

David Kenneth Kreamer

Curriculum Vitae

Department of Geoscience
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EDUCATION:

Ph.D. Hydrology, minor Geosciences, December 1982, University of Arizona.
M.S. Hydrology, May 1976.
B.S. Microbiology, minor Chemistry, 1973, University of Arizona.

SELECTED PROFESSIONAL EXPERIENCE:

2020-2024 President, International Association of Hydrogeologists
1998-present Professor of Hydrology/ Geoscience, University of Nevada, Las Vegas (UNLV)
2016-2020 Vice President for Science and Program, International Association of Hydrogeologists
2012-2016 Vice President for North America, International Association of Hydrogeologists
2014-2015 President, Universities Council on Water Resources
2009-2012 Board of Directors, National Ground Water Association, Scientists and Engineering Division
1990-2002 Director of the Water Resources Management Graduate Program, University of Nevada, Las Vegas.
1990-1998 Associate Professor of Hydrology/ Geoscience, University of Nevada, Las Vegas.
1984-1990 Assistant Professor of Civil Engineering, Arizona State University.
1976-1984 Instructor and Associate in Research, Department of Hydrology and Water Resources, Research Assistant III, Staff Member, Water Resources Research Center, University of Arizona.

SUMMARY: SHORT COURSES, INVITED LECTURES/ EXTENSION ACTIVITIES

Dr. Kreamer has given over 150 invited lectures, seminars and workshops in recent years on topics including: *Impact of Clean Water on Poverty Reduction and Equity; Water and International Security; Monitoring Well Design; Computer Modeling of Hydrologic Processes; Lake Thermal Stratification Modeling, Vadose Zone Hydrology; Subsurface Gaseous Movement; Nonaqueous Phase Liquid Pollution; Contamination from Propellants, Explosives, Pyrotechnics and other Energetic Compounds; RCRA Subtitle D and Landfills; and Groundwater Hydrology*; He has served as an expert witness and professional hydrologist reviewing several large projects. His presentations and reviews include:

1. Presented Keynote addresses for over 20 conferences.
2. Addressed General Assembly of the United Nations on world water challenges, March 2021.
3. Overseas presentations and short courses including ones in Israel, Puerto Rico, and Guam for the U.S. Environmental Protection Agency; and Brazil for the U.S. Government Executive Branch (American Participant Program). Other countries where lectures and seminars were presented include: People's Republic of China; lecture series in the United Kingdom; Belgium; Canada; Italy Iraq; Zimbabwe; Kenya; France; Russia; Australia; and the Republic of South Africa.
4. Testimony before the U.S. Congress and the U.S. Nuclear Regulatory Commission on water quality issues associated with uranium mining.
5. Presented National lectures for the U.S. Environmental Protection Agency, U.S. Bureau of Land Management, for the National Ground Water Association, and Superfund University Training Institute.
6. Short courses for the Departments of Environmental Quality, Environmental Conservation, and/or Transportation for over half the States or Commonwealths in the United States; other courses and presentations for groups such as City of Phoenix, University of California Extension, and Hanford Nuclear Site.
7. Presentations at over 50 Universities.
8. Review of many projects including proposal and technical report referee for many water-related projects. International examples include projects in the former Soviet Union, Egypt, Iraq, Israel; externally funded, and Africa. Reviews based in the U.S include: high-level nuclear waste disposal at Yucca Mountain, Nevada, risk prediction at Rocky Flats Plant, Colorado; the Colorado River Multispecies Conservation Program; and the U.S. Water Census (USGS) ad hoc Committee.

SELECTED RESEARCH GRANTS RECEIVED

University of Nevada, Las Vegas (UNLV)

(D. Kreamer was Principal Investigator for 15 of these grants, Co-PI for 5)

- Millennium Challenge Corporation, Millennium Challenge Account – Niger. *Development of Tools for the Management of Groundwater Resources Planning and Capacity Building in Niger.*
- National Science Foundation - *Addressing Irrigation Aquifer Depletion and Challenges to Sustainability: Enhancing Dialogue on Solutions.*
- Millennium Challenge Corporation, Millennium Challenge Account – Niger. *Realization of a hydrogeological simulation model in the low terrace Sia- Kouanza Municipality of Tanda, Department of Gaya, Region of Dosso, Niger.*
- Engineering Contractor's Association - *Spring Flow in the Mojave Desert, USA: Assessment of the Slow Death of Desert Springs under 21-year Drought.*
- Grand Canyon Association – *Hydrogeology and Spring Sustainability in the Grand Canyon, USA.*
- U.S. Department of Energy, Savannah River Site through Savannah River Nuclear Solutions, *Chromium Contamination Remediation using Activated Carbon Coated with Polysulfide Rubber (PSR) and Zeolites Coated with Surfactants.*
- National Park Service through URS Corp. Denver, *Assessment of Groundwater Flow, Average Residence Time and Contamination at Lost Orphan Uranium Mine, Grand Canyon, Arizona.*
- Virgin Valley Water District: *Investigation of Groundwater Abundance and Migration through Analysis of Chemical Hydrologic Tracers and Mathematical Simulation of Groundwater Movement in the lower Virgin River Watershed, Arizona, Nevada, and Utah.*
- Cooperative Ecosystem Studies Unit (CESU) Network, *Occurrence and Mobility of Uranium Isotopes and Other Elements in the Grand Canyon Groundwater and Springs.*
- U.S. Army Corps of Engineers: *Investigation of BIS(2-Chloroethyl)Ether Leachability from Solid Waste Material at Lapari Landfill Superfund Site, Gloucester County, New Jersey, USA.*
- U.S. Environmental Protection Agency: *Controlled Laboratory Experiments - To Investigate the Subsurface Movement of Petroleum Fuels.*
- Reynolds Electric and Engineering Company: *Determination of Sorption and Diffusion Coefficients for Seven Volatile Organic Compounds.*
- Las Vegas Valley Water District: *Evaluation of Sources of Salinity on the Lower Virgin River.*
- Mojave Water Agency: *Stable Isotope Studies of Groundwater Associated with Potential Recharge Sites in the Morongo Basin/ Johnson Valley Subarea, Southern California*
- National Park Service, and the Grand Canyon Historical Society: *Grand Canyon Groundwater Tracing.*
- Rocky Mountain University Consortium: *Review of Incremental Risk Assessment Methodology for Rocky Flats, and Remediation Selection at OU-1.*
- Raytheon Services Nevada: *Subsurface Fuels Contamination at Johnston Atoll, Pacific Ocean.*
- University Grants and Fellowships Committee. *Dating Grand Canyon Groundwater.*
- U.S. Department of Energy: *Trace Element and Isotopic Fingerprinting of Groundwater.*
- U.S. Department of Energy: *Fluid Migration and Subsidence of Nevada Test Site Landfill Caps for Low-level nuclear waste migration.*

SUMMARY, RESEARCH PRIOR TO UNLV:

(Research funding, awarded on a competitive basis)

- Investigation of volatile contaminants (such as TCE) in groundwater, and the overlying unsaturated zone. Field sites included 52nd Street Motorola and Indian Bend Wash in the Phoenix metropolitan area, and the Tucson Superfund site.
- Hydrological study of the Arizona Superconducting Super Collider Site.
- Modeling contaminant migration around leaking underground storage tanks.
- Assessment of Priority Pollutants in the water supply for the Salt River Project, Arizona.
- Interdisciplinary research project on water quality in the 4,500 square mile San Pedro River basin, Arizona, USA
- Four research grants for evaluation of potential indicators of groundwater source and movement, particularly certain trace gases and stable isotopes.
- Several research projects concerning gaseous diffusion in unsaturated porous media. The research developed a new *in situ* tracer method for measuring and modeling characteristics of volatile contaminant transport through the vadose zone at nuclear or hazardous waste sites. This technology is being used to test a new method of mixed-waste, low level nuclear waste disposal, Nevada Test Site
- Assisted with research exploring water supply feasibility (quality and quantity) for a ten hectare shrimp aquaculture facility at Puerto Penasco, Mexico. Studied groundwater and estuarine surface water.
- Evaluation of the effectiveness of large interdisciplinary water-related research projects.
- Water quality studies on the Colorado River and over 50 Arizona Lakes.

