10.1109/LGRS.2009, Vol. 6(4): 845-849.
154. Moses, W. J., A. A. Gitelson, S. Berdnikov, and V. Povazhnyy. 2009. Estimation of chlorophyll-a concentration in case II waters using MODIS and MERIS data-successes and challenges. *Environ. Res. Lett.*, 4 045005 (8pp), doi:10.1088/1748-9326/4/4/045005.
155. Moses, W. J., A.A. Gitelson, R. L. Perk, D. Gurlin, D. C. Rundquist, B. C. Leavitt, T. M. Barrow, and P. Brakhage, 2012. Estimation of chlorophyll-a concentration in turbid productive waters using airborne hyperspectral data, *Water Research*, 46: 993-1004.
156. Moses, W. J., A.A. Gitelson, S. Berdnikov, V. Saprygin, V. Povazhnyi. 2012. Operational MERIS-based NIR-red algorithms for estimating chlorophyll-a concentrations in coastal waters — The Azov Sea case study, *Remote Sensing of Environment* 121: 118–124, doi:10.1016/j.rse.2012.01.024.
157. Mulholland, P.J., S.A. Thomas, H.M. Valett, J.R. Webster, and J. Beaulieu. 2006. Effects of light on NO₃- uptake in small forested stream: diurnal and day to day variations. *Journal of the North American Benthological Society* 25(3):583-595. (Sept. 2006)
158. Nability, P.D. and K.D. Hoagland. 2006. Seed bank viability of potential saline wetland restoration sites in agro-ecosystems. *Great Plains Research* 16:173-180.
159. Nelson, K.J., K.D. Hoagland and B.D. Siegfried. 1999. Chronic effects of atrazine on tolerance of a benthic diatom. *Environmental Toxicology and Chemistry* 18:1038-1045.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

160. Oh, B.-T., G. Sarath, and P.J. Shea. 2001. TNT nitroreductase from a *Pseudomonas aeruginosa* strain isolated from TNT-contaminated soil. *Soil Biol. Biochem.* 33:875-881.
161. Oh, B.-T., G. Sarath, P.J. Shea, R.A. Drijber, and S.D. Comfort. 2000. Rapid spectrophotometric determination of 2,4,6-trinitrotoluene in a *Pseudomonas* enzyme assay. *J. Microbiol. Methods.* 42:149-158.
162. Onanong, S. S.D. Comfort, P.D. Burrow, and P.J. Shea. 2007. Using gas-phase molecular descriptors to predict dechlorination rates of chloroalkanes by zerovalent iron. *Environ. Sci. Technol.* 41:1200-1205.
163. Onanong, S., P.D. Burrow, S.D. Comfort, and P.J. Shea. 2006. Electron capture detector response and dissociative electron attachment cross sections in chloroalkanes and chloroalkenes. *J. Phys. Chem. A* 110:4363-4368.
164. Papastavros, E., P.J. Shea, and M.A. Langell. 2004. Oxygen, carbon, and sulfur segregation in annealed and unannealed zerovalent iron substrates. *Langmuir* 20:11509-11516.
165. Park, J., S.D. Comfort, P.J. Shea, and J.S. Kim. 2005. Increasing Fe⁰-mediated HMX destruction in highly contaminated soil with didecyldimethylammonium bromide surfactant. *Environ. Sci. Technol.* 39:9683-9688.
166. Park, J., S.D. Comfort, P.J. Shea, and T.A. Machacek. 2004. Remediating munitions-contaminated soil with zerovalent iron and cationic surfactants. *J. Environ. Qual.* 33:1305-1313.
167. Petersen, B.B. and P.J. Shea. 1989. Microencapsulated alachlor and its behavior on wheat (*Triticum aestivum*) straw. *Weed Sci.* 37:719-723.
168. Petersen, B.B., P.J. Shea, and G.A. Wicks. 1988. Acetanilide activity and dissipation as affected by formulation and wheat stubble. *Weed Sci.* 36:243-249.
169. Peterson, C.G. and K.D. Hoagland 1990. Autogenic and allogenic factors affecting epilithic diatom succession in Lake McConaughy (Nebraska, USA). *Journal of the North American Benthological Society* 9:54-67.
170. Peterson, C.G., K.D. Hoagland and R.J. Stevenson 1990. Resistance and recovery in freshwater epilithic microalgal communities: importance of timing of wave disturbance. *Archiv für Hydrobiologie* 118:47-68.
