

Jason J. Gurdak, Ph.D., P.H.

Associate Professor

Department of Earth & Climate Sciences (formerly Dept of Geosciences)
Associated Faculty & Concentration Advisor (Earth System Sciences), Environmental Studies Program
PI, Hydrogeology & Water Resources Research Group
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EDUCATION

Doctor of Philosophy (Ph.D.), Geochemistry, 2006

Department of Geology and Geological Engineering, Colorado School of Mines (CSM), Golden, CO.
Dissertation: *Advances in spatial and temporal analysis of groundwater vulnerability to nonpoint-source contamination, High Plains aquifer*. PhD advisor Dr. John McCray (CSM CEE)

Master of Science (M.S.), Environmental Science and Engineering, 1999

Department of Civil and Environmental Engineering (CEE) (formerly Department of Environmental Science and Engineering), Colorado School of Mines, Golden, CO.

Bachelor of Science (B.S.), Geology, 1998

Department of Geology, Bates College, Lewiston, ME.

Thesis: *Geochemical characterization of an arsenic contaminated aquifer, Zimapán, Mexico*.

ACADEMIC APPOINTMENTS and PROFESSIONAL EXPERIENCE

2015 to present **Associate Professor**, Earth & Climate Sciences, San Francisco State University
2009 to 2015 **Assistant Professor**, Earth & Climate Sciences, San Francisco State University
2009 to present **Associated Faculty**, Environmental Studies Program, San Francisco State University
2007 **Instructor**, Colorado School of Mines, Dept. of Environmental Science and Engineering
1999 to 2009 **Hydrologist**, U.S. Geological Survey, Colorado Water Science Center, Lakewood, CO
1999 **Environmental Consultant**, Jehn Water Consulting, Denver, CO
1997 to 1998 **NSF, Research Experience for Undergraduates (REU) fellow**, Bates College, Lewiston, ME

PROFESSIONAL CERTIFICATION

Professional Hydrologist (P.H.), Groundwater (cert # 12-HGW-4012): American Institute of Hydrology, 2012

FUNDED RESEARCH GRANTS and CONTRACTS (21)

Principal Investigator (PI) of over **\$1.7 million** and Co-Investigator (Co-I) of over **\$15.8 million**.

1. *Assessment of real evapotranspiration and recharge processes on two karst pilot groundwater catchments (Lebanon) using an integrated spatially distributed numerical model: Applications for water resources management purposes*, Doummar, J. (PI, American University of Beirut), and **Gurdak, J.J.** (U.S. Collaborator), USAID & NSF Partnership for Enhanced Engagement in Research (PEER) Science, **\$159,958** (2014-2017).
2. *RUI: Groundwater teleconnections with interannual to multidecadal climate variability*, **Gurdak, J.J.** (PI), Ferre, P.A. (Ty) (Co-I), and Maurer, E.P., (Co-I), National Science Foundation (NSF), EAR - Hydrologic Sciences (HS) Program, **\$321,865** (2013-2016).

3. *Assessment of groundwater indicators for Small Island Developing States (SIDS) aquifer systems*, Allen, D.M. (PI), Taniguchi, M., and **Gurdak, J.J.** (Collaborator), Global Environment Facility (GEF) and UNESCO Transboundary Waters Assessment Programme (TWAP), **\$60,000** (2013-2015).
4. *Linking land-use management, climate change, and surface water-groundwater interactions to assess State nitrogen regulations*, Los Huertos, M. (PI, CSU-Monterey Bay) and **Gurdak, J.J.**, CSU Water Resources and Policy Initiatives, Faculty Research Incentive Award Program, **\$6,000** (2013-2014).
5. *Groundwater recharge, Central Platte River Basin*, Woodward, D.D. (Co-PI, CPNRD), **Gurdak, J.J.** (Co-PI), and Steele, G.V. (Co-PI, USGS), Nebraska Environmental Trust grant, **\$217,200** (3 years).
6. *Demarcation of environmental management for human environmental security in Asia-Pacific region – Nexus of thermal energy, water, and coastal fishery*, Taniguchi, M. (PI) (**Gurdak** is Leading the U.S. research group, which 1 of 7 across the Asia-Pacific region), Japanese Ministry of Education, Research Institute for Humanity and Nature (RIHN), Kyoto, Japan. **\$5.0 million/5 years (\$150,000 to Gurdak)**., http://www.chikyu.ac.jp/rihn_e/project/FS-21.html
7. *Paleoclimate information obtained from past-recharge groundwater in large basins and correlations at global scale*, Cendon, D. (Co-I), Chen, J. (PI), **Gurdak, J.J.**, (Co-I), Haldorsen, S. (Co-I), Treidel, H., van der Ploeg, M., 2012 UNESCO-IUGS-IGCP International Geosciences Program, **\$50,000** (\$10,000/year for 2012-2016). <http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/international-geoscience-programme/igcp-projects/hydrogeology/project-618/>
8. *Groundwater and global palaeoclimate signals (G@GPS)*, Haldorsen, S., Cendon, D., Chen, J., Najiba Chkir Ben Jemaa, **Gurdak, J.J.**, Purtschert, R., Tujchneider, O., Vaikmae, R., van der Ploeg, M., 2012-2013 International Union for Quaternary Research (INQUA) 2012 Terrestrial Processes, Deposits, and History (TERPRO), **\$12,500** (2012-2013 INQUA project: <http://www.inqua.org/projects.html>).
9. *Peer review of the San Joaquin River Restoration Program's Seepage Management Plan, U.S. Bureau of Reclamation Seepage Management Plan*, **Gurdak, J.J.** (PI), 2012, CDM Smith Federal Programs Corporation, **\$13,000** (2012-2013).
10. *Effects of climate change and land use on groundwater recharge to the Central Platte Basin*, Woodward, D.D., **Gurdak, J.J.** (Co-I), and Steele, G.V., 2011–2013 (3 yr), Nebraska Interrelated Water Management Fund 2007 RFP, **\$570,000**.
11. *Preparing the San Francisco State University community to understand climate change effects on groundwater resources in San Francisco*, **Gurdak, J.J.** (PI), and Nanus, L. (Co-I), 2010–2011 (1 yr), SFSU Office of Research and Sponsored Programs, FOA 2010-01 Facilitating Research at SFSU (Collaborative Grant), **\$11,000**.
12. *Effects of climate change and land use on groundwater recharge to the Central Platte Basin*, **Gurdak, J.J.** (PI), Woodward, D.D., and Steele, G.V., 2008–2010 (3 yr), Nebraska Interrelated Water Management Fund 2007 RFP, **\$685,000**.
13. *Recharge beneath playas of the High Plains*, **Gurdak, J.J.** (PI), and Roe, C.D., 2008 (1 yr), Playa Lake Joint Venture 2008 RFP, **\$15,000**.

14. *National assessment of groundwater response in selected Principal Aquifers to climate variability on interannual to multidecadal temporal scales*, **Gurdak, J.J. (PI)**, and Hanson, R.T., 2008–2009 (2 yr), U.S. Geological Survey (USGS) Global Change Program 2008 RFP, **\$30,000** (1 of 15 funded from 284 submitted proposals; open to USGS & Universities).
15. *Methods to quantify error propagation and prediction uncertainty for GIS raster processing*, **Gurdak, J.J. (PI)**, and Qi, S.L., 2007–2008 (2 yr), USGS Center of Excellence for Geospatial Information Science (CEGIS) 2007 RFP, **\$134,500** (1 of 7 funded from 77 submitted proposals; open to USGS & Universities).
16. *National-scale assessment of groundwater response to interannual and multidecadal climate variability*, **Gurdak, J.J. (PI)**, Hanson, R.T., and Clark, B.R., 2008–2009 (2 yr), USGS Office of Ground Water, **\$56,000**
17. *Modeling the vulnerability of selected Principal Aquifers to nonpoint-source nitrate contamination*, **Gurdak, J.J. (PI)** and Qi, S.L., 2007–2009 (2 yr), USGS National Water Quality Assessment program, **\$75,000**.
18. *High Plains vadose-zone research network*, **Gurdak, J.J. (PI)**, 2007 (1 yr), USGS National Water Quality Assessment program, Groundwater Status and Trends Project, **\$29,600**.
19. *Groundwater response to climate variability, High Plains aquifer*, **Gurdak, J.J. (PI)** and Hanson, R.T., 2004–2006 (2 yr), USGS National Water Quality Assessment program, **\$70,000**.
20. *Groundwater vulnerability assessment of the High Plains aquifer to nonpoint-source nitrate contamination*, **Gurdak, J.J. (PI)**, and Qi, S.L., 2002–2005 (3 yr), USGS National Water Quality Assessment program, **\$150,000**.
21. *High Plains Groundwater Quality Study*, Dennehy, K.F., McMahon, P.B., Bruce, B.W., **Gurdak, J.J.**, and Qi, S.L., 1999–2009 (10 yr), USGS National Water-Quality Assessment program, **\$15 million**. Project web page: http://co.water.usgs.gov/nawqa/hpgw/HPGW_home.html

PEER-REVIEWED PUBLICATIONS (available at: <http://online.sfsu.edu/jgurdak/Publications.html>)

Google Scholar (1/17/2016): 957 citations, h-index = 15, i10-index = 18 (Student authors: ^MS, *BS)

Refereed Journal Articles (19):

1. McMahon, P.B., K.F. Dennehy, B.W. Bruce, J.K. Böhlke, R.L. Michel, **J.J. Gurdak**, and D.B. Hurlbut. 2006. Storage and transit time of chemicals in thick unsaturated zones under rangeland and irrigated cropland, High Plains, United States. *Water Resources Research* 42:doi:10.1029/2005WR004417.
2. **Gurdak, J.J.**, McCray, J.E., Thyne, G.D., and Qi, S.L., 2007. Latin hypercube approach to estimate uncertainty in ground water vulnerability. *Ground Water*, 45, 3, 348-361, doi: 10.1111/j.1745-6584.2006.00298.x.
3. **Gurdak, J.J.**, Hanson, R.T., McMahon, P.B., Bruce, B.W., McCray, J.E., Thyne, G.D., and R.C. Reedy, 2007. Climate variability controls on unsaturated water and chemical movement, High Plains aquifer, USA., *Vadose Zone Journal* 6(2), 533-547, doi: 10.2136/vzj/2006.0087.
4. McMahon, P. B., K. R. Burow, L. J. Kauffman, S. M. Eberts, J. K. Böhlke, and **Gurdak, J.J.**, 2008. Simulated response of water quality in public supply wells to land use change, *Water Resources Research*, 44, W00A06, doi:10.1029/2007WR006731.

