

ROSEMARY W.H. CARROLL - CURRICULUM VITA

Associate Research Professor, Division of Hydrologic Sciences, Desert Research Institute
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PROFESSIONAL PREPARATION

Ph.D., Hydrology, University of Nevada, Reno, 2010.
M.S., Hydrology, University of Nevada, Reno. 1999.
B.S., Physics, Bates College, Lewiston, ME. 1989.

PROFESSIONAL EXPERIENCE

2016 Associate Research Professor, Desert Research Institute (DRI), Division of Hydrologic Sciences (HS), Nevada System of Higher Education
2011-2016 Assistant Research Professor, Desert Research Institute (DRI), Division of Hydrologic Sciences (HS), Nevada System of Higher Education
2014-present Faculty, Graduate Program of Hydrologic Sciences, University of Nevada, Reno
2014-present Adjunct Professor, Department of Natural Resources and Environmental Sciences, University of Nevada, Reno
2010, 2013 Visiting Professor, Western State Colorado University, Gunnison, CO
2005-2010 Doctoral Student, University of Nevada Reno, Graduate Program of Hydrologic Sciences
2000-2010 Assistant Research Hydrologist, Desert Research Institute (DRI), Division of Hydrologic Sciences (HS), Nevada System of Higher Education
Fall 2001 Co-Taught Fluid Mechanics, University of Nevada, Reno
Fall 1999 Graduate Teaching Assistantship (Fluid Mechanics), University of Nevada, Reno
1996-1999 Graduate Research Assistant, Graduate Program of Hydrologic Sciences, University of Nevada, Reno
1997-1998 President, American Water Resources Association Student Chapter, UNR
1995-1996 Faculty, Crested Butte Academy
1988-1989 Teacher's Assistant, Bates College (Newtonian Mechanics; Electricity and Magnetism)

AWARDS AND HONORS

2016 Wagner Medal for Excellence in Early Career Program Development, Desert Research Institute
2010 Outstanding Doctoral Student, Graduate Program of Hydrologic Sciences, UNR
2007 Adventus Americas Student Award for Platform Presentation
2000 Outstanding Masters Student, Graduate Program of Hydrologic Sciences, UNR
1999 DRI Maxey Award, UNR
1989 Graduated Cum Laude, Bates College
1989 Elected Phi Beta Kappa, Bates College
1989 Lindholm Athletic Scholar, Bates College

PROFESSIONAL SERVICE

Journal Review:

- Science of the Total Environment
- Journal of Hydrology
- Journal of American Water Resources Association
- Environmental Science and Technology
- Water Resources Research
- PLoS ONE.
- USGS Reports
- DRI Internal Review

Committees:

- Maxey Fellowship, DRI (2009); Chair (2010; 2011)
- DRI promotion (2015)
- DRI Faculty Senate (2015-present)
- Mt. Crested Butte Water and Sanitation Board (2014-2016)
- Upper Gunnison River Water Conservation District Board (2016-Present)

Professional Memberships

- Rocky Mountain Biological Laboratory (2015-present)
- American Geophysical Union (1997-present).

Graduate Student Committees:

- Allison Flickenger (UNR, principal advisor; 2013-2015)
- Luke Pickerman (UNR, committee member; 2015)
- Christine Pribulick (CSM, co-advisor; 2014-2015)
- Amy Kendwel (CSM, committee member; 2015)

Classroom Teaching:

- Newtonian Mechanics (TA, Bates College, 1988)
- Electricity & Magnetism (TA, Bates College, 1989)
- Fluid Mechanics (TA, and co-taught; UNR, 1999, 2001)
- Introduction Geology (visiting professor, WSCU, 2010)
- Honors Class: Holistic Perspective of the World's Great Rivers (visiting Professor, WSCU, 2013)

Webinar Teaching:

- Transportation Research Board (TRB) of the National Academies. Subsurface Drainage for Slope Stabilization, Standing committee on Engineering Geology (AFP10). May 29, 2013 (part 1 of 2). <http://www.trb.org/main/blurbs/168799.aspx>; June 25, 2013 (part 2 of 2). <http://www.trb.org/main/blurbs/168800.aspx>.
- NRES 685: Special Topic- Water Supply and Environmental Management in Developing Countries. Spring Semester, 2016 Webinar class with Face-to-Face in Kampala Uganda June 10-June 24, 2016.