171. Peterson, C.G., T.L. Dudley, K.D. Hoagland and L.M. Johnson. 1993. Infection, growth, and community-level consequences of a diatom pathogen in a Sonoran Desert stream. *Journal of Phycology* 29:442-452.
172. Peterson, M.M., G.L. Horst, P.J. Shea, and S.D. Comfort. 1998. Germination and seedling development of switchgrass and smooth brome grass exposed to 2,4,6-trinitrotoluene. *Environ. Poll.* 99:53-59.
173. Peterson, M.M., G.L. Horst, P.J. Shea, S.D. Comfort, and R.K.D. Peterson. 1996. TNT and 4-amino-2,6-dinitrotoluene influence on germination and early seedling development of tall fescue. *Environ. Pollution* 93:57-62.
174. Phipps, K.A. & Burbach, M.E. 2010. Strategic leadership in the nonprofit sector: Opportunities for research. *Journal of Behavioral and Applied Management*, 11, 137-154.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

175. Popp, A. and K.D. Hoagland. 1994. Changes in benthic community composition in response to reservoir aging. *Hydrobiologia* 306:159-171.
176. Popp, A., K.D. Hoagland and G.L. Hergenrader. 1996. Zooplankton community response to reservoir aging. *Hydrobiologia* 339: 13-21.
177. Powers, W.L., R.L. Verhoeff, A.M. Parkhurst, P.J. Shea, and W. Troyer. 1997. Spatial series analysis of horizontal cores to characterize tracer patterns in soil profiles. *Soil Sci. Soc. Am. J.* 61:1018-1023.
178. Pracheil, B.M., D.D. Snow, and M.A. Pegg. 2010. Distribution of selenium, mercury, and methylmercury in surficial Missouri River sediments. *Bulletin of Environmental Contamination and Toxicology* 84:331-335.
179. Quinn, C.E., & Burbach, M.E. 2008. Personal characteristics preceding pro-environmental behaviors that improve surface water quality. *Great Plains Research* 18 (1), 103-114.
180. Rauscher, L., C. Sakulthaew, and S. Comfort. 2012. Using slow-release permanganate candles to remediate PAH-contaminated water. *J. Hazard. Materials* 241-242:441-449.
181. Reinsch, C.T., Admiraal, D.M., Dvorak, B.I., Cecrle, C.A., Franti, T.G., and Stansbury, J.S. 2007. Yard Waste Compost as a Storm Water Protection Treatment for Construction Sites, *Water Environment Research*, 79(8), 868-876.
182. Rhoades, M.G., J.L. Meza, C.L. Beseler, P.J. Shea, A. Kahle, J.M. Vose, K.M. Eskridge, and R.F. Spalding. 2013. Atrazine and nitrate in public drinking water supplies and non-Hodgkin lymphoma in Nebraska, U.S.A. *Environ. Health Insights* 7:15-27.
183. Roemer, S.C., K.D. Hoagland and J.R. Rosowski. 1984. Development of a freshwater periphyton community as influenced by diatom mucilages. *Canadian Journal of Botany* 62:1799-1813.
184. Roeth, F.W., R.G. Wilson, A.R. Martin, and P.J. Shea. 1989. Enhanced soil degradation of butylate and EPTC in Nebraska soils. *Weed Technol.* 3:24-29.
185. Roeth, F.W., R.G. Wilson, A.R. Martin, and P.J. Shea. 1990. Enhanced carbamothioate herbicide degradation research in Nebraska. Ch. 3, pages 23-36 in Racke, K.D. and J.R. Coats (eds). *Enhanced Biodegradation of Pesticides in the Environment*, American Chemical Society Symposium Ser. No. 426, American Chemical Society.
186. Rosowski, J.R., K.D. Hoagland and J.E. Aloï. 1986. Structural morphology of diatom-dominated stream biofilm communities under the impact of soil erosion. In: L.V. Evans and K.D. Hoagland (Eds.), *Algal Biofouling*. Elsevier Sci. Pub., Amsterdam pp. 247-299.
187. Satapanajaru, T., P.J. Shea, S.D. Comfort, and Y. Roh. 2003. Green rust and iron oxide formation influences metolachlor dechlorination during zerovalent iron treatment. *Environ. Sci. Technol.* 37:5219-5227.
188. Satapanajaru, T., S. Onanong, S.D. Comfort, D.D. Snow, D.A. Cassada, and C. Harris. 2009. Remediating dinoseb-contaminated soil with zerovalent iron. *J. Hazardous Materials* 168:930-937.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

189. Satapanajaru, T., S.D. Comfort, and P.J. Shea. 2003. Enhancing metolachlor destruction rates with aluminum and iron salts during zerovalent iron treatment. *J. Environ Qual.* 32:1726-1734.