5. **Gurdak, J.J.**, Walvoord, M.A., and McMahon, P.B., 2008. Susceptibility to enhanced chemical migration from depression-focused preferential flow, High Plains aquifer, *Vadose Zone Journal*, v. 7, no. 4, 1218–1230, doi: 10.2136/vzj2007.0145.
6. **Gurdak, J.J.**, and *Roe, C.D., 2010. Review: Recharge rates and chemistry beneath playas of the High Plains aquifer, USA, *Hydrogeology Journal*, 18(18), 1747-1772, doi:10.1007/s10040-010-0672-3.
7. Holman I.P., Rivas-Casado M., Bloomfield, J.P., and **Gurdak J.J.**, 2011, Identifying non-stationary groundwater level response to North Atlantic ocean-atmosphere teleconnection patterns using wavelet coherence, *Hydrogeology Journal*, doi:10.1007/s10040-011-0755-9.
8. Green, T., Taniguchi, M., Kooi, H., **Gurdak, J.J.**, Hiscock, K., Allen, D., Treidel, H., and Aurelia, A., 2011, Beneath the surface of global change: Impacts of climate change on groundwater, *Journal of Hydrology* 405:532-560, doi:10.1016/j.jhydrol.2011.05.002.
9. McNeeley, S.M., Tessendorf, S.A., Lazrus, H., Heikkila, T., Ferguson, I.M., Arrigo, J.S., Attari, S.Z., Cianfrani, C.M., Dilling, L., **Gurdak, J.J.**, Kampf, S.K., Kauneckis, D., Kirchhoff, C.J., Lee, J., Lintner, B.R., Mahoney, K.M., Opitz-Stapleton, Ray, P., South, A.B., Stubblefield, A.P., and Brugger, J., 2012, Catalyzing frontiers in water-climate-society research: A view from early career scientists and junior faculty, *Bulletin of American Meteorological Society*, vol. 93, no. 4, 477-484. doi: 10.1175/BAMS-D-11-00221.1.
10. **Gurdak, J.J.**, and Qi, S.L., 2012, Vulnerability of recently recharged groundwater in principal aquifers of the United States to nitrate contamination, *Environmental Science and Technology* 46(11): 6004-6012., doi:10.1021/es300688b.
11. Richard T., B. Scanlon, P. Döll, M. Rodell, R. van Beek, Y. Wada, L. Longuevergne, M. LeBlanc, J. Famiglietti, M. Edmunds, L. Konikow, T.R. Green, J. Chen, M. Taniguchi, M.F.P. Bierkens, A. MacDonald, Y. Fan, R.M. Maxwell, Y. Yecheili, **J.J. Gurdak**, D. Allen, M. Shamsudduha, K. Hiscock, P.J.-F.Yeh, I. Holman, and H. Treidel, 2012, Groundwater and climate change, *Nature Climate Change*, doi:10.1038/nclimate1744.
12. Klove, B., Ala-Aho, P., Bertrand, G., **Gurdak, J.J.**, Kupfersberger, H., Kvaerner, J., Muotka, T., Mykra, H., Preda, E., Rossi, P., Uvo, C.B., ^Velasco, E., Wachniew, P., and Velazquez, M.P., 2013, Climate change impacts on groundwater and dependent ecosystems, *Journal of Hydrology*, doi: <http://dx.doi.org/10.1016/j.jhydrol.2013.06.037>.
13. Taniguchi, M., Allen, D., and **Gurdak, J.J.**, 2013, Optimizing the Water-Energy-Food nexus in the Asia-Pacific Ring of Fire, *EOS Transactions American Geophysical Union*, vol. 94(47), p. 435, doi:10.1002/2013EO470005.
14. ^Newcomer, M.E., **Gurdak, J.J.**, Sklar, L., and Nanus, L., 2013, Urban recharge beneath low impact development and the effects of climate variability and change, *Water Resources Research*, doi:10.1002/2013WR014282.
15. ^Kuss, A.J.M., and **Gurdak, J.J.**, Groundwater level response in U.S. Principal Aquifers to ENSO, NAO, PDO, and AMO, 2014, *Journal of Hydrology*, 519, 1938-1952, doi:10.1016/j.jhydrol.2014.09.069.
16. ^Velasco, E.M., **Gurdak, J.J.**, Dickinson, J.E., Ferre, T.P.A., and ^Corona, C., 2015, Interannual to multidecadal climate forcings on groundwater resources of the West Coast of the U.S., *Journal of Hydrology: Regional Studies*, <http://dx.doi.org/10.1016/j.ejrh.2015.11.018>, special issue on the Water-Energy-Food Nexus of the Asia-Pacific Region.
17. **Gurdak, J.J.**, ^Geyer, G.E., Nanus, L., Taniguchi, M., and ^Corona, C.R., In Review, Scale dependence of controls on groundwater vulnerability in the water-energy-food nexus, California Coastal Basin aquifer system, *Journal of Hydrology: Regional Studies*, special issue on the Water-Energy-Food Nexus of the Asia-Pacific Region.
18. Haldorsen, S., van der Ploeg, M., Cendon, D.I., Chen, J., Chkir Ben Jemaa, N., **Gurdak, J.J.**, Purtschert, R., Tujchneider, O., Vaikmae, R., Perez, M., and Zouari, K., In Review, Groundwater and global palaeoclimate signals (G@GPS), Episodes.

19. Taniguichi, M., Endo, A., **Gurdak, J.J.**, and Swarzenski, P., In Review, Water-Energy-Food Nexus in Asia Pacific Region, *Journal of Hydrology: Regional Studies*, special issue on the Water-Energy-Food Nexus of the Asia-Pacific Region.

Books (2):

20. **Gurdak, J.J.**, 2008. Ground-water vulnerability: Nonpoint-source contamination, climate variability, and the High Plains aquifer, VDM Verlag Publishing, Saarbrucken, Germany, ISBN: 978-3-639-09427-5, 223 p.
21. Treidel, H., Martin-Bordes, J.J., and **Gurdak, J.J.** (Eds.), 2012, Climate change effects on groundwater resources: A global synthesis of findings and recommendations, International Association of Hydrogeologists (IAH) - International Contributions to Hydrogeology, Taylor & Francis publishing, 414 p., ISBN 978-0415689366. <http://www.crcpress.com/product/isbn/9780415689366>

Book Chapters and Forewords (4):

22. **Gurdak, J.J.**, and McCray, J.E., 2005. Groundwater vulnerability to pesticides: statistical approaches, *in* Lehr, J.H. and Keeley, J., *Water Encyclopedia: Volume 5: Ground Water*, John Wiley & Sons, DOI: 10.1002/047147844X.gw1951, 594–599.
<http://www.crcpress.com/product/isbn/9780415689366>
23. **Gurdak, J.J.**, McMahon, P.B., and Bruce, B.W., 2012, Vulnerability of groundwater quality to human activity and climate change and variability, High Plains aquifer, USA, pp. 145-167, *in* Treidel, H., Martin-Bordes, J.J., and **Gurdak, J.J.**, (Eds.). *Climate change effects on groundwater resources: A global synthesis of findings and recommendations*, International Association of Hydrogeologists (IAH) - International Contributions to Hydrogeology, Taylor & Francis publishing, 414 p., ISBN 978-0415689366. <http://www.crcpress.com/product/isbn/9780415689366>
24. **Gurdak, J.J.**, 2013, Foreword, *Groundwater in the coastal zone of Asia-Pacific*, C. Wetzelhuetter (Ed.), Springer, 382 p., ISBN 978-94-007-5648-9 (**Invited contribution**).
25. **Gurdak, J.J.**, 2014, Chapter 8. Groundwater vulnerability, *in* Eslamian, S. (Ed.). *Handbook of Engineering Hydrology, Volume 3: Environmental Hydrology and Water Management*. 33 p., CRC Press, (**Invited**).

U.S. Geological Survey (USGS) Reports (12):

(USGS Peer-Review Policy: <http://www.usgs.gov/usgs-manual/500/502-3.html>)

26. **Gurdak, J. J.**, Spahr, N., E., and Smijtzer, R., 2002. Traveltime characteristics of Gore Creek and Black Gore Creek, Upper Colorado River Basin, Colorado, USGS Water-Resources Invest. Report 02-4037, 14 p.
27. **Gurdak, J. J.**, Greve, A. I., and Spahr, N. E., 2002. Water-quality data analysis of the Upper Gunnison River Watershed, Colorado, 1989-99. USGS Water-Resources Investigations Report 02-4001, 61 p.
28. Bruce, B.W., Becker, M.F. Pope, L.M., and **Gurdak, J.J.**, 2003. Ground-water quality beneath irrigated agriculture in the Central High Plains aquifer, 1999-2000. USGS Water-Resources Invest. Report 03-4219, 39 p.
29. Qi, S.L., and **Gurdak, J.J.**, 2006. Percentage of probability on nonpoint-source nitrate contamination of recently recharges ground water in the High Plains aquifer; USGS Data Series 192, Available on the world wide web at: http://water.usgs.gov/GIS/metadata/usgswrd/XML/ds192_hp_npctprob.xml
30. **Gurdak, J.J.**, and Qi, S.L., 2006. Vulnerability of recently recharged ground water in the High Plains regional aquifer to nitrate contamination. USGS Scientific Investigations Rep. 2006-5050, 39 p.