Field Methods Teaching & Tours

- Snow Survey to support ASO; for Colorado School of Mines Graduate Students: with Jeff Deems (NSDIC) and Lindsay Bearup (LBNL). April 1-3, 2016
- Guided Public Tour Rocky Mountain Biological Lab; with Kenneth Williams (LBNL). Title: Water, Water Everywhere: How do metals get from here to there? August 1, 2016

ACCEPTED & PENDING PROPOSAL AWARDS

Development of Hydrologic Response Functions for Temporary, Seasonal and Semi-Permanent Wetlands at the Landscape Scale. 2002. J. Tracy (PI), R. Carroll (coPI). US Geological Survey. \$15,994.

Modeling Biotic Uptake of Mercury in the Lahontan Reservoir System. 2007. R. Carroll (PI) and J. Warwick (coPI). NV USGS NIWR. \$43,737.

NSF CNH Proposal Development Workshop. IALC Sustainable Development of Drylands in Asia and the Middle East: Badia Center, Jordan. 2010. Participating IALC Organizations. University of Arizona (PI, Charles Hutchinson, Barbara Hutchinson), Badia Research and Development Centre (coPI, Mohammad Shabaz), Desert Research Institute (coPI, Rosemary Carroll), New Mexico State University (coPI, Derk Bailey), South Dakota University (coPI, Xu Lan), Texas A&M, Kingsville (coPI, G. Allen Rasmussen), University of Illinois Urbana-Champaign (coPI, Nicholas Brozovic). NSF Travel funds of \$50,000.

Development of an integrated economic-hydrologic-ecologic framework for resilient groundwater governance systems. 2011. N. Brozovic (PI), X. Cai (coPI), R. Carroll (coPI), K. Schoengold (coPI), C. Speir (coPI). NSF WSC – Category 1: \$147,260.

Impact of climate on mercury transport and bioaccumulation along the Carson River-Lahontan Reservoir system and management alternatives to mitigate response. 2012. R. Carroll (PI). US Geological Survey, NV NIWR: \$120,842.

Hydrologic Support for the Walker River Basin Decision Support Tool and Acquisition Process – Phase III. 2013. G. Pohll (PI), T. Minor (Co-PI), R. Carroll (Co-PI), D. Boyle (Co-PI). NFWF: \$544,000 (DRI component).

Assessment of Flood Risk for the Steamboat Ditch. 2013. G. Pohll (PI) and R. Carroll (coPI). Nevada Bureau of Mines and Geology. \$29,600.

Porter Canyon GSFLOW model. 2013. J. Huntington (PI) and R. Carroll (coPI). US Department of Agriculture – Agricultural Research Station. \$147,213.

Linking climatic, hydrological and ecological changes at intermediate timescales in the Great Basin. 2013. A. Lutz (PI), R. Carroll (coPI) and G. Tang (coPI). US Geological Survey Climate Station Center. \$121,333.

Hydro-biochemical cycling of critical elements within alluvial sediments of the upper East River Catchment. R. Carroll (PI). 2014-2018. Lawrence Berkley National Laboratory. Award to date: \$360,000.

Contaminants of Emerging Concern. 2014. R. Carroll (PI), A. Lutz (coPI), and K. Keteles (coPI). DRI Internal Award (IPA). \$14,418.

Weather Modification – Laramie Range Siting and Design, Level III Study. 2015. F. McDonough (PI), J. Mejia (coPI), A. Huggins (coPI), R. Carroll, (coPI), A. Lutz (coPI), E. Wilcox (coPI), J.E. Dean (coPI), M.G. Fearon (coPI), J.W. Juchtzer (coPI), Wyoming Water Development Commission. Proposal No. 15-18: \$323,065.