190. Schade, J.D., K. MacNeill, S.A. Thomas, F.C. Mcneely, J.R. Welter, J. Hood, M. Goodrich, M.E. Power, and J.C. Finlay. 2010. The stoichiometry of nitrogen and phosphorus spiraling in heterotrophic and autotrophic streams. *Freshwater Biology*, doi:10.1111/j.1365-2427.2010.02509.x.
191. Schleicher, L.C., P.J. Shea, R.N. Stougaard, and D.R. Tupy. 1995. Dithiopyr efficacy and dissipation in ryegrass turf and comparison with pendimethalin. *Weed Sci.* 43:140-148.
192. Schmitt, T., M.G. Dosskey and K.D. Hoagland. 1999. Filter strip performance and processes for different vegetation, widths, and contaminants. *Journal of Environmental Quality* 28:1479-1489.
193. Sellin, M. K.; Snow, D. D.; Akerly, D. L.; Kolok, A. S., Estrogenic Compounds Downstream From Three Small Cities in Eastern Nebraska: Occurrence and Biological Effect. *JAWRA Journal of the American Water Resources Association* 2009, 45, 14-21.
194. Sellin, M. K.; Snow, D. D.; Gustafson, S. T.; Erickson, G. E.; Kolok, A. S., The endocrine activity of beef cattle wastes: Do growth-promoting steroids make a difference? *Aquatic Toxicology* 2009, 92, (4), 221-227.
195. Sellin, M. K.; Snow, D. D.; Kolok, A. S., Reductions in hepatic vitellogenin and estrogen receptor alpha expression by sediments from an agriculturally impacted waterway. *Aquatic Toxicology* 96, (2), 103-108.
196. Sellin, M. K.; Snow, D. D.; Schwarz, M.; Carter, B. J.; Kolok, A. S., Agrichemicals in Nebraska, USA, Watersheds: Occurrence and Endocrine Effects. *Environmental Toxicology and Chemistry* 2009, 28, (11), 2443-2448
197. Shea, P.J. 1985. Detoxification of herbicide residues in soil. *Weed Sci. (Suppl. 2)* 33:33-41.
198. Shea, P.J. 1986. Chlorsulfuron dissociation and adsorption on selected adsorbents and soils. *Weed Sci.* 34:474-478.
199. Shea, P.J. 1989. Role of humified organic matter in herbicide adsorption. *Weed Technol.* 3:190-197.
200. Shea, P.J., T.A. Machacek, and S.D. Comfort. 2004. Accelerated remediation of pesticide-contaminated soil with zerovalent iron. *Environmental Pollution.* 132:183-188.
201. Singh, J., P.J. Shea, L.S. Hundal, S.D. Comfort, T.C. Zhang, and D.S. Hage. 1998. Iron-enhanced remediation of water and soil containing atrazine. *Weed Sci.*46:381-88.
202. Singh, J., S.D. Comfort, and P.J. Shea. 1998. Remediating RDX-contaminated water and soil using zero-valent iron. *J. Environ. Qual.* 27:1240-1245.
203. Singh, J., S.D. Comfort, and P.J. Shea. 1999. Iron-mediated remediation of RDX-contaminated water and soil under controlled Eh-ph. *Environ. Sci. Technol.* 33:1488-1494.
204. Singh, J., S.D. Comfort, L.S. Hundal, and P.J. Shea. 1998. Long-term RDX sorption and fate in soil. *J. Environ. Qual.* 27:572-577.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

205. Smith, E.A., W.L. Powers, and P.J. Shea. 1995. Relationship of bromide and atrazine movement in soil to pore size distribution, compaction, and saturation cycles. *Soil Sci.* 159:23-31.
206. Snow, D. D.; Spalding, R. F., 1997. Short-term aquifer residence times estimated from ²²²Rn disequilibrium in artificially-recharged ground water. *Journal of Environmental Radioactivity* 1997, 37, (3), 307-325.
207. Snow, D. D.; Spalding, R. F., 1994. Uranium isotopes in the Platte River drainage basin of the North American High Plains Region. *Applied Geochemistry* 1994, 9, 271-278.