31. McMahon, P.B., Dennehy, K.F., Bruce, B.W., **Gurdak, J.J.**, and Qi, S.L., 2007. Water-quality assessment of the High Plains aquifer, 1999-2004, USGS Professional Paper 1749, 212 pp.
32. **Gurdak, J.J.**, McMahon, P.B., Dennehy, K.F., and Qi, S.L., 2009. Water quality in the High Plains Aquifer, Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming, 1999–2004: U.S. Geological Survey Circular 1337, 63 p.
33. **Gurdak, J.J.**, and *Roe, C.D., 2009. Recharge rates and chemistry beneath playas of the High Plains aquifer—A literature review and synthesis, U.S. Geological Survey Circular 1333, 39 p.
34. **Gurdak, J.J.** Qi, S.L., and *Geisler, M.L., 2009. Estimating prediction uncertainty from geographical information system raster processing: A user’s manual for the Raster Error Propagation Tool (REPTool), U.S. Geological Survey Techniques and Methods 11–C3, 71 p.
35. **Gurdak, J.J.**, Hanson, R.T., and Green, T.R., 2009. Effects of climate variability on groundwater resources of the United States: U.S. Geological Survey Fact Sheet 2009-3074, 4 p.
36. Clark, B.R., Hart, R.M., and **Gurdak, J.J.**, 2011, Groundwater availability of the Mississippi Embayment, U.S. Geological Survey Professional Paper 1785, Reston, VA, 62 p.; <http://pubs.usgs.gov/pp/1785/>
37. Steele, G.V., **Gurdak, J.J.**, and Hobza, C., 2014, Water movement through the unsaturated zone of the High Plains aquifer in the Central Platte Natural Resources District, Nebraska, 2008–12, U.S. Geological Survey Scientific Investigations Report 2014-5008, Reston, VA, 51 p.

OTHER PUBLICATIONS (15)

- Gurdak, J.J.**, Allen, D.M., Holding, S., Carvalho Resende, T., Leblanc, M., Aureli, A., Hejazian, M., Swarzenski, P., Antoniou, A., Dumont, A., 2015, GRAPHIC Groundwater and climate change: Small Island Developing States (SIDS), United Nations Educational, Scientific, and Cultural Organization (UNESCO)- International Hydrologic Programme (IHP), published by UNESCO, Paris, France, 14 pages.
- Gurdak, J.J.**, Leblanc M., Carvalho Resende, T., Green T.R., Tweed, S., Longuevergne, L., Allen, D.M., and Elliott, J.F., 2015, GRAPHIC Groundwater and climate change: Mitigating the global groundwater crisis and adapting to climate change – A position paper by GRAPHIC, United Nations Educational, Scientific, and Cultural Organization (UNESCO)- International Hydrologic Programme (IHP), published by UNESCO, Paris, France, 16 pages.
- Chen, J., Cendon, D.I., Haldorsen, S., and **Gurdak, J.J.**, 2015, INQUA-G@GPS Annual meeting: Groundwater and Environmental Change – The International Workshop and Training Course, 8th to 13th December 2014, Zhanjiang, China, Quaternary Perspectives – The INQUA Newsletter, May 2015, Issue No. 22(1), 16-17 pp.
- Hanak, E., Mount, J., Lund, J., Thompson, B., **Gurdak, J.J.**, Harter, T., Green, S., Sandoval-Solis, S., 2015, Storing Water, Public Policy Institute of California (PPIC), annual briefing series, 4 pps., available at http://www.ppic.org/content/pubs/report/R_415SWR.pdf
- Cendón, D.I., Chen, J., **Gurdak, J.J.**, Tujchneider, O., Haldorsen, S., van der Ploeg, M., Vaimae, R., Purtschert, R., Ben Jemaa, 2015, Annual report of International Geosciences Program (IGCP) project no. 618 Paleoclimate information obtained from past-recharged groundwater, 10 p.
- Chen, J., Cendón, D.I., Haldorsen, S., Chkir, N., **Gurdak, J.J.**, Purtschert, R., Tujchneider, O., Vaimae, R., van der Ploeg, M., 2014, INQUA annual report for funding given in 2014, INQUA project # 1309F, G@GPS groundwater and global paleoclimate signals, 8 p.
- Allen, D.M., Holding, S., Foster, S., Hsieh, A., Larocque, I., Klassen, J., van Pelt, S., **Gurdak, J.J.**, and Taniguchi, M., 2014, Assessment of Small Island Developing States (SIDS) Groundwater Systems, Transboundary Water Assessment Programme, Submitted to UNESCO-IHP, Final Report, 43 pp.

- Gurdak, J.J.**, Kimmelshue, J., Munk, D., Quinn, N., Robertson, M., Steele, A., and Styles, S., 2013, Peer review of the San Joaquin River Restoration Program's Seepage Management Plan, Independent peer review panel for the U.S. Bureau of Reclamation Seepage Management Plan, 65 p.
- Haldorsen, S., Cendón, D.I., Chen, J., Jemaa, N.C.B., **Gurdak, J.J.**, Purtschert, R., Tujchneider, O., Vaikmae, R., and van der Ploeg, M.J., 2013, Groundwater and Global Palaeoclimate Signals (G@GPS), INQUA Terrpro annual report, 7 p.
- Cendón, D.I., Chen, J., **Gurdak, J.J.**, Tujchneider, O., Haldorsen, S., van der Ploeg, M., Vaimae, R., Purtschert, R., 2012, Annual report of International Geosciences Program (IGCP) project no. 618 Palaeoclimate information obtained from past-recharged groundwater, 8 p.
- Akens, M., Akroyd, R., Alpert, H., Ash, L., Brennan, M., Davis, C., Davis Fadtke, K., De Campos, J., Favorini-Csorba, A., Fernandez, B., Geringer, T., **Gurdak, J.J.**, Lockwood, B., Manzo, M., Moore, K., Nordberg, M., Poulsen, B., Roseman, J., Sandovalis Solis, S., Tollette, A., Wijsman, P., 2012, *A report on addressing California's water infrastructure needs*, 2012, William R. Gianelli Water Leaders Class of 2012, Water Education Foundation, Sacramento, CA, 73 p.
- Gurdak, J.J.**, 2012, Climate change goes underground: Implications for groundwater. *Climate Science and Policy*, July 5, 2012, <http://www.climatescienceandpolicy.eu/2012/07/climate-change-goes-underground-implications-for-groundwater/> (**Invited contribution**).
- Gurdak, J.J.**, 2010, The High Plains aquifer (part 2), *Prairie Fire*, vol. June, 2010, (**Invited contribution**). (<http://www.prairiefirenewspaper.com/2010/05/the-high-plains-aquifer-part-one>)
- Gurdak, J.J.**, 2010, The High Plains aquifer (part 1), *Prairie Fire*, vol. May, 2010, (**Invited contribution**). (<http://www.prairiefirenewspaper.com/2010/05/the-high-plains-aquifer-part-one>)
- United Nations Educational, Scientific and Cultural Organization (UNESCO) (**Gurdak, J.J.** is one of 19 contributing authors), 2008. Groundwater resources assessment under the pressures of humanity and climate change (GRAPHIC) – A framework document, GRAPHIC Series N°2, UNESCO Pub., Paris, France, 31 p., Available at: http://www.unesco.org/water/ihp/graphic/media/GRAPHIC_Series_No2_WEB.pdf

Blog posts (1)

- Lund, Harter, Gailey, Fogg, Frank, Dahlke, Ginn, Sandoval Solis, Young, Fisher, Langridge, Viers, Harmon, Holden, Keller, Kiparsky, Greene, Mehl, **Gurdak**, Gorelick, Knight, 2015, Creating effective groundwater sustainability plans. *California WaterBlog*, March 4, 2015, <http://californiawaterblog.com/2015/03/04/creating-effective-groundwater-sustainability-plans/>.

HONORS and AWARDS

- San Francisco State University Retirement Association Travel Grant, 2012, **\$500**.
- California State University (CSU), Water Resources Policy Institute (WRPI) Faculty Research Incentive Award Program, **\$4,968** for Spring 2012 (release time: 3 WTUs), Project: *Effects of climate variability on groundwater resources of California and the United States*
- Awarded Research Hydrologist Position, U.S. Geological Survey, Colorado Water Science Center, September, 2009 (declined – had already accepted position at SFSU).
- 1st Place Award, Best Analytical Presentation, 2008 U.S. Geological Survey National GIS Workshop - “GIS for Tomorrow’s Challenges”, Denver, CO, May 15, 2008.
- “Leading From Any Chair” Award, U.S. Geological Survey, 2007.
- 3rd Place Award: Best Analytical Presentation Map at the ESRI International User Conference, San Diego, CA, June 18-22, 2007.
- U.S. Department of the Interior, U.S. Geological Survey Performance Award, 2006, 2007.
- Colorado School of Mines, Graduate Student Association, Travel Grant, 2006
- U.S. Department of the Interior, USGS, Sustained Superior Performance Award, 2005.
- Geological Society of America, Rocky Mountain Section, Student Travel Grant, 2005.
- U.S. Department of the Interior, U.S. Geological Survey STAR Award, 2001, 2003, 2004.
- Highest Honors, B.S. thesis, Department of Geology, Bates College, Lewiston, ME, 1998.
- Sigma Xi, The Scientific Research Society, elected, 1998.
- Research and Scholarship awards received by advisees (>**\$32,000**):
 - Claudia Corona (M.S., SFSU): 2015-2016 ARCS Scholar award (**\$10,000**)
 - Claudia Corona (M.S., SFSU): 2014-2015 ARCS Scholar award (**\$10,000**)
 - Gaby Geyer (M.S., SFSU): 2014 COAST Graduate Student Research Award (**\$3,000**)
 - Elzie Velasco (M.S., SFSU): 2013-2014 ARCS Scholar award (**\$10,000**)
 - Ryan Corbett (M.S., SFSU): SFSU COSE Student Project Showcase award winner, 2013.
 - Ryan Corbett (M.S., SFSU): Pestrong Graduate Teaching Assistant Award, 2013.
 - Elzie Velasco (M.S., SFSU): Dawdy Hydrology Research Grant (**\$800**), 2013.
 - Mike Wrigley (M.S., SFSU): Dawdy Hydrology Research Grant (**\$800**), 2013.
 - Mays Danfoura (M.S., SFSU): Dawdy Hydrology Research Grant (**\$800**), 2013.
 - Elzie Velasco (M.S., anticipated 2014): Awarded complementary student membership to the International Association of Hydrogeologists (IAH), December 2012.
 - Michelle Newcomer (M.S., SFSU): SFSU, Graduate Distinguished Achievement Award, 2012.
 - Michelle Newcomer (M.S., SFSU): Jane Lewis Fellowship, UC Berkeley for students interested in groundwater research (now at UC Berkeley Dept. Civil and Environmental Engineering 2012-present).
 - Ryan Corbett (M.S., SFSU): Dawdy Hydrology Research Grant (**\$800**), 2011.
 - Michelle Newcomer (M.S., SFSU): GSA Graduate Student Research Grant (**\$1,800**), 2011.
 - Michelle Newcomer (M.S., SFSU): Research Instrument Fellowship, Decagon Devices (**\$4,660**), 2011.
 - Amber Kuss (M.S., SFSU): 1st Place, Physics and Math, SFSU Student Research Competition, 2011.
 - Amber Kuss (M.S., SFSU): San Francisco State University, College of Science and Engineering, Graduate Distinguished Achievement Award, 2011.