SELECTED PUBLICATIONS

Fetter, C.W. and D.K. Kreamer, 2021 (electronic), 2022 (print). *Applied Hydrogeology*, 5th Edition. Waveland Press, 625 pages. <https://www.waveland.com/browse.php?t=732&r=a1954>

Kreamer, D.K., 2021. *The Pitfalls, Perils, and Promise of Hydrophilanthropy*. *Groundwater*, 59 (4): 470-471. PMID: 34080693, DOI: [10.1111/gwat.13112](https://doi.org/10.1111/gwat.13112)

Kreamer, D.K., Ball, D.M., Re, V., Simmons, C.T., Bothwell, T., Verweij, H.J.M., Mukherjee, A. and M.F. Moreau 2020. *The Future of Groundwater Science and Research*. In: *Global Groundwater*, Mukherjee et al. eds., Elsevier, 19 pages. ISBN 9780128181720.

Al-Dabbas, M.A., Kreamer D.K., Al-Shammari, A.A., and A.M. Jwad 2020. *Management Of Bai Hassan Unconfined Aquifer , Lesser Zab River Basin, Kurdistan Region, Iraq Using A Groundwater Modeling Approach*, *Iraqi Geological Journal*. Vol.53, 2B, 2020. pp. 1-23. ISSN 2414-6064 <http://igj-iraq.org/igj/index.php/igj/issue/view/16>

Lapworth, D.J., Boving, T.B., Kreamer D.K., Kebede S., and P.L. Smedley, in press 2021. *Groundwater quality: Global threats, opportunities and realising the potential of groundwater*. *Science of the Total Environment*. <https://doi.org/10.1016/j.scitotenv.2021.152471> 0048-9697/© 2021

Swanson, R.K., Springer, A.E., Kreamer, D.K. et al. 2020. Quantifying the base flow of the Colorado River: its importance in sustaining perennial flow in northern Arizona and southern Utah (USA). *Hydrogeol J.* <https://doi.org/10.1007/s10040-020-02260-5>

SELECTED PUBLICATIONS (*continued*)

- Martin, P.G., Conner, D.T., Estrada, N., El-Turke, A., Megson-Smith, D., Jones, C.P., Kreamer, D.K. and T.B. Scott 2020. Radiological identification of near-surface mineralogical deposits using low altitude unmanned aerial vehicle, *Remote Sens.* 2020, 12, 3562; doi:10.3390/rs12213562
- Günter Blöschl et al. 2019. *Twenty-three unsolved problems in hydrology (UPH) – a community perspective*, *Hydrological Sciences Journal* 64 (10):1141-1158.
- Asante, J., Dotson, S., Hart, E. and D.K. Kreamer 2018. *Water Circulation in Karst Systems: Comparing Physicochemical and Environmental Isotopic Data Interpretation*. *Environmental Earth Sciences*, 77:421. Springer Nature.
- Fetter, C.W., Boving T. and D.K. Kreamer, 2018. *Contaminant Hydrogeology, 3rd Edition*. Waveland Press, 647 pp. ISBN 978-157766-583-0. <https://www.waveland.com/browse.php?t=383>
- Tobin, B., Springer, A., Kreamer, D.K. and E. Schenk, 2018. *Review: The Distribution, Flow, and Quality of Grand Canyon Springs, Arizona (USA)*. *Hydrogeology Journal*, 26(3):721-732.. ISSN 1431-2174, DOI 10.1007/s10040-017-1688-8
- Asante, J. and D. K. Kreamer, 2018. *Identifying local and regional groundwater in basins: chemical and stable isotopic attributes of multivariate classification of hydrochemical data, the Lower Virgin River Basin, Nevada, Arizona and Utah, U.S.A*, *Isotopes in Environmental and Health Studies*, 54(4):370-391. DOI: 10.1080/10256016.2018.1444611.
- Archer, C., Noble, P.J., Kreamer, D.K., Piscopo, V., Petitta, M., Rosen, M., Poulson, S., Piovesan, G., and S. Mensing 2017. *Hydrochemical determination of source water contributions to Lake Lungo and Lake Ripasottile (central Italy)*. *Journal of Limnology*.76(2): 326-342. DOI: 10.4081/jlimnol.2016.1576.
- Kreamer, D.K., 2016. *Hydrophilanthropy Gone Awry: How People Promoting Clean Water Availability, Sanitation, and Hygiene (WASH) Can Actually Injure Communities*, *Water Resources Impact, American Water Resources Association, Middleburg, VA, Vol 18, No 1, January 2016, p. 8-12.* ISSN 1522-3175.
- Kreamer, D.K., 2016. *Hydrophilanthropy gone wrong—How well-meaning scientists, engineers, and the general public can make the worldwide water and sanitation situation worse*, in Wessel, G.R., and Greenberg, J.K., eds., *Geoscience for the Public Good and Global Development: Toward a Sustainable Future*: Geological Society of America Special Paper 520, p. 1–15, doi:10.1130/2016.2520(19).
- Kreamer, D.K., Stevens, L.E., and J.D. Ledbetter, 2015. *Groundwater Dependent Ecosystems – Policy Challenges and Technical Solutions*, in “Groundwater, Hydrochemistry, Environmental Impacts and Management Impacts, Nova Publishers, New York. Chapter 9, Segun Adelana, Ed. P. 205-230. ISBN 978-1-63321. Online Access: https://www.novapublishers.com/catalog/product_info.php?products_id=52986&osCsid=be410bf e49edb2ea0ea3239891d33244

SELECTED PUBLICATIONS (*continued*)

- Asante, J. and D.K. Kreamer, 2015. *A New Approach to Identify Recharge Areas in the Lower Virgin River Basin and Surrounding Basins by Multivariate Statistics*. Mathematical Geosciences, Published Online: 12 February 2015 DOI 10.1007/s11004-015-9583-0
- Kreamer, D.K., 2015. *An Allegorical view of Hydrophilanthropy Gone Awry*, in Integrated Hydrogeology: Contemporary Principals, Policy and Practice, Proceedings of the 35th Annual Groundwater Conference, International Association of Hydrogeologists (Irish Group). 21-22 April 2015, Tullamore, Ireland, p 11-17.
- Noble, P.J., Chandra, S. and D.K. Kreamer, 2013. *Dynamics of phytoplankton distribution in relation to stratification and winter precipitation, Fallen Leaf Lake, CA* . Western North American Naturalist 73(3) pp. 302-320. (Honorable mention for the Outstanding Natural History Paper of 2013).
- Kreamer, D.K. 2012. *Water and International Security*. Journal of Contemporary Water Research and Education, Vol. 149, pp.1-3.
- Kreamer, D.K. 2012. *The Past Present and Future of Water Conflict and International Security*. Journal of Contemporary Water Research and Education, Vol. 149, pp.87-94.
- Kreamer, D.K. , Yu, Z., and J. Asante, 2011. *Investigation of Groundwater Abundance and Migration through Analysis of Chemical Hydrologic Tracers, and Mathematical Simulation of Groundwater Movement, Lower Virgin Valley*. Virgin Valley Water District, February 21, 2011, 50 pages.
- Kreamer, D.K., 2010. The Meaning of Hydrophilanthropy. *Water Resources Impact*, American Water Resources Association. September 2010, Volume 12, Number 5, p. 3-5.
- Kreamer, D.K. and B. Usher, 2010. Sub Saharan African Ground Water Protection - Building on International Experience. *Journal Ground Water*. National Ground Water Association. April-March 2010 *Ground Water* 48 -2 (257-268).
- Kreamer, D.K., 2010. "Uranium Mining in the Grand Canyon – Biting My Tongue on Front of Congress", *Boatman's Quarterly Review*, Volume 22, Number 4, Winter 2009-2010, p. 8-12.
- Kreamer, D.K., 2010. The Need for Hydrophilanthropy. *Journal of Contemporary Water Research and Education*, Universities Council on Water Resources. August 2010, Issue 145, p. 1-4.
- Kreamer, D.K., 2009. Invited Feature Article – "From Dry Dock to Wet Tap – Converting old ships into mobile desalination plants" *Earth* (formerly *Geotimes*), May 2009, p.44-51.
- Luke, B., Kreamer, D.K., and Y.Tan, 2008. Mechanical model of monofill-type landfill cover subjected to subsidence, *International Journal of Geotechnical Engineering*, vol. 1, issue 2, January 2008.
- Kreamer, D.K. and A.E. Springer, 2008. The Hydrology of Desert Springs in North America, in *Aridland Springs in North America, Ecology and Conservation*, eds. L.E. Stevens and V. J. Meretsky, University of Arizona Press, Tucson ISBN 978-0-8165-2645-1.