Metrological station upgrade and maintenance—Phase I and II. 2015. RMBL: R. Carroll (PI). 17,132.

Assessment of Groundwater Pumping Curtailment in Smith and Mason Valley, Nevada. 2015. G. Pohll (PI), R. Carroll (coPI). Assessment of Groundwater Pumping Curtailment in Smith and Mason Valley, Nevada. Nevada Division of Water Resources. \$35,137.

Development of Hydrologic Modeling Tools for South Lake Tahoe- Phase 1. 2015. Pohll (PI), R. Carroll (coPI). South Tahoe Public Utilities District. \$50,000.

A Multi-Scale Resilience-Based Framework for Restoring and Conserving Great Basin Wet Meadows and Riparian Ecosystems. 2016. Jeanne Chambers (PI), Jerry Miller (coPI), Peter Weisberg (coPI), Keirith Snyder (coPI), Rosemary Carroll (coPI). Landscape Conservation Cooperation. \$100,000.

Controls on Hydrologic Partitioning, Residence Time and Solute Export from a Snow Dominated Watershed. 2016. R. Carroll (PI), R. Schumer (coPI), C. Green (coPI). US Geological Survey NIWR. \$506,000.

Sustainable Water Partnership SWP with Millennium Water Alliance (MWA). 2016. Braimah Apambire (PI), Jay Arnone (coPI), Rosemary Carroll (coPI), Alexandra Lutz (coPI), Erick Bandala Gonzalez (coPI). USAID. \$2.4M. **Pending**.

PUBLICATIONS (PEER REVIEW)

*student

Carroll, R.W.H., Pohll, G., Benedict, J. and Felling, R. 2016. Curtailing agricultural pumping in an era of extended drought: Infusing science and legality into a common hydrologic framework. *Journal of Hydrology*. In prep.

Carroll, R., and J. Warwick. 2016. The importance of dynamic mercury loads on body burdens in a planktivorous fish (*Orthodon microlepidotus*): a bioenergetics and mercury mass balance perspective. *Ecological Modelling*. In review.

Winnick, M., Carroll, R., Williams, K, Dong, W, Maxwell, R., and Maher, K. 2016. Snowmelt controls on concentration-discharge relationships and the balance of oxidative and acid-base weathering in an alpine catchment, East River, Colorado. *Water Resources Research*. In revision.

Carroll, R., Huntington, J.L., Snyder, K., Niswonger, R., Morton, C., Stringham, T., 2016. Evaluation of Mountain Meadow Groundwater Response to Pinyon-Juniper and Temperature in a Great Basin Watershed. *Ecohydrology*. In Press.

*Pribulick, C.E., Foster, L., Bearup, L.A., Navarre-Stichler, A.K., Williams, K.H., Carroll, R.W.H., Maxwell, R.M., 2016. Contrasting the hydrologic response due to land cover and climate in a mountain headwaters system. *Ecohydrology*. DOI: 10.1002/eco.1779.

Huntington J, McGwire K, Morton C, Snyder K, Peterson S, Erickson T, Niswonger R, Carroll R, Smith G, and R Allen. 2016. Rapid Processing of the Landsat Archive for Assessing the Role of Climate and Resource Management on Groundwater Dependent Ecosystem Changes in Arid Environments. *Remote Sensing of Environment*. In press.

Carroll, R.W.H., and Warwick, J.J. 2016. Mercury transport model of the Carson River and Lahontan Reservoir system: an investigation of total and dissolved species. *Journal of American Water Resources Association*. 52 (5): 1207-1222. DOI: 10.1111/1752-1688.12448.

*Kenwell, A., Navarre-Stichler, A., Prugue, R., Spear, J.R., Maxwell, R.M., Hering, A.S., Carroll, R., and K. Williams. 2016. Using geochemical indicators to distinguish high biogeochemical activity in sediments. *Science of the Total Environment*. 563-564: 386-395.