208. Snow, D.D., T.R. Damon-Powell, S. Onanong, and D.A. Cassada. 2013. Sensitive and simplified analysis of natural and synthetic steroids in water and solids using on-line solid phase extraction and microwave-assisted solvent extraction coupled to liquid chromatography tandem mass spectrometry atmospheric pressure photoionization. *Analytical and Bioanalytical Chemistry*, 405, (5), 1759-1771. doi: 10.1007/s00216-012-6572-8
209. Snow, Daniel D.; Bartelt-Hunt, Shannon L.; Saunders, Samuel E.; Cassada, David A. 2007. Detection, occurrence, and fate of emerging contaminants in agricultural environments. *Water Environment Research* (2007), 79(10), 1061-1084.
210. Sorenson, B.A., P.J. Shea, and F.W. Roeth. 1991. Effects of tillage, application time and rate on metribuzin dissipation. *Weed Res.* 31: 333-345.
211. Spalding, R. F.; Burbach, M. E.; Exner, M. E., Pesticides in Nebraska's ground water. *Ground Water Monitoring Review* 1989, 9, (4), 126-133.
212. Spalding, R. F.; Burbach, M. E.; Exner, M. E.; Parra-Vicary, L.; Alexander, D. R., Sprinkler irrigation: A VOC remediation alternative. *Technology: Journal of the Franklin Institute* 1994, 331A, 231-241.
213. Spalding, R. F.; Druliner, A. D. In *Groundwater uranium concentrations, Quality of Groundwater*, The Netherlands, 1981; Elsevier Scientific Publishing: The Netherlands, 1981; pp 581-586.
214. Spalding, R. F.; Druliner, A. D.; Whiteside, L. S.; Struempfer, A. W., Uranium geochemistry in groundwater from Tertiary sediments. *Geochim et Cosmochim Acta* 1984, 48, 2679-2692.
215. Spalding, R. F.; Exner, M. E., Areal, vertical, and temporal differences in ground water chemistry: I. Inorganic constituents. *Journal of Environmental Quality* 1980, 9, (3), 466-478.
216. Spalding, R. F.; Exner, M. E., Occurrence of nitrate in groundwater-a review. *Journal of Environmental Quality* 1993, 22, (3), 392-402.
217. Spalding, R. F.; Exner, M. E., Temporal uranium variations in the Brazos River. In *Radioecology and Energy Resources*, Cushing, C. E., Ed. The Ecological Society of America: Stroudsburg, PA, 1976; Vol. Special Publication No. 1, pp 230-233.
218. Spalding, R. F.; Exner, M. E.; Lindau, C. W.; Eaton, D. W., Investigation of sources of groundwater nitrate contamination in the Burbank-Wallula area of Washington, U.S.A. *J. Hydrol.* 1982, 58, 307-324.
219. Spalding, R. F.; Exner, M. E.; Martin, G. E.; Snow, D. D., 1993. Effects of sludge disposal on groundwater nitrate concentrations. *J. Hydrol.*, 142, 213-228.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

220. Spalding, R. F.; Exner, M. E.; Snow, D. D.; Cassada, D. A.; Burbach, M. E.; Monson, S. J., 2003. Herbicides in Ground Water beneath Nebraska's Management Systems Evaluation Area. *J Environ Qual*, 32, (1), 92-99.
221. Spalding, R. F.; Exner, M. E.; Sullivan, J. J.; Lyon, P. A., 1979. Chemical seepage from a tail water recovery pit to adjacent ground water. *J. Environ. Qual.*, 8, (3), 374-383.
222. Spalding, R. F.; Fulton, J. W., 1988. Groundwater munition residues and nitrate near Grand Island, Nebraska, U.S.A. *J. Contam. Hydrol.*, 2, 139-153.
223. Spalding, R. F.; Gormly, J. R.; Curtiss, B. H.; Exner, M. E., 1978. Nonpoint nitrate contamination of ground water in Merrick County, Nebraska. *Ground Water*, 16, (2), 86-95.
224. Spalding, R. F.; Gormly, J. R.; Nash, K. G., 1978. Carbon contents and sources in ground waters of the Central Platte Region in Nebraska. *J. Environ. Qual.*, 7, (3), 428-434.
225. Spalding, R. F.; Junk, G. A.; Richard, J. J., 1980. Pesticides in ground water beneath irrigated farmland in Nebraska, August 1978. *Pesticides Monitor. J.*, 14, (2), 70-73.
226. Spalding, R. F.; Kitchen, L. A., 1988. Nitrate in the intermediate vadose zone beneath irrigated cropland. *Ground Water Monitoring & Remediation*, 8, (2), 89-95.