SELECTED PUBLICATIONS (continued)

- Springer, A.E., Stevens, L.E., Anderson, D.E., Parnell, R.A., Kreamer, D. K., Levin, L. and S. P. Flora, 2008. A Comprehensive Springs Classification System: Integrating Geomorphic, Hydrochemical, and Ecological Criteria, in *Aridland Springs in North America, Ecology and Conservation*, eds. L.E. Stevens and V. J. Meretsky, University of Arizona Press, Tucson ISBN 978-0-8165-2645-1. .
- Yu, Z., Y. Huang, A. Baron, X. Chen, C. Yang, D. Kreamer, and M. Johnson, 2008. Contaminants in groundwater and the subsurface. In *Groundwater: Modeling, Management and Contamination* edited by L.F. Konig and J.L. Weiss, Nova Science Publishers, 131-150.
- Kreamer, D.K., 2001. Down the Rabbit Hole with Alice - Sucking Soil Gas All the Way. *Ground Water Monitoring and Remediation*, Vol. 21, No. 4, p. 52-56.
- Ingraham, N., K. Zukosky, and D.K. Kreamer, 2001. The Application of Stable Isotopes to Identify Problems in Large-Scale Water Transfer in Grand Canyon National Park. *Environmental Science and Technology*, 35-7 (1299-1302).
- Doremus, L. and D.K. Kreamer, 2000. Water Quantity and Quality at Bryce Canyon National Park, *Hydrology and Water Resources in Arizona and the Southwest*, Vol. 30, pp.81-95.
- Johannesson, K.H., Stetzenbach K. J. Hodge, V.F., Kreamer, D. K. And X. Zhou, 1997. Delineation of Ground-Water Flow Systems in the Southern Great Basin Using Aqueous Rare Earth Element Distributions. *Ground Water* Vol. 35, No. 5, p. 807-819.
- Kreamer, D.K., Stetzenbach, K.J., Hodge, V.F., Johanneson, K. and I. Rabinowitz, 1996. Trace Element Geochemistry in Water from Selected Springs in Death Valley National Park, California. *Ground Water*. 34-1, p.95-103 (Jan-Feb. 1996).
- Steinberg, S.M., Schmeltzer, J.S., and D.K. Kreamer, 1996. Sorption of Benzene and Trichloroethylene (TCE) on a Desert Soil: Effects of Moisture and Organic Matter. *Chemosphere*, Vol. 33, No. 5, 961-980.
- James, D.E., Johnson, T.E. and D.K. Kreamer, 1996. Interference of Avian Guano in Analysis of Fuel-Contaminated Sites. *ASCE J. of Environ. Engineering*, (122-1) p. 74-78
- Johannesson, K.H., Stetzenbach, K.J., Kreamer, D.K., and V.F. Hodge, 1996. Multivariate Statistical Analysis of Arsenic and Selenium Concentrations in Groundwaters from South-Central Nevada and Death Valley, California. *J. of Hydrology*. Vol.178, 1-4, pp.181-204.
- Steinberg, S.M., Fairley, J. and D.K. Kreamer, 1994. Slow Desorption of Toluene from Several Ion-Exchanged Montmorillonites. *J. Soil Contamination* 3(3):249-264.
- Stetzenbach, K.J., Amano, M., Kreamer, D.K., and V.F. Hodge, 1994. Testing the Limits of ICP-MS: Determination of Trace Elements in Ground Water at the Part-Per-Trillion Level. *Ground Water*. Vol 32. No. 6, p. 976-985.
- Johnson, T.E. and D.K. Kreamer, 1994. Physical and Mathematical Modeling of Diesel Fuel Liquid and Vapor Movement in Porous Media. *Ground Water*, Vol. 32, No. 4., p. 551-560.

SELECTED PUBLICATIONS (continued)

- Kreamer, D.K., Oja K.J., Steinberg, S.M., and H. Phillips, 1994. Vapor Adsorption of a Solvent on Quartz Sands of Varying Grain Size. *Journal of Environmental Engineering, ASCE*, Vol. 120, No. 2, p. 348-358.
- Steinberg, S.M. and D.K. Kreamer, 1994. Determination of Sorption Isotherms for Volatile Organic Compounds on Unsaturated Calcareous Soil from Southern Nevada Using Inverse Chromatography. *Environmental Science and Technology*. Vol. 27, No. 5, 883-888.
- Kreamer, D.K., 1997. Determination of Pollutant Movement by Controlled Laboratory Experiments: Summary Report, *U.S. Environmental Protection Agency Publication ISBN B000106QWYXO*. And SuDoc EP 1.89/2:600/S-97/004, *U.S. Environmental Protection Agency Publication ISBN B00010YZS2*.
- Kreamer, D.K., 1994. Groundwater Monitoring, Chapter 5 from U.S. Environmental Protection Agency Guidance Document, *Design, Operation, and Closure of Municipal Solid Waste Landfills*.
- Kreamer, D.K., 1994. Release Characterization and Remediation, Chapter 6 from U.S. Environmental Protection Agency Guidance Document, *Design, Operation, and Closure of Municipal Solid Waste Landfills*.
- Suchomel, K.H., Kreamer, D.K., and A. Long, 1990. Production and Transport of Carbon Dioxide in a Contaminated Vadose Zone: A Stable and Radioactive Carbon Study. *Environmental Science and Technology*, Vol. 24, No. 12, p.1824-1831.
- Kreamer, D.K. and K.J. Stetzenbach, 1990. Development of a Standard, Pure-Compound Base Gasoline Mixture for Use as a Reference in Field and Laboratory Experiments. *Ground Water Monitoring Review*, Spring 1990, p.135-145.
- Houston, S.L., Kreamer, D.K. and R. Marwig, 1989. A Batch-Type Testing Method for Determination of Adsorption of Gaseous Compounds on Partially Saturated Soils. *Geotechnical Testing Journal, ASTM*, March 1989, p.3-10.
- Houston, S.L. and D.K. Kreamer, 1989. Effect of Temperature on the Potential for Gaseous Adsorption by Partially Saturated Soils, *Engineering Geology and Geotechnical Engineering*, Watters (ed.) p.357-361. A.A.Balkema/Rotterdam/Brook, Hardbound, ISBN 90 6191 878 2.
- Kreamer, D.K., Weeks, E.P. and G.M. Thompson, 1988. A Field Technique to Measure the Tortuosity and Sorption-Affected Porosity for Gaseous Diffusion of Materials in the Unsaturated Zone with Experimental Results from near Barnwell, South Carolina. *Water Resources Research*, Vol. 24, No. 3, p.331-341.
- Johannesson, K.H., Stetzenbach, K.J., Frum, C.I., Loa, K., Rabinowitz, I., Farnham, I., Guo, C. Hodge, V.F., and D.K. Kreamer, 1994. Geochemistry and Speciation of the Rare Earth Elements in Groundwaters from Ash Meadows, Nevada, and Death Valley, California and Nevada. *EOS*, Vol. 75, No. 16, p. 149.

SELECTED PUBLICATIONS (continued)