Tang G, Carroll R.W.H., Lutz A. 2016. Regulation of precipitation-associated vegetation dynamics on catchment water balance in a semiarid and arid mountainous watershed. *Ecohydrology*. Doi: 10.1002/eco.1723.

Carroll, R.W.H., Pohll, G.M., Morton, C.G., and J.L., Huntington. 2015. Calibrating a basin-scale groundwater model to remotely sensed estimates of groundwater evapotranspiration. *Journal of American Water Resources Association*. 51 (4): 1114-1127. DOI: 10.1111/jawr.12285

- Reeves, D.M., Parashar, R., Pohll, G., Carroll, R., Badger, T., and Willoughby, K. 2013. The use of discrete fracture network simulations in the design of horizontal hillslope drainage networks in fractured rock. *Engineering Geology*. 163: 132-143, 10.1016/j.enggeo.2013.05.013.
- Carroll, R.W.H., Memmott, J., Warwick, J.J., Fritsen, C.H., Bonzongo, J.C., and Acharya, K. 2011. Temporal variation of mercury associated with different phytoplankton size fractions in Lahontan Reservoir, Nevada. *Water, Air and Soil Pollution*. DOI 10.1007/s11270-010-0581-z.
- Carroll, R.W.H., Pohll, G.M., McGraw, D., Garner, C., Knust, A., Boyle, D., Minor, T, and Pohlmann, K. 2010. Mason Valley Groundwater Model: Linking Surface Water and Groundwater in the Walker River Basin, Nevada. *Journal of American Water Resources Association*. 46(3): 554-573. doi: 10.1111/j.1752-1688.2010.00434.x
- Epstein, B., Pohll, G.M., Huntington, J. and Carroll, R.W.H. 2010. Development and uncertainty analysis of an empirical recharge prediction model for Nevada's desert basins. *Nevada Water Resources Association*. 5(1): 1-22.
- Zu, J., Pohlman, K.F., Chapman, J.B., Russell, C.E., Carroll, R.W.H., and Shaffer, D.S. 2010. Sensitivity of solute advective travel time to formation porosities. *Ground Water. Methods Notes*. Doi: 10.1111/j.1745-6584.2009.00664.x
- Johnson, W.C., Werner, B., Guntenspergen, G.R., Voldseth R.A., Millett B., Naugle D.E., Tulbure, M., Carroll, R.W.H., Tracy, J., and Olawsky, C. 2010. Prairie wetland complexes as landscape functional units in a changing climate. *Bioscience*. 60(2): 128- 140.
- Carroll, R.W.H., Pohll, G.M., and R.L. Hershey. 2009. An unconfined groundwater model of the Death Valley Regional Flow System and a comparison to its confined predecessor. *Journal of Hydrology*. 373: 316-328.
- Carroll, R.W.H., Pohll, G.M. Earman, S. and R.L. Hershey. 2008. A comparison of groundwater fluxes computed with MODFLOW and a mixing model of deuterium: application to the eastern Nevada Test Site and vicinity. *Journal of Hydrology*. 361: 371-385.
- Warwick, J.J. and Carroll, R.W.H. 2008. Evaluating the impacts of uncertainty in geomorphic channel changes on predicting mercury transport and fate in the Carson River system, Nevada. *International Journal of Soil, Sediment and Water*. 1: 1-15. Full text at <http://scholarworks.umass.edu/intljssw/vol1/iss1/4>
- Carroll, R.H., Pohll, G.M., Earman, S. and Hershey, R.L. 2007. Global optimization of a deuterium calibrated, Discrete-State Compartment Model (DSCM): application to the eastern Nevada Test Site. *Journal of Hydrology*. 345(3-4):237-253.
- Carroll, R., Pohll, G., Tracy, J., Winter, T. and R. Smith. 2005. Simulation of a Semi-Permanent Wetland Basin in the Cottonwood Lake Study Area, East-Central North Dakota. *Journal of Hydrologic Engineering*. 10(1): 70-84.
- Carroll, R., James, A., Warwick, J. and J. Miller. (2004). Modeling Erosion and Overbank Deposition During Extreme Flood Conditions on the Carson River, Nevada. *Journal of Hydrology*. 297(1-4): 1-21.
- Carroll, R., and Warwick, J. (2001). Uncertainty Analysis of the Carson River Mercury Transport Model. *Journal of Ecological Modeling*. 137: 211-244.
- Carroll, R., Mihevc, T., Pohll, G., Lyles, B., Kosinski, S. and R. Niswonger. 2000. Project Shoal Area Tracer Test Experiment. Division of Hydrologic Sciences, Desert Research Institute, Publication No. 45177.
- Carroll, R., Tracy, J. and Pohll, G. 2000. Numeric Assessment of Hydrogeomorphic Wetland Functions: Phase II. Division of Hydrologic Sciences, Desert Research Institute, Publication No. 41166.
- Carroll, R., Warwick, J., Heim, K., Bonzongo, J.C., Miller, J. and Lyons, B. 2000. Simulation of Mercury Transport and Fate in the Carson River, Nevada. *Journal of Ecological Modeling*. 125(2-3): 255 – 278.