SUPERVISION AND MENTORING OF STUDENT RESEARCH**(15) Students under my direct supervision, Dept Earth & Climate Sciences, San Francisco State University**

<i>Name</i>	<i>Degree</i>	<i>Dates</i>	<i>Thesis</i>
A. Kuss*	MS	'09–11	<i>Effects of climate variability on recharge in regional aquifers of the United States. Now a PhD student at UC Santa Cruz, Environmental Studies</i>
D. Duverge	MS	'09–11	<i>Establishing background arsenic in soil of the urbanized San Francisco Bay region. Now Senior Associate at Environmental Science Associates</i>
B. Everett	MS	'09–11	<i>Pore-scale dual-domain flow and temporal variability in recharge, High Plains aquifer, USA. Now a Hydrogeologist at Whetstone Associates, Inc.</i>
M. Haskins*	BS	'09–11	<i>Structural and hydrologic implications of jointing in the Werner Creek drainage basin, Catskill Mountains, eastern New York.</i>
C. Martin	BS	'09–11	<i>Early warning geochemical indicators of seawater intrusion, Westside Basin aquifer, San Francisco, California</i>
M. Newcomer*	MS	'10–12	<i>Recharge beneath low impact development and the effects of climate variability. Now a PhD student at UC Berkeley, Department of Civil and Environmental Engineering, advisor Dr. Yoram Rubin.</i>
Z. Lauffenburger	MS	'10-13	<i>Effects of climate change and land use on recharge rates, High Plains aquifer. Now a Geologist with AMEC</i>
R. Corbett	MS	'11–14	<i>Fog drip contribution to recharge, San Francisco Bay Area</i>
Z. Searles*^	MS	'11–14	<i>Error propagation and uncertainty in predictions of nonpoint-source nitrate contamination in groundwater</i>
M. Wrigley	MS	'12–14	<i>Background trace metal concentrations in soils of the San Francisco Bay area</i>
G. Geyer*^	MS	'12–14	<i>Vulnerability of recently recharged groundwater in the California coastal basins to NO₃⁻ contamination</i>
M. Danfoura*^	MS	'12– present	<i>Redox dynamics in groundwater beneath low impact development (LID)</i>
E. Velasco*^	MS	'12– present	<i>Teleconnections between interannual to multidecadal climate variability and U.S. groundwater resources</i>
C. Corona*^	MS	'14– present	<i>Vadose zone attenuation of climate variability signals in recharge</i>
M. Hejazian	MS	'14– present	<i>Depth dependent sampling and well modification as cost-effective strategy to seawater intrusion in coastal aquifers.</i>

* female; ^ underrepresented minority (URM)

(7) Thesis Committee Member, Dept Earth & Climate Sciences, San Francisco State University

<i>Name</i>	<i>Degree</i>	<i>Dates</i>	<i>Research Project</i>
E. Donaldson	MS	'09–11	<i>Geomorphic controls on spatial distribution of cobbles and boulders in stream-channel networks</i>
L. Johnson*	MS	'09–11	<i>Determination of radiocarbon in porewater dissolved organic matter using thermal sulfate reduction. Now a PhD student at U. of Washington</i>
Y. Yousfi	BS	'12–13	<i>Channel geometry and roughness controls on discontinuous rating curves.</i>
N. Aiello	BS	'12–13	<i>Constructing the Diagenetic History of a Hadrosaur Bonebed near Rudyard, Montana Using Calcite, Septarian Siderite, Ferruginous Septarian Dolomite and Limonite Concretions.</i>
L. Alden	MS	'12- present	<i>Segregation ice growth: A potential mechanism for the widening of bedrock rivers.</i>
J. Amaya*^	BS	'12- present	<i>Variation in density of river bed sediment in a volcanic landscape, Klamath River, Oregon.</i>
O. Arabnia^	MS	'14- present	<i>Particle breakdown and abrasion coefficients in debris flow, Inyo Creek, CA</i>

* female; ^ underrepresented minority (URM)

(5) Students under my direct supervision for NSF supported Climate Change Scholar's program at SFSU

<i>Name</i>	<i>Degree</i>	<i>Dates</i>	<i>Research Project</i>
E. Peters*	BS	2012	<i>Climate change effects on recharge beneath low impact development.</i>
K. Kaufman	BS	2012	<i>Quantifying groundwater vulnerability to climate change.</i>
R. Ford	BS	'11-12	<i>Effects of interannual to multidecadal climate variability on groundwater recharge and contaminant transport.</i>
V. Sorrell*^	BS	2012	<i>Effects of interannual to multidecadal climate variability on ice-out dates of lakes in New England.</i>
L. Gaten-Slahor*	BS	'13-14	<i>Low impact development, climate change, and groundwater sustainability</i>

* female; ^ underrepresented minority (URM)

TEACHING**San Francisco State University, Department of Earth & Climate Sciences, San Francisco, CA.**

<i>Course Number and Title</i>	<i>Date</i>	<i>Student Evaluation Score (1 - 5)*</i>
GEOL 270: Environmental Geology	Spring 2010	1.5
	Spring 2011	1.8
GEOL 475/775: Hydrogeology	Fall 2009	1.7
	Fall 2010	1.3
	Fall 2011	1.6
	Fall 2012	1.4
	Fall 2013	1.5
GEOL 476/776: Groundwater Contamination	Spring 2011	1.7
GEOL 480/780: Geochemistry	Spring 2012	1.4
	Spring 2014	In progress
GEOL 700: Seminar in Applied Geosciences	Fall 2010	1.6
	Fall 2011	1.3
	Fall 2012	1.5
GEOL 701: Research Methods in Geosciences	Spring 2013	1.3
GEOL 795: Vadose Zone Hydrology	Spring 2010	1.4

*Mean score (1=highest; 5=lowest) of responses to "Rank the overall effectiveness of the instructor."

Colorado School of Mines, Environmental Science and Engineering Program, Golden, CO.

- ESGN 598v: Vadose Zone Hydrology, Co-taught with Prof. John McCray, Spring 2007

U.S. Geological Survey (USGS), National Training Center, Lakewood, CO

- Statistical Methods for Hydrologists, Teaching Assistant (professional 40-hour USGS course), 2004

Bates College, Department of Geology, Lewiston, ME.

- Hydrogeology, Teaching Assistant, Fall 1997, Fall 1998

CONFERENCE ABSTRACTS and PROCEEDING PAPERS (65)

(Student authors: ^MS student, *BS student)

- Gurdak, J.J.**, 2015, Human-environmental security of the water-energy-food nexus in the Asia-Pacific coastal region, UCLA-NSF workshop "Towards Food-Energy-Water (FEW) Security in California under Changing conditions, Los Angeles, CA, December 3.
- Swarzenski, P.W., ^Hejazian, M., **Gurdak, J.J.**, Odigie, K., and Storlazzi, C.D., 2015, Hydrogeology and geochemistry of the freshwater lens on Roi Namur atoll, the Republic of the Marshall Islands, 2015 American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, December 14-18.
- ^Corona, C.R., **Gurdak, J.J.**, Dickinson, J.E., Ferre, T.P.A., and ^Elliott, J.F., 2015, Climate variability and vadose zone controls on damping of transient recharge fluxes, 2015 American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, December 14-18.
- ^Hejazian, M., **Gurdak, J.J.**, Swarzenski, P., Odigie, K., 2015, Effects of Land-Use Change and Managed Aquifer Recharge on Geochemical Reactions with Implications for Groundwater Quantity and Quality in Atoll Island Aquifers, Roi-Namur, Republic of the Marshall Islands, 2015 American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, December 14-18.
- ^Hejazian, M., **Gurdak, J.J.**, Swarzenski, P., Odigie, K., 2015, A Tale of Two Islands: Influence of Artificial Recharge and Carbon on Atoll Island Carbonate Aquifers, Roi-Namur, Republic of the Marshall Islands, 2015 Geologic Society of America (GSA), Baltimore, MD.
- Leblanc, M., **Gurdak, J.J.**, Aureli, A., Carvalho-Resende, Tales, Faedo, G., and Taylor, R., 2015, Key findings on groundwater and climate change from the UNESCO-IHP GRAPHIC network, Our Common Future Under Climate Change, International Scientific Conference, abstract # P-2212a-10, July 7-10, 2015, Paris, France.
- ^Velasco, E., **Gurdak, J.J.**, Dickinson, J., Hanson, R.T., Ferre, P.A., and Maurer, E.P., 2014, Groundwater level response in U.S. Principal Aquifers to natural climate variability on interannual to multidecadal timescales, 2014 American Geophysical Union (AGU) Fall Meeting, December 15-19, GC11D-0593: Natural- and human-induced changes and the role of groundwater in the terrestrial water cycle.
- Nanus, L., ^Geyer, G.E., **Gurdak, J.J.**, Orenco, P.M., Endo, A., and Taniguchi, M., 2014, Freshwater vulnerability to nitrate contamination as an indicator of sustainability and resilience within the water-energy-food nexus of the California Coastal Basins, 2014 American Geophysical Union (AGU) Fall Meeting, December 15-19.
- Taniguchi, M., Endo, A., Fujii, M., Shoji, J., Baba, K., **Gurdak, J.J.**, Allen, D.M., Siringan, F., Delinon, R., 2014, Security of water, energy, and food nexus in Asia-Pacific region, 2014 American Geophysical Union (AGU) Fall Meeting, December 15-19.
- Gurdak, J.J.**, ^Newcomer, M., Sklar, L.S., and Nanus, L., 2013, Managed aquifer recharge (MAR) with low impact development (LID) under a changing climate, 2013 American Geophysical Union (AGU) Fall Meeting, December 9-13.
- Taniguchi, M., **Gurdak, J.J.**, Allen, D.M., Siringan, F., Delinon, R., Shoji, J., Fui, M., and Baba K., Water-Energy-Food Nexus in Asia-Pacific Ring of Fire 2013 American Geophysical Union (AGU) Fall Meeting, December 9-13.
- van der Ploeg, M.J., Cendon, D.I., Haldorsen, S., Chen, J., **Gurdak, J.J.**, Tujchneider, O., Vaikmaa, R., Purtschert, R., and Ben Jemaa, N.C., 2013, Global palaeoclimate signals in climate in groundwater: the past is the key to the future, 2013 American Geophysical Union (AGU) Fall Meeting, Dec. 9-13.
- Steele, G.V., **Gurdak, J.J.**, and Hobza, C., 2013, Water movement through the unsaturated zone of the High Plains aquifer in the Central Platte Natural Resources District, Nebraska, 2008-2012, Geological Society of America (GSA), 2013 Annual Meeting, GSA Abstracts with Programs vol. 45, no. 7.