- Johnson, T.E., James, D.E., and D.K. Kreamer, 1994. Modeling of Subsurface Dioxin Transport in a Tropical Near-Shore Marine Environment. *Pacific Northwest/ Oceania Conference; Assessment of Models for Groundwater Resources Analysis and Management*. Oahu, HI, March 21-23, 1994.
- Johnson, T.E., Kreamer, D.K. and D.E. James, 1994. Results and Limitations of Semianalytical Modeling of Flow and Hydrocarbon Transport in a Coral Atoll Environment. *Pacific Northwest/ Oceania Conference; Assessment of Models for Groundwater Resources Analysis and Management*. Oahu, HI, March 21-23, 1994.
- Kreamer, D.K., 1992. Water Transfers - The Last Resort. (Invited Paper) *American Water Resources Association 28th Annual Conference and Symposium on Managing Water Resources During Global Change*, (International Conference). Reno, NV, November, 1992.
- Steinberg, S.M. and D.K. Kreamer, 1993. Persistence of Several Volatile Organic Compounds in a Low Organic Carbon, Calcareous Soil from Southern Nevada. *Proceedings of the National Symposium on Measuring and Interpreting VOCs in Soils: State of the Art and Research Needs*. U.S. Environmental Protection Agency, Jan.12-14, Las Vegas, NV.
- Oja, K.J. and D.K. Kreamer, 1992. (Invited Paper). The Effect of Moisture on Adsorption of Trichloroethylene Vapor on Natural Soils. *Proceedings of the U.S. Environmental Protection Agency and National Center for Ground Water Research Symposium on Soil Venting*, April 29 - May 1, 1991, Houston, TX, p 13-28.
- Steinberg, S.M. and D.K. Kreamer, 1992. Determination of Sorption Isotherms for Volatile Organic Compounds on Soil using Gas Chromatography. *Structure, Bonding, and Kinetics at Mineral Surfaces Symposium*, American Chemical Society, April 5-10, 1992, San Francisco.
- Kreamer, D.K., Starr, K., Chaganti, S., Johnson, T. and H.A. Phillips, 1990. Gasoline Vapor Compound Ratios as a Tool to Locate Subsurface Fuel Leaks; from Minimizing Risk to the Hydrologic Environment, *Selected Papers from the American Institute of Hydrology Conference*, Las Vegas, Nevada, March 13-15, 1990, p.243-249.
- J. L. Younker, et al., *Report of the Peer Review Panel on the Early Site Suitability Evaluation of the Potential Repository Site at Yucca Mountain, Nevada*, SAIC-91/8001 (Washington, D.C.: U.S. Department of Energy, 1992), B-2.
- Weaver, J., Enfield, C.G., Yates, S., Kreamer, D.K. and D. White, 1989. Predicting Subsurface Contaminant Transport and Transformation: Considerations for Model Selection and Field Validation. *U.S. Environmental Protection Agency Publication EPA/600/S6-87/005*, 60p.
- Tyler, S.W., Whitbeck, M.R., Kirk, M.W., Hess, J.W., Everett, L.G., Kreamer, D.K., Wilson, B.H., and J. van Ee, 1987. Processes Affecting Subsurface Transport of Leaking Underground Tank Fluids. *U.S. Environmental Protection Agency Publication EPA/600/2-89/045*.

SELECTED PUBLICATIONS (*continued*)

- Kreamer, D. K., 1983. An Evaluation of Selected Halocarbon and Trace Gases for Potential Use as Indicators of Groundwater Movement and Source. *U.S. Environmental Protection Agency Publication. ISBN B0006YCQ02.*
- Thurnblad, T.W., Bentley, H.W. and D.K. Kreamer, 1982. An Evaluation of the Effectiveness of Hydrogen and Oxygen Isotopes used in Concert with Chemical Water-Quality Parameters as Indicators of Surface Water Movement and Source. *U.S. Office of Water Research and Technology, USGS OCLC No.: ocm09307263.*
- Kreamer, D.K., 1976. Future Effects of the Central Arizona Project on the Thermal Regime of Lake Havasu, Arizona. *Hydrology and Water Resources in Arizona and the Southwest*, Vol. 6., p.75-80.
- Ince, S., Kreamer, D.K., Young, D.W., and C.L. Constant, 1976. Water Quality Study of Lake Havasu, Arizona Near the Central Arizona Project Intake Area. *Hydrology and Water Resources in Arizona and the Southwest*, Vol. 6., p.81-88.

TEACHING

University of Nevada, Las Vegas -1990 to present.

Average Instructor Evaluation Grade is **4.76** out of 5.00 for all courses

Arizona State University - 1984 - 1990

Average Instructor Evaluation Grade is **4.44** out of 5.00 for all courses

University of Arizona 1979-1984 -No Instructor Evaluations Given

GRADUATE STUDENT ADVISEMENT

D. Kreamer presently is serving or has served since 1991 on the committees of 81 graduate students, 18 of which are at the Ph.D. Level. He is or has been committee chair or co-chair for 34.

David is serving and, as past Director of the Water Resources Management Program, has served as the initial academic advisor for many more students who are not included in the above numbers, and has served as the Graduate College outside Representative on many other graduate committees.

MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL SOCIETIES

American Association for the Advancement of Science

American Society of Civil Engineering

ASTM - Section D-18.21.02 Vadose Zone Monitoring

Geological Society of America

Nevada Advisory Council on Water Resources

Consortium of Universities for the Advancement of Hydrologic Science

Association of Groundwater Scientists and Engineers, NGWA

U.S. Environmental Protection Agency, Science Advisory Board

International Association of Hydrogeologists

American Geophysical Union

American Water Resources Association

Association of Engineering Geologists

Geological Society of Nevada

Universities Council on Water Resources

SELECTED RECENT PROFESSIONAL SERVICE (Last Ten Years)

- 2020-2024 President, International Association of Hydrogeologists (elected).
- Vice President for Science and Program Coordination, International Association of Hydrogeologists (4yr elected term ended Sept. 16, 2020)
- Vice President for North America, International Association of Hydrogeologists, (4yr elected term ended Sept. 27, 2016).
- Trustee of the International Association of Hydrogeologists Registered Charity, (Two, 4yr terms began Sept. 19, 2012).
- Board Member and President, Universities Council on Water Resources, (elected - 3 yr. term began July 19, 2012).
- National Academy of Science, Engineering and Medicine, National Academy of Sciences on the U.S.-Egypt Science and Technology Joint Fund. Subject Expert, Cycle 19, Cairo, Egypt, August 2018.
- Director, National Ground Water Association, Association of Ground Water Scientists and Engineers, Two 2-year terms. (Elected position, 4 years total, ended 2012).
- Secretary/ Executive Board Member, International Association of Hydrogeologists, US National Chapter. (4yr term ended Sept. 21, 2012)
- Juror – International Water Prize 2018, University of Oklahoma.
- Co-Chair for the 2010 Joint Meeting of the National Ground Water Association, Ground Water Summit, and the Ground Water Protection Council Annual Meeting, April 11-15, 2010.
- Member, Hydrogeologists Without Borders, Technical Committee.
- National Academy of Science, Engineering and Medicine - U.S.-Egypt Science and Technology Joint Fund. Subject Expert, Cycle 18, Cairo, Egypt, April 2017.
- National U.S. Water Census Ad Hoc Committee, U.S. Geological Survey, Reston VA, and reviewer *Draft Report to Congress: Progress Toward Establishing a National Assessment of Water Availability and Use*, 2010, 2011, and August 3 -24, 2012, under requirements of Section 9508 of the SECURE Water Act (P.L. 111-11).
- Member of U.S. Environmental Protection Agency, Science Advisory Board, Subcommittee on Carbon-14 at High-Level Nuclear Repository Sites.
- Scientific Expert, Iraq Research and Development Initiative (IRDI) II Technical Review and Professional Development Conference, held in Amman, Jordan, October 1-7, 2011.

JOURNAL EDITORIAL SERVICE

- Guest Editor – Theme issue on groundwater quality for the Journal Science of the Total Environment, (2021-2022)
- Editorial Board Member Iraqi Geological Journal.
- Editorial Board Member – Journal Water (MDPI). Reviewed and made decisions on many manuscripts. (2013 to 2018)
- Editor for an issue on “*Water and International Security*” for the Journal of Contemporary Water Research and Education, Vol. 149, December 2012.
- Editor – Theme Issue for the Journal of Contemporary Water Research and Education, Vol. 145, August 2010, “*Hydrophilanthropy and Education*”.

UNIVERSITY OF NEVADA, LAS VEGAS SERVICE

Director, Water Resources Management Graduate Program 1990-2002
Member, Environmental Studies Program Planning Committee
Participant, 1991 Nevada Governor's Institute
Member, Ad Hoc Committee on UNLV Research
Member, Energy and the Environment Research Institute
Primary Author of Hydrosience EPSCOR Proposal
Chair, University Grants and Fellowship Committee
Chair, Water Resources Management Planning Committee
Member, University Grievance Committee
Chair and Member, Appeal Subcommittees for the Faculty Senate
Member, Graduate College Faculty and Student Issues Committee
Member, Special Hearing Committee, Administrative Code
Alternate Representative, Consortium of Universities for the Advancement of Hydrologic Science
Member, Critical Incidents and Inter-group Relations Task Force
Member, Graduate Council
Member, Committee for an Inclusive and Just University; plus many Department and College Committees.

COMMUNITY SERVICE

- Governor's Commission on Arizona Environment, Member and Advisory Council, Member.
- Expert Witness on Hydrogeology of the Grand Canyon for the Havasupai Tribe (time donated).
- Advisor to the Arizona Water Resources Research Center.
- Rockclimbing Instructor for the Arizona School for Deaf and Blind.
- Advanced First Aid Instructor, American Red Cross.
- Southern Arizona Rescue Association, volunteer mountain rescue.
- Technical Advisor to Arizona Nature Conservancy, Canelo Hills Cienega.
- City of Phoenix, Water Quality Advisory Committee, Member.
- Speaker for Senior Center Programs.
- Volunteer, Inner City Games, Habitat for Humanity, and Catholic worker homeless food program, 1999 to present.