REPORTS

- Carroll, R., Pohll, G., and S. Rajagopal. 2016. South Lake Tahoe groundwater model. Technical Memorandum prepared for STPUD. January. 26 pp.
- McGraw, D., R. Carroll, G. Pohll, and J. Chapman, 2016. China Lake Flow Model Report, Desert Research Institute, Division of Hydrologic Sciences Report 50010, 186p.
- Carroll, R., and G. Pohll. 2015. Mason and Smith Valley groundwater pumping curtailment. Technical Memorandum prepared for NDWR. October. 32 pp.
- Lutz, A., Carroll, R., and G. Tang. 2015. Linking climatic, hydrologic and ecological changes at intermediate timescales in a Great Basin Watershed. Southwest Climate Center Final Project Report. October. 24 pp.
- Pohll, G., Garner, C., and R. Carroll. 2015. NFWF Batch #4 DST Results. Prepared for NFWF, May. 15 pp.
- Carroll, R., Pohll, G., and W. Fereday. 2014. Streamflow Gain-Loss Analysis: Walker River Basin, Nevada. Prepared for the National Fish and Wildlife Foundation. Desert Research Institute Publication No. 41258. 37 pp.
- Abatzoglou, J., K. Hegewisch, R. Carroll, A. Lutz, J.F. Leising, S. Rajagopal, K. Brooks, J. Thomas, 2014. Impacts of a Changing Climate on Water Resources in the Eastern Great Basin. DRI Publication Number: 41266.
- Carroll, R., and G. Pohll. 2014. Impact of removing flood diversions from agricultural use: Mason Valley, NV. Prepared for NFWF, March. 13 pp.
- Pohll, G.M., Carroll, R.W.H., Reeves, D.M., Parashar, R., Muhunthan, B., Thiyagarjah, S. Badger, T., Lowell, S. and K. Willoughby. 2013. Design guidelines for horizontal drains used for slope stabilization. Department of Transportation. WA-RD 787.1 390 pp/
<http://www.wsdot.wa.gov/research/reports/fullreports/787.1.pdf>.
- Carroll, R., and G. Pohll. 2013. Recharge estimates East Walker. Prepared for NFWF. August. 12 pp
- Pohll, G., and R. Carroll. 2013. Assessment of flood risk for the Steamboat Ditch. Report presented to Nevada Bureau of Mines and Geology. December 20. 98 pp.
- Pohll, G.M., Carroll, R.W.H., Reeves, D.M., Parashar, R., Muhunthan, B., Thiyagarjah, S. Badger, T., Lowell, S. and Willoughby, K. 2013. Design guidelines for horizontal drains used for slope stabilization. Department of Transportation. WA-RD 787.1 390 pp/
<http://www.wsdot.wa.gov/research/reports/fullreports/787.1.pdf>.
- Gilliam, A.B., Carroll, R.W.H., Pohll, G., and Hershey, R.L., 2006. Numerical Simulation of Groundwater Withdrawal within the Mercury Valley Hydrographic Area, Nevada. Desert Research Institute, Division of Hydrologic Sciences Publication #45214, U.S. Department of Energy, Nevada Site Office Report DOE/NV/13609-43.
- Carroll, R.W.H., Hershey, R.L and Pohll, G.M., 2006. Numerical Simulation of Groundwater Withdrawals due to Proposed Pumping Near the Southeastern Portion of the Nevada Test Site. Desert Research Institute, Division of Hydrologic Sciences Publication #45217, U.S. Department of Energy, Nevada Site Office Report DOE/NV/13609-47
- Carroll, R., Girouz, B., Pohll, G., Hershey, R., Russell, C., and W. Howcroft. 2003. Numerical Simulation of Groundwater Withdrawal at the Nevada Test Site. Desert Research Institute, Division of Hydrologic Sciences Publication #45163, U.S. Department of Energy, Nevada Operations Office Report DOE/NV/13609-17.
- Carroll, R., K. Pohlmann, G. Pohll, and T. Mihevc. 2001. Investigation of Hydraulic Properties of a Shear Zone at the Shoal Site and Associated Groundwater Levels. Desert Research Institute, Division of Hydrologic Sciences Publication #45183, U.S. Department of Energy, Nevada Operations Office Report DOE/NV/13609-12.