- Steele, G.V., **Gurdak, J.J.**, and Hobza, C., 2013, Quantifying Groundwater Recharge in the Central Platte Natural Resources District, Nebraska, 2008-2012, Changes: Climate, Water, and Life on the Great Plains, Symposium 2013, University of Nebraska, Lincoln, Lincoln, NE
- Van der Ploeg, M.J., D.I. Cendón, S. Haldorsen, J. Chen, **J.J. Gurdak**, O. Tujchneider, R. Vaikmäe, R. Purtschert, N. Chkir Ben Jemâa, 2013, Climate impact on groundwater systems: the past is the key to the future, European Geophysical Union (EGU), Vienna, Austria, April 7-12.
- Gurdak, J.J.**, and ^Kuss, A.J., 2012, Teleconnections in groundwater of U.S. Principal Aquifers to the non-stationarity of ENSO, NAO, PDO, and AMO, 2012 AGU Fall Meeting, December 3-7.
- ^Newcomer, M., **Gurdak, J.J.**, 2012, Climate variability effects on urban recharge beneath low impact development, 2012 American Geophysical Union (AGU) Fall Meeting, December 3-7.
- Steele, G.V., **Gurdak, J.J.**, Hobza C., and ^Lauffenburger, Z.H., 2012, Groundwater movement through the unsaturated zone of the High Plains aquifer in the Central Platte Natural Resources District, Nebraska, Geological Society of America (GSA) annual meeting, Abstracts with Program vol. 44, no. 7, Charlotte, North Carolina, 4-7 November.
- ^Newcomer, M., **Gurdak, J.J.**, Sklar, L., 2012, Quantifying recharge beneath low impact development under current and future climate variability, Groundwater Resources Association of California, 21st Annual Conference, Rohnert Park, CA, October 3-5.
- Gurdak, J.J.**, and Qi, S.L., 2012, Groundwater vulnerability to nonpoint-source nitrate in California aquifers, Groundwater Resources Association of California, 21st Annual Conf., Rohnert Park, CA, October 3-5.
- Gurdak, J.J.**, and ^Newcomer, M., 2012, Quantifying recharge beneath low impact development under current and future climate variability, California Stormwater Quality Association (CASQA), 8th Annual Conference, San Diego, CA, November 5-7.
- Qi, S.L., and **Gurdak, J.J.**, 2012, Vulnerability of nitrate contamination of recently recharged groundwater in aquifers of the U.S., ESRI International User Conference, San Diego, CA, July 23-27.
- Gurdak, J.J.**, and ^Kuss, A.J., 2011, Interannual to multidecadal climate variability and groundwater resources of the western United States, 2011 American Geophysical Union Fall Meeting.
- ^Newcomer, M., and **Gurdak, J.J.**, 2011, Recharge rates beneath low-impact design rain gardens and the influence of El Niño Southern Oscillation on urban, coastal groundwater resources, 2011 American Geophysical Union Fall Meeting.
- Gurdak, J.J.**, and ^Kuss, A.J., 2011, Interannual to multidecadal climate variability and groundwater resources of California, 28th Biennial Groundwater Conference and 20th Groundwater Resources Association of California Annual Meeting "California's Water Future Goes Underground", Sacramento, CA, October 5-6.
- *Haskins, M., Vollmer, F.W., Rayburn, J., and **Gurdak, J.J.**, 2010, Structural and hydrologic implications of joint orientations in the Warner Creek and Stony Clove Drainage Basins, Catskill Mountains, Eastern New York, 2010 American Geophysical Union Fall Meeting, abstract T33D-2295.
- ^Kuss, A.J., and **Gurdak, J.J.**, 2010, Recharge response to climate variability and implications for groundwater resources of the Central Valley aquifer, 2010 American Geophysical Union Fall Meeting, abstract H21G-1151.
- ^Everett, B., and **Gurdak, J.J.**, 2010, Effects of climate variability and change on infiltration and recharge beneath natural grasslands in semiarid regions of the High Plains, USA, 2010 American Geophysical Union Fall Meeting, abstract H21G-1143.
- ^Kuss, A.J., and **Gurdak, J.J.**, 2010, The effects of interannual to multidecadal climate variability on recharge in the Central Valley aquifer of California, Groundwater Resource Association of California, 19th Annual Conference and Meeting: "Thinking outside the pipe exploring and protecting local water supplies", Burlingame, CA, Sept. 15, 2010.
- Gurdak, J.J.**, 2010, Effects of interannual to multidecadal climate variability on groundwater resources of the western United States, International Symposium on "Groundwater as a key for adaptation to

- changing climate and society”, Expert Meeting, Research Institute for Humanity and Nature, Kyoto, Japan, November 14-16, 2010 (Invited)
- Gurdak, J.J.** and **Kuss, A.J.**, 2010a, Interannual to multidecadal climate variability effects on groundwater sustainability, Hydrology Conference 2010: The changing physical and social environment: Hydrologic Impacts and Feedback, San Diego, CA, October 12, 2010
- Gurdak, J.J.**, 2010a, Interannual to multidecadal climate variability effects on sustainable groundwater for agriculture, Toward Sustainable Groundwater in Agriculture, International Conference Linking Science and Policy, Burlingame, CA, June 15-17.
- Gurdak, J.J.**, 2010b, Effects of interannual to multidecadal climate variability on recharge and contaminant transport, National Ground Water Association 2010 Ground Water Summit and 2010 Ground Water Protection Council Spring Meeting, Denver, CO, April 11-15.
- Gurdak, J.J.** and **Lujan, C.**, 2009, Modeling nonpoint-source nitrate contamination and associated uncertainty in groundwater of U.S. regional aquifers, *Eos Trans. American Geophysical Union Fall Meeting Supplement*, Abstract H31C-0794.
- Gurdak, J.J.**, **Clark, B.R.**, **Hanson, R.T.**, and **Scheiderer, R.M.**, 2008, Groundwater availability responses to climate variability on interannual to multidecadal timescales, Mississippi Embayment Regional Aquifer System, USA, *Eos Trans. AGU Fall Meeting Suppl.*, Abstract H12D-07.
- Steele, G.V.**, **Gurdak, J.J.**, and **Cannia, J.**, 2008, Characterizing recharge across climatic and land use regions of the Great Plains, *Climate Change 2008: University of Nebraska-Lincoln and USGS climate change workshop*, Lincoln, NE, May 19-22, p. 7-8.
- Qi, S.L.**, **Gurdak, J.J.**, and **Geisler, M.L.**, 2008, Quantifying error propagation and prediction uncertainty for raster processing using Raster Error Propagation tool (REPTool), *in Helterbrand, W.S.*, and **Sieverling, J.B.**, *Proceedings of the U.S. Geological Survey Seventh Biennial Geographic Information Science workshop*, Denver, Colorado, May 12-16, U.S. Geological Survey Scientific Investigations Report 2008-5074, p. 23.
- Qi, S.L.**, **Gurdak, J.J.**, and **Geisler, M.**, 2008, Quantifying error propagation and prediction uncertainty for raster processing using Raster Error Propagation tool (REPTool), *USGS Seventh Biennial Geographic Information Science (GIS) Workshop (USGS GIS 2008) – “GIS For Tomorrow’s Challenges”*, May 12-16, Denver, CO.
- Gurdak, J.J.**, 2008, Forecasting Colorado streamflow under natural climate variability, Third Interagency Conference on Research in the Watershed, Estes Park, CO, September 8-11.
- Gurdak, J.J.**, **Taniguchi, M.**, **Martin, J.L.**, **Green T.**, **Kooi, H.**, **Hiscock, K.**, **Taylor, K.**, and **Bruce, B.W.**, 2008, Assessing global groundwater resources under the pressures of climate change and linked human activities, National Ground Water Association, 2008 Ground Water Summit Meeting, Memphis, TN.
- Gurdak, J.J.**, and **Hanson, R.T.**, 2007, Recharge response to natural climate variability on interannual to multidecadal timescales, *EOS Trans. American Geophysical Union*, 88(52), Fall Meet. Suppl., Abstract H14E-08.
- Gurdak, J.J.**, **Walvoord, M.A.**, **McMahon, P.B.**, 2007. Focused recharge and enhanced-chemical migration from seasonal ponding near irrigation wells, High Plains aquifer, Geological Society of America, Annual Meeting, Denver, CO.
- Gurdak, J.J.**, 2007. Climate-variability controls on groundwater sustainability, High Plains aquifer, National Ground Water Association, 2007 Ground Water Summit Meeting, Albuquerque, NM.
- Qi, S.L.**, and **Gurdak, J.J.**, 2007, Use of GIS in modeling groundwater vulnerability to nitrate in the High Plains aquifer, *ESRI International User’s Conference*, San Diego, CA, June 18-22.
- Gurdak, J.J.**, 2006, Advances in spatial and temporal analysis of groundwater vulnerability to nonpoint-source contamination, High Plains aquifer, *Dissertation Abstracts Intern.*, Ann Arbor Michigan.
- Gurdak, J.J.**, 2006, Human and climate stresses on ground water: Life and water on the High Plains aquifer, United States. Research Institute for Humanity and Nature, First International Symposium – Water