AWARDS

- Distinguished Service Award, Universities Council on Water Resources 2015, 2016
- Distinguished Service Award, National Ground Water Association 2012
- Friend of the Universities Council on Water Resources - 2010
- Joseph Malone Fellowship for Middle East Studies 1997
- UNLV International Faculty Development Award - April 20, 1999
- University of Arizona Foundation Meritorious Performance in Teaching

EXTERNAL REVIEWER FOR VARIOUS PROJECTS/ JOURNALS

- Referee or Reviewer for several Journals including *Environmental Science and Technology*, *Water Resources Research*, *the Journal of Environmental Quality*, *Ground Water*, *Ground Water Monitoring and Remediation*, and *Applied Geochemistry*
- External Reviewer, International Proposals for the *Iraqi Science Fellowship Program* - U.S. Civilian Research and Development Foundation, November 2012.
- Scientific Expert - Review of Iraqi Science, US State Dept. and US Dept of Energy, Amman, Jordan, October 1-7, 2011
- External Peer Reviewer, Georgia National Science Foundation (Shota Rustaveli), Tbilisi, Georgia.
- Project Email Mentor and Reviewer for “Groundwater Assessment and Management at the middle and southern parts of Iraq”, U.S. Civilian Research Development Foundation – *specifically, refereed final report on the Tikrit Samarra Ground Water Model.*
- National Science Foundation, *Innovations at the Nexus of Food, Energy and Water Systems*, Reviewer, Track 1 Spring Panel 2017,05/22-24/2017.
- External Reviewer - Argonne National Laboratory, Environmental Sciences Division, University of Chicago.
- External Reviewer, University of the Free State, South Africa, Institute for Groundwater Studies, “A groundwater review at Anglo Platinum’s RPM – Mogalakwena Section to determine if the mining activities are the cause of elevated nitrates in the Ga-Molekana and Old Ga-Pila communities’ groundwater.”
- Referee for Water Resources Institute, Technion, Israel Institute of Technology research proposals
- External Reviewer for University research funded by the Republic of South Africa, Water Resource Commission.
- External Reviewer South African Hazardous Waste Sites.
- External Reviewer for several research proposals over several years for cooperative environmental research in the Former Soviet Union (FSU), Civilian Research and Development Foundation, (CRDF)
- External Evaluator – Water use and Quality Model used for Dewatering Coal Seam Gas (Coal Bed Methane) operations in the Serrat-Bowen Basin, Australia.
- Referee for International Science and Technology Center, Moscow - Analysis of Burials of Radioactive Waste in the Territory of the Russian Research Center "Kurchatov Institute" in Moscow and Paths of Supposed Radionuclide Migration in the Environment.
- Reviewer for Master's Thesis Kuwait University, external referee for Ph.D student at University of Pretoria, South Africa, and two Ph.D. Students at the University of the Free State South Africa, including External Assessor for the Ph.D. Dissertation of Vierah Hulley, “*Development of a Quantitative Predictive Decision Analysis Tool for DNAPL Remediation Technologies*”.
- Past Member and Consultant for the U.S. EPA National Science Advisory Board.
- External Reviewer for Northern Arizona University Tenure and Promotion.
- Independent Peer Reviewer, Yucca Mountain Hydrology, Early Site Suitability Evaluation for High-level Nuclear waste disposal.

SELECTED SHORT COURSES / EXTENSION ACTIVITIES

- U.S. Bureau of Land Management Training, Keynote presentation, 1 and 1/2 days of two week course, NTC Course 3700-8, June 12, 2018, “Groundwater Hydrology”, Las Vegas, NV
- Understanding Migration, Assessment, and Remediation of Non-Aqueous Phase Liquids, National Ground Water Association. 2-day course. December 8-9, 2014, Las Vegas, NV, D.K. Kreamer and Randy Sillan.
- U.S. Bureau of Land Management Training, Keynote presentation, 1 and 1/2 days of two-week course, NTC Course 3700-8, December 1-2, 2014, “Groundwater Hydrology”, Las Vegas, NV .
- Lecture Series in Australia, November 2014, Environmental Tracers to Characterize Groundwater Dependent Ecosystems; Lectures at the University of Queensland, University of New South Wales, and Flinders University.
- Lecture Series in Italy, July 2014, Understanding Spring flow in Grand Canyon National Park; Presentations at the University of Tuscia, University of Rome Sapienza, University of Bologna, and University of Perugia.
- Kreamer, D. K., 2012. *Understanding Migration, Assessment, and Remediation of Non-Aqueous Phase Liquids*, National Ground Water Association - Invited Short Course, October 24-26, 2012, New Orleans, LA.
- Presenter – National Science Foundation EPSCoR shortcourse – Interdisciplinary Modeling: Water-Related Issues and Changing Climate NRES 730, Summer 2010, “*Thermal Stratification Modeling of Lakes*”.
- Understanding Migration, Assessment, and Remediation of Non-Aqueous Phase Liquids, National Ground Water Association. Taught 2 days of a 3 day course. August 12-15, 2010, Boston, MA, D.K. Kreamer and Paul Yaniga
- Remote Water Quality Monitoring. 5-day short-course April 12-16, 2009, Baghdad, Iraq.
- Non-Aqueous Phase Liquids - Hydrogeology and Groundwater Contamination. National Groundwater Association, Baltimore, MD, 2008, two days, September 23-24. D.K. Kreamer.
- Introduction to Hydrology, U.S. Bureau of Land Management Training, Keynote presentation, 1 and 1/2 days of two-week course, August 12-13, 2008, Las Vegas, NV.
- University of the Western Cape (South Africa – 3-day short course), Groundwater Pollution, Migration and Fate, May 17-19, 2007.
- University of the Free State (South Africa) – Geophysical Methods in Site Assessment, May 31, 2007.
- University of Zimbabwe (Zimbabwe), Soil Salinity and Groundwater Contamination, May 28, 2007.
- Bindura University for Science Education (Zimbabwe – 3 lectures), May 25-27, 2007.
- University of Nairobi (Kenya), Use of environmental Isotopes in tracking salinity, May 21, 2007.
- U.S. Bureau of Land Management, Oil and Gas Operator’s Workshop, Western Wyoming Community College, April 18, 2007.
- Basic Hydrology, U.S. Bureau of Land Management Training, Keynote presentation, 1 and 1/2 days of two-week course, May 8-9, 2006, Las Vegas, NV.
- Introduction to Hydrology, U.S. Bureau of Land Management Training, Keynote presentation, 1 and 1/2 days of two-week course, May 3-4, 2004, Las Vegas, NV.

SELECTED SHORT COURSES / EXTENSION ACTIVITIES (Continued)

- Contaminant Hydrology and Mine Reclamation, U.S. Bureau of Land Management short course, 1 day of a two-week course, Butte, Montana, USA. August 7, 2003.
- Kreamer, D. K. and H. Schuver. 4-day short course on Advanced Contaminant Hydrology, 1 day workshop, and several short lectures throughout South Africa, invited by the SA Department of Water Affairs and Forestry, May 19-30, 2003. Course notes published.
- Hydrologic Mathematical Modeling, U.S. Bureau of Land Management Training, 1/2 day, May 5, 2003, Las Vegas, NV, USA.
- Groundwater Contamination and Surface-Groundwater Interactions, 3-day short course, May 21-23, 2002, Alaska Department of Environmental Conservation, Anchorage Alaska, USA.
- Contaminant Hydrology and Mine Reclamation, U.S. Bureau of Land Management short course, 1.5 day of a two-week course, Las Vegas, May 6-7, 2002.
- Kreamer, D. K. and R Breeden. 2-day seminar, 1 day workshop, several short lectures throughout South Africa, invited by the SA Department of Water Affairs and Forestry, March 1-15, 2002.
- Free Product Training - Migration, Assessment, and Remediation of Non-Aqueous Phase Liquids, Michigan Department of Environmental Quality, Storage Tank Division. Taught 2 1/2 days of a 3-day course, September 12-14, 2000. D.K. Kreamer and James Davidson. Course notes published. Invited Speaker.
- Groundwater Contamination, U.S. Bureau of Land Management Training, 1.5 days, April 24-25, 2000, Las Vegas, NV, D.K. Kreamer.