Pohllman, K., Pohll, G., Chapman, J., Hassan, A.E., Carroll, R. and C. Shirly. 2001. Modeling of Groundwater Contaminant Boundaries for the Shoal Underground Nuclear Test. Division of Hydrologic Sciences, Desert Research Institute, Publication No. 45184.

CONFERENCE PRESENTATIONS

*student

- Carroll, R., Pohll, G., Benedict, J., and Felling, R., 2016. Curtailing agricultural pumping in an era of extended drought: infusing science and legality into a common framework. H33L-05. American Geophysical Union Fall Meeting. Oral Presentation. San Francisco, CA. Dec 12-16.
- Bearup, L., Carroll, R.H.W., Williams, K.H., Maxwell, R.M., Foster, L. 2016. Observing and modeling snow processes across spatial and temporal scales in Rocky Mountain headwater catchments. H51N-06. American Geophysical Union Fall Meeting. Oral Presentation. San Francisco, CA. Dec 12-16.
- Winnick, M.J., Carroll, R.W.H., Williams, K.H., Maxwell, R.M., Maher, K. 2016. Concentration-discharge relationships, nested reaction fronts, and the balance of oxidative and acid-base weathering fluxes in an alpine catchment, East River, Colorado. V13B-2845. American Geophysical Union Fall Meeting. Poster Presentation. San Francisco, CA. Dec 12-16.
- Sutfin, N.A., Rowland, J.C., Fratkin, M., Stauffer, S.J., Brown, W.S., Carroll, R.W.H., Williams, K.H., Perkins, G. 2016. Seasonal and annual shifts in the role of floodplains as sources and sinks of organic carbon. EP23B-0963. American Geophysical Union Fall Meeting. Poster Presentation. San Francisco, CA. Dec 12-16.
- Carroll, R., Bearup, L., Versteeg, R., McCurdy, G., Potter, B., Foster, L., Maxwell, R., and Williams, K. 2016. Building observational networks for hydrologic characterization of the snow-dominated SFA East River watershed study site. Department of Energy, Environmental Systems Science Principal Investigator Meeting. Bolger Center, Potomac, MD. April 26-27.
- Williams, K., Bearup, L., Brown, W., Carroll, R., Foster, L., Hobson, C., Maher, K., Maxwell, R., Wainwright, H., and Winnick, M. 2016. East River SFA watershed: infrastructure and data scoping activities. Department of Energy, Environmental Systems Science Principal Investigator Meeting. Bolger Center, Potomac, MD. April 26-27.
- Foster, L., Beisman, J., Maxwell, R., Bearup, L., Williams, K. and Carroll, R. 2016. Development of simulation capabilities to model hydrochemical cycling at the Berkeley Lab's East River field site. Department of Energy, Environmental Systems Science Principal Investigator Meeting. Bolger Center, Potomac, MD. April 26-27.
- Carroll, R., Huntington, J., Lutz, A., Snyder, K., and R. Niswonger (invited). 2015. Vegetation and hydrologic response to climate in the Great Basin. American Geophysical Union Fall Meeting. San Francisco, CA. December 14-18.
- Huntington, J.L., Morton, C., McGwire, K., Bromley, M., Peterson, S., Carroll, R., Hegewisch, K., Daudert, B., McEvoy, D., Allen, R., Abatzoglou, J., Melton, F., VanSant, D., Niswonger, R., Erickson, T., and K. Snyder (invited). 2015. Monitoring Perennial Yield, Groundwater Discharge, and ET from Irrigated Agriculture with the Landsat Archive. International Workshop on Evapotranspiration Mapping for Water Security, World Bank, Washington D.C., September 15-17.
- Carroll, R., Huntington, J., Niswonger, R., Snyder, K., Morton, C., and T. Stringham. 2015. Evaluating mountain meadow groundwater response to climate and vegetation using integrated modeling and remote sensing. MODFLOW and More, Golden, CO. June 1-3.
- Carroll, R.W.H., and G.P. Pohll. 2015. Exploring groundwater management policies in a Nevada Agricultural Basin. NSF-WSC Workshop. Lincoln Nebraska, August 17-19.