227. Spalding, R. F.; Parrott, J. D., 1994. Shallow groundwater denitrification. *The Science of the Total Environment*, 141, 17-25.
228. Spalding, R. F.; Sackett, 1972. W. M., Uranium in runoff from the Gulf of Mexico distributive province: Anomalous concentrations. *Science*, 175, 629-631.
229. Spalding, R. F.; Snow, D. D.; Cassada, D. A.; Burbach, M. E., 1994. Study of pesticide occurrence in two closely spaced lakes in Northeastern Nebraska. *J. Environ. Qual.*, 23, (3), 571-578.
230. Spalding, R. F.; Toso, M. A.; Exner, M. E.; Hattan, G.; Higgins, T. M.; Sekely, A. C.; Jensen, S. D., Long-Term Groundwater Monitoring Results at Large, Sudden Denatured Ethanol Releases. 2011. *Ground Water Monitoring & Remediation*, 31, (3), 69-81.
231. Spalding, R. F.; Watts, D. G.; Schepers, J. S.; Burbach, M. E.; Exner, M. E.; Poreda, R. J.; Martin, G. E., 2001. Controlling nitrate leaching in irrigated agriculture. *Journal of Environmental Quality*, 30, (4), 1184-1194.
232. Spalding, R. F.; Watts, D. G.; Snow, D. D.; Cassada, D. A.; Exner, M. E.; Schepers, J. S., 2003. Herbicide Loading to Shallow Ground Water beneath Nebraska's Management Systems Evaluation Area. *J Environ Qual*, 32, (1), 84-91.
233. Spalding, R.F. Exner, M.E., Snow, D.D. and Stange, M.E. 1999. The Hastings, Nebraska ground water contamination Superfund site: A case in logic and illogic. *Technology: Journal of The Franklin Institute*, 6, 141-149.
234. Spalding, R.F. M. E. Exner, D. D. Snow, D.A. Cassada, M.E. Burbach, and S.J. Monson. 2003. Herbicides in Ground Water beneath Nebraska's Management Systems Evaluation Area. *Journal of Environmental Quality*, 32, 92-99.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

235. Spalding, R.F., and D.D. Snow, D.D. 1989. Stream levels of agrichemicals during a spring discharge event. *Chemosphere*, v.19, n.8, p.1129-1140.
236. Spalding, R.F., D. G. Watts, D. D. Snow, D. A. Cassada, M E. Exner, and J. S. Schepers 2003. Herbicide Loading to Shallow Ground Water beneath Nebraska's Management Systems Evaluation Area. *Journal of Environmental Quality*, 32, 84-91.
237. Spalding, R.F., M.E. Exner, and J.R. Gormly. 1976. A note on an in situ groundwater sampling procedure. *Water Resources Research* 12(6): 1319-1321.
238. Spalding, R.F., M.E. Exner, G.E. Martin, and D.D. Snow. 1993. Effects of sludge disposal on ground water nitrate concentrations. *Journal of Hydrology*, 142, 213-228.
239. Spalding, R.F., Z.K. U, S.W. Hyun, G.E. Martin, M.E. Burbach, S.I.I. Yang, M. Kim, M.E. Exner, and S.J. Song. 2001. Source identification of nitrate on Cheju Island, South Korea. *Nutrient Cycling in Agroecosystems*, 61(3): 237-246.
240. Spawn, R.L., K.D. Hoagland and B.D. Siegfried. 1997. Effects of alachlor on an algal community from a midwestern agricultural stream. *Environmental Toxicology and Chemistry* 16:785-793.
241. Stahnke, G.K., P.J. Shea, D.R. Tupy, R.N. Stougaard, and R. Shearman. 1991. Pendimethalin dissipation in Kentucky bluegrass turf. *Weed Sci.* 39:97-103.
242. Stamm, M. D.; Heng-Moss, T. M.; Baxendale, F. P.; Siegfried, B. D.; Gaussoin, R. E.; Snow, D. D.; 2012. Cassada, D. A. Effect of distribution and concentration of topically applied neonicotinoid insecticides in buffalograss, *Buchloe dactyloides*, leaf tissues on the differential mortality of *Blissus occiduus* under field conditions. *Pest Manag. Sci.*, doi: 10.1002/ps.3387
243. Stolpe, N.B. and P.J. Shea. 1995. Alachlor and atrazine degradation in a Nebraska soil and underlying sediment. *Soil Sci.* 160:359-370.