SELECTED ABSTRACTS AND PROFESSIONAL PRESENTATIONS

- Kreamer, D.K, Opening Welcome – IV Union of Russian Hydrogeologists, December 14, 2021, Moscow, Russia.
- Kreamer, D.K, Panelist - Climate change, Virtual Water Conference -Dam the Status Quo, December 13, 2021, Boyd School of Law, University of Nevada, Las Vegas
- <https://drive.google.com/file/d/1NJxtql31bhrmo8B1OpSGlq6AvI-iJ4az/view>
- Kreamer, D.K, Invited plenary keynote - If Earth has a hidden underground pulse, that pulse is groundwater. ISARM 2021 Transboundary Aquifers: Challenges and the Way Forward, December 6-8, 2021. Paris, France.
- Kreamer, D.K, Plenary Special Session - Water Associations – Roles, Values, and Expectations in the Modern World, XVII (IWRA) International Water Resources Association World Water Congress, December 2, 2021, Daegu, Korea.
- Kreamer, D.K, Comparison of the Nile River Basin to the Colorado River Basin. Second Webinar – Revisiting the Nile River Basin and Lessons Learned from the Colorado River Basin. Global Water Alliance. November 16, 2021. Virtual.
<https://mail.google.com/mail/u/0/#search/vuhl%40vuawater.com?projector=1>
- Kreamer, D.K, Opening Ceremony Plenary - Groundwater in Africa, 32nd Annual Conference of the Nigerian Association of Hydrogeologists 1-5 November 2021, Katsina, Nigeria. (invited).

SELECTED ABSTRACTS AND PROFESSIONAL PRESENTATIONS (CONTINUED)

- Kreamer, D.K, Water challenges in Mesquite and the Colorado River Basin. Mesquite Democratic Party, November 3, 2021, Mesquite, Nevada, USA.
- Kreamer, D.K, Plenary Keynote – Invisible Groundwater – the Last Lifeline for Expanding Populations in the Face of Climate Change, Geological Society of South Africa 17th Groundwater Conference and Exhibition, October 17-20, 2021, Pretoria, City of Tshwane, Gauteng, South Africa.
- Kreamer, D.K, Perspectives on a crucial resource - The importance and vulnerability of our water supplies. American Geosciences Institute (AGI) - Earth Science Week Webinar Series. October 14, 2021. <https://www.americangeosciences.org/webinars/perspectives-crucial-resource-importance-and-vulnerability-our-water-supplies> or https://www.waterwired.org/2021/11/david-k-kreamer-perspectives-on-a-crucial-resource-the-importance-and-vulnerability-of-our-water-sup.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+typepad%2FFdoQ+%28WaterWired%29
- Kreamer, D.K, Invited Plenary - Opening and Closing Ceremonies - Groundwater The Hidden Resource, 48th Congress of the International Association of Hydrogeologists, September 2-11, 2021, Brussels, Belgium.
- Kreamer, D.K, Invited Keynote – Groundwater in the Field: Challenges, Opportunities, and Possible Solutions, 48th Congress of the International Association of Hydrogeologists, September 2-11, 2021, Brussels, Belgium.
- Kreamer, D.K, Invited Panelist, Stockholm World Water Week, Session on World Water Day 2022 – Groundwater: Making the Invisible Visible. 27 August, 2021, Stockholm, Sweden. Sponsored by the United Nations.
- Kreamer, D.K, Invited Plenary - Opening and Closing Ceremonies - Groundwater Professionals, making the world a better place, 47th Congress of the International Association of Hydrogeologists, August 23-27, 2021, Sao Paulo, Brazil.
- Kreamer, D.K, Ten Reasons why our relationship with groundwater is a total mess and what should be done, Webinar – July 22, 2021, <https://mail.google.com/mail/u/0/#search/Brazil+roundtable+webinar/WhctKKWxXHVkhPXXpdgm nDljqSwghGbdBtZnWPLDZpZgGmFfgSrcjWBRXGfbtvcPMsrpZjb?projector=1&messagePartId=0.1.13>
- Kreamer, D.K, Groundwater the Key to the UN Sustainable Development Goals, May 27, 2021, Sorbonne University, Paris. <https://www.un-igrac.org/stories/groundwater-key-sustainable-development-goals-sdgs>
- Kreamer, D.K, Invited Keynote - Water Challenges in the Middle East/ North Africa Region and Beyond, Ralf Klingbeil Memorial Webinar, May 20, 2021, American University of Beirut, Lebanon. <https://mail.google.com/mail/u/0/#search/ralf+Klingbeil/p4?projector=1>
- Kreamer, D.K, Plenary UN General Assembly - water data, information and governance, UN General Assembly (UNGA) High-Level Meeting on the water-related goals and targets of the 2030 Agenda, March 18, 2021, New York, NY, USA. <https://www.un.org/pga/75/high-level-meeting-on-water/> and <http://webtv.un.org/watch/general-assembly-high-level-meeting-on-water/6241754531001/?term=> and <http://webtv.un.org/meetings-events/watch/continued-general-assembly-high-level-meeting-on-water/6241861417001/?term=&sort=date&page=252>
- Kreamer, D.K, The Importance of Groundwater, International Water Resources Association (IWRA) 2020 Online Groundwater Conference Oct. 28-30, 2020 (invited).

SELECTED ABSTRACTS AND PROFESSIONAL PRESENTATIONS (CONTINUED)

- Kreamer, D.K. (invited) Hydrogeology of Springs in the Arid Southwest, Nevada Water Resources Association Annual Meeting, February 11-13, 2020, Las Vegas, NV, USA.
- Kreamer, D.K. (invited plenary) *Uranium mining in the Grand Canyon watershed: risks and challenges*, Restoring the West Conference, 8-9 October 2019, Utah State University, Logan Utah, USA.
- Kreamer, D.K. *The Challenge of Finding Deep Groundwater in Niger, Africa*, OU International WaTER Conference, 16-17 September 2019, Oklahoma State University, Norman OK, USA.
- Kreamer, D.K. *Natural Exceedance of Drinking Water Standards in Spring Water from Grand Canyon National Park, Arizona, USA*, 10th IAHS (International Association of Hydrologic Sciences) International Groundwater Quality Conference (GQ2019), 9-13 September 2019, Liege, Belgium.
- Kreamer, D.K. (plenary panel) *Unsolved Problems in Hydrology*, 27th General Assembly of the International Union of Geodesy and Geophysics, July 8-18, 2019, Montreal, Canada.
- Kreamer, D.K. (panel discussion) *Connecting Land and Water: Research in the Colorado River Basin*, Annual Conference of the Universities Council on Water Resources, 11-13 June 2019, Snowbird, Utah, USA.
- Kreamer, D.K. *Hydrophilanthropy Gone Wrong: How Well-meaning Scientists Can Make the Situation Worse*, Annual Conference of the Universities Council on Water Resources, 11-13 June 2019, Snowbird, Utah, USA.
- Kreamer, D.K. *Natural Exceedance of Drinking Water Standards in Spring Water from Grand Canyon National Park, Arizona, USA*, Annual Conference of the Universities Council on Water Resources, 11-13 June 2019, Snowbird, Utah, USA.
- Wachholtz J., Paulson, G., Wu, C. and D.K. Kreamer, 2018. *Mining in the Grand Canyon Watershed and the Implications on the Water Quality of Local Springs*. Geological Society of America Annual Meeting, 4-7 November, Indianapolis, IN, USA.
- Seddique A.A., Masuda H., Kreamer D.K., Anma R. and Y. Yokoo 2018. *Hydrogeochemical characteristics and assessment of groundwater quality in Cox's Bazar town and its surrounding area, southeast Bangladesh*, 2018 Goldschmidt Conference, Geochemical Society and European Association of Geochemistry. August 12-17, 2018, Boston, MA, USA
- Kreamer, D.K. 2018. *Grand Canyon Springs and Exceedance of Maximum Contaminant Level Drinking Water Standards - Implications for Resource Management*. Universities Council on Water Resources Annual Conference, Pittsburgh, PA, USA, June 26-28, 2018.
- Kreamer, D.K. 2018. *Is a University Consortium for Water and Sanitation in the Developing World Sustainable?* Universities Council on Water Resources Annual Conference, Pittsburgh, PA, USA, June 26-28, 2018.
- Kreamer, D.K. 2018. *A New Era of Uranium Mining in the Colorado Plateau*. (Plenary Presentation) What Lies Beneath: Reasons to Care (and be Excited) About Groundwater Use and Management in the Southwest University of Colorado School of Law, Boulder CO, USA. June 7-8, 2018.
- Kreamer, D.K. 2018. *The Invisible Pulses and Pathways for Ecosystem Health – Inconstant Groundwater Flow, Ephemeral Research Funding, and Fluctuating Public Perceptions. Keynote Presentation*. Spring Ecosystem Science Symposium, Flagstaff, Arizona USA, June 5-6, 2018.
- Kreamer, D.K. 2017. *Exceedance of Maximum Contaminant Level drinking water standards in Grand Canyon springs and implications for future monitoring*. 14th Biennial Conference of Science and Management for the Colorado Plateau and Southwest Region, September 11–14, 2017, High Country Conference Center, Northern Arizona University, Flagstaff, Arizona