- Niswonger R, Huntington J, Carroll R, Snyder K, and T. Stringham. 2015. Modeling Surface Expressions of Groundwater in the Great Basin: Porter Canyon, Nevada. Great Basin Consortium, Boise, Idaho, February 17-19.
- *Flickinger, A.K., Carroll, R.W., Warwick, J.J., and R. Schumer. 2015. Implications of dynamic loading and changing climate on mercury bioaccumulation in a plantivorous fish (*Orthodon microlepidotus*), AGU Fall Meeting. San Francisco, CA. December 14-18.
- Carroll, R., Huntington, J., Tang, G., Niswonger, R., Lutz, A., Snyder, K., and T. Stringham. 2015. Integrated modeling in the Great Basin to investigate linkages between vegetation and hydrology. Great Basin Consortium. Boise, ID. February 17-19.
- *Flickinger, A.K., Carroll, R.W., Warwick, J.J., and R. Schumer. 2015. Impact of Climate Change on Mercury Transport along the Carson River-Lahontan Reservoir System, Nevada Water Resources Association: Reno, NV, January 26.
- *Pribulick, C.E., Maxwell, R.M., Carroll, R.W., Steefl, C.I., Hobson, C., Yang, L., Dong, W., Kenwell, A.M., Navarre-Stichler, A.K., and K. Williams. 2015. From Rifle to RMBL: MODEX activities at LBNL's new RMBL/East River Field site. DOE PI meeting, Washington DC. April 28-29.
- Reeves, D., Parashar, R., Pohll, G., and R. Carroll. 2014. Use of DFN concepts in understanding hillslope drainage in fractured rock, International Discrete Fractured Network Engineering Conference: Vancouver, Canada, October 21.
- *Flickenger, A., Carroll, R.W.H., Warwick, J.J., and R. Schumer. 2014. Impact of climate change on mercury transport along the Carson River-Lahontan Reservoir System. H31H-0734. AGU Fall Meeting. San Francisco, CA. December 15-19.
- *Pribulick, C., Maxwell, R., Williams, K.H., and R.W.H. Carroll. 2014. A high resolution, integrated approach to modeling climate change impacts to a mountain headwaters catchment using ParFlow. H31H-0720. H31H-0734. AGU Fall Meeting. San Francisco, CA. December 15-19.
- Carroll, R.W.H., and J.J. Warwick. 2013. The Carson River system, Nevada: Impacts of highly dynamic loading on bioaccumulation predictions. International Conference of Mercury as a Global Pollutant. Edinburgh, UK. July 29- August 2.
- Carroll, R.W.H., Pohll, G.M., Morton, C.G., and J.L. Huntington. 2013. Calibrating basin-scale groundwater models to remotely sensed estimates of groundwater evapotranspiration. Integrated Groundwater Modeling Center, MODFLOW and More, Golden, CO. June 2-5.
- Carroll, R.W.H., Brozovic, N., and G.M. Pohll, 2013. Groundwater management policies for maintaining stream flow. Integrated Groundwater Modeling Center, MODFLOW and More, Golden, CO. June 2-5.
- Carroll, R.W.H., and Warwick, J.J. 2013. The Carson River system, Nevada: Impacts of highly dynamic loading on bioaccumulation predictions. International Conference of Mercury as a Global Pollutant. July 29- August 2. Edinburgh, UK. Oral presentation.
- Carroll, R.W.H., Pohll, G.M., Morton, C.G., and Huntington, J.L., 2013. Calibrating basin-scale groundwater models to remotely sensed estimates of groundwater evapotranspiration. Integrated Groundwater Modeling Center, MODFLOW and More, June 2-5, Golden, CO. Short Paper and Oral Presentation.
- Carroll, R.W.H., Brozovic, N., and Pohll, G.M, 2013. Groundwater management policies for maintaining stream flow. Integrated Groundwater Modeling Center, MODFLOW and More, June 2-5, Golden, CO. Short Paper and Poster Presentation.
- Carroll, R.W.H., Pohll, G.M., Huntington, J.L., and C.G. Morton, 2012. Calibrating basin-scale groundwater models to Landsat indices of groundwater evapotranspiration. AGU Fall Meeting. San Francisco, California. December 3-7.
- Carroll, R.W.H., Pohll, G.M., Reeves, D.M., Badger, T., Muhunthan, B., and Parashar, R. 2012. Design