244. Stolpe, N.B., D.L. McCallister, P.J. Shea, D.T. Lewis, and R. Dam. 1993. Mobility of aniline, benzoic acid, and toluene in four soils and correlation with soil properties. *Environ. Pollution* 81:287-295.
245. Stolpe, N.B., M.S. Kuzila, and P.J. Shea. 1998. Importance of soil map detail in predicting pesticide mobility in terrace soils. *Soil Sci.* 163:394-403.
246. Stolpe, N.B., P.J. Shea, D.T. Lewis, and D.L. McCallister. 1992. Soil chromatographic columns to assess the mobility of synthetic organic compounds. *Soil Sci.* 154:145-150.
247. Stotler, R., Harvey, F.E., and Gosselin, D.C. 2010. A Black Hills-Madison Aquifer Origin for Groundwater in the Dakota Aquifer of Northeastern Nebraska, *Ground Water*, 48, 3, 157-169.
248. Stougaard, R.N., P.J. Shea, and A.R. Martin. 1990. Effect of soil type and pH on adsorption, mobility, and efficacy of imazaquin and imazethapyr. *Weed Sci.* 38:67-73.
249. Swamikannu, X. and K.D. Hoagland. 1989. Effects of snail grazing on diversity and structure of an attached algal community in a eutrophic pond. *Canadian Journal of Fisheries and Aquatic Sciences* 46:1698-1704.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

250. Szilagyi, J., 2007. Analysis of the nonlinearity in the runoff response to precipitation through numerical modeling, *Journal of Hydrology*, 337, 391-401.
251. Szilagyi, J., 2007. On the inherent asymmetric nature of the complementary relationship of evaporation, *Geophysical Research Letters*, 34, L02405.
252. Szilagyi, J., 2008. Comment on "Comparison of 15 evaporation models applied to a small mountain lake in the northeastern USA" by D. O. Rosenberry, T. C. Winter, D. C. Buso, and G. E. Likens, *Journal of Hydrology* 348(3-4): 564-565.
253. Szilagyi, J., Gribovszki, Z., and Kalicz, P., 2007. Estimation of catchment-scale evapotranspiration from baseflow recession data: Numerical model and practical application results, *Journal of Hydrology*, 336, 206-217.
254. Szilagyi, J., Gribovszki, Z., Kalicz, P., Kucsara, M., 2008. On diurnal riparian zone groundwater-level and streamflow fluctuations, *Journal of Hydrology*, 349(1-2): 1-5.
255. Szilagyi, J., Parlange, M. B., and Balint, G., 2006. Assessing stream-aquifer interactions through inverse modeling of flow routing, *Journal of Hydrology*, 327: 208-218.
256. Tang, J.-X., K.D. Hoagland and B.D. Siegfried. 1997. Differential toxicity of atrazine to selected freshwater algae. *Bulletin of Environmental Contamination and Toxicology* 59:631-637.
257. Tang, J.-X., K.D. Hoagland and B.D. Siegfried. 1998. Uptake and bioconcentration of atrazine by selected freshwater algae. *Environmental Toxicology and Chemistry* 17:1085-1090.
258. Tang, J.-X., K.D. Hoagland and B.D. Siegfried. 1998. Glutathione-s-transferase and in vitro metabolism of atrazine in freshwater algae. *Pesticide Biochemistry and Physiology* 59:155-161.
259. Tang, Z., Burbach, M.E., & Wei, T. (2010). Bridging the gap between environmental planning education and practice. *International Journal of Sustainable Development & Planning*, 5, 430-442."
260. Tyess, D.L., P.J. Shea, and A.M. Parkhurst. 2006. Mineralization potential of atrazine and degradation intermediates from clustered characteristics in inoculated soils. *J. Soil Sediment Contamination* 15:87-102.
261. Uden, D.R., C.R. Allen, R.B. Mitchell, Q. Guan and T.D. McCoy. 2013. Potential contributions of a perennial bioenergy feedstock to groundwater conservation under scenarios of future change: *Journal of Soil and Water Conservation*: In press.
262. Valett, H.M., S.A. Thomas, P.J. Mulholland, J.R. Webster, C.N. Dahm, C.S. Fellows, C.L. Crenshaw, and C.G. Peterson. Endogenous and exogenous control of ecosystem function: N cycling in a headwater stream. *Ecology*. In press.