SELECTED ABSTRACTS AND PROFESSIONAL PRESENTATIONS (CONTINUED)

- Asante, J., Dotson, S., Hart, E. and D.K. Kreamer, 2017. *Water circulation in Karst aquifer: Comparing physico-chemical and environmental isotopic data interpretation*. Annual Conference of the Geological Society of America, Seattle, 22-25 October 2017.
- Kreamer, D.K. 2016. *Are the Springs of the Grand Canyon At Risk? - Groundwater Exploitation and the Hydrogeology of the Grand Canyon, USA*. 43rd Congress of the International Association of Hydrogeologists, Montpellier, France, Sept. 26-29, 2016.
- Stevens L.E., Ledbetter, J.D., Springer A.E., Cantonati, M., and D. K. Kreamer 2016. *Springs Ecosystem Ecology and Stewardship: Neglect Has Created a Global Environmental Crisis*. SIL Conference, Torino, Italy, July 31-August 5, 2016.
- Kreamer, D.K. 2015. *Managing Artificial Recharge in Las Vegas and Southern Nevada, U.S.A.*, 42nd Congress of the International Association of Hydrogeologists, Rome, Italy, Sept. 2015.
- Kreamer, D. K. 2014. *Groundwater Dependent Ecosystems*. 41st Congress of the International Association of Hydrogeologists, Marrakesh, Morocco, Sept. 2014.
- Kreamer, D.K., Noble, P.J. and S. Chandra. June 19, 2014. *Lake Stratification, winter precipitation, plankton dynamics, and climate*. Water systems, Science, and Society under Global Change. 2014 UCOWR/ NIWR/ CUAHSI Annual Conference, June 18-20, 2014, Tufts University, Medford, MA.
- Asante, J., Kreamer, D. K. (2014). *Water Sources, Lower Virgin River: Evidence for Deep Groundwater Contribution from Isotopic Tracer Analysis*. NGWA Groundwater Summit, Denver, CO, May 2014
- Invited Speaker – ASCE Young Engineers Forum, “Global Water Challenges”, April 29, 2014, Las Vegas, NV
- Invited Plenary Speaker for the 2013 Annual Meeting of the Nevada Water Resources Association, *International Water Issues and the American West*. Reno, NV, Jan. 30, 2013.
- Invited Presentation for the Air and Waste Management Association - *Potential for Aquifer Disruption from Mining Activities*, November 26, 2012, Las Vegas, NV
- Invited Presentation for Association on Engineering and Environmental Geologists - *Solving Groundwater and Surface Water Challenges in Africa and Iraq*, November 13, 2012, Las Vegas, NV.
- Kreamer, D.K., 2012. *Groundwater and International Security*. 39th Congress of the International Association of Hydrogeologists, Sept. 17-21, 2012, Niagara Falls, Canada.
- Kreamer, D.K., 2010. “*Understanding Past Water Conflict and Predicting and Averting Future Conflicts*”. July 19, 2012. Annual 2012 Meetings of UCOWR/NIWR (Universities Council on Water Resources/ National Institutes of Water Resources), July 17-19, 2012, Santa Fe, NM.
- Invited Plenary Keynote Speaker for the 2012 Annual Meeting of the Consortium of Universities for the Advancement of Hydrologic Sciences (CUASHI) “*Water and Sanitation in the Developing World – Can Hydrophilanthropy Address the Quiet Persistent Disaster?*”, July 16, 2012.
- Noble, P.J., Chandra, S. and D.K. Kreamer, 2012. “*Seasonal And Vertical Phytoplankton Distributions At Fallen Leaf Lake Observed From 2009-2011 Monitoring Data, Tahoe Basin, California, USA*”, Tahoe Science Conference, Nevada Water Resources Association. June 22, 2012, Incline Village, NV.
- Kreamer, D.K., 2012. *Past and Future of Groundwater Conflict*. National Ground Water Association Ground Water Summit, May 6-10, 2012, Garden Grove, CA.
- Asante J. and D.K. Kreamer, 2012. *Evaluating Interbasin Flow and Groundwater-Surface Water Interactions, Lower Virgin Basin USA: Unusual Statistic and Graphical Analysis of Stable Isotopes and Solutes*. National Ground Water Association Ground Water Summit, May 6-10, 2012, Garden Grove, CA.
- Asante, J. and D.K. Kreamer, 2011. *Basin hydrochemistry and related flow systems: integrated data analytic methods*, Annual Meeting of the Geological Society of America, October 9-12, 2011, Minneapolis, MN.

SELECTED ABSTRACTS AND PROFESSIONAL PRESENTATIONS (CONTINUED)

- Noble, P.J., Kreamer, D.K. and S. Chandra, *Limnological monitoring of fallen leaf lake, ca; translation of seasonal, vertical, and extrabasinal contributions to the sedimentary record*, Annual Meeting of the Geological Society of America, October 9-12, 2011, Minneapolis, MN.
- Noble, P.J., Chandra, S., and D.K. Kreamer. *Summary of Phytoplankton Monitoring at Fallen Leaf Lake, Tahoe Watershed, California*. North American Diatom Symposium, Sept. 14-18, 2011. Polson, Montana.
- Kreamer, D.K., Improving Water Quality and Promoting University Educational Efforts in the Developing World, Universities Council on Water Resources/ National Institutes for Water Resources annual Meeting, Boulder, CO, July 11-14, 2011.
- Asante, J., Kreamer, D.K., And Cross, C.L., *Enhancing Multivariate Statistical Characterization Of Hydrochemical Groundwater Data: A Comparative Analysis Of Clustering Methods*, Rocky Mountain (63rd Annual) and Cordilleran (107th Annual) Joint Meeting (18–20 May 2011) , Logan, Utah
- Kreamer, D.K. 2011. *A University Consortium for Water and Sanitation in the Developing World*. 2011 Ground Water Summit. National Ground Water Association / Ground Water Protection Council, Annapolis/ Baltimore, MD, May 1-4, 2011.
- U.S. Bureau of Land Management, Keynote presentation, “*Physical/Hydrological Attributes of Functioning Wetlands*” Grazing and Conservation of Aridland Aquatic Species – Are Enclosures the Best Strategy? April 26-28, 2011, Salt Lake City.
- Noble, P.J., Hunter, D., Chandra, S., and D.K. Kreamer. *Seasonal Changes in Cyclotelloid Abundance and Composition in Fallen Leaf Lake, Lake Tahoe Basin, Sierra Nevada, California, USA*. North American Diatom Symposium, Sept. 1-4, 2010. Milford, Iowa.
- Kreamer, D.K. Extended Abstract - *Converting Ships to Mobile Desalination and Power Plants for Security/ Humanitarian Purposes*. 2010 Universities Council On Water Resources/ National Institutes for Water Resources Annual Conference; HydroFutures: Water Science, Technology & Communities, July 13-15, 2010, Seattle, WA.
- Keynote Speaker – University of Arizona 20th Annual El Dia del Aqua, March 31, 2010, “*Hydrophilanthropy*”.
- Universities Council on Water Resources Award Winner’s Invited Presentations, Hydrofutures, July 15, 2010, “*Converting Ships to Mobile Desalination and Power Plants for Security/ Humanitarian Objectives*”.
- U.S. Bureau of Land Management Training, Keynote presentation, 1 and 1/2 days of two week course, NTC Course 3700-8, May 10-11, 2010, “*Groundwater Hydrology*” .
- Invited Speaker- 2010 Grand Canyon River Guides Land-based and River-based Training, March 27 – April 7, 2010, “*Impacts of Uranium Mining in the Grand Canyon*”.
- Asante, J. and D.K. Kreamer, 2010. *Enhancing the Definition of Hydrochemical Facies to Evaluate Recharge Sources and Hydrodynamics of the Lower Virgin Basin, USA*, Nevada Water Resources Association Annual Conference, March 2-4, 2010, Las Vegas, NV.
- Hancock, L., Kreamer, D.K. and D.D. Werkema, 2010. *When Surfactants are Used to Remediate Chlorinated Solvents: Measuring Geoelectrical Responses in Saturated Sand/Clay Mixtures in Support of Geophysical In-Situ Monitoring*, 2010 Ground Water Summit and 2010 Ground Water Protection Council Spring Meeting, Denver, CO. April 11-14, 2010.
- Capitol Hill Congressional and State Department Briefing, Washington D.C., March 3, 2010, “*U.S. Universities and International Water Sanitation and Hygiene – A Proposal for a New Consortium and Survey of Current Activities*”.