- and Better Human Life in the Future, Nov. 6-8, 2006, Kyoto, Japan, Abstracts with Program, Open Lectures, 34 p.
- Gurdak, J.J.**, 2006, Human and climate stresses on ground water: Life and water on the High Plains aquifer, United States. *Research Institute for Humanity and Nature, First International Symposium – Water and Better Human Life in the Future*, Nov. 6-8, 2006, Kyoto, Japan, Conference Proceed. Paper, 8 p.
- Gurdak, J.J.**, 2006, Predicting Colorado Front Range stream discharge under natural climate variability: The Cache La Poudre River case study, Managing drought and water availability in vulnerable environments: Creating a roadmap for change in the United States, Geological Society of American, Longmont, CO, September 18-20, Geological Society of America Specialty Meetings, GSA Abstracts with Programs ISSN 1556-4800, No. 3.
- Gurdak, J.J.**, 2006, Using logistic regression to assess regional groundwater vulnerability; High Plain aquifer. 5th National Water-Quality Monitoring Council meeting, May 7-11, San Jose, CA.
- Bruce, B.W., Dennehy, K.F., McMahon, P.B., **Gurdak, J.J.**, and Qi, S.L., 2006, Design considerations for assessing groundwater quality in a regional aquifer system: High Plains aquifer. 5th National Water-Quality Monitoring Council meeting, May 7-11, San Jose, CA.
- Gurdak, J.J.**, 2006, Understanding groundwater response to human- and climate-induced stresses: High Plains aquifer, International Symposium on GRAPHIC, April 4-6, Research Institute for Humanity and Nature, Kyoto, Japan
- Gurdak, J.J.**, Bruce, B.W., McMahon, P.B., and Dennehy, K.F. 2006, Techniques to assess human and climate impacts on groundwater – High Plains aquifer perspective, International Symposium on GRAPHIC, April 4-6, Research Institute for Humanity and Nature, Kyoto, Japan.
- Qi, S.L., and **Gurdak, J.J.**, 2006, Use of GIS in modeling groundwater vulnerability to nitrate in the High Plains aquifer, U.S. Geological Survey GIS Conference 2006, Denver, CO.
- Bruce, B.W., **Gurdak, J.J.**, McMahon, P.B., Hanson, R.T. 2005, Response of deep percolation in the vadose zone to climate variability, AGU Annual Fall Meeting 2005, AGU Abstracts with Programs.
- Gurdak, J.J.**, Hanson, R.T., 2005, Climate variability of water quality in the High Plains aquifer, American Geophysical Union Annual Fall Meeting 2005, AGU Abstracts with Programs.
- Gurdak, J. J.**, and Thyne, G., 2005, Sorption controlled arsenic mobility in groundwater of the Zimapán Valley, Mexico, Geological Society of America Annual Fall Meeting, GSA Abstracts with Programs.
- Walvoord, M.A., **Gurdak, J.J.**, and McMahon, P.B., 2005, Focused flow near irrigation wells as a possible mechanism of regionally enhanced chemical migration in the High Plains, Central U.S., Eos Trans. American Geophysical Union, 86(52), Fall Meet. Suppl., Abstract H131-1414.
- Gurdak, J. J.**, and Qi, S.L., 2004, Predicting nitrate contamination in recently recharged groundwater: High Plains regional aquifer. AGU Annual Fall Meeting 2004, AGU Abstracts with Programs.
- Gurdak, J. J.**, and Qi, S.L., 2004, Vulnerability of recently recharged ground water in the High Plains aquifer to nitrate contamination, Geological Society of America Annual Fall Meeting, Abstracts Prog., 36, 5.
- Weeks, E.P., McMahon, P.B., Dennehy, K.F., and **Gurdak, J.J.**, 2004, Nitrous oxide production rates at sites in the U.S. High Plains, as estimated from measurements of N₂O concentration in the deep unsaturated zone, Geological Society of America Annual Fall Meeting, Abstracts Vol. 36, No. 5.
- Qi, S.L., and **Gurdak, J.J.**, 2004, GIS and statistical groundwater vulnerability modeling: ESRI International User Conference 2004.
- Bruce, B.W., Qi, S.L., Dennehy, K.D., McMahon, P.B., and **Gurdak, J.J.**, 2004, From the water sample to the big picture – A multi-scale water-quality investigation of the High Plains aquifer. High Plains Groundwater Resources Conference: Challenges and Opportunities, Lubbock, TX.
- McMahon, P.B., Weeks, E.P., Böhlke, J.K., Michel, R.L., Dennehy, K.F., and **Gurdak, J.J.**, 2003, Transport of chlorofluorocarbons and sulfur hexafluoride in thick unsaturated zones overlying the High Plains aquifer, USGS Unsaturated Zone Interest Group, Richland, WA.

Dennehy, K.F., McMahon, P.B., Bruce, B.W., and **Gurdak, J.J.**, 2003, Water movement through thick unsaturated zones in the High Plains aquifer, U.S. Geological Survey Unsaturated Zone Interest Group, Richland, WA.

Gurdak, J.J., Armienta, M.A., and Ongley, L.K., 1998, Arsenic source determination of a contaminated aquifer, Zimapán Valley, Hidalgo, Mexico: Geological Society of America Annual Fall Meeting, Abstracts with Programs, v. 30, no. 1, p. 23.

OTHER PRESENTATIONS

Gurdak, J.J., 2014, Groundwater Engineering Toward Sustainability of the Water-Food Nexus in Coastal California, Nexus 2014 Conference, side event: Human-Environmental Security in the Asia-Pacific Ring of Fire: Water-Energy-Food Nexus, University of North Carolina, Chapel Hill, NC, March 5-8.

[^]Corbett, R.M., and **Gurdak, J.J.**, 2013, Mathematical modeling of fog water deposition, San Francisco, California, San Francisco State University (SFSU) Graduate Research and Creative Works Showcase, May 2.

[^]Lauffenburger, Z.H., and **Gurdak, J.J.**, 2013, Recharge beneath land use and climate gradients, northern High Plains aquifer, USA, San Francisco State University (SFSU) Graduate Research and Creative Works Showcase, May 2.

Gurdak, J.J., and [^]Newcomer, M., 2011, Preparing San Francisco State University to understand climate change effects on groundwater resources, Small Grant Awardee Presentation, Office of Research and Sponsored Projects, San Francisco State University, San Francisco, CA, June 9, (ORAL).

Gurdak, J.J., 2010, Effects of interannual to multidecadal climate variability on water resources, National Center for Atmospheric Research (NCAR), 2010 Junior Faculty Forum, Boulder, CO, July 13-15.

INVITED SEMINARS and RESEARCH LECTURES (33)

2015 – XVth World Water Congress, Edinburgh, Scotland, May 27 (invited keynote speaker).

2015 – Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado Boulder, Boulder, CO.

2014 – University of North Carolina at Chapel Hill, Nexus 2014 Conference, Groundwater Engineering Toward Sustainability of the Water-Food Nexus in Coastal California.

2014 – Washington State University-Vancouver, School of the Environment, Spring Seminar, January 15.

2013 – Stanford University, Department of Civil and Environmental Engineering, Environmental Fluid Mechanics and Hydrology Program, Fall Seminar, Nov. 4.

2013 – University of California, Davis, Department of Land, Air and Water Resources, Fall Seminar, Nov. 21.

2013 – University of Kansas, Department of Geology, Lawrence, Kansas, Fall Seminar, Nov. 14.

2013 – Research Institute for Humanity and Nature (RIHN), Kyoto, Japan, July 16.

2013 – Pajaro Valley Community Water Dialogue (CDW), Managed Aquifer Recharge Action Group, June 4.

2013 – Stanford University, Woods Institute for the Environment, Water in the West, Stanford, CA, May 31

2012 – Geosyntec Inc., Oakland, CA, April 13

2012 – San Francisco State University, Department of Geography, Spring Seminar.

2011 – San Francisco State University, Dept. Earth & Climate Sciences, Distinguished Speaker Series, Nov. 1.

2011 – UNESCO-GRAPHIC Latin American-Caribbean (LAC) Seminar “Groundwater resources, climate change, and human pressures: Assessment and adaptation in Latin America and the Caribbean, Juan Dolio, Dominican Republic, June 30-July 1

2010 – Research Institute for Humanity and Nature, Kyoto, Japan, November 14-16

2010 – Nebraska Rural Water Association, Annual Conference, Columbus, NE March 23

2009 – San Francisco State University, Department of Earth & Climate Sciences, Seminar in Applied Geosciences (GEOL/METR/OCN-700), December 7.