263. Van Donk, S. Biswas, W. L. Kranz, D. D. Snow, S. L. Bartelt-Hunt, T. L. Mader, C. A. Shapiro, D. P. Shelton, D. D. Tarkalson, T. C. Zhang, S. Ensley. 2013. Transport of steroid hormones in the vadose zone after land application of beef cattle manure. *Transactions of the ASABE* Vol. 56(4): 1327-1338
264. Vasilyeva, G.K., B.-T. Oh, P.J. Shea, R.A. Drijber, V.D. Kreslavski, B. Minard, and J.-M. Bollag. 2000. Aerobic TNT reduction via 2-hydroxylamino-4,6-dinitrotoluene by *Pseudomonas aeruginosa* strain MX isolated from munitions-contaminated soil. *Bioremediation J.* 4:111-124.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

265. Vasilyeva, G.K., E.R. Strijakova, and P.J. Shea. 2006. Use of activated carbon for soil bioremediation, p. 309-322. In: I. Twardowska, H.E. Allen, M.M. Haggblom and S. Stefaniak (eds.), *Soil and Water Pollution Monitoring: Protection and Remediation*, NATO Sci. Ser. IV-Earth and Environ. Sci., Vol. 69. Springer Netherlands, Dordrecht.
266. Vasilyeva, G.K., E.R. Strijakova, S.N. Nicolaeva, A.T. Lebedev and P.J. Shea. 2010. Dynamics of PCB removal and detoxification in historically contaminated soils amended with activated carbon. *Environmental Pollution* 158:770-777.
267. Vasilyeva, G.K., L.P. Bakhaeva, E.R. Strijakova, and P.J. Shea. 2003. Bioremediation of 3,4-dichloroaniline and 2,4,6-trinitrotoluene in soil in the presence of natural adsorbents. *Environ. Chem. Lett* 11:179-183.
268. Vasilyeva, G.K., V.D. Kreslavski, and P.J. Shea. 2002. Catalytic oxidation of TNT by activated carbon. *Chemosphere* 47:311-317.
269. Vasilyeva, G.K., V.D. Kreslavski, B.-T. Oh, and P.J. Shea. 2001. Potential of activated carbon to decrease 2,4,6-trinitrotoluene toxicity and accelerate soil decontamination. *Environ. Toxicol. Chem.* 20:965-971.
270. Vasilyeva, G.K., V.D. Kreslavski, P.J. Shea, and J.-M. Bollag. 2002. Transformation and binding of 2,4,6-trinitrotoluene in soil amended with activated carbon. *Dev. Soil Sci.* 28B:157-167.
271. Verhoeff, R.L., W.L. Powers, P.J. Shea, D.B. Marx, and G.A. Wieman. 1997. Horizontal soil sampling to assess the vertical movement of agrichemicals. *J. Soil Water Cons.* 52:154-159.
272. Walker, S., Lund JC, Schumacher DG, Brakhage PA, McManus BC, Miller JD, Augustine MM, Carney JJ, Holland RS, Hoagland KD, Holz JC, Barrow TM, Rundquist DC, Gitelson AA. 2008. Cyanobacterial Harmful Algal Blooms: State of the Science and Research Needs. In K. Hudnell (ed.), *Advances in Experimental Medicine and Biology* 619:135-148.
273. Waria, M., S.D. Comfort, S. Onanong, T. Satapanajaru, H. Boparai, C. Harris, D. Snow, and D.A. Cassada. 2009. Field-Scale Cleanup of Atrazine and Cyanazine Contaminated Soil with a Combined Chemical-Biological Approach. *Journal of Environ. Qual.* 38:1803-1811.
274. Weber, J.B., P.J. Shea, and S.B. Weed. 1986. Fluridone retention and release in soils. *Soil Sci. Soc. Amer. J.* 50:582-588.
275. Webster, J.R., J.D Newbold, S.A Thomas, H.M Valett, and P.J. Mulholland. 2009 Nutrient uptake and mineralization during leaf decay in streams - a model simulation. *International Review of Hydrobiology* 94(4): 371-390.
276. Wehtje, G. R.; Spalding, R. F.; Burnside, O. C.; Lowry, S. R.; Leavitt, J. R. C., 1983. Biological significance and fate of atrazine under aquifer conditions. *Weed Science*, 31, 610-618.
277. Wehtje, G.; Leavitt, J. R. C.; Spalding, R. F., 1981. Atrazine contamination of groundwater in the Platte Valley of Nebraska from non-point sources. *The Science of the Total Environment* 1981, 21, 47-51.