- guidelines for horizontal drains used for slope stability. DOT Geohazards Conference. Tumwater, WA. August 21-23,
- Pohll, G.M. and R.W.H. Carroll. 2012. Design guidelines for horizontal drains used for slope Geohazards Impacting Transportation in the Appalachia Region. Beckley, WV. July 31-August 2.
- Pohlmann, K. F.; Zhu, J.; Chapman, J. B.; Russell, C. E.; Shafer, D. S.; Carroll, R. W. H.; 2010. Effect of porosity correlations on sensitivity of contaminant travel time AGU Fall Meeting. San Francisco, California, U.S.A.
- Boyle, D.P.; Minor, T.; Pohll, G.; Knust, A.; Garner, G.; Carroll, R.; McGraw, D.; Bassett, S.; Barth, C.; Norpchen, D.; Stroud, A.; 2009. Development and Testing of a Decision Support Tool in Support of Water Right Acquisitions in the Walker River Basin International Symposium on Terminus Lakes. NSHE: Walker Basin Project. Reno, NV
- Carroll, R.W.; Warwick, J.J.; 2009. Mercury Transport Modeling of the Carson River System, Nevada: An Investigation of Total and Dissolved Species and Associated Uncertainty Fall Conference. AGU. San Francisco, California.
- Carroll, Rosemary W.H.; Pohll, Greg; Pohlmann, Karl; Boyle, Doug; Garner, Chris; Knust, Anna; 2008. Preliminary Model of a Coupled Groundwater-Surface Water System, Mason Valley, Nevada MODFLOW and More: Ground Water and Public Policy. International Ground Water Modeling Center. Colorado School of Mines, Golden, CO USA.
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