SELECTED ABSTRACTS AND PROFESSIONAL PRESENTATIONS (CONTINUED)

- Kreamer, D.K., *Universities and Water Sanitation and Hygiene: Linking Research and Policy*, October 23-27, 2010, Water and Health: Where Science Meets Policy, University of North Carolina at Chapel Hill.
- Kreamer, D.K., *The Possibility of Developing a Professional Organization/ University Consortium for Clean Water in the Developing World*, Arizona Hydrological Society, September 1, 2010, Tucson, AZ.
- Kreamer, D. K. 2010. *Uranium in Grand Canyon Spring Water – the Potential for Contamination and Aquifer Disruption from Mining Activities*. 2010 Ground Water Summit and 2010 Ground Water Protection Council Spring Meeting, Denver, CO. April 11-14, 2010.
- Kreamer, D.K., *University Opportunities and Activities on Global Drinking Water and Public Health*, National Institutes of Water Annual Meeting, March 1-3, 2010, Washington, D.C.
- Noble, P.J., Chandra, S., and D.K. Kreamer. *Variations in the vertical diatom distribution in a deep near-oligotrophic alpine lake during the onset of stratification, Fallen Leaf Lake, California*. North American Diatom Symposium, Sept. 23- 27, 2009. Milford, Iowa.
- Oral and Written Congressional Testimony, July 23, 2009. House Resolution 644, “The Grand Canyon Watersheds Protection Act of 2009”, Washington, DC.
- Invited speaker at the National Academy of Sciences to address the International Hydrologic Programme of United Nations Educational, Scientific and Cultural Organization (UNESCO), on the topic of Water, Health and Sanitation in the Developing World, Washington, DC May 11, 2009.
- Kreamer, D.K. 2009. *Mobile Desalination for Humanitarian Water Supply*. National Ground Water Association Ground Water Summit, April 19-22, 2009, Tucson, AZ.
- Conference Presentations – Guest Lecture for Graduate Students University of Nevada, Reno; Feb. 27, 2009.
- Plenary speaker; Water and Life Support Systems – Modeling, forecasting and traditional management techniques; International Conference on Water Scarcity, Global Changes, and Groundwater Management Responses, Convened by UNESCO, UC Irvine, USGS, International Association of Hydrogeologists, USEPA, others; 1-5 December 2008, Irvine, California.
- Kreamer, D. K., 2008. *The Future of Groundwater Quality in Sub Saharan Africa*, International Conference on Water Scarcity, Global Changes, and Groundwater Management Responses, Convened by UNESCO, UC Irvine, USGS, International Association of Hydrogeologists, USEPA, others; 1-5 December 2008, Irvine, California. Refereed.
- Keynote Speaker, Fall 2008 Public Health Conference, “Water Quality Challenges and Public Health”, University of Arizona, November 14, 2008, Tucson, AZ.
- Magill, M.T., Werkema, D.D. and D.K. Kreamer, 2008. *Spectral Induced Polarization Response of Unconsolidated Saturated Sand and Surfactant Solutions*. American Geophysical Union, Dec. 2008 Fall Meeting, San Francisco, CA.
- Kreamer, D.K. 2008. *Feasibility of Using Large, Retired and Mothballed Ocean Vessels as Mobile Desalination Plants*, Annual Meeting of the Geological Society of America, Oct. 5-8, 2008, Houston, TX. (Note: Selected for GSA Press Release)
- Kreamer, D.K., 2008. *Hydrophilanthropy - The Possibility Developing a Professional Organization/University Consortium For Clean Water in the Developing World*, Annual Meeting of the Universities Council on Water Resources, July 22-24, 2008, Durham, NC.
- Kreamer, D.K., 2008. *Water Quality Strategies for Sub Saharan Africa*, National Ground Water Association Ground Water Summit, March 30-April 2, 2008, Memphis, TN.
- Kreamer, D.K., 2008. *Getting Dirty for Clean Water*, National Ground Water Association Ground Water Summit, March 30-April 2, 2008, Memphis, TN.

SELECTED ABSTRACTS AND PROFESSIONAL PRESENTATIONS (CONTINUED)

- Kreamer, D.K., 2007. *A Strategy for Groundwater Protection in Sub-Saharan Africa*, Annual Meeting of the Geological Society of America, Denver, CO. November, 2007.
- Plenary Lecture Invitation – Joint East and Southern Africa Environmental Chemistry Conference, Victoria Falls, Zimbabwe, Dec. 8, 2007
- Baron, A, Yu, Z., Kreamer, D.K., and J. Zhu, 2007. *Simulation of Response to Rainfall Events in the Virgin River Floodplain*, 2nd Annual Geosymposium, UNLV.
- Baron, A, Yu, Z., Kreamer, D.K., and J. Zhu, 2006. *Simulation of hydrologic response in an arid and a humid watershed using a distributed hydrologic model system*
- 14 invited lectures in 5 weeks in the Republic of South Africa at conferences, universities and government agencies, July 17 – August 23, 2005.
- New Perspectives on Monitoring and Remediation of Light Non Aqueous Phase Liquids, Montana Department of Environmental Quality Annual Conference, 4 1/2 hours, March 30-31, 2000, Anaconda, MT. D.K. Kreamer . Notes and abstract printed and distributed.

PROFESSIONAL MEETING CHAIR AND/OR SESSION CHAIR

- Conference Chair – *Water is Not for Gambling: Utilizing Science to Reduce Uncertainty*. 2015 UCOWR/NIWR/CUAHSI Conference (Universities Council on Water Resources/ National Institutes for Water Resources/ Consortium of Universities for the Advancement of Hydrologic Sciences, Inc. June 16-18, Las Vegas, Nevada, USA
- Session Moderator “*Fracking 101 – Impacts and Hydrology*”. July 17, 2012. Annual 2012 Meetings of UCOWR/NIWR (Universities Council on Water Resources/ National Institutes of Water Resources), July 17-19, 2012, Santa Fe, NM.
- Session Moderator “Kreamer, D.K., 2012. “*Water as a National and International Security Issue*” National Ground Water Association Ground Water Summit, May 6-10, 2012, Garden Grove, CA.
- Conference Co-Chair for the 2010 Joint Meeting of the National Ground Water Association, Ground Water Summit, and the Ground Water Protection Council Annual Meeting, April 11-15, 2010.
- Invited Participant – Water Sciences Forum, “*Cutting Edge Technologies for Water Services: Applications in Africa.*” Sponsored by the National Science Foundation, Executive Office of the President of the United States, National Academy of Science, USAID, USEPA, USGS, US Dept. Interior, US Dept. of State, USDA, NOAA, US Army Corps of Engineers, and NASA. Held at the National Academy of Sciences and US State Department, June 26-27, 2008, Washington, D.C.
- Panel Discussion Moderator, *Hydrophilanthropy - The Possibility Developing a Professional Organization/University Consortium for Clean Water in the Developing World*, Annual Meeting of the Universities Council on Water Resources, July 22-24, 2008, Durham, NC.
- Co-Chair for two sessions with Victor Heilweil (USGS) at the National Ground Water Association Ground Water Summit, March 30-April 2, 2008, Memphis, TN, “*Ground Water in Developing Countries: Challenges and Opportunities.*”
- Chaired Session for International Conference on *Water Scarcity, Global Changes, and Groundwater Hydrogeologists*, USEPA, others; Modeling, forecasting and traditional management techniques; 1-5 December 2008, Irvine, California.