278. Wei, H-R., M.G. Rhoades, and P.J. Shea. 2011. Formation, adsorption, and stability of N-nitrosoatrazine in water and soil. In: *It's All in the Water: Studies of Materials and Conditions in*

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey
Last Update 9/30/2013**

Fresh and Salt Water Bodies, M.A. Benvenuto, ed. American Chemical Society Symposium Series. Washington, DC: American Chemical Society.

279. Wilson, R.G., P.J. Shea, and D.R. Tupy. 1995. Dinitroaniline herbicide carryover to sugarbeets. *J. Sugarbeet Res.* 32:201-213.
280. Yacobi, Y. Z., Moses, W. J., Kaganovsky, S., Sulimani, B., Leavitt, B.C., and A. A. Gitelson. 2011. Reflectance-based algorithms for chlorophyll a estimation in inland waters: A case study at low concentrations, *Water Research*, 45: 2428 -2436.
281. Yang, Y.; Park, Y.; Cassada, D. A.; Snow, D. D.; Rogers, D. G.; Lee, J., In vitro and in vivo safety assessment of edible blue-green algae, *Nostoc commune* var. *sphaeroides* Kützing and *Spirulina plantensis*. *Food and Chemical Toxicology* 49, (7), 1560-1564.
282. You, Y., J. Shim, C-H. Cho, M-H. Ryu, P.J. Shea, S. Kamala-Kannan, B-T. Oh. 2012. Biodegradation BTEX mixture by *Pseudomonas putida* YNS1 isolated from oil-contaminated soil. *J. Basic Microbiol.* 53(5):469-75 DOI 10.1002/jobm.201200067.
283. Young, T.S, M. Morley, and D.D. Snow. 2006. Anaerobic Biodegradation of Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) and Trichloroethylene (TCE): Single-and Dual-Contaminant Batch Tests. *Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management*, 10(2):94-101
284. Youngblood, D.J., Dvorak, B.I., Woldt, W.E., Hawkey, S.A., Hygnstrom, J.R. 2008 Quantifying and Comparing a P2 Program's Benefits: Pollution Prevention Technical Assistance in Nebraska, *Journal of Cleaner Production*, 16(6) 761-770.
285. Yuan, Qi; Snow, D.; Bartelt-Hunt, S. 2013. Potential water quality impacts originating from land burial of cattle carcasses. *Science of the Total Environment*. 456-457, 246-253
<http://dx.doi.org/10.1016/j.scitotenv.2013.03.083>
286. Zhang, Y. I. A. Khan, X. H. Chen, and R. F. Spalding, 2006. Transport and degradation of ethanol in groundwater. *Journal of Contaminant Hydrology* 82: 183-194.
287. Zhang, Y., Lin, H., Chen, C., Chen, L., Zhang, B., and A.A. Gitelson. 2011. Estimation of chlorophyll-a concentration in estuarine waters: Case study of the Pearl River estuary, South China Sea, *Environ. Res. Lett.* 6 (2011) 024016 (9pp) doi:10.1088/1748-9326/6/2/024016.
288. Zhu, J, D.D. Snow, D.A Cassada,, S.J Monson, and R.F. Spalding. 2001. Analysis of oxytetracycline, tetracycline, and chlortetracycline in water using solid phase extraction and liquid chromatography-tandem mass spectrometry, *Journal of Chromatography A*, 928,177-186.
289. Zimba, P. V. and A.A. Gitelson. 2006. Remote estimation of chlorophyll concentration in hyper-eutrophic aquatic systems: Model tuning and accuracy optimization, *Aquaculture*, 256/1-4, June 15, pp.272-286.
290. Zlotnik, V. A.; Burbach, M. E.; Exner, M. E.; Spalding, R. F., Well sampling For Agrichemicals in High Capacity Systems. *Journal of Soil and Water Conservation* 50, 95-101.
291. Zlotnik, V.A., Burbach, M.E., Swinehart, J.B., Bennett, D., Fritz, S.C., Loope, D.B., & Olaguera, F. 2007. Direct push methods for aquifer characterization in dune-lake environments: The Nebraska Sand Hills. *Environmental and Engineering Geosciences*, 13, 205-216.

**Contributions to Nebraska Water Quality Research
1973-2013 Bibliography
School of Natural Resources and Nebraska Conservation and Survey**

Last Update 9/30/2013

292. Zlotnik, V.A., R.F. Spalding, M.E. Exner, and M.E. Burbach. Sampling of non-point source contamination in high-capacity wells. *Water Science and Technology*, 1993, 28 (3-5): 409-413.