2009 – Nebraska Grout Study Conference, University of Nebraska – Lincoln, Lincoln, NE, October 27-28

2009 – Western State Water Council, “160th Council Meeting”, Park City, UT July 16, 2009

2009 – San Francisco State University, Dept. of Earth & Climate Sciences, San Francisco, CA, March 10.
2009 – University of South Florida, Department of Geology, Tampa, FL, February 6.
2008 – USGS, Center for Excellence in Geospatial Information Science, Reston, VA, September 12.
2007 – USGS, Office of Ground Water, Ground Water Sustainability Meeting, Reston, VA, Sept. 11.
2007 – Colorado Water Conservancy District meeting, Berthoud, CO, June 27.
2007 – USGS, Center for Excellence in Geospatial Information Science, National Center, Reston, VA, June 14.
2006 – Colorado School of Mines, Department of Environmental Science and Engineering, Watershed Systems Analysis (ESGN-527, graduate course), Topic: Contaminant transport in watersheds.
2006 – Research Institute for Humanity and Nature, Kyoto, Japan, Kyoto, Japan, Nov. 6-8.
2006 – USGS, Colorado Water Science Center, Denver, CO, August 17.
2006 – Platte River Cooperative Hydrology Study (COHYST), Lincoln, NE, Aug. 11.
2006 – USGS Climate Change workshop, Denver, CO, June 12.
2006 – Research Institute for Humanity and Nature, Kyoto, Japan, April 4-6.
2006 – National Water-Quality Monitoring Council meeting, San Jose, CA, May 7-11.
2005 – University of Colorado at Boulder, Introduction to Physical Geography – Landscapes and Water (GEOG-1011, undergraduate course), Topic: Sustainability of water resources.
2005 – USGS Workshop: The Environmental Effects of Agricultural Practices, Denver, CO.
2005 – USGS Colorado Water Science Center Seminar, Denver, CO.
2003 – USGS, Technical Groundwater Meeting; Recent and Ongoing Groundwater studies, Lubbock, TX.

PROFESSIONAL and SERVICE ACTIVITIES

Editorships:

- Guest editor, *Water Resources Research* special section: climate change and groundwater, 2009-2010.
- Co-editor, Climate change effects on groundwater resources: A global synthesis of findings and recommendations, International Association of Hydrogeologists - International Contributions to Hydrogeology, Taylor & Francis, 414 p. ([link](#))
- 2014-2015 Co-Guest Editor (with Peter Swarzenski and Makoto Taniguchi), *Journal of Hydrology: Regional Studies*, special issue on the Water-Energy-Food Nexus

Invited Peer Reviewer of Research Proposals (33):

- NSF – Hydrologic Sciences Review Panel, Oct 16-18, 2013, Alexandria, VA (25 proposals) (Invited)
- NSF – Division of Earth Sciences Proposal, Instrumentation and Facilities Program (1, prior to SFSU)
- NSF – Geobiology and Low-Temperature Geochemistry Program (2010-1)
- University of Wisconsin, Water Resources Institute Solicitation (1, prior to SFSU)
- University of Wisconsin, Sea Grant College Program (1, prior to SFSU)
- University of Wisconsin Water Resources Institute (WRI)/State of Wisconsin's Groundwater Research and Monitoring Program (2009-1; 2010-1)
- U.S. Geological Survey – National Institute for Water Research proposal reviewer (2010-1; 2011-1)

Peer Reviewer of Manuscripts (47):

- Ground Water (8)
- Journal of Hydrology (7)
- Hydrogeology Journal (6)
- Water Resources Research (4)
- Vadose Zone Journal (2)
- Geophysical Research Letters (1)

- Journal of Environmental Quality (1)
- Journal of Climatology (1)
- Science of the Total Environment (1)
- Environmental Earth Sciences (1)
- Computers & Geosciences (1)
- Weather, Climate and Society (1)
- Journal of Arid Environments (1)
- Journal of Applied Geography (2)
- International Association of Hydrogeologists (IAH) special publication, Groundwater Response to Changing Climate, edited by Taniguchi and Holman (1 chapter)
- International Association of Hydrologic Sciences (IAHS) "Red Book" Publication Series for IAHS/International Union of Geodesy and Geophysics (IUGG) XXIVth General Assembly, Perugia, Italy (3 chapters)
- USGS Reports (Water Resource Investigations Report, Scientific Investigations Reports, and Techniques and Methods Reports) (6)

Professional Society Membership:

- American Geophysical Union (AGU)
- National Ground Water Association (NGWA)
- Geological Society of America (GSA)
- International Association of Hydrogeologists (IAH)
- International Association of Hydrologic Sciences (IAHS)
- Groundwater Resources Association of California (GRA)
- American Society of Civil Engineers (ASCE), Groundwater Quality Committee, Environmental & Water Resources Institute (EWRI)

Committee Responsibilities and Advising (San Francisco State University):

- Faculty Judge: 2014 Student Research Competition, SFSU/CSU Research Competition
- Associated Faculty, Environmental Studies Program, 2009-present.
- B.S. Degree Transformation Committee, Department of Earth & Climate Sciences, 2013-present.
- Curriculum Committee, Department of Earth & Climate Sciences, 2012-present.
- Student Research Award Committee, Dept. of Earth & Climate Sciences, 2012-present.
- Indirect cost recovery (IDC) Committee, Department of Earth & Climate Sciences, 2013-present.
- Organizer and Advisor, student study group, Professional Geologist (PG) licensure exam, 2012-present.
- M.S. Geosciences Degree Self-Study Committee, Department of Earth & Climate Sciences, 2012-present.
- Faculty Advisor, Earth System Science (ESS) concentration, Environmental Studies Program 2012-present.
- Co-author, 2011 Assessment Report (BS degree), Department of Earth & Climate Sciences, Fall 2011.
- Faculty Judge of College of Science & Engineering Student Project Showcase. May 13, 2011.
- Invited Panelist, ECO student-run environmental group. Topic Water Wars. Feb 25, 2010 .
- Conducted tour of my Lab, SCI 560 Science Writing class, March 9, 2010.

Committee Responsibilities and Professional Activities (local, national, and international):

Session Chair, Nexus 2014 Conference, side event: Human-Environmental Security in the Asia-Pacific Ring of Fire: Water-Energy-Food Nexus, University of North Carolina, Chapel Hill, NC, March 5-8.

Faculty Reviewer: AY 2013-14 Council on Ocean Affairs, Science & Technology (COAST) Graduate Student Research Awards (2)

Pajaro Valley Community Water Dialogue, Managed Aquifer Recharge (MAR) Action Group, 2013-present.

Organizing Committee, G@GPS Workshop and Training Course, Bobole, Mozambique, October 14-19, 2013.

Invited Peer Review Panelist, Seepage Management Plan (SMP), Seepage Management Support processes for the San Joaquin River Restoration Program (SJRRP), implement by CDM Smith and Bureau of Reclamation, Mid-Pacific Regional Office, 2012-2013.

Invited Expert Panelist, Groundwater recharge benefits of stormwater infiltration practices – Infiltration Volume Estimation, U.S. Environmental Protection Agency (EPA), Office of Water, Provide technical comments on EPA's new stormwater rulemaking, March 26, 2012.

Invited Panelist, 6th World Water Forum, Side Event: Groundwater and climate change with a focus on Mediterranean coastal aquifers, Coordinators: UNESCO International Hydrological Programme (IHP), Marseilles, France, March 13, 2012

Invited Speaker, 6th World Water Forum, thematic session 3.3.2: Coping with uncertainties related to climate and global change in water planning and management, Marseilles, France, March 12, 2012

Water Leaders Class participant – 2012, Water Education Foundation, Sacramento, CA:

Session Co-Convener, 39th International Association of Hydrogeologists (IAH) Congress “Confronting Global Change”, Niagara Falls, Canada. Session title “Groundwater and climate change: Linkages and adaptation”, September 16-21, 2012.

International Coordinator, Groundwater@Global Paleoclimate Signals (G@GPS) Initiative, which is an inclusive group of scientists coordinating paleogroundwater research, and to interpret links between paleoclimate archives and paleogroundwater observations at continental and intercontinental scales.

North American Coordinator (2011 to present), International Steering Committee Member, and Collaborating Scientist (2004 to present): Global Ground Water and Climate Change Study: United Nations Educational, Scientific, and Cultural Organization (UNESCO)-International Hydrologic Programme (IHP) sponsored study: Groundwater resource assessment under the pressure of humanity and climate change (GRAPHIC).

Invited Reviewer, tenure application, Department of Forestry and Wildland Resources, Humboldt State University, September 2011.

Invited Participant and Travel Support, International symposium “Groundwater as a key for adaptation to changing climate and society”, United Nations Educational, Scientific, and Cultural Organization (UNESCO)-International Hydrologic Programme (IHP) sponsored study: Groundwater resource assessment under the pressure of humanity and climate change (GRAPHIC), Research Institute for Humanity and Nature (RIHN), Kyoto, Japan, November 14-16, 2010.

Session Co-Chair/Co-Convener, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA. Session Title: (H08), Water-resource science and strategies for adaptation to climate variability and change, December 13-17, 2010. Our session has 50 abstracts, which is 5 highest of the 72 Hydrology sessions at AGU this year.

Co-Chair and Organizer, National Center for Atmospheric Research (NCAR), Junior Faculty Forum “Climate and Water: Advancing adaptation science and strategies for water-resource vulnerability from climate variability and change”, Boulder, CO, July, 2010.

Technical Participant, San Francisco Bay Regional Water-Quality Control Board, Groundwater Committee meeting: topic – Groundwater Vulnerability to Contamination of the Santa Clara Valley, Oakland, CA, June 2, 2010.

Technical Participant, San Francisco Public Utility Commission Urban Watershed Planning Charrette (brainstorming event to advance planning for urban stormwater in San Francisco watersheds), San Francisco State University, November, 13, 2009

Session Co-Chair/Co-Convener, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA. Session Title: (H12D/H13G), Advanced methods of groundwater resources assessment under the pressures of aridity, humanity, and climate change, December 15, 2008.

Session Co-Chair/Co-Convener, American Geophysical Union (AGU) Fall Meeting, San Francisco, CA. Session Title: (H14/H11) Climate influences on groundwater recharge, December, 2007.

Judge, outstanding student presentation, AGU Hydrology Division, Fall Meeting, December, 2007.

International Workshop Organizer, Expert Steering Committee meeting, UNESCO-IHP sponsored study: Groundwater resource assessment under the pressure of humanity and climate change, September 18-20, 2007, Estes Park, CO, Workshop included participants from 9 countries.

Briefing, Washington, D.C., U.S. National Committee for UNESCO-IHP about GRAPHIC, 2007.

Invited Technical Reviewer, Eagle County, Colorado groundwater susceptibility project, Denver, CO., 2007.

Invited Panelist, International Symposium on "Water and better human life in the future," Research Institute of Humanity and Nature, Kyoto, Japan, November 6-8, 2006.

Invited Session Chair/Convener, International Symposium on "Water and better human life in the future," Research Institute of Humanity and Nature, Kyoto, Japan, Nov. 6-8, 2006, Session: Water rights, law, and governance.

Invited Panelist, International Symposium "Groundwater resource assessment under the pressure of humanity & climate change", Research Institute of Humanity & Nature, Kyoto, Japan, April 4-6, 2006.

Invited Session Chair/Convener, International Symposium on Groundwater Resources Assessment under the Pressure of Humanity and Climate Change (GRAPHIC), April 4-6, 2006, Research Institute for Humanity and Nature, Kyoto, Japan. Session Title: Changes in groundwater quality due to climate change and human activities.

Invited Science Expert and Steering Committee Member, Citizen's advisory group for the Source Water Protection Project of Colorado Department of Public Health and Environment, discuss and respond to the State's approaches to protecting source-water areas from potential contamination, 2006-2007.

Field Trip Leader, USGS unsaturated-zone research efforts in High Plains aquifer to group of USDA and Colorado State University scientists for their annual water tour of Colorado, 2006.

Geophysical Field Experiment Coordinator, Experimental GeoMRI activity at USGS High Plains vadose-zone research sites in cooperation NSF funded Vista Clara company. Published Results: Experimental GeoMRI results from Nebraska. David O. Walsh, Vista Clara, Everett, WA, 2006.

Snow Survey Field Volunteer, USGS Rocky Mt. snow-pack monitoring survey, 2003, 2004.

Newspaper, Book, Radio, and Blog Interviews and Quotes:

2015 – CityLab (12/09/2015) "*Why Storing Water for the Future Means Looking Underground*", by Laura Bliss, **Gurdak** interviewed and quoted: <http://www.citylab.com/weather/2015/12/why-storing-water-for-the-future-means-looking-underground/419244/>

2015 – Circle of Blue (12/01/2015) "*Scientists Urge Greater Attention to Groundwater in Climate Adaptation*", by Brett Walton, **Gurdak** interviewed and quoted: <http://www.circleofblue.org/waternews/2015/world/scientists-urge-greater-attention-to-groundwater-in-climate-adaptation/>

2015 – BC Water news (12/01/2015) "*Hydrologist calls for action on groundwater policy*": <http://www.bcwaternews.com/m/California/120115.html>

2015 – SF State News (11/30/2015) "*Hydrologist leads global call for action on groundwater management*", by Jonathan Morales, **Gurdak** interviewed and quoted: <http://news.sfsu.edu/news-story/hydrologist-leads-global-call-action-groundwater-management>

2015 – Environmental Biophysics article (8/28/2015) "*Sensors validate California groundwater resource management techniques*", research findings from **Gurdak's** MS student, Michelle Newcomer, are highlighted: <http://www.environmentalbiophysics.org/sensors-validate-california-groundwater-resource-management-techniques/>

2015 – **Gurdak** interviewed by Dutch national broadcaster NOS for a special radio report on the Californian drought and the human impacts on water usage: <https://soundcloud.com/arjen-van-der-horst-1/kurkdroog-californie-snakt-naar-regen>

- 2014 – **Newcomer, Gurdak** et al. (2014) highlighted in *Eos* Transactions America Geophysical Union, Research Spotlight, Low impact development boosts groundwater recharge, vol. 95, no. 23, page 20, June 10, DOI: 10.1002/2014EO230010:
http://userwww.sfsu.edu/jgurdak/Publications/Newcomer_et al EOS ResearchSpotlight 2014.pdf
- 2014 – Environmental Monitor article (5/21/2014) "*Under low-impact development, groundwater recharge rates much higher*", **Gurdak** quoted: <http://www.fondriest.com/news/low-impact-development.htm>
- 2014 – The Examiner article (4/24/2014) "*Blending contaminated SF groundwater with Hetch Hetchy supply makes it safe to drink, experts say*", **Gurdak** quoted.
<http://www.sfexaminer.com/sanfrancisco/blending-contaminated-sf-groundwater-with-hetch-hetchy-supply-makes-it-safe-to-drink-experts-say/Content?oid=2779183>
- 2014 – **Newcomer, Gurdak** et al. (2014) paper selected for Water Resource Research Editor's Highlights, Low impact development boosts groundwater recharge, February 24, 2014:
http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291944-7973/homepage/low_impact_development_boosts_groundwater_recharge.htm
- 2014 – **Gurdak** quoted in newspaper article "Blending contaminated SF groundwater with Hetch Hetchy supply makes it safe to drink, experts say", The Examiner, April 24, 2014
<http://www.sfexaminer.com/sanfrancisco/blending-contaminated-sf-groundwater-with-hetch-hetchy-supply-makes-it-safe-to-drink-experts-say/Content?oid=2779183>)
- 2012 – BBC Latin America article "Cambio climático: el agua subterránea será cada vez más vital" by Alejandra Martins
http://www.bbc.co.uk/mundo/noticias/2012/03/120314_acuiferos_cambio_climatico_am.shtml)
- 2012 – ClimateWire: The Politics and Business of Climate Change "Climate change may reduce future use of groundwater", Lacey Johnson, March 12. (<http://www.climateneeds.umd.edu/climatewire-03-23-12/article-28.php>)
- 2012 – Disaster News Network, "Climate change threatens water resources", March 7.
<http://www.disasternews.net/news/article.php?articleid=4502>)
- 2012 – Green Garden Group (G3), "Conservation starts with LID education", March 14.
<http://www.greengardensgroup.com/2012/03/14/conservation-starts-with-lid-education/>)
- 2012 – TerraDaily: News about planet Earth, "UN scientists warn of increased groundwater demand due to climate change", staff writers
http://www.terradaily.com/reports/UN_scientists_warn_of_increased_groundwater_demands_due_to_climate_change_999.html)
- 2012 – Nigerian Tribune, "Climate change threatens resources", March 12
<http://tribune.com.ng/index.php/property-a-environment/37391-climate-change-threatens-resources-scientists>)
- 2012 – Pambazuka News: Pan-African voices for freedom and justice, "Water belongs to everyone", March 29 (<http://www.pambazuka.org/en/category/comment/81165>).
- 2012 – Groundwater Canada, "Professor's research gains international attention", March 30
<http://www.groundwatercanada.com/content/view/1697/57/>)
- 2011 – National Geographic News article "Will tar sands pipeline threaten groundwater?", by Masin Inman
<http://news.nationalgeographic.com/news/2011/09/110919-keystone-xl-tar-sands-pipeline-groundwater/>)
 (September 19, 2011)
- 2011 – National Public Radio (NPR), Richard Harris, Keystone XL and High Plains aquifer, Sept. 2011.
- 2010 – SFSU student Brad Casanave: 2011 InterSci, Spring semester, 2010.
- 2009 – Associated Press, "High Plains aquifer water ok for now", July 20.
- 2009 – USGS News Release, "High Plains aquifer water quality currently acceptable but human activities could limit future use" (<http://www.usgs.gov/newsroom/article.asp?ID=2257>).
- 2008 – "Thirsty for Change: How water scarcity transforms us" by Elaine Camino, Gibbs Smith Publishing,

- planned book release Spring 2009.
- 2008 – National Public Radio (NPR), “Recharge to the Ogallala aquifer beneath Playas”, Playa Lake Joint Venture Radio program aired on NPR affiliates across the Great Plains region, August 2008.
- 2008 – The Hokkaido Shimbun Press (7th largest in Japan) “Japan’s Food Security” by Tokuji Hisada.
- 2007 – Science Daily, “Climate change goes underground”, August 23.
- 2006 – *Nature*, 30 November; 444 (7119): 519-652, p. 17 of recruitment section, “RIHN 1st International Symposium: Water and Better Human Life in the Future”, 2006.

PROFESSIONAL DEVELOPMENT and TRAINING

- 2011, June 21 – 1-day training course: Groundwater modeling using Visual MODFLOW
- 2011, 2012 – Workshops on Critical Thinking Assessment Test (CAT), SFSU, Earth & Climate Sciences Dept.
- 2010, June 3 – National Science Foundation (NSF) teaching workshop “Effective Course Design for Introductory Geoscience Courses”, funded by NSF Course, Curriculum, and Lab Improvement Project – Creating an Academic Community to Foster Curiosity and Discovery in Introductory Geoscience Classes. Department of Earth & Climate Sciences, SFSU
- 2009, Nov 12 – “Peer Response in Writing”, SFSU Center for Teaching and Faculty Development.
- 2005 to 2009 – AED & Basic CPR and Standard First Aid Training and Certification.
- 2002 to 2009 – Radiation Safety and Neutron Probe Operator Training and Certification.
- 2001 – Water Safety Training and Certification.
- 2001 – Avalanche Safety and Awareness Training.
- 1998 – OSHA Hazardous Waste Operations and Emergency Response Certification.
- U.S. Geological Survey, National Training Courses (40 hour courses):
- 2007 – Advanced PYTHON scripting.
 - 2006 – Time-series analysis for Hydrology.
 - 2003 – Data Mining and Artificial Neural Networks for Hydrologic Data.
 - 2003 – Microbiological Sampling and Analysis.
 - 2002 – Water Quality Field Methods (80 hr course).
 - 2002 – Statistical Methods for Hydrologists.
 - 2002 – Geographic Information Systems and ArcGIS.